Neo Lithium Announces Definitive Feasibility Study Results on its 3Q Project

October 26, 2021 (Source) –

- *$1.129 billion after-tax NPV with 8% discount rate and a 39.5% IRR at an average price $12,321 /t LCE with a 50-year life of mine and payback of 2 years and 3 months from commencement of production*
- *Measured and indicated resources of 1.747 Mt of LCE with an average 923 mg/L Lithium with 800 mg/l cut off and 5.369 Mt of LCE with 637 mg/L Lithium with 400 mg/l cut off*
- *Proven and probable reserves of 1,671,900t of LCE with an average 786 mg/L Lithium for life of mine production of 50 years and 769,613 t of LCE with an average 912 mg/L Lithium for the first 20 years of production*
- *Average annual production of 20,000t of LCE (battery grade) for the first 20 years with significant potential to expand, with 50year life of mine reserves being only 31% of entire resource*
- *Low pre-production capital cost of $370.5 million (excluding deferred and sustaining capital costs) and low operating costs of $2,954/t of LCE*
- *Industry proven processing, using conventional evaporation pond operations followed by concentrated brine purification and precipitation of lithium carbonate*

Neo Lithium Corp. (“**Neo Lithium** ” or the ” **Company**“) (TSXV: NLC) (OTCQX: NTTHF) (FSE: NE2) is pleased to announce positive results of a National Instrument 43-101 Feasibility Study (“FS”) for the production of lithium carbonate from its wholly owned Tres Quebradas lithium brine project (“3Q

Project”) in Catamarca Province, Argentina.

The Technical Report, which is currently on QP review stage, was prepared by Worley, a leading global provider of professional project and asset services in the energy, chemicals and resources sectors with extensive experience in the design and construction of some of the largest and lowest cost lithium brine processing facilities in Chile and Argentina. The resource and reserve estimate was completed by brine resource and reserve experts Groundwater Insight Inc. (“Groundwater”).

“In a very short time since its discovery in December 2015, we have achieved every significant milestone at the 3Q Project on time and on budget. We have identified, defined, and confirmed one of the most valuable lithium resources in the world with one of the lowest projected operating costs and capital costs in the industry. Our teams in Argentina and Canada have done an excellent job in driving this project forward. We now deliver a project ready to be built to Zijin Mining Group Co., Ltd. at a significant premium to the prevailing trading price immediately prior to announcement of the transaction that provides significant value to our shareholders,” stated Waldo Perez, President and CEO of Neo Lithium.

The FS represents a comprehensive study of the technical and economic viability of the 3Q Project and has advanced to a stage where a preferred processing route has been established, and an effective method of lithium extraction has been determined. Capacity for the feasibility study remains at 20,000 tonnes per year, but the design footprint for ponds and plant already considers an expansion to 40,000 tonnes per of LCE per year since the resource and reserve is large enough to justify larger production by shortening the mine life.

A technical report summarizing the FS will be filed on SEDAR within 45 days of the date of this news release.

FS Highlights with Comparison to Pre-Feasibility Study (PFS)

Description	*PFS*	FS
After-Tax Net Present Value ("**NPV**") @ 8% Discount Rate	$1,235 million	**$ 1,129 million**
After-Tax Internal Rate of Return ("**IRR**")	49.9%	**39.5%**
Initial Capital Expenditures	$318.9 million	$370.5 million
Cash Operating Costs (per tonne of lithium carbonate)	US$2,914	US$2,954
Average Annual Production (lithium carbonate)	20,000	20,000
Mine Life	35 years	50 years
Payback Period (from commencement of production)	*2.2 Years*	***2.25 Years***
Note: By-products (such as potash, calcium chloride and boric acid) are not included in the FS and could potentially add incremental value to the 3Q Project. All figures are quoted in U.S. dollars.		

Mineral Resources, Mineral Reserves and Mine Plan

Mineral resources were most recently published in a press release dated June 9, 2021. However, an increase of approximately 4% in the high-grade Measured and Indicated Resource was recently realized, due to the acquisition of a small additional mining claim on October 21, 2021. The updated lithium resources, with an effective date of October 26, 2021, are summarized in the following table:

High-Grade Lithium (Cut-off 800 mg/L)				**Deposit at Large (Cut-off 400 mg/L)**			
Measured	Indicated	M&I	Inferred	Measured	Indicated	M&I	Inferred
Volume [Mm3]							
201	155	357	33.4	450	1,130	1,580	757
Average Lithium concentration (mg/L)							
923	922	923	918	792	576	637	561

Lithium Carbonate Tonnage (rounded)							
988,000	759,000	1,747,000	163,000	1,897,000	3,472,000	5,369,000	2,261,000

- The key assumptions, parameters, and methods used to estimate the new mineral resource are the same of the ones disclosed in the press release dated June 9th, 2021
- LCE conversion factor: 5.32

After pond filling is complete, the strategy to maximize value at the 3Q Project is to first extract the high-grade brine with four new and two existing wells strategically located in the middle of the high-grade component of the measured and indicated resource. Early extraction of high-grade brine allows early-stage pond size to be minimized. Grade is predicted to decrease with time, as progressively lower-grade brine is extracted.

A numerical groundwater model was developed to support the reserve estimate and development of the 50-year life of mine plan. Modelling predicts a brine grade decrease over time and simulates additional brine recovery to maintain production at around 20,000 tonnes of lithium carbonate equivalent (LCE) for the first 20 years of mine operation. Thereafter, production decreases as recovered grade decreases. The modelling simulates long term brine recovery, based on a rigorous evaluation of groundwater flow and brine transport.

The tonnage, grade, and classification of the mineral reserves captured within the FS life of mine plan are summarized below.

Year	Brine Volume[1] [Mm^3]	Average Li concentration[1] [mg/L]	Li metal [tonnes]		LCE [tonnes]		*Resources Recovered[2] [%]
			Proven	Probable	Proven	Probable	
1[4]	4.7	655	1,689	1,377	8,993	7,331	0.3
2[4]	9.6	747	3,997	3,181	21,171	16,931	0.7
3-10	65.6	942	38,549	22,111	205,187	117,694	6.0
11-20	82	922	48,853	24,850	260,034	132,273	7.3
21-30	82	775	41,647	20,454	221,677	108,873	6.2
31-40	82	708	37,415	19,535	199,150	103,979	5.6

41-50	82	626	31,570	18,695	168,040	99,507	5.0
20 Year Production	**161.9**	**912**	**93,068**	**51,520**	**495,384**	**274,229**	**14.3**
Total 50 Year Production (Reserve Estimate)[3]	**408**	**786**	**203,700**	**110,200**	**1,084,300**	**587,600**	**31**

1.	Brine produced from outside the measured + indicated resource is included here but excluded from Reserves.
2.	Based on measured + indicated resource of 5,369,000 tonnes of LCE (400 mg/L cut-off).
3.	Reserve estimate numbers have been rounded; they represent the quantity recovered at the wellhead.
4.	The grade of the brine used in years one and two to fill the ponds is purposely low to lengthen the evaporation time as the rest of the infrastructure is built. The pond system is calibrated to enter steady state production in year three.
5.	The effective date of this mineral reserve estimate is October 26th, 2021.
6.	LCE conversion factor:5.32

The design recovery rates are within the tested parameters of the brine aquifer. The Company has already installed one production well capable of sustained production of 84 L/s. In the initial 14 years of the mine plan, four new and seven existing wells would each produce between 12.5 and 42.2 L/s of high-grade brine. From year 15 onwards, two new wells and one existing well would be added to the operation, with individual production rates between 13 and 84.5 L/s. These variable brine recovery rates are designed to maintain a relatively constant annual production rate of approximately 20,000 tonnes LCE for the first 20 years, and then decreasing thereafter as the resource is recovered. Ample space exists within the resource for additional production wells, if required.

Proposed Mining Operation and Processing

The FS identifies the preferred development option as being a conventional evaporation pond operation followed by concentrated brine purification and precipitation of lithium carbonate. The processing method is unique to the 3Q Project high grade, low impurity brine, allowing the Company to minimize water and energy consumption. This has been validated by significant research completed on optimal process flows.

The process remains relatively unchanged from that described in the press release dated March 11th, 2020, with the extraction of brine from pumping wells into solar evaporation pre-concentration ponds in order to reduce brine volume by water evaporation. Concentration causes the crystallization in the ponds of sodium chloride, potassium chloride and calcium chloride which periodically must be harvested from these ponds.

The concentrated brine (with 3.3% lithium by mass) is then transported to the purification plant in Fiambalá.

Processing of the concentrated brine into Lithium Carbonate is achieved in five steps:

- Solvent Extraction to remove remaining boron
- Removal at ambient temperature of magnesium with calcium hydroxide produced as a by-product in the plant
- Calcium removal with caustic soda at room temperature
- Polishing of residual calcium with soda ash at room temperature
- Addition of soda ash and heat to precipitate lithium carbonate, followed by drying and packaging

This process is based on conventional, proven parameters and has been tested in our pilot plant operations for the last few years.

Key parameters that provide the basis for the FS and other

qualifications and assumptions are provided below.

Capital Costs

Initial Capital costs are estimated at $370.5 million. Life of mine deferred and sustaining capital costs are estimated at $143.5 million, and closure costs are estimated at $12.8 million over the 50-year production period. Details of the capital costs are as follows:

Description	***($ Million)***
Direct Costs	
Evaporation Ponds and Wells	140.7
Plant Facilities and Equipment	85.2
Infrastructure and Others	61.0
Direct Costs Subtotal	**286.9**
Indirect Costs	43.9
Contingency	39.7
Total Initial Capital Costs	**370.5**
Deferred and Sustaining Capital Costs	143.5

Note: numbers may not match exactly due to rounding. All Currency in US dollars

Operating Costs

Average operating costs per tonne lithium carbonate produced are as follows:

Description	**$000/yr**	**$/tonne Li2CO3 (lithium carbonate)**
Direct Costs		
Chemical Additives and Reagents	31,598	1,580
Salt Harvesting Equipment	3,800	190
Energy	6,280	314
Brine Transport	6,574	329

Manpower	5,920	296
Li2CO3 Transport	1,760	88
Maintenance	1,880	94
Direct Costs Subtotal	**57,812**	**2,891**
Indirect Costs		
General Expenses	1,260	63
Production Total Costs	**59,072**	**2,954**

Note: numbers may not match exactly due to rounding. All currency in US dollars

Lithium Markets and Price

Neo Lithium commissioned a market study by Benchmark Minerals Ltd. in October 2021, which shows the following results:

Year	2024	2025	2026	2027	2028	2029	Onwards
Lithium Carbonate FS	$16,200	$15,250	$14,015	$13,209	$12,538	$12,229	$12,110

Based on the study of Benchmark Minerals Ltd, the average lithium carbonate price estimate over the life of mine is estimated to be $12,321 per tonne.

Base Case Sensitivity Analysis

A sensitivity analysis was done for different Discounts rates proving positive economics under different scenarios:

Discount Rate	NPV After Tax $ Million	IRR After Tax	NPV Pre Tax $ Million	IRR Pre Tax
6%	$1,529	39.5%	$2,195	46.7%
8%	$1,129		$1,630	
10%	$864		$1,255	

Environmental Permitting

Liex S.A., Neo Lithium’s wholly owned subsidiary in Argentina, completed and submitted its Environmental Impact Report

("EIR") for approval to the Minister of Environmental and Mining Affairs of the Province of Catamarca (the "Mining Authority") in April 2019. Liex S.A. submitted further documentation to the Mining Authority in November 2019. After experiencing some delays due to the COVID-19 pandemic, the Mining Authority provided comments to Liex S.A. in August 2021. Liex S.A. responded to those comments in September 2021. The EIR is now in final format and ready to be presented in a process of three public audiences, that finish on December 17, 2021.

Property Acquisition

In early October 2021, Liex SA, Neo Lithium's wholly owned subsidiary in Argentina, purchased 357 ha of property contiguous to the 3Q Project. The property was acquired because a small portion of the resource expanded into that ground. The company is in the process of adding this title to the 3Q Project mining group and has updated the resource estimate to include this small block, increasing the total measured and indicated resource with cut off of 800 mg/l by 4%. No further acquisitions in the area are required since the company controls the entire salar and surrounding ground.

Qualified Persons

The FS was prepared by Worley and Groundwater in conjunction with a team of globally recognized consultants independent from the company. The two independent qualified persons that lead the team of consultants are:

- Marek Dworzanowski, CEng, BSc(Hons), HonFSAIMM, FIMMM Honorary Fellow of the Southern African Institute of Mining & Metallurgy (SAIMM), membership number 19594, Fellow of the Institute of Materials, Minerals and Mining (IMMM), membership number 485805, registered as a Chartered Engineer with the Engineering Council of the United Kingdom, registration number 485805, is the

independent qualified person signing the report for Worley.

- Mark King, Ph.D., P.Geo., a Canadian Professional Geoscientist registered with the Association of Professional Geoscientists of Nova Scotia, is the independent qualified person signing the report for Groundwater
- Mr. Dworzanowski and Dr. King are qualified persons within the meaning of that term under NI 43-101, and each has reviewed and approved the scientific and technical disclosure in this press release.

Data Verification

Mr. Dworzanowski and Dr. King verified the data disclosed in this news release, including sampling, analytical and test data underlying the results of the feasibility study and the updated estimates of mineral resources and mineral reserves.

The data verification procedures were broadly the same as described in the Company's technical report supporting its previously disclosed pre-feasibility study, entitled "Neo Lithium Corp., Preliminary Feasibility Study (PFS) – 3Q Project, NI 43-101 Technical Report, Catamarca, Argentina", with a second amended date of April 1, 2021, available on the Company's profile on SEDAR. More detail on data verification procedures for the FS will be disclosed in the technical report supporting the FS in accordance with NI 43-101.

About Neo Lithium Corp.

The 3Q Project is located in the Province of Catamarca, the largest lithium producing area in Argentina. The project covers approximately 35,000 ha and the salar complex within this area is approximately 16,000 ha.

On October 8, 2021, the Company announced it had entered into an arrangement with Zijin Mining Group Co., Ltd., that, upon completion, will result in the acquisition of all of the

Company’s outstanding shares at a significant premium to the prevailing market price and historical trading price of the Company’s common shares. The transaction will unlock value and provide a significant benefit to shareholders, while removing any technical execution risk, dilution risk and commodity price risk associated with developing the 3Q Project.

Additional information regarding Neo Lithium Corp. is available on SEDAR at www.sedar.com under the Company’s profile and on its website at www.neolithium.ca

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Cautionary Note Regarding Forward Looking Statements – Certain information set forth in this news release may contain forward-looking statements. Such statements include but are not limited to, expectations with respect to obtaining approval of the environmental impact report by the Mining Authority, expectations related to NPV, IRR, capital costs, operating costs, cash flows, operating parameters, lithium markets and pricing, payback periods, production and mine life at the 3Q Project, estimates of mineral resources and mineral reserves, statements with respect to completion of the arrangement with Zijin and the benefits to shareholders from the arrangement, and expectations that test results are indicative of future results. Generally, forward-looking statements can be identified by the use of words such as “plans”, “expects” or “is expected”, “scheduled”, “estimates” “intends”, “anticipates”, “believes”, or variations of such words and phrases, or statements that certain actions, events or results “can”, “may”, “could”, “would”, “should”, “might” or “will”, occur or be achieved, or the negative connotations thereof. These forward-looking statements are subject to

numerous risks and uncertainties, certain of which are beyond the control of the Company, which could cause the actual results, performance or achievements of the Company to be materially different from the future results, performance or achievements expressed or implied by such statements. These risks include, without limitation, political and regulatory risks associated with mining and exploration activities and approval of the environmental impact report, including potential community or political opposition or conditions on approval, environmental regulation, risks and uncertainties relating to the interpretation of testing and analytical results, risks related to the uncertainty of cost and time estimation and the potential for unexpected delays, costs and expenses for project development and operation, risks related to metal price fluctuations, the market for lithium products, and other risks and uncertainties related to the Company's prospects, properties and business detailed elsewhere in the Company's disclosure record, including, but not limited to, the risk factors described in the Company's revised annual information form for the year ended December 31, 2019 available on SEDAR. Although the Company believes its expectations are based upon reasonable assumptions and has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended and undue reliance should not be placed on forward-looking statements.

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