LITHIUM CHILE ANNOUNCES PRE-TAX NPV OF US$3,853,000,000 AND PRE-TAX IRR OF 42.1% FROM PRE-FEASIBILITY STUDY ON ARIZARO PROJECT

TSX Venture Exchange: LITH **For Immediate Release**
OTC-QB: LTMCF

Results include 20 Year Life Production Rate of 25,000 Tonnes of Battery Grade Lithium Carbonate Per Year and Upgraded Mineral Resource and Reserve Volumes.

CALGARY, ALBERTA, July 23, 2024 – **Lithium Chile Inc**. ("**Lithium Chile**" or the "**Company**") is pleased to announce the successful completion of the Pre-Feasibility Study ("**PFS"**) for its flagship Arizaro Project, located in Salta, Argentina. The PFS, prepared in accordance with National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101), outlines the project's strong economic viability, environmental sustainability, and long-term operational potential.

HIGHLIGHTS:

- **Project Location**: Salar de Arizaro, Departamento de los Andes, província de Salta, Argentina
- **Production Capacity: 25,000 tonnes per annum** of Battery Grade Lithium Carbonate ("**LCE"**).
- A Life-of-Mine (LOM) duration of **20 years.**
- **Mineral Resource of 4,122,000 tonnes LCE:**
  - Measured Mineral Resource: **261,000 tonnes LCE**
  - Indicated Mineral Resource: **2,237,000 tonnes LCE**
  - Inferred Mineral Resource: **1,624,000 tonnes LCE**
- **Probable Mineral Reserve of 490,000 tonnes LCE**
- **Project Economics:**
  - Pre-tax Net Present Value ("**NPV**")$_{8\%}$ **US$M 3,853**
  - Average Li_2CO_3 price of **US$ 30,513**
  - After-tax NPV8% **US$M 2,829**
  - Pre-tax Internal Rate of Return ("**IRR**") of **42.1%**
  - After-tax IRR of **36.3%**
  - Pre-tax initial capital payback period **2.5 years**; after-tax payback **2.7 years**
  - Initial Capital Cost ("**CAPEX**") estimated at **US$M 1,055**
  - Operating Cost ("**OPEX**") estimated at **$5,457/t LCE**.

Building upon the success of the Company's 2023 Preliminary Economic Assessment ("**PEA**"), the PFS further solidifies the Arizaro Project's position as a leading contender in the race for sustainable lithium production. The study is the culmination of a year-long, in-depth engineering and design process, incorporating valuable insights gained from successful 2023 Direct Lithium Extraction ("**DLE**") pilot plant trials and extensive in-house laboratory testing. The PFS confirms the effectiveness of DLE technology in efficiently extracting lithium chloride from the Arizaro brine, which is then purified and converted into high-quality lithium carbonate (LI_2CO_3).

Enhanced Economic Viability: Stronger Returns Driven by Market Conditions and Argentina's Régimen de Incentivo para las Grandes Inversiones ("RIGI") Incentives

The Pre-Feasibility Study for the Arizaro Project highlights its strong economic potential, revealing significantly enhanced pre-tax net present value and internal rate of return. These key metrics underscore that the Arizaro Project's is a highly profitable and attractive investment opportunity, as detailed in Table 1.

Metrics or Target	2023 PEA	PFS @ PEA Price	PFS RIGI
Pre-Tax NPV (8%) (US$M)	$1,846	$1,985	$3,853
Post-Tax NPV (8%) (US$M)	$1,138	$1,431	$2,829
Pre-tax IRR (%)	29.3%	28.1%	42.1%
After-tax IRR (%)	24.1%	24.4%	36.3%
Post-Tax Payback period (years)	3.6	3.7	2.7
NPV/CAPEX	1.4	1.36	2.68
OPEX	5,197	5,457	5,457
Execution schedule duration (months)	-	22	22

Table 1: Key Metrics & Targets

Key factors contributing to the robust economics of the Company's PFS:

- ***Favorable Pricing Environment****:* The PFS benefits from a significantly more favorable lithium carbonate price environment according to Benchmark Minerals LCE price forecast compared to the 2023 PEA. The PEA utilized an average price assumption of USD $21,396 per tonne, while the PFS models an average price of USD $30,513 per tonne, resulting in a substantially improved economic outlook for the project.

  Benchmark Minerals stated in their Q2 2024 report that *"Our base case view is that the emerging deficit will push lithium carbonate prices to a peak in 2030 before prices retreat to the long-term incentive price of US$29,000/t. These prices will be sufficient to incentivize new supply to catch up with demand".*

  This price forecast reflects a more optimistic view of the future lithium market, considering factors like growing lithium demand, the higher cost of new supply, and growing awareness of a potential supply gap.

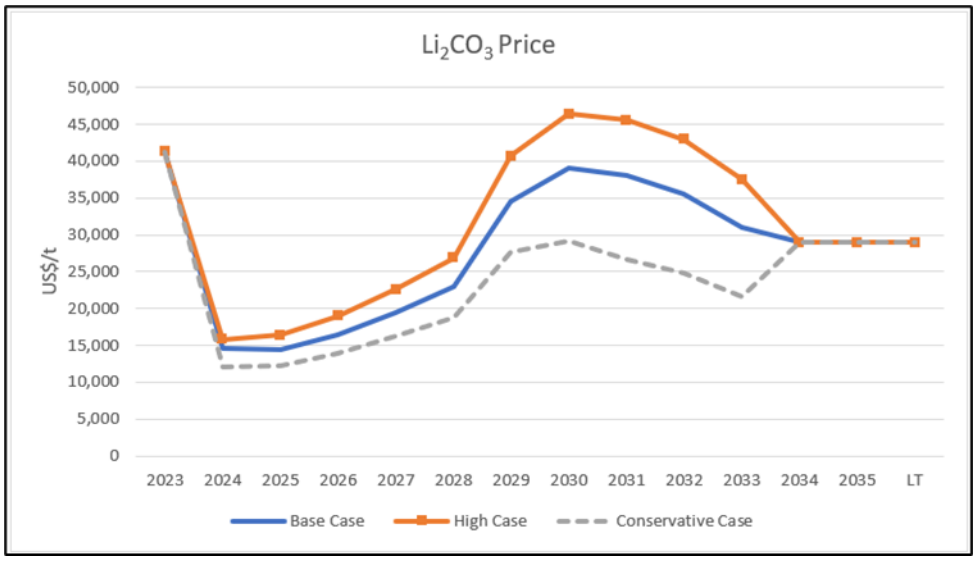

Figure 1: Lithium Carbonate Price, High, Base and Conservative Case US$/t, Real 2024 (PFS)

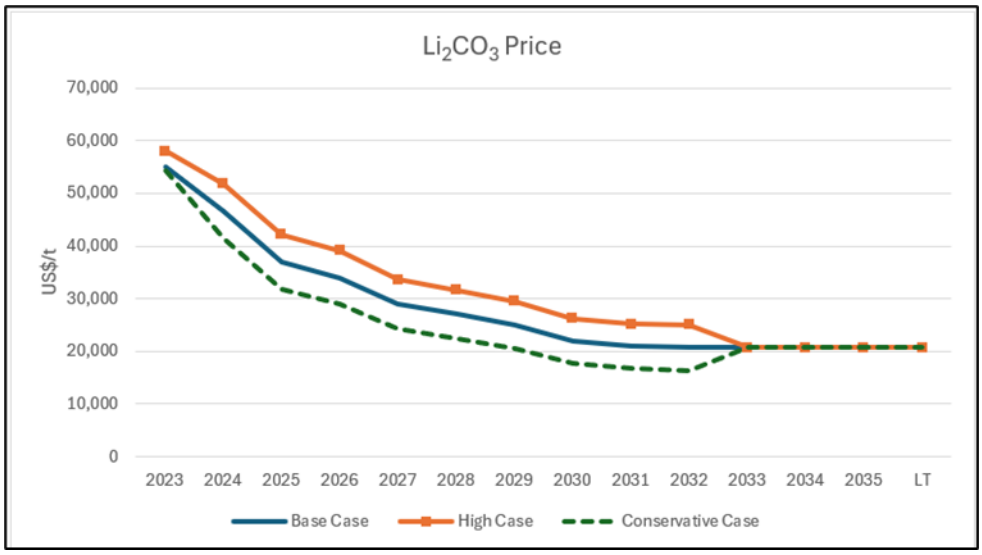

Figure 2: Lithium Carbonate Price, High, Base and Conservative case US$/t, Real 2023 (PEA)

- ***Optimized Project Parameters and RIGI Incentives:*** The Company's PFS incorporates optimizations in project design and operational efficiencies, leading to cost reductions. Additionally, the potential benefits of Argentina's RIGI program have been factored into the economic model. The RIGI program offers tax breaks and other incentives for large-scale mining projects, further enhancing the project's profitability.

Upgraded Mineral Resources and Reserves

The Company's PFS incorporates, for the first time, a mineral reserve estimate, in addition to revised and expanded measured, indicated, and inferred mineral resource estimates, further strengthening the project's foundation.

The PFS reported a maiden measured resource of 261,000 tonnes of LCE, increased the indicated resource by 33% to 2,237,000 tonnes of LCE, and expanded the inferred resource by 13% to 1,624,000 tonnes of LCE, resulting in a total Mineral Resource of 4,122,000 tonnes of LCE.

Furthermore, the study establishes a Probable Mineral Reserve of 490,000 tonnes LCE at 273 mg/L Li. This significant estimate is underpinned by a comprehensive 3D groundwater flow and solute transport model, rigorously calibrated using historical data and a long-term pumping test. The model's accuracy in simulating the aquifer's response to pumping ensures reliable reserve estimations and projects a 20-year mine life with an annual production of 25,000 tonnes of LCE. The reserve estimate encompasses factors such as wellfield design, potential dilution, and lithium recovery during processing, further solidifying the project's substantial potential and long-term viability.

Advanced Processing

Extensive pilot-scale testing conducted by various technology suppliers under the supervision of Lithium Chile and by a qualified person (QP), from Ausenco has confirmed the project's process flowsheet and the selection of key technologies for the PFS, including DLE. These long-duration trials have not only confirmed a remarkable 23% reduction in water usage compared to the 2023 PEA but have also played a crucial role in informing the selection of preferred technology providers for the PFS.

Further, post-DLE analysis has revealed naturally low boron levels in the brine, eliminating the need for a separate lithium carbonate purification step. This streamlined process, validated by both pilot testing and vendor selection, eliminates the need for the lithium carbonate repurification step previously included in the PEA design.

Moving forward, Lithium Chile will continue to collaborate with technology providers to optimize the process flowsheet and ensure that the final design achieves maximum efficiency and performance.

Continued Commitment to Shared Value

In parallel with our technical advancements, Lithium Chile has demonstrated a steadfast commitment to environmental and social stewardship. The Company submitted its Environmental Impact Assessment (EIA) and baseline study in December 2023, displaying our dedication to responsible project development.

Lithium Chile shares a core value of generating mutual benefits for both the Company, and the local communities in which it operates. This commitment is evident in the ongoing engagement with local stakeholders and the investment in community-focused initiatives. A recent highlight of these efforts is the "Tolar Grande Sustentable" project, which has successfully introduced solar cookers, water heaters, and lighting to the community. This project is just one example of Lithium Chiles broader commitment to supporting sustainable development in the region, with additional initiatives focused on education, health, and environmental protection. The Company remains dedicated to fostering positive relationships and contributing to the well-being of the region throughout the project's lifecycle.

Executive Comments

Steve Cochrane, CEO of Lithium Chile, commented on the positive PFS results: "The PFS confirms our initial confidence in the exceptional potential of the Arizaro Project, outlining a clear pathway to large-scale, cost-competitive lithium carbonate production. This achievement is a testament to the unwavering dedication and expertise of our Argentinian team, who have been instrumental in rapidly advancing the project."

José de Castro, Lithium Chile's President of South America, echoed this sentiment, stating, "We are incredibly proud of the outstanding work of our team. Their efforts have not only demonstrated the project's viability but also positioned us to seize the promising opportunities that lie ahead. The Arizaro project's rapid progress, reflected in our increased asset value, is a testament to their commitment and the strong partnerships we have forged with local communities. We remain dedicated to building on this success as we move towards the next step, creating lasting value for all stakeholders."

ARIZARO PROJECT PRELIMINARY FEASIBILITY TECHNICAL DETAILS

Project Overview and the Lithium Carbonate Production

The project considers the production of 25,000 tonnes per year (t/y) of battery grade lithium carbonate (Li2CO3). To meet this objective, a raw brine flow of 64,080 m3/d is required, which is extracted from wells located in the Salar de Arizaro. This brine is then transported to the process plant which, considering shutdowns, has an availability of 85%.

The general process diagram for the Project is divided into three primary areas: brine extraction, chemical plant, and dry product handling.

1. **Brine Extraction:** Brine is extracted from multiple wells and collected at a central operations center pond. This approach minimizes the need for extensive pipeline infrastructure. After consolidation at the operations center, the brine is transferred to ponds located near the processing plant, where it is then fed into the production process.
2. **Chemical Plant:** An eight-stage chemical plant employs technology to efficiently extract and purify lithium chloride from the brine. Subsequent processes include reverse osmosis, ion exchange, precipitation, evaporation, and carbonation, culminating in the production of high-quality lithium carbonate. The use of reverse osmosis and mechanical evaporation enhances water recovery and contributes to the project's overall water efficiency.
3. **Product Handling:** The final stage involves drying, milling or micronizing, and bagging the lithium carbonate, producing either technical or battery-grade products depending on the process.

This integrated approach maximizes resource utilization and minimizes environmental impact, aligning with Lithium Chile's commitment to the development of sustainable and efficient lithium production. To further enhance sustainability, the project has been designed to utilize cogeneration for energy production.

Mineral Resources and Reserves

The updated resource estimate for the Arizaro project consists of Indicated, Inferred and measured resources, and key parameters used for estimation correspond to brine concentration and drainable porosity.

Resource Category	Brine Volume (m^3)	Average Lithium Concentration (mg/L)	In-Situ Lithium Mass (kt)	LCE Mass (kt)
Measured	1.88E+08	261	49	261
Indicated	1.39E+09	302	420	2,237
Measured + Indicated	**1.58E+09**	**297**	**469**	**2,498**
Inferred	8.42E+08	362	305	1,624

Table 2: Summary of the Resource Estimate for the Arizaro Project (Effective April 3, 2024)

Notes:
1. Kt = ktonnes
2. The conversion factor used to calculate LCE from lithium is based on the molar weight of the elements added to generate LCE. The equation is as follows: Li x 5.3228 = LCE.
3. The cut-off grade for lithium used to report mineral resources is 200 mg/L based on a conservative lithium carbonate price of $8,000 USD per tonne of LCE.
4. The comparison of values may not be exact due to rounding.
5. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

The reserve estimate for lithium brine considers the modifying factors of converting Measured and Indicated resources to mineral reserves, including the production wellfield design, future dilution, and recovery of lithium during the processing phase. A calibrated groundwater flow and solute transport model was created to estimate the reserve, as extraction of lithium-rich brine is based on physical pumping from a wellfield. A 3D numerical model was constructed using Groundwater Vistas interface Version 8 and simulated using MODFLOW USG-Transport.

Reserve Category	Time Period	Brine Volume Pumped (Mm^3)	Average Extracted Lithium Concentration (mg/L)	Extracted Lithium Mass (kt)	Extracted LCE Mass (kt)
Probable Reserves	All (Years 1 – 20)	407	273	92	490

Table 3: Summary of the Probable Reserve Estimate for the Arizaro Project, Considering Processing Losses (Effective April 19, 2024)

Notes:
1. Mm^3 = million cubic meters; kt = kilotonnes; LCE = lithium carbonate equivalent.
2. Mineral Reserves are reported at a point of reference of processed brine using a global recovery factor of 83%.
3. The cut-off grade for lithium used to report Mineral Reserves is 200 mg/L based on a conservative lithium carbonate price of $8,000 USD per tonne of LCE.
4. Lithium is expressed as a contained metal.
5. The conversion factor used to calculate LCE from lithium is based on the molar weight of the elements added to generate LCE. The equation is as follows: Li x 5.3228 = LCE.
6. Minor discrepancies may exist when comparing values due to the use of averaging methods and rounding.

Capital Cost (CAPEX)

The base currency for capital cost estimates is the US dollar (USD). The second quarter of 2024 (Q2 2024) is defined as the base date for the estimate.

The estimate was developed with the objective of reaching class 4, based on the definition of the AACE International Recommended Practice No. 47R-11 – "Cost Estimate Classification System".

A summarized breakdown of the project's capital cost (CAPEX) estimate is provided in table 4, organized according to the Work Breakdown Structure ("**WBS**"). The WBS is a hierarchical decomposition of the total scope of work, dividing the project into smaller, more manageable components. This structured approach facilitates detailed cost estimation, allocation of resources, and effective project management.

WBS Lv1	Description	Initial Capital Cost US$M	Sustaining Capital Cost US$M	Total Capital Cost Project US$M
1000	Brine Extraction	73.6	68.3	141.9
2000	Chemical Plant	318.0	-	318.0
3000	Dry Product Handling	16.7	-	16.7
4000	General Utilities	163.0	8.78	171.78
5000	On-Site Infrastructure	79.0	-	79.0
Total Direct Cost		**650.3**	**77.08**	**727.3**
	Project Indirect Cost (Including First Fills)	146.6	133.03	279.63
	Owner Cost	39.0	-	39.0
Basis of Estimate		**835.9**	**210.11**	**1046.0**
	Contingency CAPEX	218.8	35.97	254.77
Total Cost		**1,054.7**	**246.08**	**1,300.8**

Table 4: Summary by WBS of cost estimate (CAPEX)

Note: Numbers may not add up due to rounding

Operating Cost (OPEX)

The most relevant direct cost is reagents (52%) followed by energy (22%), both costs add up to US$ 98.8 M/a meaning 74% of the total operating direct cost.

For the operating cost estimate of PFS level, reagents, resin, membrane, fuel and personnel transportation were quoted by Ausenco or Lithium Chile representing 83% of the direct operating cost.

Description Direct Cost	US$ M/a	US$/t Li_2CO_3
Reagents	69.8	2,794
Resin make-up & Membrane replacement	6.8	270
Energy	29.0	1,159
Manpower	8.1	323
Catering and Camp services	6.2	249

Description	US$ M/a	US$/t Li_2CO_3
Maintenance	4.9	195
Site Vehicle Costs	0.3	11
Bus – In / Bus – Out transportation	2.7	110
Consumables	0.6	25
Li_2CO_3 transport to Antofagasta Port	5.2	208
Direct Cost Subtotal	**133.6**	**5,344**
Indirect Cost		
General and Administration	2.8	114
Indirect Cost Subtotal	**2.8**	**114**
PRODUCTION Li_2CO_3 TOTAL COSTS	**136.4**	**5,457**

Table 5: Operating Cost Estimate Summary

Economic Analysis

An engineering economic model was developed to estimate annual pre-tax and post-tax cash flows and sensitivities of the Project based on an 8% discount rate. It must be noted, however, that tax estimates involve many complex variables that can only be accurately calculated during operations and, as such, the after-tax results are only approximations. Sensitivity analyses were performed to assess the impact of variations in battery-grade lithium carbonate prices, operating costs, and capital costs.

The economic analysis was performed using the following assumptions:

- Construction starts January 01, 2026.
- Ramp-up production start-up in 2028, with full process plant production achieved in 2030.
- Mine life of 20 years.
- Cost estimates remain constant in Q2 2024.
- No price inflation or escalation factors were considered.
- Results are based on 100% ownership.
- Capital costs funded with 100% equity (i.e., no financing costs assumed).
- All cash flows discounted to beginning of construction January 01, 2026.
- All lithium carbonate products are assumed sold in the same year they are produced.
- Project revenue is derived from the sale of battery-grade lithium carbonate FOB Antofagasta; and
- No binding contractual arrangements currently in place.

The pre-tax net present value discounted at 8% (NPV8%) is US$M 3,853, the internal rate of return (IRR) is 42.1%, and payback is 2.5 years. On an after-tax basis, the NPV8% is US$M 2,829, the IRR is 36.3%, and the payback period is 2.7 years.

General	LOM Total / Avg.		
	Base Case	High Case	Conservative Case
General			
Li_2CO_3 Price (US$/t)	$30,513	$32,424	$27,940
Operational Years (years)	20.0	20.0	20.0
Production - LOM			
Process Efficiency (%)	83.0%	83.0%	83.0%
LOM Li_2CO_3 Battery Grade (t/y)	24,459	24,459	24,459
Full Production Li_2CO_3 Battery Grade (t/y)	25,000	25,000	25,000
Total Payable Li_2CO_3 Battery Grade (t)	489,178	489,178	489,178
Operating Costs			
Processing Cost (US$/t Li_2CO_3)	$5,267	$5,267	$5,267
Transport Cost (US$/t Li_2CO_3)	$208	$208	$208
Total Operating Cost (Processing Cost + Transport Cost) (US$/t Li_2CO_3)	$5,475	$5,475	$5,475
Cash Costs (US$/t Li_2CO_3)*	$6,529	$6,606	$6,427
AISC (US$/t Li_2CO_3)**	$7,165	$7,242	$7,063
Capital Costs			
Initial Capital (US$M)	$1,055	$1,055	$1,055
Sustaining Capital (US$M)	$246	$246	$246
Closure Capital (US$M)	$65	$65	$65
Financials - Pre-Tax			
Pre-Tax NPV (8%) (US$M)	$3,853	$4,426	$3,090
Pre-Tax IRR (%)	42.1%	49.2%	33.0%
Pre-Tax Payback (years)	2.5	2.2	3.1
Financials - Post Tax			
Post-Tax NPV (8%) (US$M)	$2,829	$3,258	$2,256
Post-Tax IRR (%)	36.3%	42.1%	28.8%
Post-Tax Payback (years)	2.7	2.4	3.3

Table 6: Economic Analysis Summary

* Cash costs consist of mining costs, processing costs, G&A, transport cost and royalties

** AISC includes cash costs plus sustaining capital and closure cost

Sensitivity

A sensitivity analysis was conducted on pre-tax and after-tax NPV and IRR of the Project, using the following variables: battery-grade lithium carbonate price, discount rate, initial capital costs and operating costs.

The analysis revealed that the Project is most sensitive to changes in lithium carbonate price, and to a lesser extent initial capital, operating cost, and sustaining capital as shown in figures below.

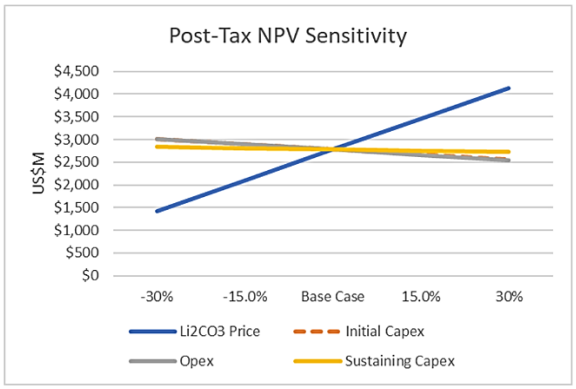

Figure 3: Post-Tax NPV Sensitivity

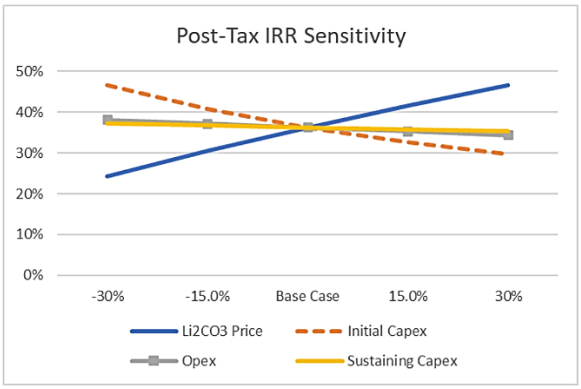

Figure 4: IRR Sensitivity Analysis Post-Tax - Base Case Scenario

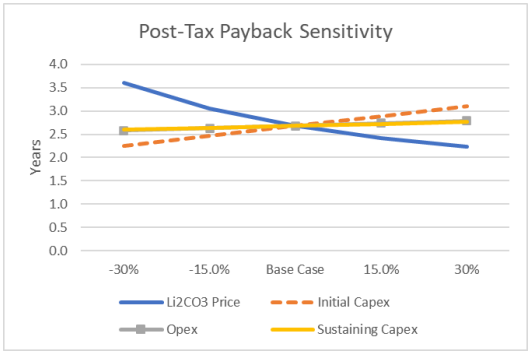

Figure 5: Payback Sensitivity Analysis Post-Tax - Base Case Scenario

Lithium Chile's operations in Argentina are conducted through its subsidiary, Argentum Lithium S.A., with a strong emphasis on hiring local employees and consultants. Since commencing exploration in 2022, ARLI S.A. has drilled over 20 wells, established an on-site metallurgical laboratory for brine analysis, and employed dozens of highly skilled Argentine professionals, including technologists, engineers, geologists, and chemists. The Company also employs local accounting, management, and human resources personnel.

Lithium Chile expresses its gratitude and confidence in the exceptional Argentine team, recognizing their instrumental role in generating value for all stakeholders.

QUALIFIED PERSONS AND NI 43-101 TECHNICAL REPORT

The PFS for the Arizaro Lithium Project was prepared by Ausenco Chile Limitada and Ausenco Sustainability Inc. (collectively "Ausenco"), and Montgomery & Associates, independent engineering and consulting firms.

A technical report prepared in accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101"), summarizing the PFS, will be filed on SEDAR (www.sedar.com) within 45 days of this press release. The report will provide full details on the qualifications and areas of responsibility of each Qualified Person involved in the PFS.

Qualified Persons:

The Qualified Persons responsible for the preparation of the technical report are:

- James Millard, P.Geo., Director, Strategic Projects, Ausenco Sustainability Inc.

- Patricio Pinto Gallardo, R.M., Principal Process Engineer, Ausenco Chile Ltda.
- Michael Rosko, R.M. - SME, E.L. Principal Hydrogeologist, Montgomery & Associates Inc.
- Brandon Schneider, R.M. – SME, Senior Hydrogeologist, Montgomery & Associates Consultores Ltda.

Leandro Sastre, *P.Geo., General Manager, Andes Exploration LLC has reviewed and approved the scientific and technical content of this news release. Mr. Sastre is a Professional Geoscientist with over 22 years of experience in the international mining sector. He has worked extensively throughout Latin America with a focus on Argentina, Chile, and Peru.*

ABOUT AUSENCO

Ausenco Chile Limitada ("Ausenco") is a global engineering firm, experienced in the lithium industry. Ausenco has prepared multiple economic assessments and feasibility studies, specifically for, but not limited to, South American lithium brine extraction companies over the past several years. In addition to being DLE and production process experts, Ausenco's knowledge was invaluable for assessing current and conservative operating and capital costs, which incorporated the latest global cost estimates. All values are reported in US dollars, unless otherwise noted. References to CDN$ have been converted at 1.35 x US$.

ABOUT MONTGOMERY & ASSOCIATES ("M&A")

Montgomery & Associates is an international water resource consulting firm that specializes in management and mining hydrogeology services which includes characterization of aquifer conditions. It has been operating since 1984, with offices now located in Santiago Chile, Lima Peru, and Salta Argentina. M&A's head office is in Tucson, Arizona. M&A has previously been involved with mining projects in Mexico. M&A's client list includes most of the world's major domestic and international mining entities operating in the Americas.

Mr. Michael Rosko, MS, PG, SME #4064687, of Montgomery and Associates of Santiago, Chile ("M&A"), is a Registered Geologist (C.P.G.) in Arizona, California, and Texas, a Registered Member of the Society for Mining, Metallurgy and Exploration, and is a qualified person (QP) as defined by NI 43-101. Mr. Rosko has extensive experience in salar environments and has been a QP on many lithium brine projects. Mike Rosko is independent from the Company and has reviewed and verified the disclosure of the PFS information regarding geological and hydrogeological references mentioned in this press release.

ABOUT LITHIUM CHILE

Lithium Chile is an exploration and lithium resource company with a property portfolio consisting of 111,978 hectares in Chile and 29,245 hectares in Argentina. The Company has filed its NI 43 -101 Compliant Resource Report as well as a NI 43 - 101 Compliant Preliminary Economic Assessment each of which can be viewed on the Company's profile at SedarPlus.ca.

Lithium Chile also owns 5 properties totaling 22,529 hectares that are prospective for gold, silver and copper.

Lithium Chile's common shares are listed on the TSX-V under the symbol "LITH" and on the OTCQB Under the symbol "LTMCF".

To find out more about Lithium Chile, please contact Steven Cochrane, President and CEO via email: steve@lithiumchile.ca or Michelle DeCecco, COO via email: michelle@lithiumchile.ca

FORWARD LOOKING STATEMENTS:

This news release may contain certain forward-looking information and forward-looking statements within the meaning of applicable securities legislation (collectively "forward-looking statements"). Generally, forward-looking statements can be identified using forward-looking terminology such as "expected", "anticipated", "aims to", "plans to" or "intends to" or variations of such words and phrases or statements that certain actions, events or results "will" occur. Such forward-looking statements are based on various assumptions and factors that may prove to be incorrect, including, but not limited to, factors and assumptions with respect to the general stability of the economic and political environment in which the Company operates and the timely receipt of required regulatory approvals. You are cautioned that the foregoing list of material factors and assumptions is not exhaustive. Although Lithium Chile believes that the assumptions and factors on which such forward-looking statements are based upon reasonable assumptions, undue reliance should not be placed on the forward-looking statements because Lithium Chile can give no assurance that they will prove to be correct or that any of the events anticipated by such forward-looking statements will transpire or occur, or if any of them do, what benefits Lithium Chile will derive therefrom. Lithium Chile does not undertake to update any forward-looking statements herein, except as required by applicable securities laws. All forward-looking statements contained in this news release are expressly qualified by this cautionary statement.