



5 January 2023

**CleanTech Lithium PLC ("CleanTech Lithium" or the "Company")**  
**Scoping Study Confirms Potential of Laguna Verde as a Major New Sustainable**  
**Lithium Supplier with Robust Economics:**  
**Post-tax NPV<sub>8</sub> of US\$1.83 billion and IRR of 45.1%**

CleanTech Lithium PLC (AIM:CTL), an exploration and development company, advancing the next generation of sustainable lithium projects in Chile, announces the results of a recently completed Scoping Study for the Laguna Verde Project, which confirms the project's outstanding economics and ESG credentials.

**Highlights:**

- Supports the potential for Laguna Verde to become a major supplier of battery grade lithium to European and US markets based on sustainable direct lithium extraction ("DLE") technology
- Based on annual production of 20,000 tonnes of battery grade lithium carbonate for an operational life of 30 years based on Measured + Indicated resource
- Calculates accumulated net cashflows (post-tax and royalties) of US\$6.3 billion to be generated over the operational life with low operating cost of US\$3,875 per tonne of lithium carbonate
- Estimated capital expenditure of US\$383.6m, based on DLE plant using SunResin Materials existing DLE technology
- Attractive economics with post-tax NPV of US\$1.83 billion using a discount rate of 8%, post-tax IRR of 45.1% and a payback period of 1 year and 8 months – based on a long-term lithium carbonate price of US\$22,500 per tonne from 2027
- Industry leading ESG credentials, a critical advantage for the EU market, based on utilising DLE which returns spent brine to the basin aquifers, and renewable energy for processing power via connecting with the Chilean grid and its abundant renewable energy supply
- The report assumes commencement of production in 2026, Company Board and management continue to target late 2025
- Pre-Feasibility Study ("PFS") to commence immediately, targeted for completion in 2H 2023. The PFS will also address conversion of lithium carbonate to potentially more attractive lithium hydroxide, and
- The economics represent only one of CleanTech Lithium's projects, the Francisco Basin project provides further upside.

**Commenting, Aldo Boitano, Chief Executive Officer, of Cleantech Lithium PLC, said:**

*"The Scoping Study provides added confidence in the robust economics of the Laguna Verde project; based on low operating and capital costs, with a post-tax NPV of US\$1.83 billion and IRR of 45.1%, and a payback period of 1 year and 8 months. The study further advances the process and technical design*



concept for the project, with strong ESG principles incorporated at each step. With the completion of this study, the Company is proceeding to a Pre-Feasibility Study (PFS) for the project. The PFS will utilise technical data generated by our planned pilot plant, the DLE unit of which was recently ordered from SunResin, to produce a high level of process design verification for a PFS level study.

“This Scoping Study marks a major milestone for the Company and I would like to take this opportunity to thank the Scoping Study consultant, Chilean based lithium sector experts Ad-Infinity, as well as our technical team for their hard work in completing the study. The Scoping Study outlines a plan to produce battery-grade lithium with a low environmental footprint, which positions the Company extremely well to supply the EU and US markets.

“Ad-Infinity have already commenced work on the Francisco Basin Scoping Study and our Board is hopeful that the economics and ESG credentials prove to be as attractive as we’ve seen for Laguna Verde. We expect to announce the results of that scoping study in H1 2023.”

## Further Information

### Summary of Key Scoping Study Outcomes

A summary of the outcomes for key operational and economic analysis metrics derived from the completion of the scoping study are presented in the table below.

Key Operating Metrics	Unit	Study Outcome
Production Rate of Lithium Carbonate	Tonnes per annum	20,000
Operational Life	Years	30
Resource (Measured + Indicated)	Thousand tonnes	802.6
Construction Period	Years	1.5
Recovery rate - Direct Lithium Extraction	%	90.4
Recovery rate - Concentration stages & chemical plant	%	94.2
Recovery rate - Total	%	85.2
Key Financial Metrics		
Capital Cost (including 10% contingency)	US\$ Million	383.6
Operating Cost	US\$ / tonne Li <sub>2</sub> CO <sub>3</sub>	3,875
Lithium Price (Lithium Carbonate)	\$US/tonne	Forecast Curve
Accumulated Net Cashflows Over Operational Life	US\$ Billion	6.3
Payback Period	Years	1 year 8 months
IRR Post-Tax	%	45.1
NPV Post-Tax (Discount Rate = 8%)	US\$ Billion	1.83
NPV Post-Tax (Discount Rate = 10%) - Sensitivity Analysis	US\$ Billion	1.43

### Information on Study and Contributors

The study was undertaken by Ad-Infinity, a Chilean engineering services company/technical consultant with over 30 years of experience in the lithium sector with clients including SQM, Albemarle and Galan Lithium. Ad-Infinity specialise in processes and operations involving the processing of brines and minerals that contain Lithium, Potassium, Sulfate, Nitrates and other elements; and provide

specialist technical solutions that contribute to the development of projects in all their stages, as well as the improvement of operations. Since 2014, Ad-Infinitum has worked on lithium production processes from brine on different projects in Chile, Argentina, China, Korea and elsewhere.

The capital cost estimates for the DLE plant were contributed by SunResin, the leader in commercial scale DLE plants. The lithium price cost curve estimate used in the study is based on estimates by Canaccord Genuity, a market leading broker with considerable experience in the lithium sector. The key study contributors are further summarised in the table below.

The Mineral Resource underpinning the production target is based on the Laguna Verde updated JORC resource estimate, reported by the Company in September 2022 and limited to the Measured and Indicated component of the sub-surface resource estimate. This estimate was prepared by an Independent Competent Person, Christian Feddersen, in accordance with the requirements of the JORC Code.

Scope	Contributor
Study Manager	Ad Infinitum
Direct Lithium Extraction Plant	SunResin
Metallurgical Test-Work	Beyond Lithium
Mineral Resource Estimation	Christian Feddersen
Geological Consultant	Geomin
Land Title	Juan Bedmar e Hijo Ltda
Environmental, Social and Community Impact	CYMA Engineering and Management Ltd
Lithium Price Forecast	Canaccord Genuity estimates, August 2022

## **Scoping Study Summary**

### **Project Description and Geology**

The Laguna Verde project is located in the northern Atacama Region of Chile at an altitude of over 4,300m above sea level. The project area is located 275km east of the capital city of the region, Copiapó, and is adjacent to the paved highway Route 31, which crosses the Argentina border 23km east of the project. The project is within a closed hydrographic basin of approximately 1,075km<sup>2</sup>, surrounded by a series of volcanoes, and features an active geothermal system with surface manifestations. Figure 1, below, provides a regional map, which additionally shows that Laguna Verde is approximately 100km from CleanTech Lithium’s second project, Francisco Basin.



Figure 1: Regional Map of Laguna Verde Project

### Mineral Property and Title

Under Chilean law, exploration and exploitation of mineral resources are granted through mining concessions. CleanTech Lithium, via its 100% owned subsidiary Atacama Salt Lakes SpA, owns either directly or via an exclusive purchase option a total of 52 exploitation and exploration concessions in the Laguna Verde Project with a total area of 107km<sup>2</sup>. This comprises 23 mining exploitation concessions, held via an option agreement, with a total area of 29km<sup>2</sup>, and 29 mining exploration concessions which are held directly and have a total area of 78km<sup>2</sup>. The map of concessions is shown in Figure 2.

Under Chilean law, the exploration and exploitation of lithium can be executed by a Special Operation Contract for Lithium (CEOL), under the terms and conditions established by the President of the Republic. The Study assumes the Company intends to submit a CEOL application for the Laguna Verde Project in the coming months.

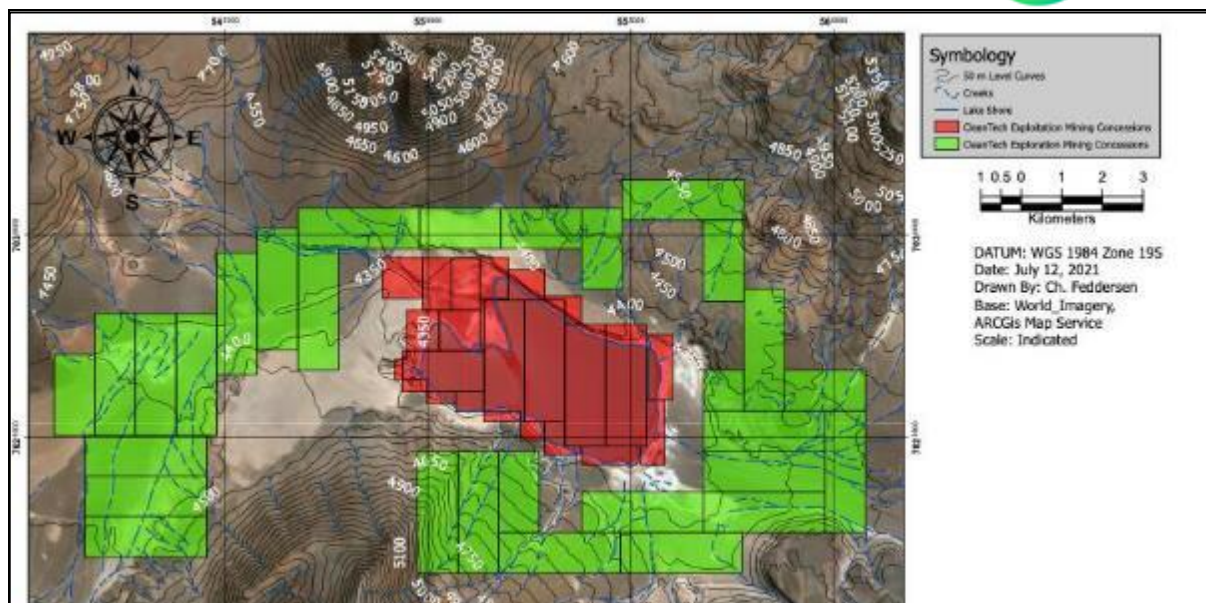


Figure 2: Tenement map of Laguna Verde Project Mining Concessions

### Mineral Resource Estimate

An updated JORC compliant resource estimate for the Laguna Verde project of 1.51 million tonnes of LCE was published on 13 September 2022. This estimate was based on the sub-surface resources targeted by a resource drill programme undertaken in January – May 2022. A total of four wells, designated LV01 – LV04, were completed during the programme with recorded drilling depths and aquifer thickness as per Table 1 below.

Well Code	Drilling Depth	Aquifer Thickness
LV01	463m	337m
LV02	290m	235m
LV03	431m	314m
LV04	320m	220m

Table 1: Laguna Verde Resource Drilling – Well Depth and Aquifer Thickness

The resource estimate is classified in the categories of ‘Measured + Indicated’ and ‘Inferred’. Of the total 1.51 million tonne resource, 0.8 million tonnes are classified in the Measured and Indicated categories, shown in Table 2 below, which has been used in the Scoping Study as the basis for estimating the 20,000 tonne per annum production rate over an operational life of 30 years.

<b>Total Resource Measured + Indicated</b>		
<b>Total Effective Volume</b>	<b>m<sup>3</sup></b>	<b>731,655,164</b>
<b>Average Grade Li</b>	<b>mg/l</b>	<b>206.08</b>
Li Mass	tonne	150,780
<b>Measured + Indicated Resource (LCE)</b>	<b>tonne</b>	<b>802,602</b>
<b>Total Resource Measured + Indicated + Inferred</b>		
<b>Total Effective Volume</b>	<b>m<sup>3</sup></b>	<b>1,381,331,794</b>
<b>Average Grade Li</b>	<b>mg/l</b>	<b>205.62</b>

Li Mass	tonne	284,028
<b>Measured + Indicated + Inferred Resource (LCE)</b>	<b>tonne</b>	<b>1,511,880</b>

Table 2: Laguna Verde JORC Resource Estimate

### Mining Method

Lithium enriched brine occurring within the porous sub-surface sediments is to be extracted utilising a well field located around the Laguna Verde perimeter. A total of twenty-three extraction wells have been considered in the study, with the area of the well field shown in red in Figure 3. The extracted brine will be transferred to a tank to be mixed prior to being fed into the first stage of plant processing, which is the DLE adsorption columns. The spent brine from the adsorption process, which is the brine with lithium removed, will be reinjected into the salar basin through deep wells, in areas where the mineral resource will not be affected by dilution. The area considered in the Scoping Study for reinjection wells is shown in Figure 3. Further hydrogeological work is required to develop the extraction and reinjection model for the production phase of the project.

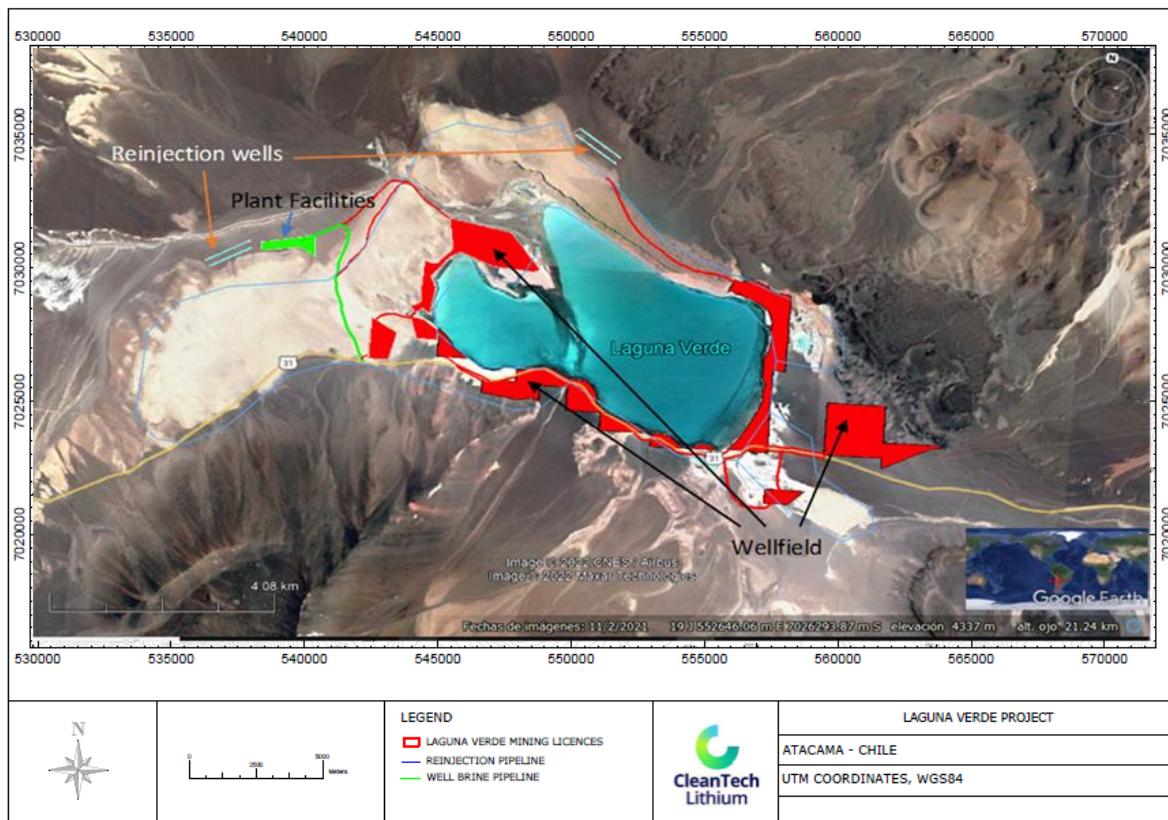


Figure 3: Scoping Study Wellfield Infrastructure Layout Plan

### Process Recovery Method

The Company has carried out a series of laboratory and bench scale tests to trial the processing of brine from the Laguna Verde Project and confirm the feasibility of obtaining battery grade lithium carbonate. In 1H 2022 trials on a 2,000L brine sample were undertaken by Beyond Lithium, a Chilean-

Argentinian lithium processing consultant, to produce 1kg of battery grade lithium carbonate at its facilities in Salta, Argentina.

The test work showed that the DLE process was efficient in capturing the Li ion from the brine and also selective in rejecting major contaminants such as magnesium. The lithium in eluate from the DLE was 4.6 times that of the head brine whilst 97.5% of the magnesium was rejected into the spent brine. DLE is primarily a cleaning stage and subsequent concentration stages increase the lithium concentration to about 1% Li. The main impurities of magnesium and calcium were then almost completely removed by precipitating with a soda ash/sodium hydroxide solution. Traces of these together with boron are removed using ion exchange and then carbonation of the solution with soda ash produces a lithium carbonate precipitate.

This DLE based process successfully produced a 1kg sample of high-purity lithium carbonate which was analysed by the Dorfner Anzaplan Laboratory in Germany, confirming very low impurities and a  $\text{Li}_2\text{CO}_3$  grade >99.9%, exceeding the benchmark for battery grade lithium of 99.5%  $\text{Li}_2\text{CO}_3$ . This was announced to the market by the Company on 8 June 2022.

Brine processing test design work has progressed emphasising the minimisation of environmental impact, waste disposal and water consumption to ensure high ESG standards for the project. The process design, based on test work completed, can be described broadly in five stages to produce lithium carbonate as labelled in Figure 4 below, which provides an overview diagram of the process stages. As process work is further advanced the option of producing lithium hydroxide, either via conversion of lithium carbonate or an alternative process route will be further evaluated.

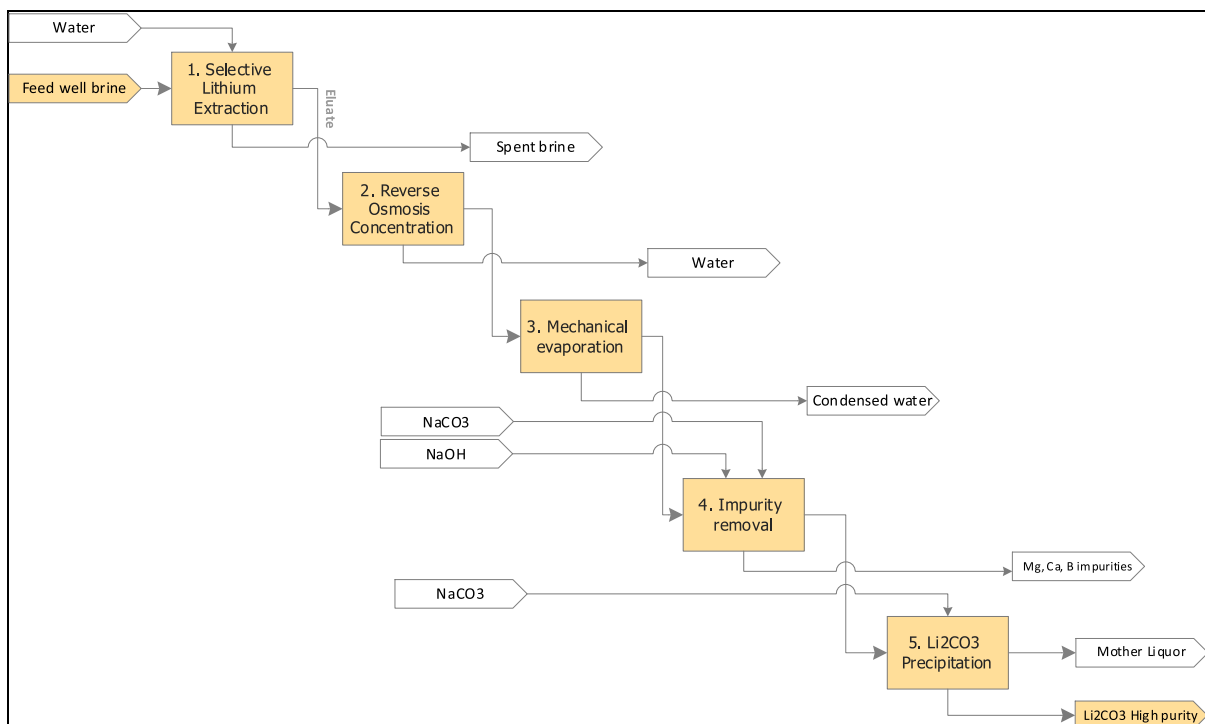


Figure 4: Process Stages

Ad-Infinitem modelled the production process using SysCAD simulation software and a thermodynamic model. For modelling of the DLE process the data from completed test work and a comparison with projects utilising a similar process were used. Process simulation provided mass and volume values for all streams of the modelled process.

The overall recovery rate used in the study of 85.2% is based on the DLE stage achieving a 90.4% recovery. Treatment of the mother liquor after carbonation to precipitate NaCl and then recirculation of the concentrated solution to the first purification stage allows for the maximisation of process water recovery and overall lithium recovery. Table 3, below, provides the modelled lithium recovery and loss according to the process stage.

		Adsorption	Reverse Osmosis	Step 1 Carbonation	IX - B	IX Ca-Mg	Step 2 Carbonation	Filtration	Drying
Li Mass (tonne/hr)	in	0.598	0.541	0.605	0.59	0.588	0.586	0.511	0.509
	out	0.541	0.536	0.59	0.588	0.586	0.511	0.509	0.509
Li recovery	%	90.4%	99.1%	97.6%	99.7%	99.7%	87.2%	99.6%	100.0%
Li not recovered	%	9.6%	0.9%	2.4%	0.3%	0.3%	12.9%	0.4%	0.0%
- Accumulative	%	9.6%	10.4%	1.3%	1.6%	1.9%	14.5%	14.8%	14.8%
Overall Recovery									85.2%

Table 3: Overall Process Recovery

Based on the modelling, the stages with the lowest recovery are the direct extraction and lithium carbonation processes. These process stages will be optimised in the piloting stage. The overall balance of the process for the production rate of 20,000 tonnes of  $\text{Li}_2\text{CO}_3$  per year is shown in Table 4 below.

	Stream	Mass (tonne/yr)	Distribution
Inlet	Well brine	22,659,337	Excl.
	$\text{Na}_2\text{CO}_3$ to Mg	946	2.0%
	$\text{Na}_2\text{CO}_3$ to Carb. Li	33,851	71.4%
	NaOH	1,419	3.0%
	HCl	10,799	22.8%
	$\text{CaCl}_2$	394	0.8%
	<b>Sum</b>	<b>22,706,747</b>	
Outlet	Spent brine	22,529,091	Excl.
	$\text{Mg}(\text{OH})_2$ , $\text{CaCO}_3$ slurry	8,642	4.9%
	Boron solution	1,960	1.1%
	Mg, Ca, IX solution	693	0.4%
	NaCl from Evaporator	117,905	66.4%
	Out. Dryer (moisture)	22,880	12.9%
	$\text{CO}_2$ from reaction	5,576	3.1%
	$\text{Li}_2\text{CO}_3$ Product	20,000	11.3%
	<b>Sum</b>	<b>22,706,747</b>	

Table 4: Summary Mass Balance for 20,000 tpa lithium carbonate production rate



The largest waste product stream is NaCl. This can be used as a construction material for base platforms and road construction/improvement or combined with spent brine and reinjected to the aquifer without changing the original brine chemistry.

### Process Work Next Stage – Pilot Plant Including Lithium Hydroxide Evaluation

For the development of more advanced engineering studies the construction and operation of a pilot plant is highly recommended by Ad-Infinitem to validate and adjust, if necessary, the process design. The Company plans to construct a pilot plant with the capacity to produce 1 tonne per month of battery-grade lithium carbonate and lithium hydroxide. In June 2022, Clean Tech Lithium signed a Memorandum of Understanding (MOU) for cooperation with SunResin, a leader in the deployment of commercial-scale DLE plants. The DLE unit for the pilot plant was ordered from SunResin’s Belgium facilities in December 2022 and its assembly and commissioning are scheduled for the end of the second quarter of 2023. The downstream processing stages for the pilot plant to produce lithium battery products are in the final stages of specification.

The pilot plant will be designed to test the direct extraction process and different configurations for the removal of contaminants and carbonation. Solutions will be recycled to optimize the consumption of water, reagents and solutions. Figure 5, below, describes the stages in the planned pilot plant to produce lithium carbonate.

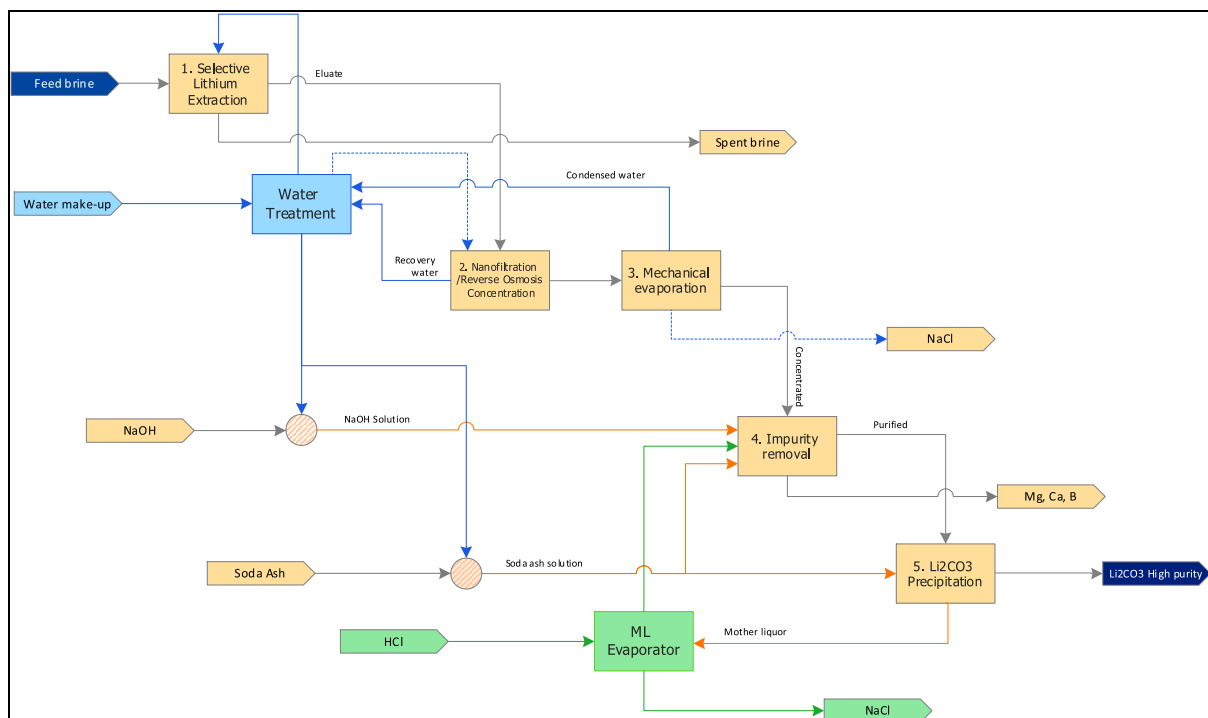


Figure 5: Pilot Plant Block Diagram

Based on long-term industry trends, lithium hydroxide is expected to experience higher demand growth than lithium carbonate. Lithium hydroxide can be conventionally obtained by converting the lithium carbonate produced in the first stage of the process with lime. This will be tested in the pilot

plant. A number of other processes to produce lithium hydroxide from brines are in development that will also be considered.

### Project infrastructure – Power and Water Supply

The Laguna Verde Project is located 275 km from Copiapó, in a region where the mining sector is the main driver of the economy, which allows access to mining services and specialised infrastructure. The port of Caldera, 340 km away by road, is a point of entry for supplies and an outlet for products with excellent loading facilities for general cargo and specialty commodities.

The study notes that the Laguna Verde project will use renewable energy for power supply through contracting a supplier of renewable energy via a Power Purchase Agreement (PPA). The main electricity transmission line in the area is the Greater North Interconnected System (SING) and a connected line supplies a substation located at the La Coipa Mine, approximately 100km from Laguna Verde (Fig. 6). The study notes that currently, 60% of the installed capacity in Chile is renewable energy, such as hydropower, solar-thermal, geothermal, wind, and photovoltaic solar (*National Electric Authority, Energy Report, historical CEN installed capacity by technology, October 2022*), making such a PPA feasible.

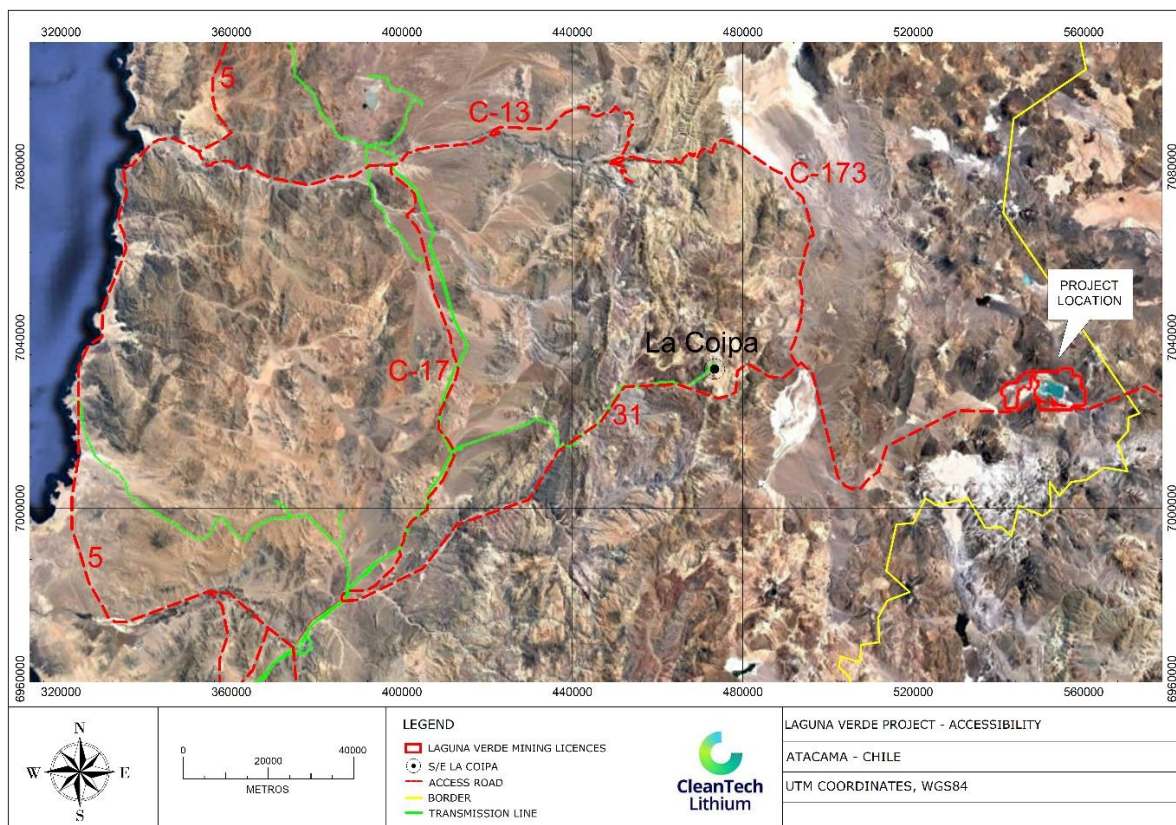


Figure 6: Regional Electricity Transmission Map

The project will have installed power capacity of 23.2MW and will require a 110KV high voltage line of approximately 100km to be extended to the east from La Coipa, parallel to the Route 31 highway,

to a new substation at Laguna Verde, from where it is distributed to the site. Total energy consumption is estimated at 170.3GWh annually, with the breakdown by facility provided in Table 5.

Plant/Infrastructure Facility	Energy Consumption (GWh)
Wells and transmission to tanks	15.4
DEL and Concentration Plant	103.5
Chemical Plant	22.8
Services & Camp	27.9
Transmission losses	0.7
<b>Total Energy Consumption</b>	<b>170.3</b>

Table 5: Project Annual Energy Consumption Breakdown by Facility

Water supply for the process is to come from wells drilled within the Laguna Verde basin and from the recovery of water in the concentration stages of processing. Purified water will be obtained from the condensates in the forced evaporation and mother liquor treatment stages. The consumption of process water considers the recovery of 74% of the water used for the elution washing process in the DLE stage and for preparing process reagents that require ultra-pure water. The water recovery stages through reverse osmosis and the condensates from the concentration stages reduce the water requirement such that total water supply of 66 l/s will be required in the production phase, as shown in Table 6.

	M3/d	l/s
Elution DLE	8,337	96.5
Reagents prep./Cake washing	566	6.6
Water recovered in processing	-6,599	-76.4
Other consumption	20	0.2
Water required	2,324	26.9
Reverse osmosis water recovery rate	41%	
<b>Water required from well field</b>	<b>5,711</b>	<b>66.1</b>

Table 6: Process Water Supply Metrics

## Capital Expenditure

Capital expenditure (CAPEX) estimates are based on an annual production of 20,000 tonnes of lithium carbonate. The cost of the equipment has been obtained by Ad-Infinitem from a combination of data from similar projects and information from supplier quotes. A summary of the CAPEX by major areas is provided in Table 7. This estimate was made based on figures for the fourth quarter of 2022 with no projected inflation adjustment. The estimated accuracy is within a range of -15%/+30%. Maintenance CAPEX is estimated at a total of US\$ 63.3 million over the 30-year evaluation period, involving approximately US\$12 million CAPEX once every 5 years.

Area	Description	US\$ 000
1000	Well Field	57,145
3000	Plant	226,654
3100-3300	DLE and Reverse Osmosis	189,064
3400-3800	Chemical Plant	33,025
3900	Packaging, Storage and Handling	4,566
4000	Services	20,710
	<b>Total Direct Cost</b>	<b>304,509</b>
	Indirect Cost	44,259
	Contingencies (10%)	34,877
	<b>Total CAPEX</b>	<b>383,644</b>

Table 7: Capital Expenditure Summary Breakdown

The **Well Field** CAPEX item includes brine extraction wells, spent brine reinjection wells, and water extraction wells as shown in Table 8 below. Twenty-three brine extraction wells have been assumed at an average depth of 350 metres with each well estimated at an average flow rate of 30 L/s. Sixteen spent brine reinjection wells were assumed with spent brine discharged in two reinjection fields, requiring two main pumps. Two wells have been assumed for process water supply, with their respective pumps and pipes transporting the water to the lithium carbonate plant area.

Area	Description	US\$ 000
1100	Brine extraction wells	47,429
1200	Brine reinjection well	9,155
1300	Water wells	560
	<b>Total Wells</b>	<b>57,145</b>

Table 8: Well Field Capital Expenditure Breakdown

The **Plant** CAPEX estimate is made up of the DLE plant, based on a quotation received from SunResin, and a Reverse Osmosis and Chemical plant, based on data from suppliers and developers of the required equipment calculated using Ad-Infinity's database. Table 9 shows a further breakdown of the DLE and Reverse Osmosis estimates.

Area	Description	US\$ 000
3100	DLE	109,941
3200	Reverse Osmosis	79,123
	<b>Total</b>	<b>189,064</b>

Table 9: Plant Capital Expenditure Breakdown

The **Services** CAPEX estimate of US\$20.7 million includes all the satellite activities that are essential for the operation of the wells and the lithium carbonate plant: electricity supply, boilers, preparation of reagents, water treatment, and fire-fighting system, among others.

The **Indirect Costs** estimate of US\$44.3 million includes all other expenses incurred during the construction period. The Construction and Operation Camp, and Polyclinic, are the major expense, followed by the Vendor’s technical assistance.

Finally, a 10% **Contingency** was applied to all CAPEX items by Ad-Infinitum in accordance with industry practice.

### Operating Expenditure

Estimates are based on the design of the production process, considering yields and estimated recoveries, and the estimated consumption and prices for the main reagents used. The estimates of expenses, prices and labour are based on Ad-Infinitum’s database for the costs of similar operations in Chile, as of September 2022. Operating expenses are summarised in Table 10.

Operating Expenditure	US\$/tonne LCE	Annual Total US\$ mn
Reagents	1,215	24,304
Water	208	4,169
Energy	1,224	24,484
Manpower	264	5,280
Transport	200	3,997
Catering & Camp Services	134	2,685
Maintenance	417	8,342
<b>Total Direct Costs</b>	<b>3,663</b>	<b>73,262</b>
SGA	212	4,238
<b>Total OPEX</b>	<b>3,875</b>	<b>77,499</b>

Table 10: Operating Expenditure Summary Breakdown

**Energy and Reagents** are the two largest items representing 32% and 31% of total operating costs. The unit cost for energy is US\$0.1437/kWh consistent with the pricing of similar supply contracts in the Chilean market. The Reagent cost is dominated by Soda Ash used in the Carbonation process, which comprises 57% of the total cost for reagents.

**Manpower costs** include an estimated total operational manpower of 163 people with an additional 59 people providing G&A services – totalling 222 personnel supporting the operation of the project.

**Transportation** assumes land transportation of the product packed in 1-tonne capacity bulk bags by ramp truck from the plant in Laguna Verde, via Copiapó, to the port at Caldera from where it is shipped in containers to its destination in the EU and/or the USA.

### Cash flow and Economic analysis

The economic analysis carried out in the study included the following basic assumptions:

CAPEX	Schedule	2024 – US\$268.6 million 2025 – US\$115.1 million Total – US\$383.6 million
Production	Schedule	Annual production of 20,000 tonnes per annum Production ramp-up projected at 80% in Year 1 with full capacity being achieved in Year 2.
	Grade	65% of initial production will be battery grade, reaching 100% in Year 2
Lithium Carbonate Sales Prices	Annual Prices	2025 – US\$30,000 per tonne 2026 – US\$30,000 per tonne 2027 – US\$22,500 per tonne Long-term - US\$22,500 per tonne
Opex	Cost per tonne	US\$3,875
Financing	Project Funding	Analysis assumes entire project funded by the Company from its own capital
Taxes & Royalties	Corporate Tax	First Category Tax as currently defined in the Chilean tax regime for mining industries - 27% on net profits (after royalties)
	Royalties (CEOL)	Specific payments to the Chile State - Based on the Companies CEOL applications made in early 2022:
	Withholding Tax	<ul style="list-style-type: none"> <li>▪ Specific quarterly payment – 3% of revenues</li> <li>▪ R&amp;D expenses – 1.5% of revenues</li> <li>▪ Annual Operating Margin Payment – a progressive table which increases from 7% to a maximum rate of 16% when the operating margin reaches 85%. This is the same table as included on page 47 of the Company’s Admission Document for its IPO on the London Stock Exchange in March 2022.</li> </ul> <p>With foreign companies or investors, the additional tax that companies must pay when distributing their profits and dividends overseas is 35%, in which case, the First Category Tax operates as a credit. In the study, the tax rate of 27% is used as the applicable rate on a project economics basis. Study also assumes CleanTech Lithium will establish tax arrangements in Chile and elsewhere to manage the additional 8% net withholding tax which may be payable in the event that dividends are distributed outside Chile.</p>

Table 11: Key Assumptions in Economic Analysis of Laguna Verde project

## Cashflows Analysis

The Scoping Study confirms, based on the assumptions, very strong cashflows from operations from an early stage as shown in Table 12 below.



Year		-2	-1	1	2	3	4	5	10	20	30
<b>Production</b>	Tonne Li2CO3	-	-	16,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
On Spec Production	Tonne Li2CO3	-	-	10,400	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Off Spec Production	Tonne Li2CO3	-	-	5,600	-	-	-	-	-	-	-
<b>Revenues</b>	US\$ 000'	-	-	454,800	450,000	450,000	450,000	450,000	450,000	450,000	450,000
Operational Costs	US\$ 000'	-	-	-58,200	-77,499	-77,499	-77,499	-77,499	-77,499	-77,499	-77,499
Insurance cost	US\$ 000'	-	-	-4,730	-4,660	-4,660	-4,660	-4,660	-4,660	-4,660	-4,660
Non budgeted Costs/Mine closure	US\$ 000'	-	-	-1,364	-1,550	-1,550	-1,550	-1,550	-1,550	-1,550	-3,350
<b>Total Costs</b>	US\$ 000'	-	-	-74,293	-83,710	-83,710	-83,710	-83,710	-83,710	-83,710	-85,510
<b>Gross Margin</b>	US\$ 000'	-	-	380,507	366,290	366,290	366,290	366,290	366,290	366,290	364,490
Gross Margin	%	-	-	83.7%	81.4%	81.4%	81.4%	81.4%	81.4%	81.4%	81.0%
Deprec + Amort	US\$ 000'	-	-	38,294	38,294	38,294	39,445	39,445	40,666	2,302	1,726
<b>Operating Margin</b>	US\$ 000'	-	-	342,213	327,997	327,997	326,846	326,846	325,624	363,989	362,764
Operating Margin % for calculating Royalties	%	-	-	75.2%	72.9%	72.9%	72.6%	72.6%	72.4%	80.9%	80.6%
<b>Royalties</b>											
(-) IVA	US\$ 000'	-	-	-	-	-	-	-	-	-	-
(-) Quarter Specific Payment	US\$ 000'	-	-	-13,644	-13,500	-13,500	-13,500	-13,500	-13,500	-13,500	-13,500
(-) Annual Specific Payment	US\$ 000'	-	-	-39,768	-36,806	-36,806	-36,669	-36,669	-35,881	-47,298	-47,130
(-) R+D Payment	US\$ 000'	-	-	-6,822	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750
<b>Revenues less Royalties</b>	US\$ 000'	-	-	394,566	392,944	392,944	393,081	393,081	393,869	382,452	382,620
<b>Profit before Taxes</b>	US\$ 000'	-	-	281,979	270,940	270,940	269,927	269,927	269,493	296,440	295,384
Accumulated Profit before Taxes	US\$ 000'	-	-	281,979	552,919	823,859	1,093,786	1,363,713	2,712,354	5,676,755	8,640,597
<b>Income Taxes -27%</b>	US\$ 000'	-	-	-76,134	-73,154	-73,154	-72,880	-72,880	-72,763	-80,039	-79,754
<b>Profit after Taxes</b>	US\$ 000'	-	-	205,845	197,786	197,786	197,047	197,047	196,730	216,401	215,630
Accumulated Profit after Taxes	US\$ 000'	-	-	205,845	403,631	601,417	798,464	995,510	1,980,019	4,144,031	6,307,636
Net Margin (Accum. Profit % of Revenues)	%	-	-	45.3%	44.0%	44.0%	43.8%	43.8%	43.7%	48.1%	47.9%

Year		-2	-1	1	2	3	4	5	10	20	30
<b>Cash Flow</b>											
Profit after Taxes	US\$ 000'	-	-	205,845	197,786	197,786	197,047	197,047	196,730	216,401	215,630
Depreciation and Amortization	US\$ 000'	-	-	38,294	38,294	38,294	39,445	39,445	40,666	2,302	1,726
CAPEX	US\$ 000'	-268,551	-115,093	-	-	-	-11,509	-	-	-	-
Ramp Up expenses	US\$ 000'	-4,238	-4,238	-	-	-	-	-	-	-	-
Working Capital	US\$ 000'	-	-	-16,108	587	-	-	-	-	-	-
Residual Value	US\$ 000'	-	-	-	-	-	-	-	-	-	24,001
<b>Total Cash Flow</b>	US\$ 000'	-272,789	-119,331	228,030	236,668	236,080	224,982	236,491	237,396	218,703	241,358
Accumulated Cash Flow	US\$ 000'	-272,789	-392,119	-164,089	72,578	308,658	533,640	770,132	1,942,939	4,106,951	6,299,160

Table 12: Cashflow Forecast Summary

### Economic Evaluation Results:

**Base Case:** Based on the post-tax cashflows shown in Table 12 above, the following economic evaluation results were obtained:

NPV <sub>8</sub>	US\$ 1.834 billion
NPV <sub>10</sub>	US\$1.427 billion
IRR	45.1%
Payback period	1 year and 8 months

Table 13: Economic Evaluation Results after taxes

### Sensitivity Analysis

A sensitivity analysis was undertaken for the three parameters with the greatest impact on the calculation of the Present Value of the project and the Internal Rate of Return. This analysis was carried out for variations of -25% and 25% regarding the Base Case, with the results being shown in Table 14 below. These sensitivities show the robust economics of the project, even in downside scenarios. With a current international lithium carbonate sales price in excess of US\$70,000 per tonne, there is also large upside potential which is not captured in this analysis.

Variable		NPV After taxes, US\$ million			NPV, Var %		
		75%	100%	125%	75%	100%	125%
CAPEX	MM\$	1,902	<b>1,834</b>	1,767	104%	<b>100%</b>	96%
OPEX	M\$/tonne	1,933	<b>1,834</b>	1,733	105%	<b>100%</b>	94%
<b>Price</b>	M\$/tonne	1,205	<b>1,834</b>	2,456	66%	<b>100%</b>	134%

Variable		IRR After taxes, %			IRR, Var %		
		75%	100%	125%	75%	100%	125%
<b>CAPEX</b>	MM\$	55.6%	<b>45.1%</b>	38.1%	123%	<b>100%</b>	85%
OPEX	M\$/tonne	46.8%	<b>45.1%</b>	43.3%	104%	<b>100%</b>	96%
<b>Price</b>	M\$/tonne	34.4%	<b>45.1%</b>	54.6%	76%	<b>100%</b>	121%

Table 14: NPV and IRR sensitivities over Capex, Opex and Sales Price

### Environmental and Social Licence Considerations

The project does not fall within a designated environmental protection area, with fauna being scarce due to the high aridity and extreme climate at the altitude of 4,300m. The study confirms that the Company is currently developing an environmental baseline study, as well as compiling information for the environmental impact assessment (EIS) which will be necessary for the production phase of the project. The Company is supported by CYMA Engineering and Management, which specialises in environmental studies and permitting.

For the purpose of assessing possible impacts CleanTech Lithium plans to develop close relationships with project stakeholders. The Company has recently opened an office in Copiapo and is developing an Early Engagement Plan (PACA) that aims to keep an open communication channel with relevant community bodies and organisations and allows for a continuous assessment of the social impact of the project.

### Interpretation and Conclusions

Laguna Verde is classified as an immature clastic salt lake basin. The total resource for the Project is estimated at 1,511,880 tonnes of LCE, with 802,602 tonnes being in the Measured + Indicated resource category. The average lithium value is 205 mg/l Lithium.

Public studies of the lithium market indicate strong demand and sustained high prices during the evaluation period. The demand for electric vehicles continues to increase, and every day more countries declare a ban on the sale of combustion vehicles in the following years, ensuring the elevated levels of demand for lithium.





Chile is one of the few countries in the world where there are lithium deposits in continental brines, so the interest and supply requirements for this material should be of national interest.

The offer of a project with low environmental impact is in line with current requirements, so the environmental procedures should be well considered. At this point, it is necessary to have more information on the reinjection system and the development of a hydrogeological model that confirms the low impact on groundwater and its null impact on lake surfaces.

The exploitation cost, according to what is indicated in the scoping study (-15%/+35% accuracy), of US\$ 3,875 per tonne, is a competitive cost for the projected prices, even in comparison with the costs of projects from continental brines and with traditional processes (solar evaporation).

The capital cost of the project is estimated (-15%/+ 30%) at US\$ 384 million, considering 10% contingencies.

The economic analysis of the project, after taxes, gives a Net Present Value of US\$ 1.83 billion, using a discount rate of 8%, and giving an internal rate of return of 45.1%. The term to recover the investment (payback period) is 1 year and 8 months.

The sensitivity analysis of the economic evaluation model shows that the factor that most impacts the Present Value of the project, for the same variations, is the Price factor. And with respect to IRR, both the Price and Capex are the most influential parameters.

Based on the results of the initial explorations and the future exploration program, it is concluded that the Laguna Verde Project justifies continuing its development to determine if the lithium resource can be turned into a reserve, in terms of economic and technical aspects, and confirm the feasibility of its production on a pilot scale.

**For further information contact:**

**CleanTech Lithium PLC**

Aldo Boitano/Gordon Stein

Jersey office: +44 (0) 1534 668 321

Chile office: +562-32239222

Or via Celicourt

**Celicourt Communications**

Felicity Winkles/Philip Dennis/Ali AlQahtani

+44 (0) 20 8434 2754

[cleantech@celicourt.uk](mailto:cleantech@celicourt.uk)

**Dr. Reuter Investor Relations**

Dr. Eva Reuter

+49 69 1532 5857

**Beaumont Cornish Limited** +44 (0) 207 628 3396  
**(Nominated Adviser)**  
Roland Cornish

**Fox-Davies Capital Limited** +44 20 3884 8450  
**(Joint Broker)**  
Daniel Fox-Davies [daniel@fox-davies.com](mailto:daniel@fox-davies.com)

**Canaccord Genuity Limited** +44 (0) 207 523 4680  
**(Joint Broker)**  
James Asensio  
Gordon Hamilton

### **Competent Persons**

The following professionals act as qualified persons, as defined in the AIM Note for Mining, Oil and Gas Companies (June 2009):

- Christian Gert Feddersen Welkner: Geologist and Master of Science, major in geology (University of Chile). With more than 20 years of experience, Mr Feddersen is a qualified person independent of the company and a member of the Chile Mining Resources and Reserves Competence Qualifying Commission, a "Recognised Professional Organisation" (OPR). He is registered with No. 132 in the public registry of Competent Persons in Mineral Resources and Reserves, under the Law of Competent Persons and its Regulations in force in Chile. Mr Feddersen, who has reviewed and approved the geological information included in the announcement, has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and the activity being undertaken and qualifies as a competent person, as defined in the JORC Code.
- Marcelo Bravo: Chemical Engineer (Universidad Católica del Norte), has a Master's Degree in Engineering Sciences major in Mineral Processing, Universidad de Antofagasta. He currently works as a Senior Process Consulting Engineer at the Ad-Infinitum company. Mr Bravo has relevant experience in researching and developing potassium, lithium carbonate, and solar evapo-concentration design processes in Chile, Argentina, and Bolivia. Mr Bravo, who has reviewed and approved the information contained in the chapters relevant to his expertise contained in this announcement, is registered with No. 412 in the public registry of Competent Persons in Mining Resources and Reserves per the Law of Persons Competent and its Regulations in force in Chile. Mr Bravo has sufficient experience relevant to the metallurgical tests and the type of subsequent processing of the extracted brines under consideration and to the activity being carried out to qualify as a competent person, as defined in the JORC Code.



The information communicated within this announcement is deemed to constitute inside information as stipulated under the Market Abuse Regulations (EU) No 596/2014 which is part of UK law by virtue of the European Union (Withdrawal) Act 2018. Upon publication of this announcement, this inside information is now considered to be in the public domain. The person who arranged for the release of this announcement on behalf of the Company was Gordon Stein, Director and CFO.

### **Cautionary Statement**

As discussed below, the primary purpose of the Scoping Study is to establish whether or not to proceed to a Pre-Feasibility Study (“PFS”) and has been prepared to an accuracy level of  $\pm 30\%$ . The Scoping Study results should not be considered a profit forecast or production forecast. The Company advises that the Scoping Study referred to in this announcement is based on lower-level technical and preliminary economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised. The Production Target referred to in this announcement is solely based on the Measured and Indicated Mineral Resources for the Laguna Verde project.

### **Important Information for this Announcement**

The Scoping Study has been prepared and reported in accordance with the requirements of the JORC Code (2012). The primary purpose of the Scoping Study is to establish whether or not to proceed to a Pre-Feasibility Study (“PFS”) and has been prepared to an accuracy level of  $\pm 30\%$ , the Scoping Study results should not be considered a profit forecast or production forecast. As defined by the JORC Code, a “Scoping Study is an order of magnitude technical and economic study of the potential viability of Mineral Resources. It includes appropriate assessments of realistic assumed Modifying Factors together with any other relevant operational factors that are necessary to demonstrate at the time of reporting that progress to a Pre-Feasibility Study can be justified.”

The Modifying Factors included in the JORC Code have been assessed as part of the Scoping Study, including mining (brine extraction), processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and government factors. The Company has received advice from appropriate experts when assessing each Modifying Factor.

Following an assessment of the results of the Scoping Study, the Company has formed the view that a PFS is justified for the Laguna Verde project, which it will now commence. The PFS will provide the Company with a more comprehensive assessment of a range of options for the technical and economic viability of the Laguna Verde project.



The Company has concluded it has a reasonable basis for providing any of the forward-looking statements included in this announcement and believes that it has a reasonable basis to expect that the Company will be able to fund its stated objective of completing a PFS for the Laguna Verde project. All material assumptions on which the forecast financial information is based are set out in this announcement.

Some of the statements appearing in this announcement may be in the nature of "forward-looking statements" which include all statements other than statements of historical fact, including, without limitation, those regarding the Company's financial position, business strategy, plans and objectives of management for future operations, or any statements preceded by, followed by or that include the words "targets", "believes", "expects", "aims", "intends", "will", "may", "anticipates", "would", "could" or similar expressions or negatives thereof. Such forward-looking statements involve known and unknown risks, uncertainties and other important factors beyond the Company's control that could cause the actual results, performance or achievements of the Group to be materially different from future results, performance or achievements expressed or implied by such forward-looking statements. Such forward-looking statements are based on numerous assumptions regarding the Company's present and future business strategies and the environment in which the Company will operate in the future. These forward-looking statements speak only as at the date of this document. The Company expressly disclaims any obligation or undertaking to disseminate any updates or revisions to any forward-looking statements contained herein to reflect any change in the Company's expectations with regard thereto or any change in events, conditions or circumstances on which any such statements are based unless required to do so by applicable law or the AIM Rules.

## **Notes**

CleanTech Lithium (AIM:CTL) is an exploration and development company, advancing the next generation of sustainable lithium projects in Chile. The Company's mission is to produce material quantities of battery grade lithium by 2025, with near zero carbon emissions and low environmental impact, offering the EU EV market a green lithium supply solution.

CleanTech Lithium has two prospective lithium projects - Laguna Verde and Francisco Basin projects located in the lithium triangle, the world's centre for battery grade lithium production. They are situated within basins entirely controlled by the Company, which affords significant potential development and operational advantages. The projects have direct access to excellent infrastructure and renewable power. In addition, the Company has applied for a further 119 exploration licences at Llamara, as a low cost and commitment greenfield project to complement the existing more advanced projects.

CleanTech Lithium is committed to using renewable power for processing and reducing the environmental impact of its lithium production by utilising Direct Lithium Extraction. Direct Lithium



Extraction is a transformative technology which only removes lithium from brine, with higher recoveries and purities. The method offers short development lead times, low upfront capex, with no extensive site construction and no evaporation pond development so there is no water depletion from the aquifer or harm to the local environment.

**\*\*ENDS\*\***

## List of Abbreviations used in Scoping Study

%	percentage
°C	temperature in degrees Celsius
3D	three dimensional
m.a.s.l.	meters above sea level
ALS	ALS Life Sciences Chile
B	boron
BV	bed volume
Ca	calcium
CaCl <sub>2</sub>	calcium chloride
CaCO <sub>3</sub>	calcium carbonate
Ca(OH) <sub>2</sub>	calcium hydroxide
CAPEX	Capital Cost Estimates
CCHEN	Chilean National Nuclear Commission
CEOL	Special Operation Contracts for Lithium
Cl	chlorine
CODELCO	National Copper Corporation
CONAMA	National Environment Committee
CORFO	Development Corporation
CP	competent person
CPR	competent person report
CTL	CleanTech Lithium
CYMA	engineering and management company
cm	centimetre
cm <sup>3</sup>	cubic centimetres
DGA	General Water Directorate
DIA	Environmental Impact Statement
DLE	direct lithium extraction
DTM	digital surface model
EIA	Environmental Impact Study
ENAMI	National Mining Company
GPS	global positioning system
Has	hectares
H <sub>3</sub> BO <sub>3</sub>	boric acid
HCl	hydrochloric acid
ICP-OES	inductively coupled plasma – optical emission spectrometry
IRD	French Institute de Recherche pour le Development
IRR	Internal Rate of Return
IVA	value added tax
IX	ion exchange
JORC	Joint Ore Reserves Committee
JV	joint venture
K	potassium
km	kilometre
km <sup>2</sup>	square kilometre
KV	kilovolt
L/s	litres per second
LCE	lithium carbonate equivalent
Li	lithium
LiOH·H <sub>2</sub> O	lithium hydroxide
Li <sub>2</sub> CO <sub>3</sub>	lithium carbonate
LV	Laguna Verde
m	metre
m <sup>3</sup>	cubic metres
m/d	metres per day
mg	milligram
Mg	magnesium
mg/L	milligrams per litre
mL	millilitre
mm	millimetre
mm/year	millimetres per year
US\$MN	million dollars
MVR	mechanical vapor recompression
MW	megawatt
MWh	megawatt hour
Na	sodium
Na <sub>2</sub> CO <sub>3</sub>	sodium carbonate (soda ash)
NaCl	halite
NaOH	sodium hydroxide
NF	nanofiltration
NFB	nanofiltration for Boron
No.	number
NI	National Instrument
NPV	Net Present Value
OPEX	Operating Cost Estimates
Pe	effective porosity
pH	The measure of acidity or alkalinity
PPA	power purchase agreement
Pt	total porosity
QA/QC	quality assurance/quality control
QP	Qualified Person
RBRC	relative brine release capacity
RCA	Environmental Qualification Resolutions
RO	reverse osmosis
RQD	rock quality designator
R+D	research and development
SEA	Environmental Assessment Service
SEIA	Environmental Impact Assessment System
SERNAGEOMIN	National Geology and Mining Service
S-L	solid-liquid
SO <sub>4</sub>	sulfate
SRK	SRK Consulting
SS	Scoping Study
Sr	Specific retention
SX	solvent extraction
Sy	specific yield/drainable porosity
TEM	transient electromagnetic
t	tonnes
tonne/hr	tonnes per hour
t/y	tonnes per year
TDS	total dissolved solids
US\$	United States dollar
WBS	work breakdown structure
WML	Wealth Minerals Ltd.
y	year
ZOIT	Zone of Tourist Interest

# JORC Code, 2012 Edition – Table 1 report template

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Lagoon samples correspond to water brine samples from the surface lagoon, in an 800 m sampling grid, including eight (08) sampling duplicates in random positions. The samples were taken from 0.5 m depth and, for positions with above 5 m depth a bottom sample were also obtained.</li> <li>For every sample, two (02) liters of brine were obtained with a one-liter double valve bailer, using a new bailer for each sampling position. All materials and sampling bottles were first flushed with 100 cc of brine water before receiving the final sample.</li> <li>Sub surface brine samples were obtained with three methods: Packer sampling, PVC Casing Suction sampling and PVC Casing Bailer sampling.</li> <li>For the Packer sampling, a packer bit tool provided by the drilling company (Big Bear) was used. Once the sampling support was sealed, a purging operation took place until no drilling mud was detected After the purging operation, half an hour waiting took place to let brine enter to the drilling rods thru the slots in the packer tool before sampling with double valve bailer.</li> <li>Successive one-liter samples with half an hour separation were taken with a steel made double valve bailer. Conductivity-based TDS was measured in every sample with a Hanna Multiparameter model HI98192. The last two samples that measure stable similar TDS values were considered as non-contaminated and identified as the Original and Reject samples.</li> <li>Packer samples were obtained every 18 m support due the tools movement involved to take every sample.</li> <li>PVC Casing Suction brine samples were extracted after the well casing with 3-inch PVC and silica gravel and the well development (cleaning) process. The well development includes an injection of a hypochlorite solution to break the drilling additives, enough solution actuation waiting time and then, purging of three well volumes operation to clean the cased well from drilling mud and injected fresh water.</li> <li>The developing process was made by OSMAR drilling company using a small rig, a high-pressure</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>compressor and 2-inch threaded PVC that can be coupled to reach any depth. The purging/cleaning operation is made from top to bottom, injecting air with a hose inside the 2-inch PVC and “suctioning” the water, emulating a Reverse Circulation system.</p> <ul style="list-style-type: none"> <li>• Once the well is clean and enough water is purged (at least three times the well volume) and also, is verified that the purged water is brine came from the aquifer, the PVC Casing Suction samples are taken from bottom to top, while the 2-inch PVC is extracted from the well. A 20-liter bucket is filled with brine and the brine sample is obtained from the bucket once the remaining fine sediments that could appear in the sample decant.</li> <li>• PVC casing Suction samples were taken every 6 m support due the disturbing and mixing provoked by the suction process. Conductivity-based TDS (Multi-TDS) and Temperature °C are measured for every sample with the Hanna Multiparameter.</li> <li>• After the development process and PVC Casing Suction sampling, a stabilization period of minimum 5 days take place before this sampling to let the well match the aquifer hydro-chemical stratigraphy.</li> <li>• Sampling process was made by JCP Ltda. specialists in water sampling. Samples were taken from the interest depths with a double valve discardable bailer. The bailer is lowered and raised with an electric cable winch, to maintain a constant velocity and avoid bailer valves opening after taking the sample from the desire support. A new bailer was used for each well</li> <li>• Bailer samples were obtained every 6 m support to avoid disturbing the entire column during the sampling process. Conductivity-based TDS (Multi-TDS) and Temperature °C were measured for every sample with the Hanna Multiparameter</li> <li>• On all sampling procedures the materials and sampling bottles were first flushed with 100 cc of brine water before receiving the final sample</li> <li>• Packer samples are available in LV01, LV02 and LV03. PVC Casing Suction samples are available in LV01. PVC Casing Bailer samples are available in LV01 and LV02. In LV04 there no brine samples available due operational timing and, to the onset of the Chilean winter</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core</i></li> </ul>	<ul style="list-style-type: none"> <li>• In Laguna Verde, diamond drilling with PQ3 diameter were used up to 320 m depth. Below that depth the drilling diameter was reduced to HQ3</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>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).</i></p>	<ul style="list-style-type: none"> <li>• In both diameters a triple tube was used for the core recovery.</li> <li>• Packer bit provided by Big Bear was used to obtain the brine sample (Except in drillhole LV04).</li> <li>• Drillholes LV01, LV02 and LV04 were cased and habilitated with 3" PVC and silica gravel. LV03 was not possible to case due well collapse and tools entrapment</li> </ul>
<p><b>Drill sample recovery</b></p>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Core recovery were assured by direct supervision and continuous geotechnical logging.</li> </ul>
<p><b>Logging</b></p>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Continue geological and geotechnical logging took place during drilling</li> <li>• For the surface lagoon brine samples, Ph and Temperature °C parameters were measured during the sampling.</li> <li>• For the sub surface brine packer samples conductivity-based TDS and Temperature °C parameters were measured during the sampling</li> </ul>
<p><b>Sub-sampling techniques and sample preparation</b></p>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative</i></li> </ul>	<ul style="list-style-type: none"> <li>• During the brine samples batch preparation process, the samples were transferred to new sampling bottles. Standard (internal standard composed by known stable brine), Duplicates and Blank samples (distilled water) were randomly included in the batch in the rate of one every twenty original samples. After check samples insertion, all samples were re-numbered before submitted to laboratory. Before transferring each sample, the materials used for the transfer were flushed with distilled water and then shacked to remove water excess avoiding contamination. The author personally supervised the laboratory batch preparation process.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></p> <ul style="list-style-type: none"> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	
<p><b>Quality of assay data and laboratory tests</b></p>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>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.</i></li> <li><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>Brine samples were assayed on ALS Life Science Chile laboratory, by Li, K, B, Mg, Ca, Cu and Na by ICP-OES, method described on QWI-IO-ICP-OES-01 Edición A, Modification 0 EPA 3005A; EPA 200.2.</li> <li>Total Density use the method described on THOMPSON Y, TROEH DE. Los suelos y su fertilidad.2002. Editorial Reverté S.A. Cuarta Edición. Págs.75-85.</li> <li>Chlorine detemination described on QWI-IO-CI-01 Emisión B mod. 1 Método basado en Standard Methods for the Examination of Water and Wastewater, 23st Edition 2017. Método 4500-CI-B QWI-IO-CI-01 Emisión B, mod. 1. SM 4500-CI- B, 22nd Edition 2012.</li> <li>Total Disolved Solids (TDS) with method describe on INN/SMA SM 2540 C Ed 22, 2012</li> <li>Sulfate according method described on INN/SMA SM 4500 SO4-D Ed 22, 2012</li> <li>Duplicates were obtained randomly during the brine sampling. Also, Blanks (distilled water) and Standards were randomly inserted during the laboratory batch preparation.</li> <li>The standards were prepared on the installations of Universidad Católica del Norte using a known stable brine according procedure prepared by Ad Infinitum. Standard nominal grade was calculated in a round robin process that include 04 laboratories. ALS life Sciences Chile laboratory was validated during the round robin process.</li> <li>All check samples were inserted in a rate of one each twenty original samples</li> <li>For the bathymetry a Garmin Echomap CV44 and the Eco Probe CV20-TM Garmin were used. The equipment has a resolution of 0.3 ft and max depth measure of 2,900 ft.</li> <li>The bathymetry data was calibrated by density, using 1.14 g/cm<sup>3</sup>, modifying the propagation velocity from the nominal value 1,403 m/s (1 g/cm<sup>3</sup> density at 0°C) to a corrected value of 1,660 m/s (1.14 g/cm<sup>3</sup> density at 0°C), reducing the original bathymetry depth data in 15%</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>For the TEM Geophysical survey a Zonge Engineering and Research Organization, USA equipment was used, composed by a multipurpose digital receiver model GDP-32 and a transmitter TEM model ZT-30, with batteries as power source.</li> <li>For the first survey campaign, made in May, 2021 a coincident transmission / reception loop was used, were 167 stations use 100x100 m2 loop and 4 stations use 200x200 m2 loop, reaching a survey depth of 300 m and 400 m respectively, arranged in 11 lines with 400 m of separation.</li> <li>For the second TEM geophysical survey made in March 2022, 32 TEM stations, arranged in 6 lines, with 400 m separation were surveyed. A coincident Loop Tx=Rx of 200 x 200 m2 that can reach investigation depth of 400 m were used for this survey</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>The assay data was verified by the author against the assay certificate.</li> <li>Data from bathymetry and geophysics were used as delivered by Servicios Geológicos GEODATOS SAIC</li> <li>Geological and geotechnical logs were managed by geology contractor GEOMIN and checked by the competent person</li> <li>Brine samples batches were prepared personally by the competent person. All data are in EXCEL files</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>Samples coordinates were captured with non-differential hand held GPS</li> <li>The bathymetry coordinates were captured by differential Thales Navigation differential GPS system, consisting in two GPS model Promark_3, designed to work in geodesic, cinematic and static modes of high precision, where one of the instruments is installed in a base station and the other was on board the craft.</li> <li>The TEM geophysical survey coordinates were captured with non-differential hand held GPS.</li> <li>Drillhole collars were captured with non-differential hand held GPS. Position was verified by the mining concessions field markings. Total station topographic capture of the drillhole collars is pending</li> <li>The coordinate system is UTM, Datum WGS84 Zone 19J</li> <li>Topographic control is not considered critical as the</li> </ul>

Criteria	JORC Code explanation	Commentary
		lagoon and its surroundings are generally flat lying and the samples were definitively obtained from the lagoon
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Geochemical lagoon samples spacing is approximately 800 m, covering the entire lagoon area</li> <li>• Packer brine samples were taken every 18 m</li> <li>• PVC Casing Suction samples were taken every 6 m</li> <li>• PVC Casing Bailer samples were taken every 6 m</li> <li>• For bathymetry two grids were used, one of 400 m and the other of 200 m in areas where the perimeter have more curves</li> <li>• For TEM geophysical survey a 400 m stations distance was used</li> <li>• The author believes that the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Resource Estimation</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The lagoon is a free water body and no mineralized structures are expected in the sub surface deposits</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All brine samples were marked and kept on site before transporting them to Copiapó city warehouse</li> <li>• The brine water samples were transported without any perturbation directly to a warehouse in Copiapó city, where laboratory samples batch was prepared and stored in sealed plastic boxes, then sent via courier to ALS laboratory Antofagasta. All the process was made under the Competent Person direct supervision.</li> <li>• ALS personnel report that the samples were received without any problem or disturbance</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The assay data was verified by the Competent Person against the assay certificate.</li> <li>• The July 2021 JORC technical report were reviewed by Michael Rosko, MS PG SME Registered Member #4064687 from MONTGOMERY &amp; ASSOCIATES</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p data-bbox="895 282 1230 304">CONSULTORES LIMITADA</p> <ul data-bbox="847 344 1522 1814" style="list-style-type: none"> <li data-bbox="847 344 1522 555">• In the report he concludes that “The bulk of the information for the Laguna Verde exploration work and resulting initial lithium resource estimate was summarized Feddersen (2021). Overall, the CP agrees that industry-standard methods were used, and that the initial lithium resource estimate is reasonable based on the information available”.</li> <li data-bbox="847 595 1522 801">• The September 2022 JORC Report LAGUNA VERDE UPDATED RESOURCE ESTIMATION REPORT, data acquisition and QA/QC protocols were audited on October, 2022 by Don Hains, P. Geo. from Hains Engineering Company Limited (D. Hains October 2022 QA/QC Procedures, Review, Site Visit Report).</li> <li data-bbox="847 842 1522 987">• In the report he concludes that “The overall QA/QC procedures employed by CleanTech are well documented and the exploration data collected and analysed in a comprehensive manner. There are no significant short comings in the overall programme.</li> <li data-bbox="847 1028 1522 1263">• Respect the exploration program his comments are “The overall exploration program has been well designed and well executed. Field work appears to have been well managed, with excellent data collection. The drill pads have been restored to a very high standard. The TEM geophysical work has been useful in defining the extensional limits of the salar at Laguna Verde”.</li> <li data-bbox="847 1303 1522 1599">• Respect the Specific Yield his comments are “RBRC test work at Danial B. Stevens Associates has been well done. It is recommended obtaining specific yield data using a second method such as centrifuge, nitrogen permeation or NMR. The available RBRC data indicates an average Sy value of 5.6%. This is a significant decrease from the previously estimated value of approximately 11%. The implications of the lower RBRC value in terms of the overall resource estimate should be carefully evaluated”.</li> <li data-bbox="847 1639 1522 1814">• Several recommendations were made by Mr. Haines in his report to improve the QA/QC protocols, data acquisition, assays, presentation and storage. His recommendations have been considered and included in the exploration work schedule since October 2022.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>CleanTech Lithium holds in Laguna Verde 2,437 hectares of Exploitation Mining Concessions that cover the entire lagoon area under an Option Agreement and 4,235 hectares of Exploration Mining Concessions outside the lagoon area.</li> <li>All prohibition certificates in favour of Atacama Salt Lakes SpA were reviewed by the Competent Person. The Competent Person relies in the Mining Expert Surveyor Mr, Juan Bedmar.</li> <li>All concession acquisition costs and taxes have been fully paid and that there are no claims or liens against them</li> <li>There are no known impediments to obtain the licence to operate in the area</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration works has been done by Pan American Lithium and Wealth Minerals Ltda.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Laguna Verde is a hyper saline lagoon that is classified as an immature clastic salar. The deposit is composed of a Surface Brine Resource, formed by the brine water volume of the surface lagoon and the Sub-Surface Resource, formed by brine water hosted in volcano-clastic sediments that lies beneath the lagoon</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>eastings and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>The following drillhole coordinates are in WGS84 zone 19 J Datum</li> <li>LV01 E549,432 N7,027,088 ELEV 4,429 m a.s.l.</li> <li>LV02 E553,992 N7,024,396 ELEV 4,358 m a.s.l.</li> <li>LV03 E549,980 N7,028,434 ELEV 4,402 m a.s.l.</li> <li>LV04 E556,826 N7024,390 ELEV 4,350 m.a.s.l.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>clearly explain why this is the case.</i></p>	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>For the Surface Brine Resource no low-grade cut-off or high-grade capping has been implemented due to the consistent nature of the brine assay data</li> <li>For the Sub Surface Resource a cut-off of 150 mg/l Li was applied in the above 4,112 m Block Model for resource reporting.</li> <li>Only one auxiliary average composite sample from deepest seven (07) PVC Casing Bailer samples from well LV02 were used to calculate resources (Inferred) from 4,074 m a.s.l. to the basement level at 3,955 m a.s.l. in the LV02 drillhole near area</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>The relationship between aquifer widths and intercept lengths are direct, except in LV03 where a dip of -60° should be applied</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Addressed in the report</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>All results have been included.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li><i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological</i></li> </ul>	<ul style="list-style-type: none"> <li>All material exploration data and results have been included</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>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.</i></p>	
<p><b>Further work</b></p>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Once the access to Laguna Verde and to the wells LV02 and LV04 is open, re-take the development (cleaning) process and PVC Casing sampling in both wells.</li> <li>• Build a new set of brine Standards from Laguna Verde lagoon or other known brine source and calculate their Standard Nominal Grades with a Round Robin process. Check the primary laboratory ALS accuracy in the process</li> <li>• Once the LV02 and LV04 PVC Casing Suction and Bailer Sampling is complete send this samples to laboratory for assaying, including QA/QC check samples insertion. With the laboratory results, re calculate the Laguna Verde resources including all up to date assays information and report them in an update JORC Technical report.</li> <li>• Drilling to be undertaken upgrade Inferred Resources to Measured + Indicated and Indicated Resources to Measured Resources</li> <li>• Hydraulic testing be undertaken, for instance pumping tests from wells to determine, aquifer properties, expected production rates, upgrade Resources to Reserves and infrastructure design</li> <li>• Lagoon recharge dynamics be studied to determine the water balance and subsequent production water balance. For instance, simultaneous data recording of rainfall and subsurface brine level fluctuations to understand the relationship between rainfall and lagoon recharge, and hence the brine recharge dynamics of the Lagoon</li> </ul>



## Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>Cross-check of laboratory assay reports and Database</li> <li>QA/QC as described in Section 4.7</li> <li>All databases were built from original data by the Competent Person</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>A site visit was undertaken by the Competent Person from June 2nd to June 4th, 2021. The outcome of the visit was a general geological review and the lagoon water brine geochemical sampling that lead to the July 2021 JORC Technical Report</li> <li>The January to May 2022 drilling campaign was continually supervised by the Competent Person.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>For the Surface Brine Resource, the interpretation is direct and there is no uncertainty.</li> <li>For the Sub-Surface Resource, the geological interpretation was made based in the TEM study and gravimetry (SRK, 2011). The lithological interpretation was confirmed by hydrogeological drilling made outside the concessions area.</li> <li>Low resistivities are associated with sediments saturated in brines, but also with very fine sediments or clays. The direct relationship of the low resistivity layer with the above hypersaline lagoon raise the confidence that the low resistivities are associated with brines.</li> <li>Drillholes confirm the geological interpretations</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>For the Surface Brine Resource the lagoon dimensions are 14,682,408 m<sup>2</sup> of area with depths ranging from 0 m to 7.18m with an average depth of 4.05 m</li> <li>The Sub-Surface Brine Resource is a horizontal lens closely restricted to the lagoon perimeter with an area of approximately 55 km<sup>2</sup> and depths for more than 300 m, from approximately 4,309 m a.s.l. to the basement level.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>For the Surface Brine resource, the surface lake brine water volume is directly obtained by the bathymetry study detailed on Section 4.2.</li> <li>Lithium (mg/l) samples values are in general homogeneously distributed along the lagoon with a narrow value distribution. the lagoon is a free water body where the ionic content is dynamic for every</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></p> <ul style="list-style-type: none"> <li>• <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li>• <i>The assumptions made regarding recovery of by-products.</i></li> <li>• <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></li> <li>• <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li>• <i>Any assumptions behind modelling of selective mining units.</i></li> <li>• <i>Any assumptions about correlation between variables.</i></li> <li>• <i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li>• <i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li>• <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<p>specific position, there is no point in estimate the lake lithium content via Kriging or other geostatistical method. The use of the total samples average value 245.794 mg/l was used for the Surface Brine Resource Estimation.</p> <ul style="list-style-type: none"> <li>• The Sub-Surface geological 3D model was built modifying the 50 m plans constructed for the July 2021 Inferred resource, considering the drillholes interceptions and the TEM geophysics continuity from all the available geophysical sections (in general &lt; 4 Ohm-m zones). The constructed 3D model was clipped above the brine aquifer ceiling surface, formed by the first brine intercepts on the drillholes and also, below the basement surface that was constructed using the basement intercepts on drillholes LV01 and LV02 and structural geological information. This geological 3D model corresponds to the Sub-Surface Brine Ore Volume</li> <li>• Two block models were constructed for resource calculation due the different type of brine samples used for resource estimation, one above the 4,112 m a.s.l. and the other, below 4,112 ma.s.l.</li> <li>• The block model above level 4,112 m a.s.l. properties are: Block size: 200 m x 200 m x 6 m. Block Model Origin: 547,000 East, 7,026,000 North, Level 4,328 m a.s.l. N° Columns: 72 N° Rows: 40 N° Levels: 36 Rotation: 20° Clockwise</li> <li>• The block model below level 4,112 m a.s.l. properties are: Block size: 200 m x 200 m x 6 m. Block Model Origin: 547,000 East, 7,026,000 North, Level 4,112 m a.s.l. N° Columns: 72 N° Rows: 40 N° Levels: 35 Rotation: 20° Clockwise</li> <li>• On both block models the individual block variables are:  Rock Type: 0=No Ore, 1= Brine Ore Density Percent Economic Material Li (Lithium) Mg (Magnesium) K (Potash) B (Boron)</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>SO4 Ca (Calcium) Category: 1=Measured, 2=Indicated and 3=Inferred Porosity Elevation</p> <ul style="list-style-type: none"> <li>The traditional Inverse to the Square Distance method to estimate the block variables was used. To accomplish this, the samples from the Sub-Surface Assay Resource Database were manually assigned to their correspondent block levels on both block models. Once assigned, the block variable values were calculated by levels with the correspondent assigned samples and their horizontal distances from the individual block to estimate. All calculations were performed in EXCEL files.</li> <li>The Sub-Surface Assay Resource Database was constructed according the following considerations:</li> <li>PVC casing Bailer samples from drillholes LV01 and LV02 were used from level 4,309 m a.s.l., down to 4,112 m a.s.l.</li> <li>Samples evidently contaminated with drilling water were extracted from LV02 preliminary PVC Casing Bailer samples and the gaps were replaced with the correspondent LV02 Packer sample.</li> <li>Packer samples from LV01 and LV03 drillholes plus the deepest seven (07) PVC Casing Bailer samples from well LV02 and, a final auxiliary average composite sample from the seven before mentioned samples were used to calculate resources below level 4,112 m a.s.l. to the basement level at 3,955 m a.s.l.</li> <li>The validation process was mainly visual check in plans along block model levels and, on the estimation EXCEL files</li> <li>For both block models, the blocks inside the Sub-Surface Brine Ore Volume have variable Rock Type = 1 (Brine Ore). Only blocks with Rock Type = 1 were reported as resource</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable for brine resources</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>A cut-off of 150 mg/l Li was used to report resources in the Above 4,112 m block model, mainly to discount blocks estimated with low grade samples located in</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<p>the fresh water / brine transition zone</p> <ul style="list-style-type: none"> <li>Mining will be undertaken by pumping brine from 23 extraction wells around the Laguna Verde perimeter. The brine will be transferred to the DLE adsorption plant and the spent brine depleted in lithium will be re-injected into the salar basin through 16 deep wells in two areas where the mineral resource will not be affected by dilution.</li> <li>A hydrogeological model is being developed to allow modelling of the extraction and reinjection of brine.</li> <li>Pumping tests should be undertaken to ascertain hydraulic properties of the host aquifer</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The metallurgical capacity of lithium recovery in the process has been estimated at 85.2% to obtain lithium carbonate in battery grade.</li> <li>The process of obtaining lithium carbonate considers the following stages: <ul style="list-style-type: none"> <li>The Lithium is obtained using selective adsorption of lithium-ion from Laguna Verde brine through the Direct Lithium Extraction (DLE) process. This stage has 90.4% recovery of Lithium.</li> <li>The spent solution (without Lithium) will be reinjected into the Laguna Verde salt flat.</li> <li>The DLE process allows impurity removal waste to be minimal.</li> <li>The diluted lithium solution recovered from the DLE process is concentrated utilizing water removal in reverse osmosis. The removed water is recovered and returned to the process to minimize the water consumption required.</li> <li>Ion exchange stages remove minor impurities such as magnesium, calcium, and boron to obtain a clean lithium solution.</li> <li>Lithium carbonate is obtained with a saturated soda ash solution to precipitate it in the carbonation stage. Lithium recovery from this stage is 87.2%.</li> <li>The lithium carbonate obtained is washed with ultra-pure water to get it in battery grade with the minimum of impurities.</li> <li>From the carbonation process, a remaining solution (mother liquor) is</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>obtained, which is treated to concentration utilizing evaporators to recirculate in the carbonation process and ensure the greatest possible recovery of Lithium. The removed water is recovered and reintegrated into the process.</p> <ul style="list-style-type: none"> <li>○ The water recovery in the process is 74% which reduces the water consumption required.</li> <li>• The Direct Extraction process has been tested by Beyond Lithium LLC at its facilities in the city of Salta, Argentina. The stages of removal of impurities and carbonation have been tested, obtaining a representative sample. The sample was analysed in Germany by the laboratory Dorfner Anzaplan showing 99.9% Li<sub>2</sub>CO<sub>3</sub> and reduced contaminants.</li> <li>• The process has been modelled by Ad infinitum using the SysCAD simulation platform and the AQSOL thermodynamic property package. With the model, simulations of the process were made to obtain the appropriate mass balances with which the process stages and the recovery of Lithium are described for obtaining 20,000 tons of Li<sub>2</sub>CO<sub>3</sub> per year.</li> <li>• Metallurgical testing and process is described and detailed in the CleanTech Lithium Scoping Study-Laguna Verde Project (December 2022)</li> </ul>
<p><b>Environmental factors or assumptions</b></p>	<ul style="list-style-type: none"> <li>• <i>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 reported with an explanation of the environmental assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The main environmental impacts expected is the main plant installations, estimated to be located at 8 km to the south west of the lagoon edge. In the near lagoon area, the impact is the surface disturbance associated with production wells and brine mixing ponds. These impacts are not expected to prevent project development</li> <li>• Reinjection of the spent brine into the aquifer ensures that water depletion from the aquifer is minimised</li> <li>• The main waste product is sodium chloride. This could be sold for use in road construction or mixed with the spent brine and returned to the aquifer without altering the aquifer solution chemistry</li> <li>• The project area is arid and at 4300m with scarce fauna and no human habitation within 100km</li> </ul>
<p><b>Bulk density</b></p>	<ul style="list-style-type: none"> <li>• <i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used,</i></li> </ul>	<ul style="list-style-type: none"> <li>• Undisturbed diamond drillhole core samples with 3 to 5-inch length in both PQ and HQ diameter were obtained every 10 m from all drillholes for porosity</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></p> <ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<p>testing. Samples were prepared and sent to Daniel B. Stephens &amp; Associated, Inc. laboratory (DBS&amp;A) in New Mexico, USA. Samples underwent Relative Brine Release Capacity laboratory tests, which predict the volume of solution that can be readily extracted from an unstressed geological sample. This method by itself is insufficient for calculating an effective porosity (specific yield) value for resource estimation as the laboratory test is performed on an unstressed core sample and doesn't account for the host lithology geotechnical condition. To attain a more realistic specific yield value, the rock quality designator ("RQD") logged during the drilling was used with a regression analysis. This provided specific yield values that are consistent with the basin lithology.</p>
<p><b>Classification</b></p>	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li><i>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).</i></li> <li><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>For the Surface Brine Resource, the data is considered sufficient to assign a Measured Resource classification</li> <li>For the Sub-Surface Resources classification, the considered criteria were based on the recommended sampling grid distances of the complementary guide to CH 20235 code to report resources and reserves in brine deposits from the Comision Calificadora en Competencias en Recursos y Reservas Mineras, Chile.</li> <li>Besides that, the Sub-Surface Resources categorization is dependent of the brine samples availability and their quality in terms of confidence. Considering the above, the Sub-Surface resources categorization conditions are: <ul style="list-style-type: none"> <li>For the Above 4,112 m a.s.l. block model. <ul style="list-style-type: none"> <li>Blocks estimated at 1,250 m around LV01 PVC Casing Bailer samples were considered as MEASURED</li> <li>Blocks estimated between 1,250 m to 3,000 m around LV01 PVC Casing Bailer samples were considered as INDICATED</li> <li>Blocks estimated at 3,000 m around the LV02 PVC Bailer samples were considered as INDICATED</li> <li>The rest of the blocks that don't match the above conditions were considered as INFERRED</li> </ul> </li> <li>For the Below 4,112 m a.s.l. block model. <ul style="list-style-type: none"> <li>Blocks estimated at 3,000 m around LV01 and LV03 Packer samples were considered as INDICATED</li> <li>Blocks estimated at 3,000 m around the available LV02 PVC Bailer samples (discounting the AVERAGE auxiliary sample) were considered as INDICATED.</li> </ul> </li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
<p><b>Audits or reviews</b></p>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of Mineral Resource estimats.</i></li> </ul>	<p>The rest of the blocks that don't match the above conditions were considered as INFERRED</p> <ul style="list-style-type: none"> <li>The result reflects the view of the Competent Person</li> <li>The July 2021 JORC technical report were reviewed by Michael Rosko, MS PG SME Registered Member #4064687 from MONTGOMERY &amp; ASSOCIATES CONSULTORES LIMITADA</li> <li>In the report he concludes that "The bulk of the information for the Laguna Verde exploration work and resulting initial lithium resource estimate was summarized Feddersen (2021). Overall, the CP agrees that industry-standard methods were used, and that the initial lithium resource estimate is reasonable based on the information available".</li> <li>The September 2022 JORC Report LAGUNA VERDE UPDATED RESOURCE ESTIMATION REPORT, data acquisition and QA/QC protocols were audited on October, 2022 by Don Hains, P. Geo. from Hains Engineering Company Limited (D. Hains October 2022 QA/QC Procedures, Review, Site Visit Report).</li> <li>In the report he concludes that "The overall QA/QC procedures employed by CleanTech are well documented and the exploration data collected and analysed in a comprehensive manner. There are no significant short comings in the overall programme.</li> <li>Respect the exploration program his comments are "The overall exploration program has been well designed and well executed. Field work appears to have been well managed, with excellent data collection. The drill pads have been restored to a very high standard. The TEM geophysical work has been useful in defining the extensional limits of the salar at Laguna Verde".</li> <li>Respect the Specific Yield his comments are "RBRC test work at Danial B. Stevens Associates has been well done. It is recommended obtaining specific yield data using a second method such as centrifuge, nitrogen permeation or NMR. The available RBRC data indicates an average Sy value of 5.6%. This is a significant decrease from the previously estimated value of approximately 11%. The implications of the lower RBRC value in terms of the overall resource estimate should be carefully evaluated".</li> <li>Several recommendations were made by Mr. Haines in his report to improve the QA/QC protocols, data acquisition, assays, presentation and storage. His recommendations have been considered and</li> </ul>

Criteria	JORC Code explanation	Commentary
		included in the exploration work schedule since October 2022.
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The estimated tonnage represents the in-situ brine with no recovery factor applied. It will not be possible to extract all of the contained brine by pumping from production wells. The amount which can be extracted depends on many factors including the permeability of the sediments, the drainable porosity, and the recharge dynamics of the aquifers.</li> <li>• No production data are available for comparison</li> </ul>