Cauchari Mineral Resource and Ore Reserve Update and Project Update

Allkem Limited (ASX|TSX: AKE) (“**Allkem”** or “**the Company”**) is pleased to announce a project update to its wholly owned Cauchari lithium brine project located in Jujuy Province in Argentina. Allkem has reviewed and updated the project Mineral Resources and Ore Reserves, project cost and schedule estimates, and project economics from the October 2019 Technical Report (**“previous study”**) released before Orocobre Limited acquired 100% of Advantage Lithium Corporation in April 2020.

HIGHLIGHTS

Financial Metrics

- 25,000 tonnes per annum of lithium carbonate production capacity
- Material ~200% increase in Pre-tax Net Present Value (“**NPV**”) to US$2.52 billion from US$0.84 billion in the previous study at a 10% discount rate. The Post-tax NPV at 10% discount rate is US$1.37 billion.
- Cash operating margin stayed constant at ~85%, with the increased realised price projections being proportionally offset by increased operating costs. Operating costs increased from US$3,560 per tonne LCE to US$4,081 per tonne lithium carbonate equivalent (“**LCE**”) due to material increases in the price of soda ash, lime, natural gas and employment costs since the previous study

Mineral Resource and Ore Reserve

- Total Mineral Resource Estimate of 5.95 million tonnes (“**Mt**”) LCE, a 6% decrease from the previous estimate in 2019 due to slight changes in mining parameters
- Total Ore Reserve Estimate of 1.13 Mt LCE supporting a 30-year project life based on Ore Reserves only, a 11% increase from the previous statement due to a revised point of reference for Ore Reserve reporting of ‘brine pumped to the evaporation ponds’

Project Cost and Schedule Update

- Increase in the development capital cost estimate (**“CAPEX”**) from US$446 million in the previous study to US$659 million, for mechanical completion, representing a 48% increase
- Substantial mechanical completion, pre-commissioning and commissioning activities are expected by H1 CY27 with first production expected in H2 CY27 and ramp up expected to take 1 year

Managing Director and Chief Executive Officer, Martin Perez de Solay commented

“The updated study results clearly demonstrate the value of the Cauchari Project on a stand-alone basis. With the study update being based on the historic work performed by Advantage Lithium Corporation we do see substantial opportunities to integrate this asset into our Olaroz complex. These opportunities would likely reduce capital and operating costs and these are being explored as part of our Olaroz Stage 3 expansion studies.”

PROJECT BACKGROUND

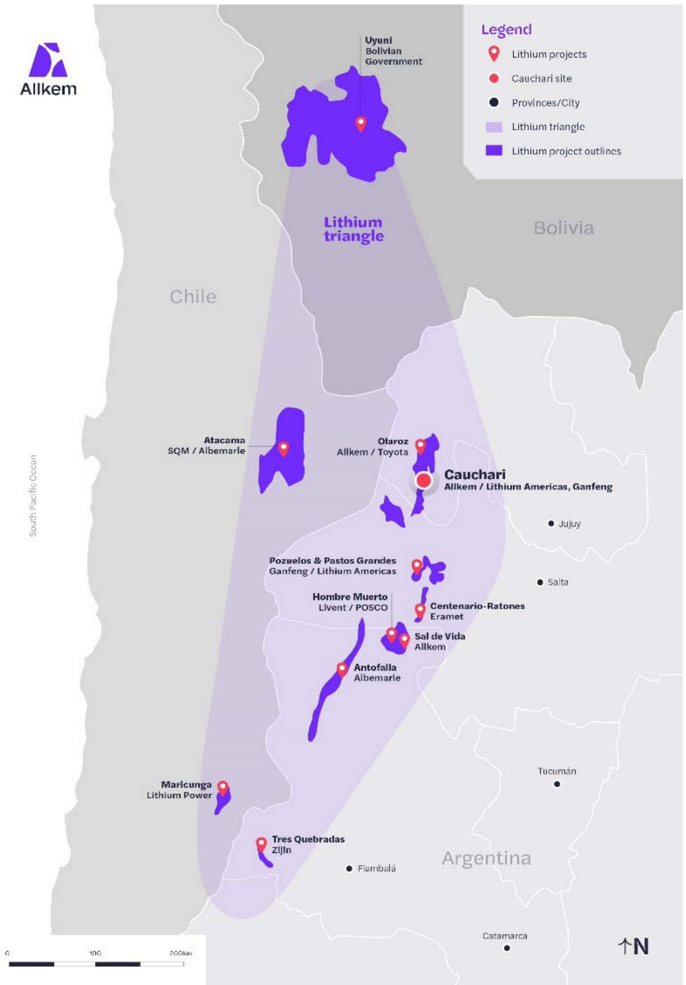

Figure 1: Cauchari project location

Allkem is developing the Cauchari Project (**"the project"**) on the Cauchari Salar which is located in the Puna region, 230 kilometres west of the city of San Salvador de Jujuy in Jujuy Province of northern Argentina at an altitude of 3,900 metres (m) above sea level. The property is to the south of Olaroz near a paved Hwy that connects to the international border with Chile (80 km to the west) and the major mining centre of Calama and the ports of Antofagasta and Mejillones in northern Chile, both major ports for the export of mineral commodities and import of mining equipment. The Cauchari deposit lies within the "lithium triangle", an area encompassing Chile, Bolivia and Argentina that contains a significant portion of the world's estimated lithium resources (Figure 1).

The Cauchari tenements cover 28,906 ha and consist of 22 minas which were initially applied for on behalf of South American Salars ("**SAS**"). SAS is a joint venture company with the beneficial owners being Advantage Lithium ("**AAL**") with a 75% interest and La Frontera with a 25% stake. La Frontera and AAL are 100% owned by Allkem Limited. The Project is not known to be subject to any environmental liabilities.

The Project is a planned lithium brine mining and processing facility that will produce lithium carbonate. Allkem has reviewed and updated the project Mineral Resources and Ore Reserves, project cost and schedule estimates, and project economics from the previous technical report dated October 2019 released before Orocobre Limited acquired 100% of Advantage Lithium Corporation in April 2020. This project update of the Cauchari Mineral Resource and Ore Reserves indicate potential for a 25,000 tonne per annum (**"tpa"**) lithium carbonate processing facility with a life expectancy of 30 years.

The wellfield, brine distribution, evaporation ponds, waste (wells and ponds) and process plant cost estimates are Association for the Advancement of Cost Engineering (**"AACE"**) AACE Class 4 +30% / -20% with no escalation of costs. Lithium production has not commenced at the Cauchari site, however an update to the pre-feasibility study ("**PFS**") has been completed for Cauchari.

GEOLOGY & MINERALISATION

Salar de Cauchari is a mixed style salar, with a halite nucleus in the centre of the Salar overlain with up to 50 m of fine grained (clay) sediments. The halite core is interbedded with clayey to silty and sandy layers. The Salar is surrounded by relative coarse grained alluvial and fluvial sediments. These fans demark the perimeter of the actual Salar visible in satellite images and at depth extend towards the centre of the Salar where they form the distal facies with an increase in sand and silt. At depth (between 300 m and 600 m) a deep sand unit has been intercepted in several core holes in the SE Sector of the Project area.

The brines from Salar de Cauchari are solutions nearly saturated in sodium chloride with an average concentration of total dissolved solids (**"TDS"**) of 290 g/l. The average density is 1.19 g/cm3. Components present in the Cauchari brine are potassium, lithium, magnesium, calcium, chloride, sulphate, bicarbonate and boron.

MINERAL RESOURCE AND ORE RESERVE ESTIMATES

Brine Mineral Resource Estimate

Atacama Water was engaged to estimate the lithium Mineral Resources and Ore Reserves in brine for various areas within the Salar de Cauchari basin in accordance with the 2012 edition of the JORC code ("**JORC 2012**"). Although the JORC 2012 standards do not address lithium brines specifically in the guidance documents, Atacama Water followed the NI 43-101 guidelines for lithium brines set forth by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM 2014) which Atacama Water considers complies with the intent of the JORC 2012 guidelines with respect to providing reliable and accurate information for the lithium brine deposit in the Salar de Cauchari.

A lithium cut-off grade of 300 mg/L was utilised based on a projected lithium carbonate price of US$20,000 per tonne over the entirety of the LOM. The total revised Mineral Resource estimate of 5.95 Mt LCE (detailed in Table 1) reflects a 5.6% total decrease to the prior Mineral Resource of 6.30 Mt LCE (Table 2). This decrease relates to the use of a cut-off grade in the estimation of mineral resources.

The different Mineral Resource categories were assigned based on available data and confidence in the interpolation and extrapolation possible given reasonable assumptions of both geologic and hydrogeologic conditions. Measured, Indicated and Inferred Mineral Resource; totalling 160.9 km^2, are displayed in Figure 2.

Figure 2: Location section of Measured, Indicated and Inferred Lithium Mineral Resources

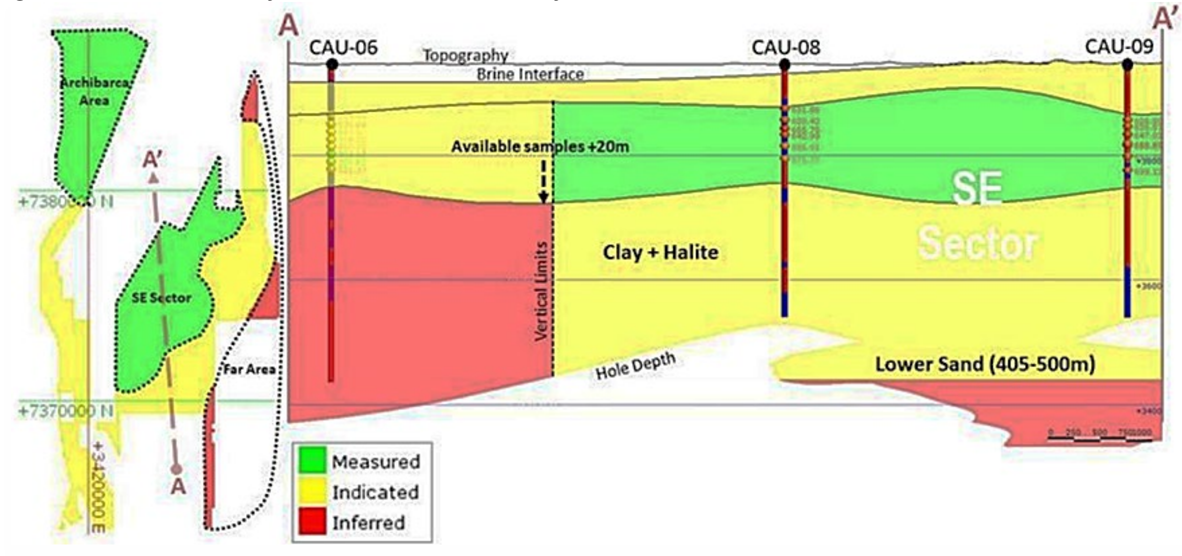

Table 1: Cauchari Mineral Resource Estimate at August 2023

Category	Brine volume	Average Li	In Situ Li	Li_2CO_3 Equivalent	Li_2CO_3 Variance to 2019
	m^3	*mg/l*	*tonnes*	*Tonnes*	*%*
Measured	6.5×10^8	527	345,000	1,850,000	0%
Indicated	1.1×10^9	452	490,000	2,600,000	-12%
Measured & Indicated	1.8×10^9	476	835,000	**4,450,000**	-7%
Inferred	6.0×10^8	473	285,000	1,500,000	0%
Total	**2.4×10^9**	**475**	**1,120,000**	**5,950,000**	-6%

1. The Competent Person(s) for these Mineral Resources and Ore Reserves estimate is Atacama Water
2. Comparison of values may not add up due to rounding or the use of averaging methods
3. Lithium is converted to lithium carbonate (Li2CO3) with a conversion factor of 5.323
4. The cut-off grade used to report Cauchari Mineral Resources is 300 mg/l
5. Mineral Resources that are not Ore Reserves do not have demonstrated economic viability, there is no certainty that any or all of the Mineral Resources can be converted into Ore Reserves after application of the modifying factors

Table 2: Cauchari Mineral Resource Estimate at April 2019

Category	Brine volume	Average Li	In Situ Li	Li_2CO_3 Equivalent
	m^3	*mg/l*	*tonnes*	*Tonnes*
Measured	6.5×10^8	527	345,000	1,850,000
Indicated	1.2×10^9	452	550,000	2,950,000
Measured & Indicated	1.9×10^9	476	900,000	**4,800,000**
Inferred	6.0×10^8	473	280,000	1,500,000
Total	**2.5×10^9**	**475**	**1,180,000**	**6,300,000**

Note: The reader is cautioned that Mineral Resources are not Ore Reserves and do not have demonstrated economic viability. Values are inclusive of Ore Reserve estimates, and not "in addition to"

Additional information for the resource estimation can be found in the Annexures.

Brine Ore Reserve Estimate

Proved Reserves were derived from the Measured Resources in the NW wellfield area during the first seven years of production (with production in the NW extending for 9 years). Lithium Ore Reserves derived after Year 7 from the Measured and Indicated Mineral Resources in the NW and SE wellfield areas were categorized as Probable Reserves. Results of a separate model simulation to evaluate the potential effect of the proposed neighbouring LAC brine production (according to LAC Updated Feasibility Study of January 2020) showed that there is no material impact on the Cauchari Reserve Estimate. Table 3 shows the Ore Reserve Estimate for the Cauchari Project.

It is the opinion of the CP that the FEFLOW model provides a reasonable representation of the hydrogeological setting of the Project area and that the model is adequately calibrated to be an appropriate tool to estimate the Proved and Probable Reserves reported hereinafter. To the extent known by the CP, there are no known environmental, permitting, legal, title, taxation, socioeconomic, marketing, political or other relevant factors that could affect the Ore Reserve estimate which are not discussed in this Report.

The revised Ore Reserve Estimate of 1.13 Mt LCE supporting a 30-year project life based on Ore Reserves only, an 11% increase from the previous statement due to a revised point of reference for Ore Reserve reporting of ‘brine pumped to the evaporation ponds.’ Process efficiency factors were considered in the previous estimate, while the current reserve is reported from a point of reference of brine pumped to the evaporation ponds.

Table 3: Cauchari Project Reserve Estimate at 30 June 2023

Category	Year	Brine Vol (Mm^3)	Average Lithium Grade (mg/L)	Lithium (kt)	Li_2CO_3 Equivalent (kt)
Proved	1-7	76	571	43	231
Probable	8-30	347	485	169	897
Total	**1-30**	**423**	**501**	**212**	**1,128**

1. The Competent Person(s) for these Mineral Resources and Ore Reserves estimate is Atacama Water.
2. Comparison of values may not add up due to rounding or the use of averaging methods.
3. Lithium is converted to lithium carbonate (Li2CO3) with a conversion factor of 5.323.
4. The cut-off grade used to report Cauchari Ore Reserves is 300 mg/l.
5. Mineral Resources that are not Ore Reserves do not have demonstrated economic viability, there is no certainty that any or all of the Mineral Resources can be converted into Ore Reserves after application of the modifying factors.
6. The Lithium Ore Reserve Estimate represents the lithium contained in the brine produced by the wellfields as input to the evaporation ponds. Brine production initiates in Year 1 from wells located in the NW Sector. In Year 9, brine production switches across to the SE Sector of the Project.
7. Approximately 25% of M+I Mineral Resources are converted to Total Ore Reserves.
8. Potential environmental effects of pumping have not been comprehensively analysed at the PFS stage. Additional evaluation of potential environmental effects will be done as part of the next stage of evaluation.
9. Additional hydrogeological test work will be required in the next stage of evaluation to adequately verify the quantification of hydraulic parameters in the Archibarca fan area and in the Lower Sand unit as indicated by the sensitivity analysis carried out on the model results. Ore Reserves are derived from and included within the M&I Mineral Resources in the Mineral Resource Table 1 above.

Indicated Mineral Resources of 894,000t LCE contained in the West Fan Unit are not included in this PFS production profile. There is a reasonable prospect that through additional hydrogeological test work Inferred Resources in the Lower Sand Units will be converted to M+I Mineral Resources.

BRINE EXTRACTION AND PROCESSING

Brine Extraction

Lithium bearing brine hosted in pore spaces within sediments in the salar will be extracted by pumping using a series of production wells to pump brine to evaporation ponds for its concentration. Extraction of brine does not require open pit or underground mining.

Based on the results of the pumping tests carried out for the Project, the brine extraction from Salar de Cauchari will take place by installing and operating two conventional production wellfields. The brine production will take place initially from a wellfield in the NW Sector immediately adjacent to the evaporation ponds on the Archibarca Fan from Year 1 through to Year 9. After Year 9 it is planned that the brine production will shift to a second wellfield constructed in the SE Sector (Figure 3).

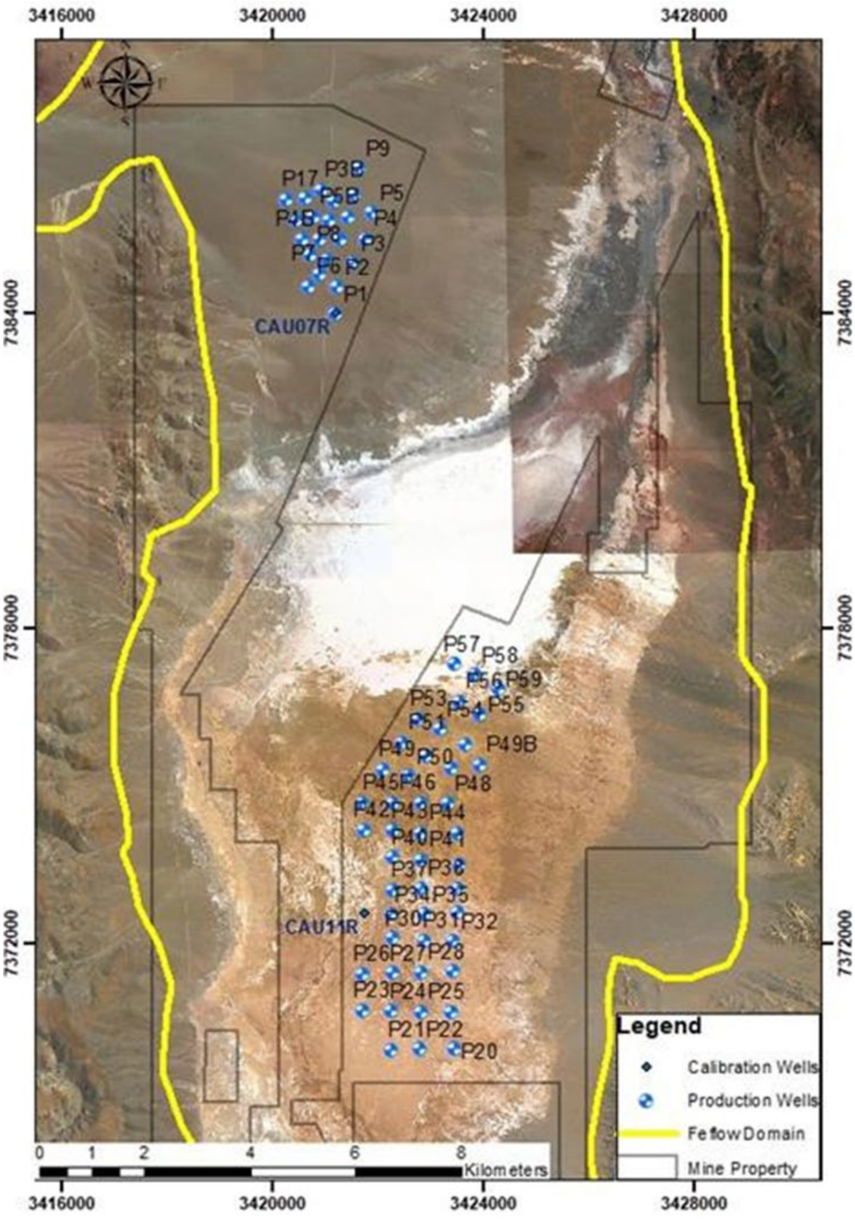

Figure 3: Location map of NW and SE wellfield

The combined production from the NW wellfield will ramp up from 170 l/s in Year 1 to approximately 460 l/s in Year 8. It is expected that pumping rates of individual wells in the NW wellfield will vary between 20 l/s and 30 l/s so that up to 22 wells may be required to meet the overall brine production requirements. The NW production wells are located on the main access roads between the evaporation ponds and will be drilled and completed to a depth of approximately 360 m in the lower brine aquifer of the Archibarca fan. The upper part of the production wells through the Archibarca fresh to brackish water aquifer will be entirely cemented and sealed to an approximate depth of 140 m to avoid any freshwater inflow into the wells. Below 140 m depth the wells will be completed with 12-inch diameter production casing. The wells will be equipped with submersible pumping equipment. It is planned that the NW production wells will discharge immediately into evaporation ponds No 1 and No 2 without intermediate boosting or storage requirements.

As a general overview of the process, the brine that feeds the lithium carbonate (Li_2CO_3) Plant is obtained from the two brine production wellfields.

The brine is pumped to the evaporation ponds, designed to crystallize mainly halite and some glauber salt, glaserite, silvite and borate salts. At certain points slaked lime is added to the brine, which removes a large part of the Magnesium (Mg) as magnesium hydroxide. The Calcium (Ca) is precipitated as gypsum, thus also removing dissolved sulphate (SO_4). After the evaporation ponds, the brine is fed to the Li_2CO_3 plant, where, through a series of purification processes, solid lithium carbonate is obtained, to be shipped according to the final customer requirements. A general process flow diagram is shown in Figure 4.

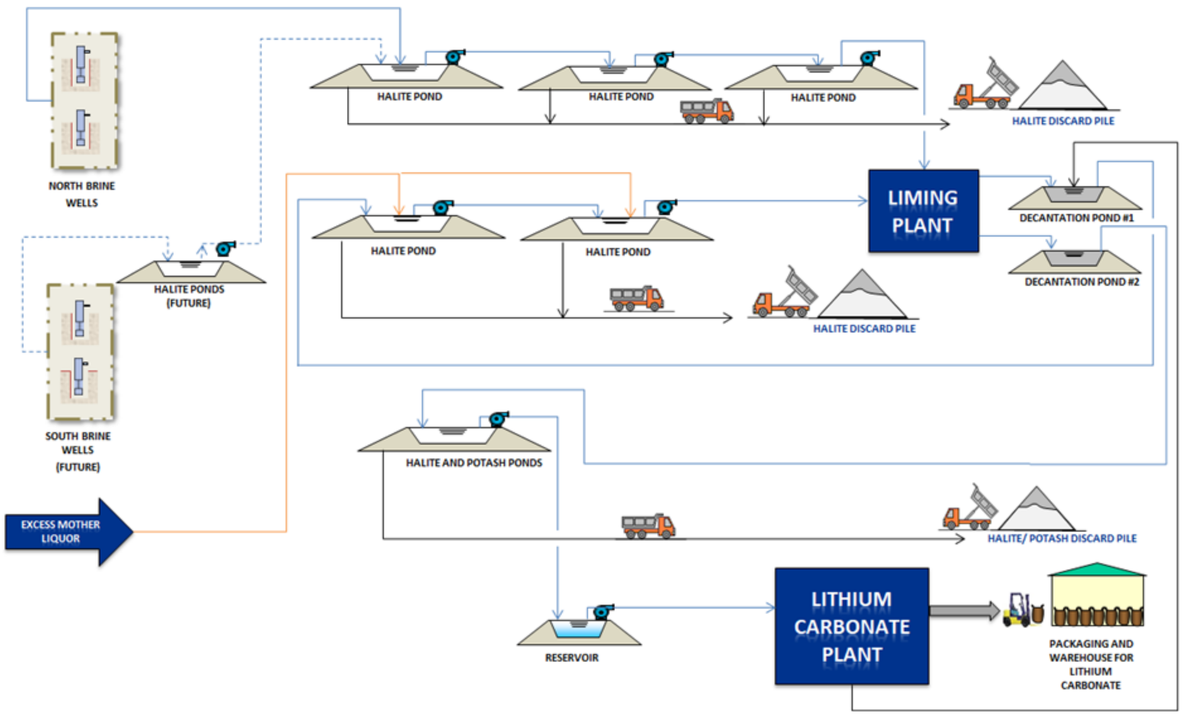

Figure 4: Process Overview Diagram

The brine is concentrated until it reaches a Li concentration of 7,000 mg/l. An overall evaporation ponds and lithium carbonate plant recovery of 66% for lithium is modelled based on industrial operational results. A more detailed description of the process for both the evaporation ponds and the lithium carbonate plant are presented below.

The Cauchari Project will include the design and installation of production wells, evaporation ponds and a processing plant to obtain 25,000 tpa of battery grade lithium carbonate (Li_2CO_3). A general block diagram of the process is shown in Figure 5.

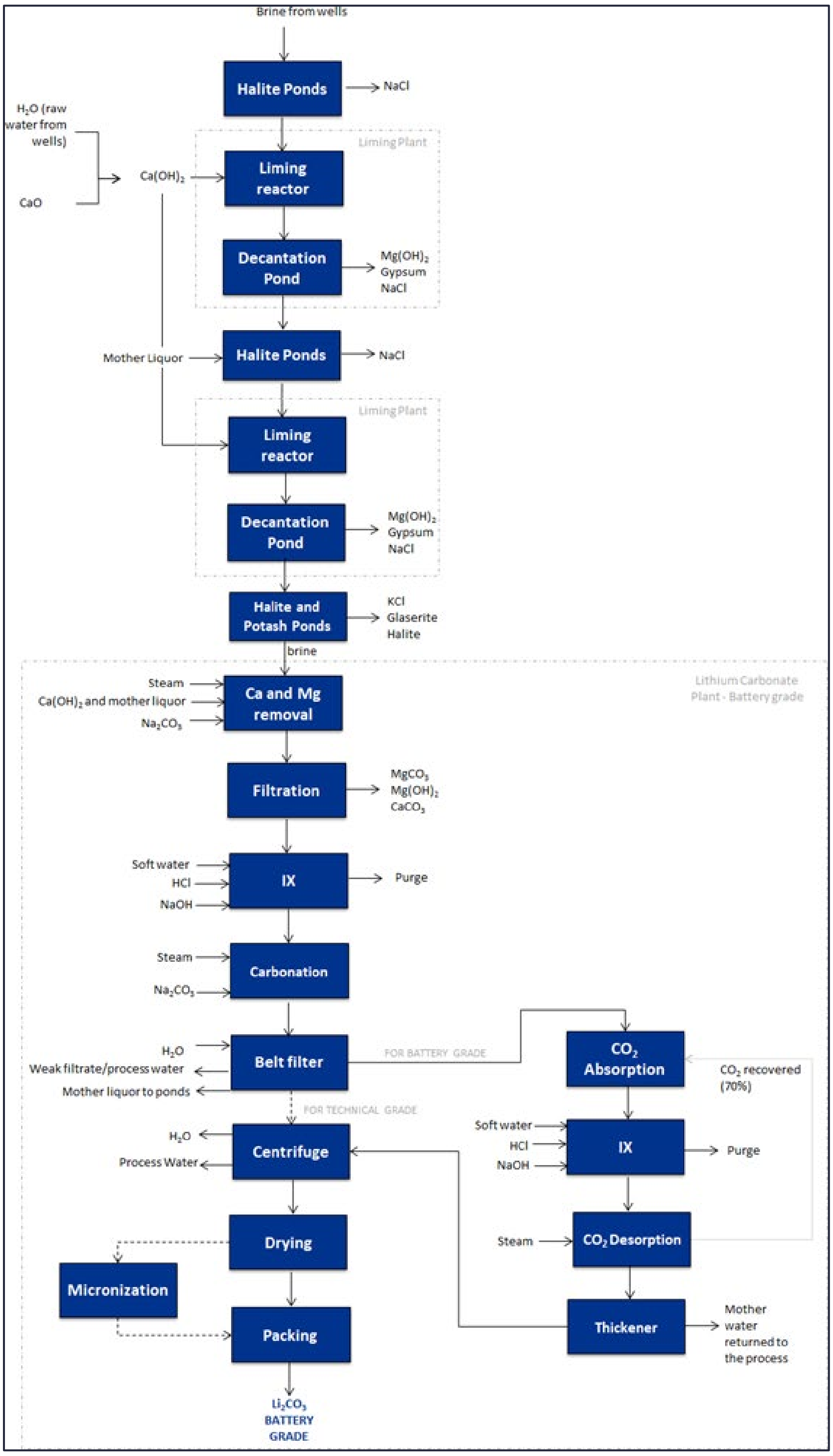

Figure 5: General Block Diagram for the Process

The lithium carbonate plant is a chemical facility that receives the concentrated brine from the evaporation ponds and, through a series of chemical processes, generates lithium carbonate battery grade in a solid form. All impurities that are still left in the brine after the evaporation ponds are removed in the lithium carbonate plant, through specific stages described below.

The first stage of the lithium carbonate plant is the calcium and magnesium removal stage. A solution of soda ash and slaked lime are added to the concentrated brine from the evaporation ponds in an agitated reactor. Mg and Ca will precipitate as magnesium hydroxide ($Mg(OH)_2$) and calcium carbonate ($CaCO_3$). The slurry is then filtered, and the Mg and Ca free brine is sent to the next stage. The solids obtained from the filtering stage are re-pulped and sent directly to the first sludge pond.

The lithium rich brine is fed to an ion exchange stage, to remove remaining calcium, magnesium, and any other di/tri valent metals in the brine. The impurity free brine is then sent to carbonation reactors. Here the addition of a soda ash solution and high temperatures result in lithium carbonate precipitating (technical grade), which is filtered on a belt filter, repulped and centrifuged. This can be directly dried and sold as technical grade. In order to obtain battery grade, the pulp is transported to another purification stage. The mother liquor generated from the belt filter is recycled to the ponds in order to recover the remaining lithium.

The purification stage consists of the generation of lithium bicarbonate through the reaction in agitated reactors of the solid lithium carbonate and gaseous CO_2 at low temperature. The lithium bicarbonate is much more soluble in water than lithium carbonate, allowing the separation from any residual soluble and insoluble impurities. With the use of an IX stage utilizing a specific selective resin, any boron and/or di/tri valent metals left in the solution are removed, and a highly pure bicarbonate solution is fed to a desorption stage. With the increase of temperature (up to 80°C) the CO_2 is desorbed, and solid lithium carbonate is re-precipitated. The slurry is centrifuged, dried, reduced in size (milled) and packaged in maxibags, to be finally transported to clients.

SITE LAYOUT & INFRASTRUCTURE

Physical areas included on the Project are shown in Figure 6 and Figure 7:

- NW and SE evaporation ponds and Liming Plant
- NW brine wellfield (Archibarca location)
- SW brine wellfield
- Alluvial production wells are located southeast of the Project area
- Liming plant ponds (decantation ponds)
- Industrial facilities area
- Harvested salt stockpile areas

The brine production wellfields will be located on two sectors of the Salar de Cauchari, one in the Archibarca area, near and among the initial evaporation ponds and another located south-east of this location. Initially, and up to year four (4) of the operation, the evaporation ponds will cover an area of approximately 10.5 million m^2. The brine lithium concentration decreases from 580 mg/l to 545 mg/l by Year 5 of the operation, and an increase to 11.3 million m^2 in pond area is required. By Year 10, the average brine lithium concentration decreases to 491 mg/l and requires the final increase of the evaporation ponds area to 12.2 million m^2.

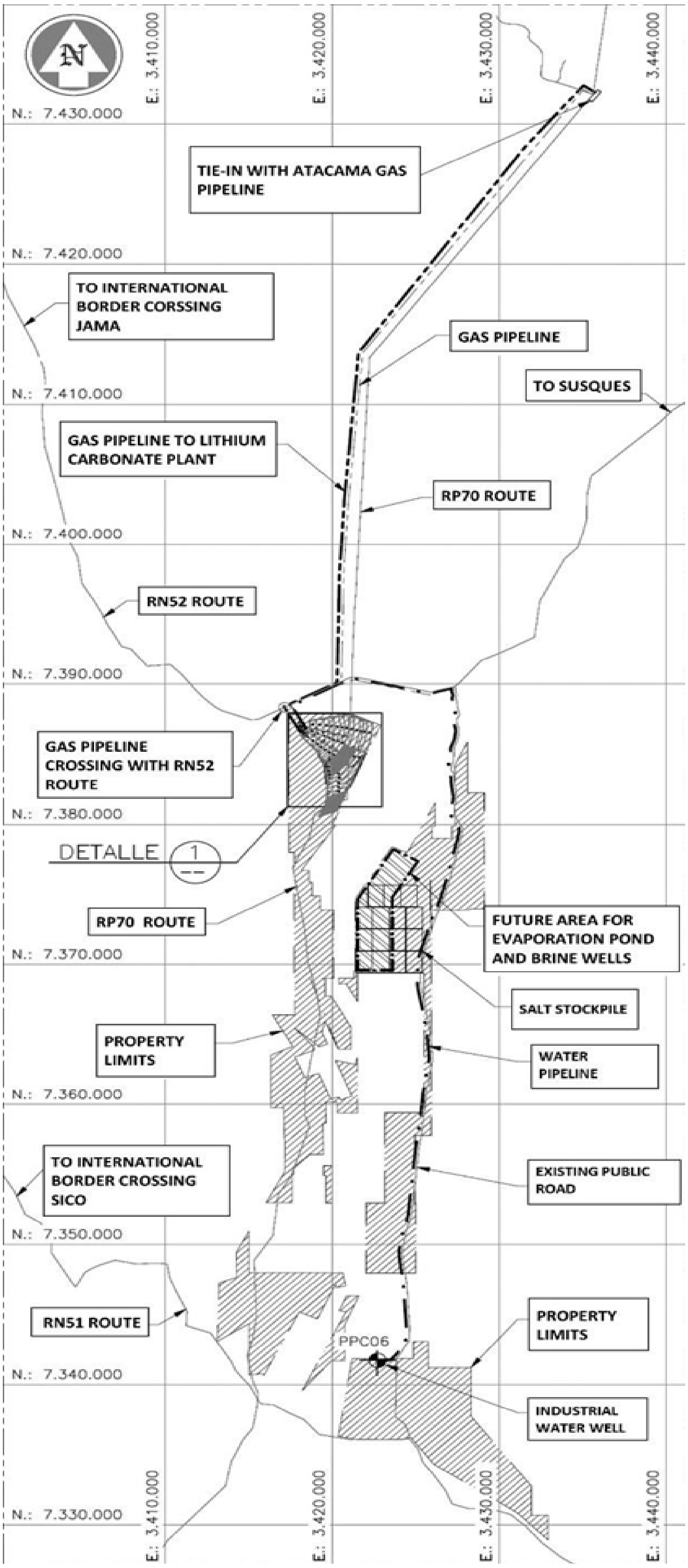

Figure 6: Main physical areas and roads of the Project

Temporary and permanent facilities are contemplated in the Project for the industrial area. The industrial facilities area for the Project will be located in the NW Sector of the Project on the Archibarca fan, and will include:

- Lithium carbonate plant
- Auxiliary services:
    - Reagent storage
    - Plant supply storage (gas, CO_2, compressed air, fuel)
    - Water Treatment Plant
    - Access control area
    - Electrical rooms (Electrical generators)
    - Boiler room
- Warehouses
- Truck workshop
- Administrative building and laboratory
- Workers' camp
- Temporary contractors' installations

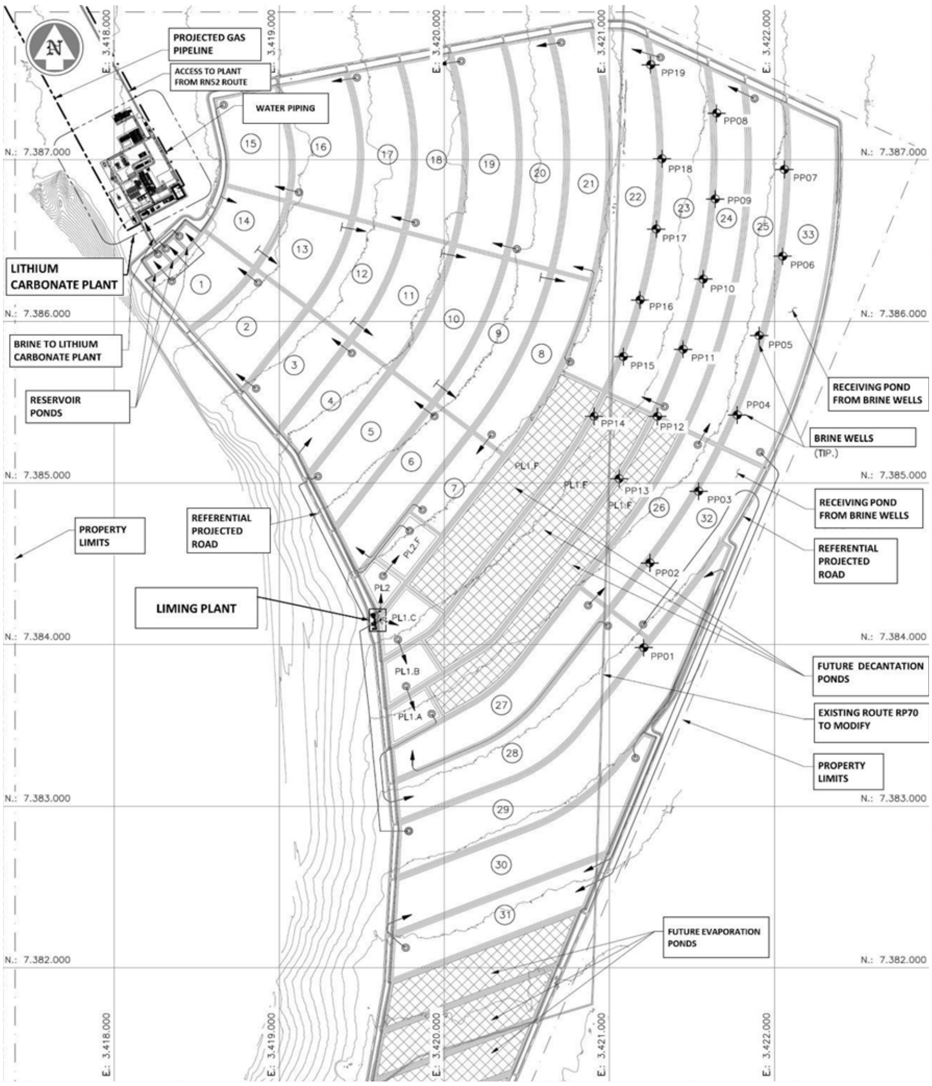

Figure 7: Detail of main installations for the Project

FINANCIAL PERFORMANCE

Development Capital and Operating Costs

Project CAPEX for 25,000 tpa lithium carbonate is estimated to be US$659 million. Further details are summarised in Table 4.

Costs estimates and economic assessments for the 25,000 tpa processing facility are at a AACE Class 4 +30% / - 20% level with no escalation of costs.

The Cauchari Project is at Pre-Feasibility Study phase.

The capital cost estimate was prepared by Worley Chile S.A. and Worley Argentina S.A. (collectively, Worley) in collaboration with Allkem. The estimate includes capital cost estimation data developed and provided by Worley, Allkem, and current estimates.

The capital cost was broken into direct and indirect costs.

Table 4: Summary of Development Capital Cost

Development Capital Cost	Units	Total
Direct Cost		
Brine Extraction Wells	*US$M*	**16**
Evaporation Ponds	*US$M*	**146**
Brine Treatment Plant	*US$M*	**18**
Lithium Carbonate Plant	*US$M*	**105**
General Services	*US$M*	**110**
Infrastructure	*US$M*	**40**
Additional Camps	*US$M*	**15**
Total Direct CAPEX	***US$M***	**450**
EPCM + Owners Cost + Others + Contingency	*US$M*	**209**
TOTAL CAPEX	***US$M***	**659**

Operating cost is estimated to be US$4,081 per tonne LCE. No inflation or escalation provisions were included. Subject to the exceptions and exclusions set forth in this Report, the aggregate annual Operating Cost for Cauchari is summarised in Table 5. Reagents represent the largest operating cost category, then labour followed by operations and maintenance.

Table 5: Summary of Operating Cost

Operating Cost	Units	Total
Reagents	*US$/t LCE*	**2,158**
Labour	*US$/t LCE*	**674**
Energy	*US$/t LCE*	**235**
General and Administration	*US$/t LCE*	**596**
Consumables and Materials	*US$/t LCE*	**243**
Transport and Port	*US$/t LCE*	**175**
TOTAL OPERATING COST	***US$/ t LCE***	**4,081**

Minor discrepancies may occur due to rounding

Lithium carbonate price forecast

Lithium has diverse applications including ceramic glazes, enamels, lubricating greases, and as a catalyst. Demand in traditional sectors grew by approximately 4% CAGR from 2020 to 2022.

Dominating lithium usage is in rechargeable batteries, which accounted for 80% in 2022, with 58% attributed to automotive applications. Industry consultant, Wood Mackenzie ("**Woodmac**") estimates growth in the lithium market of 11% CAGR between 2023-2033 for total lithium demand, 13% for automotive, and 7% for other applications.

Historical underinvestment and strong EV demand have created a supply deficit, influencing prices and investment in additional supply. Market balance remains uncertain due to project delays and cost overruns. The market is forecast to be in deficit in 2024, have a fragile surplus in 2025, and a sustained deficit from 2033.

Prices have fluctuated in 2022-2023, with factors like plateauing EV sales, Chinese production slowdown, and supply chain destocking influencing trends. Woodmac notes that battery grade carbonate prices are linked to demand growth for LFP cathode batteries and are expected to decline but rebound by 2031. Lithium Hydroxide's growth supports a strong demand outlook, with long-term prices between US$25,000 and US$35,000 per ton (real US$ 2023 terms).

PROJECT ECONOMICS

An economic analysis was developed using the discounted cash flow method and was based on the data and assumptions for capital and operating costs detailed in this report for brine extraction, processing and associated infrastructure. The evaluation was undertaken on a 100% equity basis.

The basis of forecast lithium carbonate pricing was provided by Woodmac for the period 2023 to 2035, with a longer-term price of US$28,000/t and US$26,000/t used for battery grade and technical grade lithium carbonate from 2035 onwards.

The current Jujuy Provincial Mining royalty is limited to 3% of the mine head value of the extracted ore, calculated as the sales price less direct cash costs related to exploitation and excluding fixed asset depreciation.

The key assumptions and results of the economic evaluation are displayed in Tables 6 below.

Table 6: Key assumptions utilised in the project economics

Assumption	Units	Stage 1
Project Life Estimate	*Years*	30
Discount Rate (real)	*%*	10
Provincial Royalties [1,2]	*% of LOM net revenue*	3.0
Corporate Tax[2]	*%*	35
Annual Production[3]	*tonnes LCE*	25,000
CAPEX	*US$M*	659
Operating Cost	*US$/tonne LCE*	4,081
Average Selling Price[4]	*FOB US$/tonne LCE*	27,066

[1] Provincial royalty agreement at 3.0%, export duties, incentives and other taxes are not shown.

[2] There is a risk that the Argentina Government may, from time to time, adjust corporate tax rates, export duties and incentives that could impact the Project economics.

[3] Based on 100% battery grade lithium carbonate production.

[4] Based on price forecast provided from Wood Mackenzie and targeted production grades stated in Footnote 3 above.

The study update demonstrates strong financial outcomes with a pre-tax NPV at a 10% discount rate of US$2.52 billion, this represents a ~200% increase from US$0.84 billion in the previous study.

Further project economics are summarised in Table 7.

Table 7: Summary of financials over a 30-year project life

Financial Summary	Units	Total
NPV @ 10% (Pre-tax)	*US$M*	**2,523**
NPV @ 10% (Post-tax)	*US$M*	**1,366**
IRR (Pre-tax)	*%*	**32.6**
IRR (Post-tax)	*%*	**23.9**
Payback Period[1]	*Years*	**3.3**
Development Capital Intensity	*US$ / tpa LC*	**26,376**

[1] Payback period is from date of first commercial production

Sensitivity Analysis

As displayed in Table 7 above, the Cauchari pre-feasibility study update demonstrates strong financial outcomes with a post-tax NPV at 10% discount rate of US$1,366 million and post-tax IRR of 23.9%. Figure 8 analyses the impact on post-tax NPV when pricing, operating cash costs and development CAPEX fluctuate between +/- 25 %.

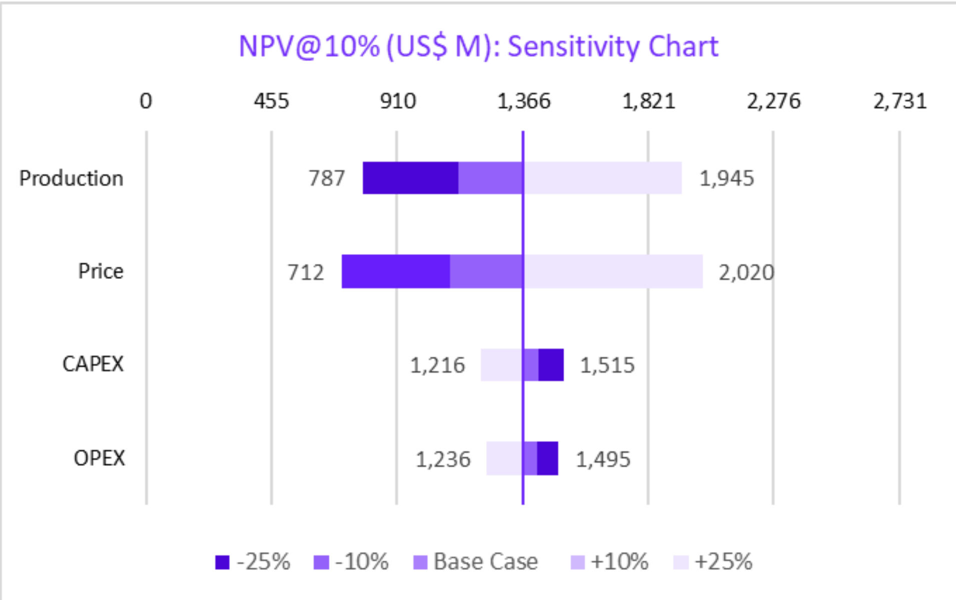

Figure 8: NPV Sensitivity Analysis

Funding

Funding is expected to be provided through one or more of the following:

- existing corporate cash;
- existing or new corporate debt or project finance facilities;
- Cashflow from operations

ENVIRONMENTAL AND SOCIAL IMPACTS

Environmental Liabilities

The Project tenements are not subject to any known environmental liabilities. There have been historical ulexite / borax mining activities adjacent to the Project in the north of the Salar. These mining operations are generally limited to within three metres of the surface, and it is assumed that these borax workings will naturally be reclaimed when mining is halted due to wet season inflows.

Base line studies

The Project has successfully completed various environmental studies required to support its exploration programs between 2011 and the present. The last Environmental Impact Assessment approval was in 2017 for the exploration stage.

In September 2019 the Project submitted an Environmental Baseline for the Exploitation stage which to date is under evaluation by the provincial mining authority.

All the Environmental Impact Assessments are submitted to the Provincial Mining Directorate and subject to a participatory evaluation and administrative process with provincial authorities (Indigenous People Secretariat, Water Resources Directorate, Environmental Ministry, Economy, and Production Ministry, among others) and communities of influence, until the final approval resolution is obtained.

In the case of Cauchari, the evaluation process is carried out with the participation and dialogue of the indigenous communities of Manantiales de Pastos Chicos, Olaroz Chico, Huancar, Termas de Tuzgle de Puesto Sey, Catua, Paso de Jama and Susques.

The Project has submitted an initial mine closure plan within the Exploitation Environmental Impact Assessment which is still under evaluation.

Permit Status

Exploration and mining activities are subject to regulatory approval following an environmental impact assessment ("EIA"), before initiating disturbance activities. The CPs understand that Allkem (previously Advantage Lithium) obtained all required approvals for the exploration drilling and testing programs in the Salar.

Allkem is currently in the process of renewing and maintaining required exploration-related permits while awaiting approval of exploitation permitting. Further permits will be required once exploitation is initialised.

There are no insurmountable risks identified at this time that could cause the project to not proceed into potential exploitation.

ENDS

This release was authorised by Mr Martin Perez de Solay, CEO and Managing Director of Allkem Limited.

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IMPORTANT NOTICES

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Forward Looking Statements

Forward-looking statements are based on current expectations and beliefs and, by their nature, are subject to a number of known and unknown risks and uncertainties that could cause the actual results, performances and achievements to differ materially from any expected future results, performances or achievements expressed or implied by such forward-looking statements, including but not limited to, the risk of further changes in government regulations, policies or legislation; risks that further funding may be required, but unavailable, for the ongoing development of the Company's projects; fluctuations or decreases in commodity prices; uncertainty in the estimation, economic viability, recoverability and processing of mineral resources; risks associated with development of the Company Projects; unexpected capital or operating cost increases; uncertainty of meeting anticipated program milestones at the Company's Projects; risks associated with investment in publicly listed companies, such as the Company; and risks associated with general economic conditions.

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Competent Person Statement

The information in this report that relates to Cauchari's Exploration Results, Mineral Resources and Ore Reserves is based on information compiled by Frederik Reidel, CPG, who is a Competent Person (#11454) and a Registered member of the American Institute of Professional Geologist (AIPG) and Competent Person (# 390) with the Chilean Mining Commission (CCCRRM) a 'Recognised Professional Organisation' (RPO) included in a list posted on the ASX website from time to time. Frederik Reidel, an Atacama Water SpA employee 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'. Frederik Reidel consents to the inclusion in this announcement of the matters based on their information in the form and context in which it appears.

The scientific and technical information contained in this announcement has been reviewed and approved by Frederik Reidel, CPG (Atacama Water SpA) as it relates to geology, modelling, and Mineral Resource and Ore Reserve estimates; Marek Dworzanowski, FSAIMM, FIMMM, Chartered Engineer with the Engineering Council of the United Kingdom registration (Metallurgical Engineer, Independent Consultant), as it relates to processing, facilities, infrastructure, project economics, capital and operating cost estimates. The scientific and technical information contained in this release will be supported by a technical report to be prepared in accordance with National Instrument 43-101 – Standards for Disclosure for Mineral Projects. The Technical Report will be filed within 45 days of this release and will be available for review under the Company's profile on SEDAR at www.sedar.com.

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APPENDIX A

JORC Table 1 – Section 1 Sampling Techniques and Data related to Cauchari exploration drilling (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.*	• Holes which were drilled using rotary drilling or diamond drilling techniques. Core was collected from diamond drill holes to prepare "undisturbed" samples of porosity. Depth-representative brine samples were collected via bailer in all holes. Drill cuttings were collected on production well drilling. • Core holes had recovery measured for each run and was collected using polycarbonate (Lexan) tubes. Core drilling was carried out using brackish water from margins of the Salar as drilling fluid with organic tracer dye included. Samples with dye contamination were discarded. On brine samples, 3 full well volumes of brine were bailed prior to brine sampling. • Brine samples were handled by experienced geoscientists with a rigorous QA/QC program in place. An accredited laboratory was selected as the primary laboratory to assay the brine samples, and 5 secondary QA/QC labs were used throughout the drilling programs. • Samples were not collected for assay from the cuttings, as the primary objective of the holes was to confirm the geology to the depth of drilling and install production wells. Cuttings were used to describe the lithology. Samples for brine analysis were taken from the production wells when cleaned up and pumped. Qualitative changes in brine conditions were also evaluated during drilling. - 25 diamond holes were drilled in the two programs, with core samples collected in polycarbonate (Lexan) tubes and selected intervals analysed for porosity laboratory in an independent lithology. - Brine samples were collected using a bailer and following protocols developed by Allkem (Previously Orocobre) for resource drilling at the Allkem operated Olaroz Project, Olaroz is a lithium carbonate producing property. The Olaroz property has been extensively studied and has been producing lithium carbonate products since 2015. Brine samples were taken at 3 m intervals during the 2011 program and at 6 m to 12 m

Criteria	JORC Code explanation	Commentary
		intervals (due to deeper holes) during the 2017/18 program. Up to 3 well volumes of brine were bailed from the hole prior to sampling. The bailed brine volume was adjusted based on the height of the brine column at each sampling depth.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• -Five Boart Longyear HQ (7.6cm) and NQ core (5cm) holes were drilled between a depth of 46 and 249m for a total of 721 m in 2011 using polycarbonate (Lexan) tubes as opposed to a split triple tube. - One rotary test hole was done at 31cm diameter to 150m. Rotary drilling of five test production wells were drilled between 348 and 480m at 31cm in the upper part of the hole and 24cm in the lower part of the hole. - Twenty Boart Longyear HQ holes were drilled between a depth of 238 and 619m using polycarbonate (Lexan) tubes as opposed to split triple tube. - All holes were drilled vertical.
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.*	• -Core recovery was measured for each run. The retrieved core was subsampled by cutting off the bottom 15 cm of alternating 1.5 m length lexan tubes (nominal 3 m intervals) for porosity analysis. When cores were recovered to surface the lexan tube was pumped from the core barrel using water and a plug separating tube and water. Upon release from the core barrel tight fitting caps were applied to both ends of the lexan tube. The lexan tube was then cleaned, dried, and labeled. Thereafter, cores were split, and the lithology was described by the on-site geological team. -A total of 2,052 m was drilled with the rotary method during which cutting samples were collected at 2 m intervals for geological logging using a hand lens and binocular microscope. Cuttings were stored in chip trays. • Sample recovery in core holes was done using the lexan liners as opposed to the split triple tubes. • Cutting samples were not analysed chemically and descriptions were a qualitative evaluation of the lithologies encountered in the hole. There is no relationship between sample recovery and ion concentrations in the brine in this case. Core sample recovery for the two drilling programs was 76% and 70% in the 2011 and 2017/18 programs, respectively. Core sampling is enhanced by use of polycarbonate (Lexan) triple tubes. Unconsolidated salt lake sediments have

Criteria	JORC Code explanation	Commentary
		much lower core recoveries than hard rock deposits.
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.*	• Core and drill cuttings were described by experienced geoscientists on site. A detailed QA/QC program for accuracy, precision and potential contamination of the brine sampling and analytical process was implemented. Deviations are within the acceptable ranges for different elements from the QA/QC program. This is provided a consistent stratigraphy, supporting Mineral Resource estimation and mining studies. • -The core holes are qualitative and quantitative. It allows the geoscientist to qualify the lithology, while quantitatively providing porosity measurements. • -Cutting logging is of a qualitative nature and results were compared with the quantitative geophysical logs to interpret the lithologies encountered in the hole. • All intersections with sample recovery were logged.
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.* • *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.*	• Core samples were systematically sub-sampled for laboratory analysis, by hand saw the lower 15 cm of core from the polycarbonate core sample tube and capping the cut section and taping the lids tightly to the core. The remaining core was stored following Allkem (Previously Orocobre) protocols in wooden core boxes at the Project's on-site warehouse. • Brine samples were taken using a bailer following protocols developed by Allkem (Previously Orocobre) for resource drilling. -Brine samples were taken using a bailer on 3m intervals in the 2011 program and 6-12m in the 2017/18 program. -Sub samples of core were created by pumping the lexan tube when it reached the surface and labelling/storing the sample. Cutting lengths from the bottom of each lexan liner was done for porosity testing. Prior to taking water samples, up to three well volumes of brine were bailed from the hole prior to sampling. • Prior to taking brine samples, up to three well volumes of brine were bailed from the hole prior to sampling. The bailed brine volume was adjusted based on the height of the brine column at each sampling depth. Core drilling was carried out using brackish water from the margins of the Salar as drilling fluid. This fluid has a Li concentration of less than 20 mg/L. Fluorescein, an

Criteria	JORC Code explanation	Commentary
		organic tracer dye was added to the drilling fluid to distinguish between drilling fluid and natural formation brine. Detection of this bright red dye in samples provided evidence of contamination from drilling fluid and these samples were discarded. • Duplicates, Standards and Blanks were used in the QA/QC program as well as up to 5 external laboratories to verify the data. • As samples are liquid based, they are appropriate for the material.
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• The chemical analysis of brine samples from the production wells and exploratory drilling holes were carried out by the primary (NorLab) and secondary labs (ASAMen and University of Antofagasta). Analysis was conducted using analytical methods based on the Standards Methods for the Examination of Water and Wastewater, published by the American Public Health Association (APHA) and the American Water Works Association (AWWA), 21st edition, 2005, Washington DC. • All tools used were in accordance with the ISO 9001 accreditation and consistent with ISO 17025 methods at other laboratories. -For the 2011 sampling program, a suite of inter-laboratory check samples was analysed at the University of Antofagasta. These samples showed generally low RPD values between the ASAMen and University of Antofagasta laboratory, suggesting ASAMen analyses have an acceptable level of accuracy as well as precision. Overall, the ASAMen results are considered of acceptable accuracy and precision. -For the 2018 sampling program, checks analyses were conducted at ASAMen on 5% of the primary brine samples consisting of 42 external duplicate samples. The results of standard duplicate and blank samples analyses are considered to be adequate and appropriate for use in the resource estimation described herein.
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.*	• Duplicate brine samples were presented to the laboratories. • A qualified individual reviewed the protocols for drilling, sampling and testing procedures at the initial planning stage as well as during the execution of the 2017/18 drilling and testing programs in Salar de Cauchari. The qualified individual spent a significant amount of time in the field during the 2017/18 field campaign overlooking the implementation and execution of drilling, testing,

Criteria	JORC Code explanation	Commentary
	• *Discuss any adjustment to assay data.*	and sampling protocols. • No adjustments to assay data are recorded.
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 holes were located initially with a hand-held GPS and are subsequently surveyed by a certified surveyor. Production wells and diamond holes are drilled with a variable spacing of 2-7 km between holes. The Project location is in zone 3 of the Argentine Gauss Kruger coordinate system with the Argentine POSGAR 94 datum.
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.*	• -Exploration holes and wells are spaced between 2 and 7 km, drilling to a depth of 46 and 249m in 2011, and between a depth of 238 and 619m in 2017/18. -Rotary drilling of five test production wells were drilled between 348 and 480m. • The CP considers that brine and core samples have been collected in an acceptable manner, and the analysis of QA/QC samples indicate that the results of the lithium concentration and drainable porosity analyses are accurate and reliable for the use in the resource estimate described for the Project. • The samples taken during the pumping tests are composite samples, sourced from a single well, but pulled from multiple well screens within that one well.
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 salar deposits that host lithium-bearing brines consist of sub-horizontal beds and lenses of sand, silt, halite, clay and minor gravels, depending on the location within the salar. Drill holes are vertical and essentially perpendicular to these units intersecting close to their true thickness.
Sample security	• *The measures taken to ensure sample security.*	• - Brine samples were taken using bailer, packer and drive point methods. In addition, a second sampling was carried out once drilling was finished using Low Flow Sampling (LFS) equipment inside the 3-inch diameter PVC slotted casing installed in each of the DD boreholes. Prior to bottling, the sample was transferred to a bucket, which had been rinsed with the same brine as

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		the sample. When necessary fine sediment was allowed to settle in the bucket before the brine sample was transferred from the bucket to two 1 litre plastic bottles. The bottles were rinsed with the brine and then filled to the top of the bottle removing any airspace and capped. Bottles were labelled with the borehole number and sample depth with permanent marker pens, and labels were covered with transparent tape, to prevent labels being smudged or removed. Samples with fluorescein contamination were noted at this point and except in specific circumstances these were not sent for laboratory analysis, due to the interpreted sample contamination. -A volume of the same brine as the bottled sample was used to measure the physical parameters: density (with a picnometer), temperature, pH, Eh and in some samples dissolved oxygen. Details of field parameters were recorded on paper tags, which were stuck to the bottle with transparent tape when completed with sample information. -Samples were transferred from the drill site to the field camp where they were stored in an office out of direct sunlight. Samples with suspended material were filtered to produce a final 150 ml sample for the laboratory. Before being sent to the laboratory the 150 ml bottles of fluid were sealed with tape and labelled with a unique sample ticket number from a printed book of sample tickets. The hole number, depth, date of collection, and physical parameters of each sample number were recorded on the respective pages of the sample ticket book and in a spreadsheet control of samples. Photographs were taken of the original 1-liter sample bottles and the 150 ml bottles of filtered brine to document the relationship of sample numbers, drill holes and depths.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews have been conducted at this point in time outside of the qualified individual.

Section 2 - Reporting of Exploration Results

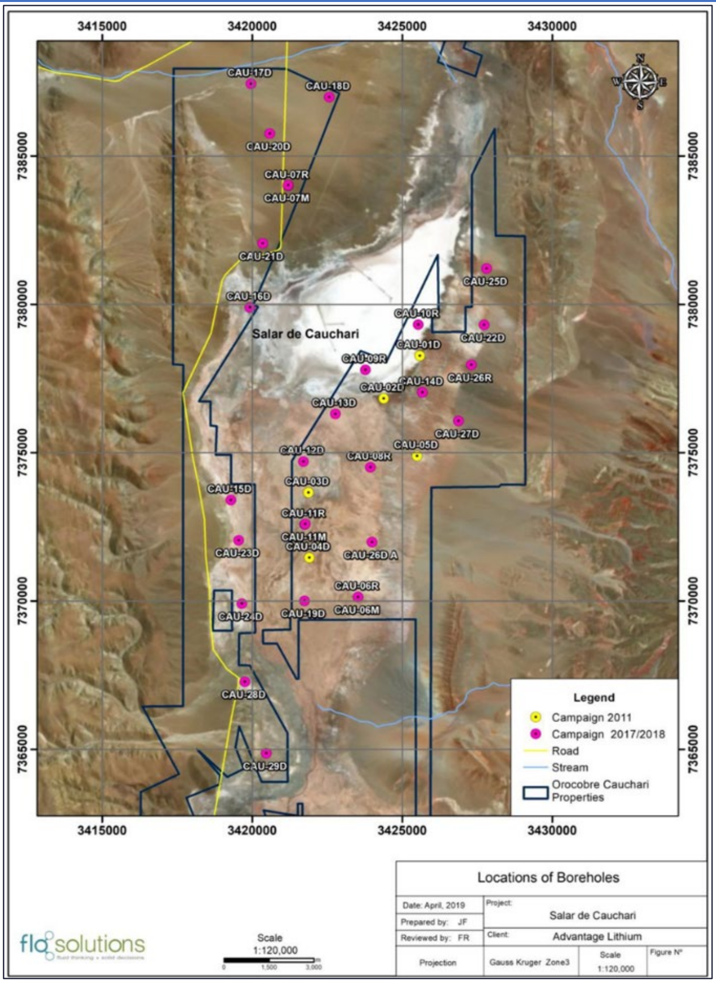
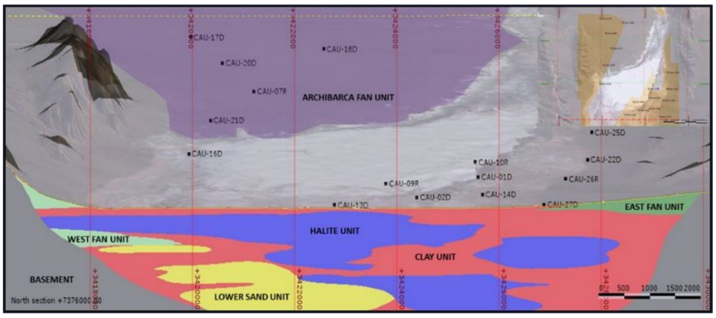
(Criteria listed in the preceding section also apply to this section.)

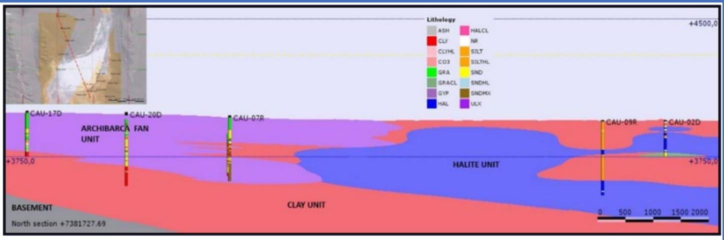
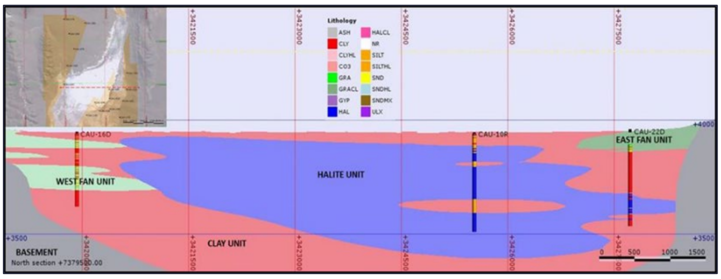
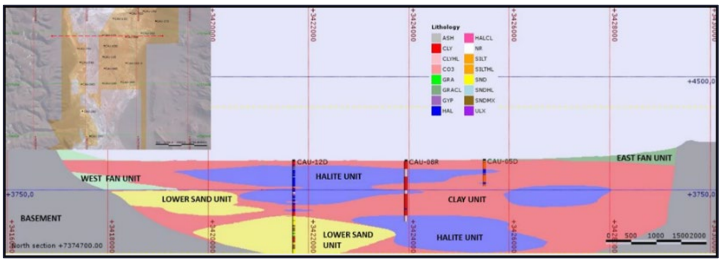
Criteria	JORC Code explanation	Commentary
Mineral tenement and	• *Type, reference name/number, location and ownership*	• -Cauchari (latitude 23° 29’ 13.19” South, longitude 66° 42’ 34.30” West), which is located immediately south

Criteria	JORC Code explanation	Commentary
land tenure status	*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.*	of, and has similar brine characteristics to, Olaroz, wholly owned by Allkem. Cauchari is located in the Puna region, 230 kilometres west of the city of San Salvador de Jujuy in Jujuy Province of northern Argentina and is at an altitude of 3,900 meters above sea level. The property is to the south near paved Hwy. 52 that connects with the international border with Chile (80 km to the west) and the major mining centre of Calama and the ports of Antofagasta and Mejillones in northern Chile, both major ports for the export of mineral commodities and import of mining equipment. -The Cauchari tenements cover 28,584 ha and consist of 23 mining/exploitation permits which were initially applied for on behalf of South American Salars (SAS). There is an agreement between the vendors of these tenements and SAS. -SAS is a joint venture company with the beneficial owners being Advantage Lithium (AAL) with a 75% interest and La Frontera with a 25% stake. La Frontera is an Argentine company 100% owned by Orocobre Ltd. Orocobre acquired all outstanding shares of AAL on February 19, 2020, and gained the full (100 %) control of the Project. Orocobre merged with Galaxy Lithium to form Allkem Limited on 21 August 2021. Allkem indirectly owns 100% of the Cauchari tenements. -The Argentine federal government regulates the ownership of Mineral Resources, although mining properties are administered by the provinces. Therefore, and in accordance with the Jujuy Provincial Constitutional Law, Provincial Law 5791/13, Resolution 1641-DPR-2023 and other related regulatory decrees and complementary rules, SAS will be required to pay monthly royalties as consideration for the minerals extracted from its concessions. Monthly royalties are equivalent to 3% of the mine head value of the mineral extracted, calculated as the sales price less direct cash costs related to exploitation and excluding depreciation of fixed assets. SAS expects to pay to the Province of Jujuy a royalty of the type, once the approval of the Exploitation Environmental Impact Assessment has been approved and the exploitation and production activities have effectively started.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• -The properties were not subject to any exploration for lithium prior to Allkem (Previously Orocobre) obtaining the properties.

Criteria	JORC Code explanation	Commentary
		- Significant exploration has been conducted to the east and north of the Cauchari properties by Minera Exar, resulting in a large resource and related reserve and a brine pumping project is currently in construction. Further north is the Olaroz Project, Allkem Limited has defined a 15.7 Mt LCE Mineral resource in Measured and Indicated categories and 7.3 Mt of Inferred Mineral Resources. These three projects are all developed on different parts of the same lithium brine body.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• - The project is a lithium salt lake deposit, located in a closed basin in the Andean mountain range in Northern Argentina - The sediments within the salar consist of halite, clay, silt, sand and gravel which have accumulated in the salar from terrestrial sedimentation from the sides of the basin. Brine hosting dissolved lithium is present in pore spaces and fractures within unconsolidated sediments. - Evaporation of brines entering and within the salt lake generates the concentrated lithium that is extracted by pumping out the brine. -The sediments are interpreted to be essentially flat lying with unconfined aquifer conditions close to surface and semi-confined to confined conditions at depth. - Geology was recorded during drilling of the hole if rotary and after the core reached the surface if a diamond drill hole.
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:* *1. easting and northing of the drill hole collar* *2. elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* *3. dip and azimuth of the hole* *4. down hole length and interception depth*	• The holes are located in the mining properties covering the Cauchari salt lake, centred around approximately 7377500N/ 3425000E and approximately 3900 m elevation, in Zone 3 of the Argentine Gauss Kruger grid system, using the Posgar 94 datum. The drill holes are all vertical, (dip -90, azimuth 0 degrees). On the salt lake brine is present from within ~1 m of surface to the base of drilling.

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td>5. hole length.
• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</td><td>
<table>
<tr><th>Hole ID</th><th>UTM mE*</th><th>UTM mN*</th><th>Elev. (masl)</th><th>TD (m)</th><th>Type</th><th>Year</th><th>Drilling Co.</th><th>Rec. (%)</th><th>SWL (m)</th><th>Screened Interval</th><th>Casing Dia (in)</th></tr>
<tr><td>CAU01D</td><td>3,425,589</td><td>7,378,259</td><td>3940.42</td><td>249</td><td>DDH</td><td>2011</td><td>Falcon</td><td>76</td><td>0</td><td>0 – 249 m</td><td>2</td></tr>
<tr><td>CAU02D</td><td>3,424,385</td><td>7,376,814</td><td>3940.41</td><td>189</td><td>DDH</td><td>2011</td><td>Falcon</td><td>69</td><td>2.15</td><td>0 – 189 m</td><td>2</td></tr>
<tr><td>CAU03D</td><td>3,421,874</td><td>7,373,649</td><td>3941.06</td><td>71.5</td><td>DDH</td><td>2011</td><td>Falcon</td><td>80</td><td>4.16</td><td>0 –71.5 m</td><td>2</td></tr>
<tr><td>CAU04D</td><td>3,421,903</td><td>7,371,452</td><td>3941.53</td><td>46.5</td><td>DDH</td><td>2011</td><td>Falcon</td><td>77</td><td>5.5</td><td>0 – 46.5 m</td><td>2</td></tr>
<tr><td>CAU05D</td><td>3,425,500</td><td>7,374,882</td><td>3945.57</td><td>168</td><td>DDH</td><td>2011</td><td>Falcon</td><td>82</td><td>0</td><td>0 – 168 m</td><td>2</td></tr>
<tr><td>CAU06R</td><td>3,423,531</td><td>7,370,126</td><td>3941.95</td><td>150</td><td>Rotary</td><td>2011</td><td>Valle</td><td>NA</td><td>3.97</td><td>-</td><td>-</td></tr>
<tr><td>CAU07R</td><td>3,421,200</td><td>7,383,987</td><td>3964.13</td><td>348</td><td>Rotary</td><td>2017</td><td>Andina</td><td>NA</td><td>-</td><td>134 – 326 m</td><td>6</td></tr>
<tr><td>CAU08R</td><td>3,423,938</td><td>7,374,503</td><td>3940.95</td><td>400</td><td>Rotary</td><td>2017</td><td>Andina</td><td>NA</td><td>2.82</td><td>60 – 396 m</td><td>8 & 6</td></tr>
<tr><td>CAU09R</td><td>3,423,778</td><td>7,377,785</td><td>3939.96</td><td>400</td><td>Rotary</td><td>2017</td><td>Andina</td><td>NA</td><td>5.04</td><td>65 – 394 m</td><td>8 & 6</td></tr>
<tr><td>CAU10R</td><td>3,425,532</td><td>7,379,306</td><td>3940.19</td><td>429</td><td>Rotary</td><td>2017</td><td>Andina</td><td>NA</td><td>6.84</td><td>60 – 418 m</td><td>8 & 6</td></tr>
<tr><td>CAU11R</td><td>3,421,752</td><td>7,372,571</td><td>3941.22</td><td>480</td><td>Rotary</td><td>2017</td><td>Andina</td><td>NA</td><td>12.2</td><td></td><td>8 & 6</td></tr>
<tr><td>CAU12D</td><td>3,421,708</td><td>7,374,690</td><td>3940.56</td><td>413</td><td>DDH</td><td>2017</td><td>Falcon</td><td>64</td><td>1.73</td><td>3 – 201 m</td><td>3</td></tr>
<tr><td>CAU12D A</td><td>3,421,679</td><td>7,374,669</td><td>3940.56</td><td>609</td><td>DDH</td><td>2018</td><td>Falcon</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>CAU13D</td><td>3,422,774</td><td>7,376,298</td><td>3940.16</td><td>449</td><td>DDH</td><td>2018</td><td>Falcon</td><td>73</td><td>1.78</td><td>0 – 252 m</td><td>3</td></tr>
<tr><td>CAU13D A</td><td>3,422,747</td><td>7,376,293</td><td>3940.16</td><td>497</td><td>DDH</td><td>2018</td><td>Falcon</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>CAU14D</td><td>3,425,670</td><td>7,377,021</td><td>3942.09</td><td>600</td><td>DDH</td><td>2018</td><td>Falcon</td><td>78</td><td>-</td><td>0 – 454.5 m</td><td>3 & 2</td></tr>
<tr><td>CAU15D</td><td>3,419,292</td><td>7,373,396</td><td>3941.34</td><td>243.5</td><td>DDH</td><td>2017</td><td>Falcon</td><td>39</td><td>0</td><td>6 – 204 m</td><td>3</td></tr>
<tr><td>CAU16D</td><td>3,419,924</td><td>7,379,892</td><td>3940.83</td><td>321.5</td><td>DDH</td><td>2017</td><td>Falcon</td><td>63</td><td>0.77</td><td>3 – 249 m</td><td>3</td></tr>
<tr><td>CAU17D</td><td>3,419,965</td><td>7,387,430</td><td>3990.59</td><td>237.5</td><td>DDH</td><td>2018</td><td>Falcon</td><td>48</td><td>42.07</td><td>3.5 – 238 m</td><td>3</td></tr>
<tr><td>CAU18D</td><td>3,422,571</td><td>7,386,977</td><td>3964.07</td><td>359</td><td>DDH</td><td>2018</td><td>Falcon</td><td>86</td><td>18.57</td><td>0 – 353 m</td><td>3</td></tr>
<tr><td>CAU19D</td><td>3,421,745</td><td>7,369,998</td><td>3941</td><td>519.5</td><td>DDH</td><td>2018</td><td>Major</td><td>66.7</td><td>-</td><td></td><td>3</td></tr>
<tr><td>CAU20D</td><td>3,420,585</td><td>7,385,750</td><td>3982</td><td>390</td><td>DDH</td><td>2018</td><td>Major</td><td></td><td>42.87</td><td></td><td>3</td></tr>
<tr><td>CAU21D</td><td>3,420,351</td><td>7,382,047</td><td>3956</td><td>283</td><td>DDH</td><td>2018</td><td>Major</td><td></td><td>16.58</td><td></td><td>3</td></tr>
<tr><td>CAU22D</td><td>3,427,728</td><td>7,379,299</td><td>3953</td><td>418</td><td>DDH</td><td>2018</td><td>Falcon</td><td>88.95</td><td>5.51</td><td></td><td>3</td></tr>
<tr><td>CAU23D</td><td>3,419,549</td><td>7,372,041</td><td>3948</td><td>319</td><td>DDH</td><td>2018</td><td>Falcon</td><td></td><td>0.56</td><td></td><td>3</td></tr>
<tr><td>CAU24D</td><td>3,419,658</td><td>7,369,902</td><td>3944</td><td>352.5</td><td>DDH</td><td>2018</td><td>Major</td><td>55.5</td><td>1.21</td><td></td><td>3</td></tr>
<tr><td>CAU25D</td><td>3,427,810</td><td>7,381,196</td><td>3955</td><td>427</td><td>DDH</td><td>2018</td><td>Falcon</td><td>80.55</td><td>9.66</td><td></td><td>3</td></tr>
<tr><td>CAU26D</td><td>3,423,997</td><td>7,371,974</td><td>3946</td><td>619</td><td>DDH</td><td>2018</td><td>Major</td><td>64.67</td><td>-</td><td></td><td>3</td></tr>
<tr><td>CAU27D</td><td>3,426,874</td><td>7,376,061</td><td>3959</td><td>473</td><td>DDH</td><td>2018</td><td>Falcon</td><td>72.94</td><td>17.06</td><td></td><td>3</td></tr>
<tr><td>CAU28D</td><td>3,419,760</td><td>7,367,270</td><td>3959</td><td>303.5</td><td>DDH</td><td>2018</td><td>Major</td><td>46.46</td><td>-</td><td></td><td>-</td></tr>
<tr><td>CAU29D</td><td>3,420,475</td><td>7,364,855</td><td>3959</td><td>404</td><td>DDH</td><td>2018</td><td>Major</td><td>35.8</td><td>-</td><td></td><td>3</td></tr>
</table>
</td></tr>
<tr><td>Data aggregation methods</td><td>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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.</td><td>• The pumping well samples are composite samples that reflect inflows from different levels within the wells, which are screened at multiple levels throughout their depth. The lithium concentration in the pumped samples is an average of the concentration from different units with relatively higher and lower values than the average. More permeable units contribute a higher proportion of the brine in the pumped samples.</td></tr>
<tr><td>Relationship between mineralisation widths and intercept lengths</td><td>• 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</td><td>• The sediments hosting brine are interpreted to be essentially perpendicular to the vertical drill holes, representing true thicknesses in drilling. The entire thickness of sediments is believed to be mineralized with lithium brine, with the water table within approximately 1 metre of surface. Lithium is hosted in brine in pores within the different terrestrial sedimentary units in the salt lake sequence.</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
	reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	
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.*	 *Location map of boreholes.*  W-E section looking north through the Cauchari JV geological model.

Criteria	JORC Code explanation	Commentary
		 W-E section looking north, showing the progressive inter-fingering of the Archibarca fan with the Clay and Halite units.  W-E section looking north between boreholes CAU16D and CAU10R.  Section showing the interpreted geometry of the East Fan unit.
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.*	• Standards analysis results from ASA Mendoza (2011).

Criteria	JORC Code explanation	Commentary

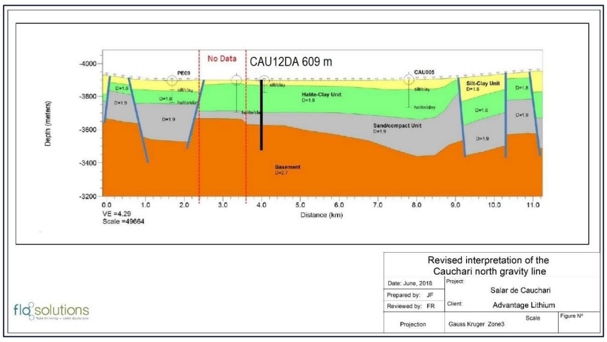
	B mg/L	Ca mg/L	K mg/L	Li mg/L	Mg mg/L	Na mg/L	Chlorides mg/L	Sulfates mg/L
Field standard CJ 1314								
# Samples	11	11	11	11	11	11	11	11
Average	392	2,189	17,235	1,547	4,159	93,338	184,782	4,335
Std Dev	23	157	1,017	68	318	6,147	3,987	382
RSD%	6.00%	7.20%	5.90%	4.40%	7.60%	6.60%	2.20%	8.80%
Max	430	2,316	18,904	1,658	4,474	103,728	193,035	4,989
Min	364	1,875	16,042	1,467	3,571	83,569	177,210	3,787
RPD %	16.70%	20.10%	16.60%	12.30%	21.70%	21.60%	8.60%	27.70%
STD SG1	**20**	**1,000**	**9,000**	**1,000**	**1,735**	**80,000**	**143,556**	
# Samples	7	7	7	7	7	7	7	7
Average	21	1,176	8,494	942	1,695	87,485	131,680	22,270
Std Dev	4	31	210	35	17	4,985	833	809
RSD%	18.70%	2.70%	2.50%	3.80%	1.00%	5.70%	0.60%	3.60%
Max	30	1,224	8,908	1,018	1,714	92,383	132,246	23,799
Min	18	1,143	8,304	912	1,672	78,016	130,483	21,387
RPD %	54.20%	6.90%	7.10%	11.20%	2.50%	16.40%	1.30%	10.80%
STD SG2	**80**	**200**	**6,000**	**600**	**1,301**	**90,000**	**149,289**	
# Samples	7	7	7	7	7	7	7	7
Average	69	363	6,121	584	1,133	121,435	142,596	61,823
Std Dev	4	11	313	30	78	1,588	988	1,362
RSD%	5.40%	2.90%	5.10%	5.20%	6.90%	1.30%	0.70%	2.20%
Max	73	374	6,307	645	1,301	123,709	144,036	63,526
Min	62	347	5,418	561	1,071	118,365	141,329	59,838
RPD %	16.40%	7.40%	14.50%	14.30%	20.30%	4.40%	1.90%	6.00%
STD-4G	**400**	**200**	**4,000**	**400**	**1,820**	**80,000**	**129,446**	**7,500**
# Samples	12	12	12	12	12	12	12	12
Average	3505	252	3,944	402	18,428	80,545	126,666	8,688
Std Dev	14.9	10	184	18.5	134.1	3,767	1,662	381
RSD%	4.30%	4.00%	4.70%	4.60%	7.30%	4.70%	1.30%	4.40%
Max	3707	266	4,172	438	2,020	87,280	129,196	9,203
Min	321	236	3,618	385	1,644	75,146	124,094	8092
RPD %	14.00%	11.60%	14.00%	13.30%	20.40%	15.10%	4.00%	12.80%
STD-5G	**800**	**100**	**7,500**	**800**	**2,707**	**85,000**	**142,200**	**11,000**
# Samples	6	6	6	6	6	6	6	6
Average	707	197	7,318	802	2,632	83,219	137,497	12,469
Std Dev	20	4	144	19	81	4,572	3,119	640
RSD%	2.80%	2.20%	2.00%	2.30%	3.10%	5.50%	2.30%	5.10%
Max	734	202	7,451	820	2,716	87,768	141,417	13,295
Min	677	191	7,121	772	2,544	76,549	134,435	11,607
RPD %	7.90%	5.80%	4.50%	6.00%	6.80%	13.40%	5.10%	13.80%

Other substantive exploration data

- *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*

- The following Geophysical exploration has been performed at the Cauchari site.

-In 2009 geophysical surveys undertaken by Allkem (Previously Orocobre) in Cauchari consisted of three coincident Audio Magnetotelluric (AMT) and gravity lines aimed at mapping the basin geometry and depth.



-Gravity surveys were completed in 2009 and 2016 aimed at determining subsurface structure and lithology. The gravity survey confirmed the geometry of the Cauchari basin is similar to the findings of the 2009 AMT survey, with the deepest part of the basin on the eastern side.

-A time domain electromagnetic (TEM) survey was undertaken in 2018 to assist in mapping the brine

Criteria	JORC Code explanation	Commentary
		body, which clearly identified the unsaturated zone, fresh to brackish water, the transition to brine and the brine body itself, as well as basement features on the margins of the survey area, near outcropping rocks. This information has been incorporated into the geological and resource model for the Project, as diamond drilling has provided useful information to validate the TEM profiles. • Preliminary 48-hr pumping tests were completed on the first test production wells. Additionally, 30-day pumping tests were performed to determine water level maximum drawdown and recovery time.
Further work	• *The nature and scale of planned further work (eg 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.*	• -In the Northwest wellfield area, two additional test production wells are installed in the lower Archibarca unit to verify the lateral continuity of the low permeability units (and/or anisotropy) between the upper freshwater aquifer and the underlying brine unit. Each well site will require the completion of two adjacent monitoring wells with isolated screened intervals in the upper and lower units. Complete 7-day pumping trials in each new test production well. -A minimum of 10 additional mini-piezometers are installed at the toe of the Archibarca Fan and new evaporation measurements are undertaken to refine the water balance. -Low flow sampling is carried out in CAU7M350, CAU17D, CAU18D, CAU20D, and 21D at five selected depth intervals to verify previous chemistry analysis. • -In the Southeast wellfield area, a minimum of 3 diamond core exploration holes are drilled to convert Inferred Mineral Resource into Indicated Mineral Resources to a depth of 600 m in the SE Sector (Lower Sand and Halite/Clay units). -A spinner log test should be carried out in CAU11R during a short new pumping test to verify the CAU11R pumping test results and interpretation. -A new test production well and two adjacent monitoring wells should be drilled targeting the Lower Sand unit and a 20-day pumping test is completed. • For regional hydrogeology, five multi-level piezometers are installed in and around the Salar to improve the understanding of the distribution of piezometric heads. Groundwater samples should be taken from each multi-piezometer.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
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.*	• Procedures and Protocols reviewed and implemented. • Drilling, sampling and testing procedures of Initial and 2017/2018 drillhole campaign have been careful reviewed.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Frederik Reidel, last visited the Cauchari site in August 2019. • Mr. Marek Dworzanowski last visited the Cauchari Project area in July of 2018.
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 model for the Project. There are distinct 6 major geological units in clastic sediments and halite. • -The orebody is defined as a mixed style salar, with a halite nucleus in the centre of the salar overlain with up to 50m of fine grained (clay) sediments. The lithology within the Salar is variable with halite and halite mixed units, clay and gravel- sand-silt-clay sized mixes spanning the full range of sediment types. -Interpretation is based on drill core and cuttings, drilling and test results, brine chemistry and porosity laboratory analysis, aquifer testing results, geophysical survey and other information available from the work carried out between 2011 and 2019. • Drainable porosity analyses were carried out on undisturbed core samples by laboratories GSA, DBSA and BGS. Permeability has been determined based on pumping tests within the salar and adjacent mining properties. • Low correlations of porosity results are found between internal and external laboratories.
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 Mineral Resource model covers 117.7 km^2. The top coincides with the brine level in the salar, measured by monitoring wells and geophysical TEM and SEV tests. - The lateral boundaries are defined based on the Cauchari tenements and by the brine / freshwater interface along the eastern and western limits of the

Criteria	JORC Code explanation	Commentary
		Salar as based on the physical TEM and SEV boreholes. - The bottom of the model coincides with a surface created from the bottom of the boreholes.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *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 (eg 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*	• Stanford Geostatistical Modeling Software (SGeMS) was used for the Cauchari Mineral Resources estimation. Histograms, probability plots and box plots are conducted for the Exploratory Data Analysis (EDA) for lithium. • The block size geometry is 100m x 100m x 1m. • Undisturbed valid samples from drill cores defines the specific yield values. De-clustered average spatial sample density was used to assign values to each geological unit. • Brine concentration based on lithium distribution concentrations, are result of a total of 546 brine sample analysis. Porosity values for each geological unit are estimated by using the de-clustered porosity average. • Techniques for modelling are well established. The definition of aquifer geometry is based on drilling and geophysical methods. Hydrogeological analyses are captured by surface and groundwater inflows, evaporation rates and water chemistry data. Lithology, specific yield and grade variation are based on drilling database. • Modelling considers 3 domains: - Transition domain in the upper part of the salar which includes fresher water and transition into pure brine. It represents only 5% of the total Mineral Resources and it contains low brine samples collection compensated with good concentration correlations with depths. -Main Domain. Reliable sample data based on kriging covering 83% of the total Mineral Resources. - Secondary data domain. Based on brine chemistry analysis, it represents the 12% of the total Mineral Resources and inverse distance estimation method was used. • Kriging within strata (KWS) was used for lithium based on orthogonal variograms and it is considered as adequate for the estimation. Lithium was estimated independently. Significant variability of lithium concentration was detected between geological units. No assumptions were made about correlation between variables. • To validate the accuracy of our estimation models, a

Criteria	JORC Code explanation	Commentary
	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.*	comprehensive series of checks was conducted. These checks encompassed various techniques, including the comparison of univariate statistics, visual inspections, swath plots, and block comparison analyses.
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 Measured (porosity and density measurements were made), but as brine is extracted by pumping not mining the sediments moisture is not relevant for the Mineral Resource estimation. -Tonnages are estimated as metallic lithium and dissolved in brine, with lithium values converted to a lithium carbonate tonnage using a conversion factor of 5.323.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• A lithium cut-off grade of 300 mg/L was utilised based on a breakeven cut-off grade for a projected lithium carbonate equivalent price of US$ 20,000 per tonne over the entirety of the LOM and a grade-tonnage curve. Considering the economic value of the brine against production costs, the applied cut-off grade for the Mineral Resource estimate (300 mg/L) is believed to be conservative in terms of the overall estimated Mineral Resource.
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*	• -The Mineral Resource has been quoted in terms of brine volume, concentration of lithium, and their product lithium carbonate (LCE). -No mining or recovery factors have been applied (although the use of the specific yield = drainable porosity is used to reflect the reasonable prospects for economic extraction with the proposed mining methodology). It should be noted that conversion of Mineral Resources to Ore Reserves for brine deposits is lower than that for hard rock deposits. -Dilution of brine concentrations may occur over time and typically there are lithium losses in both the ponds and processing plant in brine mining operations. However, potential dilution will be estimated in the groundwater model simulating brine extraction, to define a Ore Reserve. -The planned mining method is recovering brine from

Criteria	JORC Code explanation	Commentary
	basis of the mining assumptions made.	the subsurface below the salt lake via a network of production wells, the established practice on existing lithium brine projects. -Detailed hydrologic studies of the lake have been undertaken (catchment and groundwater modelling) to evaluate 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.*	• Lithium carbonate is projected to be produced on site via conventional brine processing techniques and evaporation ponds to concentrate the brine prior to processing as currently Olaroz operation does. Brine composition from Cauchari could be processed using similar processing technology to that applied in the Olaroz production facility, which has been successfully applied to produce lithium carbonate in the Allkem facilities.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the 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*	• -Impacts of the lithium carbonate production operation at the Cauchari salar include; surface disturbance from the creation of extraction/processing facilities and associated infrastructure, accumulation of various salt tailings impoundments and extraction from brine and freshwater aquifers regionally. Lime is used to increase precipitation of impurities like magnesium and calcium solids. Precipitated salts are collected from evaporation ponds and stockpiled on the salar surface. -An industrial waste yard and warehouses are provided for waste separation and storage, according to its specifications (hazardous and non-hazardous), and later on transported to authorized disposal centers, according to regulations for each waste type.

Criteria	JORC Code explanation	Commentary
	reported with an explanation of the environmental assumptions made.	
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 of sediments is to be carried out, as brine is to be extracted by pumping and consequently sediments are not mined but the lithium is extracted by pumping. • No bulk density was applied to the estimates because resources are defined by volume, rather than by tonnage. • The salt units can contain fractures porosity which can host brine and add to the drainable porosity.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie 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).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The resource has been classified in Measured, Indicated and Inferred Mineral Resources categories based on the spatial distribution of data and confidence in the estimation. -Measured Mineral Resource reflect higher confidence in the geological interpretation of the salar and the greater frequency of data. It has been applied in the upper levels and SE sector of the project, covering Archibarca fan, clay and halite units. -Indicated Mineral Resource is found in the deeper portions of the clay and halite units, the west fan area, the upper part of east fan unit and the lower sand unit to a depth of 500m. -The Inferred Mineral Resource outlies deeper pockets of the archibarca fan area, the lower dand below 500m depth, the limits of the property in the east and the east fan below the transition domain. • In the view of the Competent Person the Mineral Resource classification is believed to adequately reflect the available data and takes into account and is consistent with the CIM guidelines and reflect level of hydrogeological knowledge, sample availability and

Criteria	JORC Code explanation	Commentary
		quality.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• None
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 made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• Mineral Resources estimation is affected by the behaviour of the hydrogeological units in the Archibarca fan under pumping conditions. Greater than forecasted mixing of the pumped brine with freshwater from the upper aquifer in the Archibarca fan could lead to lower Li concentrations in the pumped brine than forecasted. Additional drilling and testing in this area is recommended to reduce this potential risk. • An assessment of the estimated blocks was made against the drill hole data on sections and found to be acceptable.

Section 4 Estimation and Reporting of Ore Reserves

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The Mineral Resource used as the basis for the Ore Reserve estimate was based on a geological model. A numerical groundwater flow and transport model using FEFLOW 7.1 by the DHI Group with the guidance of Atacama Water, considering calibration under pre-mining and steady conditions, in transient mode for pumping tests, to simulate brine abstraction to support annual LCE production and to evaluate configurations and pumping schedules in order to minimise the potential dilution of lithium concentrations in the discharge of the production wells. • Mineral Resources are reported inclusive of Ore Reserves.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Frederik Reidel, last visited the Cauchari site in August 2019. • Mr. Marek Dworzanowski last visited the Cauchari Project area in July of 2018
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	• The Cauchari project is based on a Pre-feasibility study developed in 2019. • A subsequent technical report is performed to update project Mineral Resources, cost estimates and economics and to be issued to Allkem's listing on the New York Stock Exchange (NYSE), as of 30 June 2023.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• -The Cauchari brine project is a very large salt lake which hosts lithium dissolved in hypersaline brine presented in pore spaces between sediment grains. The brine mineralisation in the Mineral Resource covers an area of 117.7 km^2, within a larger area also known to contain lithium mineralised brine. The lithium concentration has been found variable according to the different geological units identified.

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		There is no internal waste (uneconomic lithium concentrations) within the Mineral Resource. Future additional developments may utilise direct extraction technologies. -A cut-off grade of 300 mg/l was applied for Mineral Resources estimates. The PFS wellfield configuration maintains LOM Li concentrations from all pumping wells above 350 mg/L, which is considered a practical cut-off concentration or the lithium Ore Reserve estimate.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.*	• -Mining is undertaken primary with entirely cemented and sealed production wells down to 140m in the NW area. Below that level, large diameters will be used (12 inch installed casing). Once installed and developed the wells are pumped to provide a continuous supply of brine to the project evaporation ponds. For the SE area, production wells will be drilled and completed to a depth of 460 m with 12 inch diameter stainless steel production screens. These wells will discharge through feeder pipelines into an intermediate storage pond and then to the evaporation ponds. -The wells provide an average lithium concentration that is derived from the sediments where production wells. -Only a portion of the project Mineral Resource can be extracted, due to the limitations of extraction by widely spaced wells. This amount was simulated in the groundwater model which is the basis for the project Ore Reserve, and which takes account of factors which control the behaviour of the salt lake environment during extraction. • Extraction using wells is the appropriate extraction choice in salt lakes, as the lithium is dissolved in brine (fluid) and mining of unconsolidated sediments is not contemplated. • Geotechnical parameters for brine extraction are different to hard rock mining and consider issues such as compaction and settlement of sediments over time as brine is extracted. • Mining dilution factor is not relevant for brine mining. • There are no minimum mining widths, as brine mining is not a selective mining method. • -Indicated Mineral Resources of 894,000t LCE contained in the West Fan Unit are not included in this PFS production profile. -The Inferred Mineral Resources are not included in current mining studies but are considered a possible

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	• *The infrastructure requirements of the selected mining methods.*	source of future brine extraction, when their resource classification is upgraded. • Brine mining requires the provision of electricity and pipelines to the sites of wells from which brine is extracted. The pipelines pump brine to centralised collection ponds, from where it is pumped to the evaporation pond network. The brine is subject to the addition of lime in the evaporation ponds. Pumps are required to move brine between ponds and pump brine into the plant, where lithium carbonate product is produced. A 6" diameter gas pipeline will provide the energy source for onsite electricity and heat generation.
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	• The metallurgical process utilised for the production of lithium carbonate is based on solar evaporation of brine, prior to reacting lithium with carbon dioxide in the plant to produce lithium carbonate. In this way much of the energy required for the process is provided naturally by the sun. Lithium preferentially remains within the brine, and other elements precipitate from the brine in response to their increasing concentration and saturation in the brine. Lime is added to the ponds in order to facilitate the precipitation of magnesium from the brine. Although more recent direct extraction processing techniques are more widely available pond evaporation provides a cost-effective processing method. • Production level brine evaporation and metallurgical recovery test work at the Cauchari site has not progressed as of the Effective Date. The Cauchari process design is approximated from previously completed Allkem's Olaroz Project test work, results and performance. The Olaroz process design has been successfully proven to produce lithium carbonate since 2015. • Modifications to the Olaroz technology mean brines will be drained and salts harvested in all ponds. Transfer pumps will be used to transfer concentrated brine from a lower concentration pond into a higher concentration pond. A second liming stage will be installed to maximise magnesium ion removal before brine enters the production facilities and an ion-exchange stage will be installed to remove remaining calcium and magnesium ions before precipitating technical grade lithium carbonate.

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		• Pilot scale evaporation test work for the Cauchari site is being considered. • Lithium Carbonate is sold as both technical and battery grade product, depending on the purity of the product. The planned project will produce both grades of product.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	• -The project had completed exploration programs since 2011 and the last EIA approval was in 2017 for exploration stage. Environmental baseline was submitted in 2019 and is under evaluation by the provincial mining authority. Allkem is currently in the process of renewing and maintaining required exploration related permits while awaiting approval of exploitation permitting. As part of the EIA, a comprehensive consultation was undertaken with members of the local communities, regarding the Project development and its associated opportunities for the community members. From start, the company has been actively involved in community relations. -A small fraction of waste solids are generated in the lithium carbonate plant, that are mainly impurities removed from the brine. The main solids are a mixture of magnesium hydroxide and calcium carbonate. -Residual salts that are precipitated in evaporation ponds will be harvested and stored in stock piles on the surface of the salar.
Infrastructure •	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	• -The project is well served by infrastructure, being located closed to a paved international highway between Argentina and Chile that leads to major import and export ports in Northern Chile. Locally, the project is reached by paved and unpaved roads from either the Salta or Jujuy Provinces. Both Jujuy and Salta have international airports with regular flights to Buenos Aires. -Site infrastructure will consist of the main processing facilities including brine well fields and pumping, evaporation ponds, process plant and waste storage -The brine production wellfields will be located on two sectors of the Salar de Cauchari, one in the Archibarca area, near and among the initial evaporation ponds and another located south-east. Brine wells will be equipped with variable speed drive submersible pumps and surface booster stations to deliver brine to the evaporation ponds.

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		-The evaporation ponds will cover an area of approximately 10.5 million m^2 in Years 1-5 and increase to $11.3m^2$ for years 6-9 and $12.2m^2$ from year 10 onwards. -The processing plant will consist of a liming plant to support evaporation pond processes, and a lithium carbonation plant to produce final product. The processing plant will be supported by service infrastructure such as reagents mixing, fuel and storage facility, sulfuric acid preparation, compressors and boilers, and water treatment plants. -The Project's accommodation camp will be built to the west of the lithium carbonate plant, at a reasonable distance. The camp will include several facilities of modular type construction including dormitories, dining rooms, recreational areas and medical facilities. During the construction phase, additional temporary modular facilities will be employed to expand the temporary peak labour requirements. The process facility, support services and accommodation infrastructure are deemed adequate to support the planned facility operation and production rate. -The Project support and process infrastructure has been reviewed and is deemed adequate by the CP to support the process and operations described in the report.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for*	• -Costs estimates and economic assessments for the 25,000 tpa processing facility are at a AACE Class 4 +30% / - 20% level with no escalation of costs in the context of long-term product pricing estimate. The capital cost estimate was prepared by Worley Chile S.A. and Worley Argentina S.A. (collectively, Worley) in collaboration with Allkem. The estimate includes capital cost estimation data developed and provided by Worley, Allkem, and current estimates. The capital cost was broken into direct and indirect costs. Direct costs encompass costs that can be directly attributed to a specific direct facility, including the costs for labour, equipment, and materials. This includes items such as plant equipment, bulk materials, specialty contractor's all-in costs for labour, contractor direct costs, construction, materials, and labour costs for facility construction or installation. Indirect costs support the purchase and installation of the direct costs, including temporary buildings and infrastructure; temporary

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	failure to meet specification, etc. • *The allowances made for royalties payable, both Government and private.*	roads, manual labour training and testing; soil and other testing; survey, engineering, procurement, construction, and project management costs (EPCM); costs associated with insurance, travel, accommodation, and overheads, third party consultants, Owner's costs, and contingency. -Quantity development was based on a combination of: -Basic design (engineered conceptual designs). -Estimates from plot plans, general arrangements or previous experience, and order of magnitude allowances. -Estimate pricing was derived from a combination of: -Current pricing from Allkem's ongoing Projects and operations at Olaroz Stage 2 and Sal de Vida Stage 1. -Estimated or built-up rates and allowances. -Reconfirmed pricing from relevant contractors based on budget quantities and quotations. -Labour hourly costs based on hourly labour costs built up to include labour wages, statutory payroll additives, insurances, vacation, and overtime provisions. -The estimate considers execution under an EPC approach. -The construction working hours are based on 2:1 rotation arrangement, i.e.: 14 (or 20) consecutive working days and 7 (or 10) days off. The regular working hours at 9.5 hours per day but could be extended up to 12 hours of overtime. Whilst an agreement will need to be reached with the relevant trade unions, this roster cycle is allowed under Argentinian law and has been used for similar projects. Labour at the wellfields, ponds, process plant, and pipelines areas will be housed in construction camps, with camp operation, maintenance, and catering included in the indirect cost estimate. A productivity factor of 1.35 was estimated, considering the Project/site-specific conditions. -Sustaining capital is based on current requirements and considers some operational improvements such as

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		continuous pond harvesting. Engineering, management, and Owner's costs were developed from first principles. The Owner's cost estimate includes: -Home office costs and site staffing, -Engineering and other sub-consultants, -Office consumables, equipment, -Insurance, -Exploration, -Pilot plant activities and associated project travel. -The estimate for the engineering, management and Owner's costs was based on a preliminary staffing schedule for the anticipated Project deliverables and Project schedule. Engineering design of the estimate for the home office is based on calculation of required deliverables and manning levels to complete the Project. • -The operating costs estimate for Cauchari was updated by Worley (Chile) and reviewed by Allkem's management team. The cost estimate excludes indirect costs such as corporate costs, overhead, management fees, marketing and sales, and other centralised corporate services. The operating cost does also not include royalties, and export taxes to the company. -Most of the costs are based on labour and consumables which are in use at Olaroz operation as a going concern. -Corporate tax rate is set at 35%. • Commodity price is based on market studies conducted by well-known international consultancy Wood McKenzie. • Pricing for Cauchari transportation and port costs were based on the current Olaroz operations due to the 20 km proximity of the Projects. The estimate includes freight, handling, depot, and customs clearance to deliver lithium carbonate either Freight on Board (FOB) Angamos Chile or Campana in Argentina. • Current Provincial Mining royalty is limited to 3% of the mine head value of the extracted ore, calculated as the sales price less direct cash costs related to exploitation and excluding fixed asset depreciation. In addition, pursuant to Federal Argentine regulation Decree Nr.

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		1060/20, an 4.5% export duty on the FOB price by a mining company is to be paid when exporting lithium products. • All estimates disclosed herein are expressed in US dollars. Allkem uses US dollars as reporting currency in all statements and reports. Allkem's subsidiaries use US dollars as reporting currency and operational currency. Argentine Peso is used as a transactional currency for local payments within the country..
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• The lithium concentration is forecast based on the groundwater flow in the transport model. This predicts a minor decline in the lithium concentration over time, 580 mg/l for years 1-5, 545 mg/l for years 6-9 and 490 mg/l for years 9-31. • Commodity prices are based on market forecasts by Wood McKenzie. Transportation costs are based on known costs from Olaroz operation.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	• Lithium is a commodity with a strong growth profile and increasing demand. The growth trend is for compound annual growth rate (CAGR) of 11% until 2033 supporting strong market dynamics until at least 2033. • Customer and competitor analysis has been conducted and the company has a mixture of long and short term sales contracts in place to benefit from this. • The company expects to sell all of the combined stages with a maximum production of 25,000 tpa of lithium carbonate through a combination of long and short term contracts, based around forecasts of price provided by industry consultants Wood McKenzie. • Allkem has established relationships with customers who purchase product and Allkem provides test samples as needed for new potential customers.
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.*	• For the economic analysis, the Discounted Cash Flow (DCF) method was adopted to estimate the project's return based on expected future revenues, costs, and investments. DCF involves discounting all future cash flows to their present value using a discount rate determined by the company. This approach facilitates critical business decisions, such as M&A activities,

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	• *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	growth project investments, optimizing investment portfolios, and ensuring efficient capital allocation for the company. -Key points about the Discounted Cash Flow method: -The discount rate is based on the weighted average cost of capital (WACC), incorporating the rate of return expected by shareholders. -All capital expenditures that will be incurred as part of project development is considered as sunk costs and excluded them from the present value calculations. -The DCF approach involves estimating net annual free cash flows by forecasting yearly revenues and deducting yearly cash outflows, including operating costs (production and G&A costs), initial and sustaining capital costs, taxes, and royalties. These net cash flows are then discounted back to the valuation date using a real, after-tax discount rate of 10%, reflecting Allkem's estimated cost of capital. The model assumes that all cash flows occur on December 31st, aligning with Allkem's Fiscal Year. The DCF model is constructed on a real basis without escalation or inflation of any inputs or variables. The primary outputs of the analysis, on a 100% Project basis, include: -NPV at a discount rate of 10%; -Internal rate of return (IRR), when applicable; -Payback period, when applicable -Annual earnings before interest, taxes, depreciation, and amortization (EBITDA) -Annual free cash flow (FCF)
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• Allkem has been actively involved in community relations since the properties were acquired by SAS prior to initial drilling on the Project in 2011. Although there is minimal habitation in the area of the Salar, Allkem has consulted extensively with the local communities and employs members of these communities in the current exploration activities. -The formal EIA permitting process will address community and socio-economic issues; it is expected the Project will have a positive impact with the creation of new employment opportunities and investment in the region. As part of the EIA, a

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		comprehensive consultation was undertaken with members of the local communities, regarding the Project development and its associated opportunities for the community members.
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	• The company has a number of material agreements, such as that Lithium Americas Corp. and Ganfeng Lithium own the Minera Exar Project through a 49/51 joint venture company, Minera Exar S.A. • Orocobre and SAS agreed to a joint venture with Advantage Lithium Corp (AAL) in November 2016 • The company has an exploration work by AAL under joint venture agreement with Orocobre, started in 2017. • Orocobre merged with Galaxy Lithium to form Allkem Limited on 21 August 2021. Allkem indirectly owns 100% of the Cauchari project. • The Jujuy provincial government mining investment company (JEMSE - 8.5%) is a shareholder in the project. • Environmental baseline was submitted in 2019 and is under evaluation by the provincial mining authority
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• The Ore Reserves are classified as a both Proved and Probable. Proved Ore Reserves are derived from the Measured Mineral Resources in the NW wellfield area during the first 7 years of production. Lithium Reserves derived after year 7 from the Measured and Indicated Mineral Resources in the NW and SE wellfield areas were categorized as Probable Ore Reserves • Brine production initiates in Year 1 from wells located in the NW Sector. In year 9, brine production switches across to the SE Sector of the Project. • In the view of the Competent Person, the Mineral Resource classification is believed to adequately reflect the available data and understanding of the

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		hydrogeological setting. It is consistent with the suggestions of Houston et. al., 2011 and the Best Practice Guidelines prepared for the estimation of Mineral Resources and Ore Reserves contained in brines for the JORC - The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. • Given that projected production wells were placed in Measured Mineral Resource zones, a majority of the Probable Ore Reserves (approximately 98%) have been derived from Measured Mineral Resources. However, uncertainties in the modifying factors were considered when classifying the Ore Reserves, namely model updates which will be needed as mining progresses.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• None
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which 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 made and the procedures used.* • *Accuracy and confidence*	• Potential environmental effects of pumping have not been comprehensively analysed at the PFS stage. Additional evaluation of potential environmental effects will be done as part of the next stage of evaluation. • Additional hydrogeological test work will be required in the next stage of evaluation to adequately verify the quantification of hydraulic parameters in the Archibarca fan area and in the Lower Sand unit as indicated by the sensitivity analysis carried out on the model results. • There is a reasonable prospect that through additional hydrogeological test work Inferred Resources in the Lower Sand Units will be converted to Measured and Indicated (M+I) Mineral Resources. • The described mining method is deemed adequate to support economic brine extraction and is similar in configuration to other lithium brine extraction configurations witnessed on operating properties owned by Allkem.

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	discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	