Neo Lithium Announces Filing of Technical Report for the Pre-Feasibility Study on its 3Q Project

08.05.2019 | GlobeNewswire

- *Average annual Production of 20,000 tonnes of battery-grade lithium carbonate over a 35-year project life*
- *Low initial capex of $318.9 million*
- *Positioned at the lower end of the operating cost curve with a $2,912/t LCE*
- *After tax NPV8% of $1.143 billion and IRR of 49.9% at $11,882/t LCE*
- *Well known, simple and proven processing*

TORONTO, May 08, 2019 - Neo Lithium Corp. (“Neo Lithium” or the “Company”) (TSXV:NLC; OTCQX:NTTHF; FSE:NE2) is pleased to announce that it has filed a technical report for its wholly-owned Tres Quebradas lithium brine project ("3Q Project") in Catamarca Province, Argentina (the "Technical Report" or the “PFS”) pursuant to National Instrument 43-101 "Standards of Disclosure for Mineral Projects" ("NI 43-101"). The Technical Report supports the disclosure made by the Company in its March 21, 2019 news release announcing the results of the maiden pre-feasibility study for the 100% owned 3Q Project.

The Technical Report "Preliminary Feasibility Study (PFS) - 3Q Project NI 43-101 Report Catamarca, Argentina" and was prepared by Gino Zandonai, P.Eng. (the independent qualified person signing the report for GHD Chile SA); and Mark King, Ph.D., P.Geo., (the independent qualified person signing the report for Groundwater Insight), each of whom is a "qualified person" for the purposes of NI 43-101.

“The completion of the Technical Report is a significant milestone for the 3Q Project and the Company,” stated Waldo Perez, President and CEO of Neo Lithium. “The Technical Report filed validates the economic feasibility of the 3Q Project supported by a highly defined resource and reserve base as well as an understood and proven processing.”

The Technical Report demonstrates that the proposed 3Q Project is supported by strong technical fundamentals and offers a potential competitive advantage through low capital expenditure intensity and operating expenditures at the low end of the lithium carbonate cost curve.

PFS Summary

Neo Lithium will use a proven industry standard technology to process brine into battery grade Lithium Carbonate. Production will be split in three processing sites: 3Q Salar, Fiambalá and Recreo. These sites were selected for a specific purpose based on the evaporation rates and ambient conditions as well as availability of energy (power and natural gas), transport and infrastructure at each location.

At 3Q Salar Site, brine will be extracted from wells and evaporated to reach 3.4 - 3.8% lithium concentration. This concentrated brine will be trucked down to Fiambalá town for initial processing to reach 6% lithium concentration and finally to Recreo to produce Battery Grade Lithium Carbonate. The final stage is rail transportation to Buenos Aires Port.

The evaporation ponds will be located in the center of the salar. Space is available to build the ponds in a suitable location, from a geotechnical perspective. The location can accommodate expansion beyond 20,000 tonnes per year and beyond mine life if necessary. In addition, there is enough space for stockpiling waste salts that are a natural by-product of the solar evaporation process.

PFS Highlights

PFS Summary table	
After-Tax Net Present Value ("NPV") @ 8% Discount Rate	US$ 1,144 million
After-Tax Internal Rate of Return ("IRR")	49.9%
Initial Capital Expenditures	US 318.0 million
Cash Operating Costs (per tonne of lithium carbonate)	US$ 2,914
Average Annual Production (lithium carbonate)	20,000 tonnes
Mine Life	35 years
Payback Period (from commencement of production)	1 year 8 month

Unless otherwise indicated, all dollar amounts in this press release are stated in U.S. dollars (“$ ”). Currency exchange is based on current rates.

Note: By-products (such as potash, calcium chloride and boric acid) are not included in the PFS and could potentially add incremental value to the 3Q Project.

Mineral Resource, Mineral Reserve and Mine Plan

The Mineral Resources were defined in the Company’s “Updated Mineral Resource Estimate Technical Report on the 3Q Lithium Project, Catamarca Province, Argentina” prepared by Groundwater Insight Inc. with an effective date of August 14, 2018 and summarized in the following table:

High Grade Lithium Core (Cut-off 800 mg/L)				Full Deposit Average* (Cut-off 400 mg/L)			
Measured	Indicated	M&I	Inferred	Measured	Indicated	M&I	Inferred
Volume (Mm3)							
45.4	93.8	139	28.3	152	1,070	1,222	939
Average Lithium concentration (mg/L)							
1,010	1,006	1,007	1,239	701	602	614	584
Lithium Carbonate Tonnage (rounded)							
244,000	502,000	746,000	186,000	569,000	3,436,000	4,005,000	2,917,000

**Inclusive of “High Grade Lithium Core (Cut-off 800 mg/L)”*

The strategy to maximize value at the 3Q Project was focused on extracting the high-grade core brine with 5 wells strategically located in the middle of the high-grade component of the measured and indicated resource, with screens between 70 and 100 m depth. Early extraction of high-grade brine allows minimal sizing of early stage ponds which translate into lower initial capital expenditure. Grade is predicted to decrease with time, as progressively lower grade brine is extracted. Consequently, total pond area increases over the future years, more specifically in year 10 and year 20 of the mine plan.

A numerical groundwater model was developed to support the reserve estimate and development of the 35-year mine plan. The model predicts a brine grade decrease over time and simulates additional brine recovery to maintain production at approximately 20,000 tonnes of lithium carbonate equivalent over the life of mine. The model simulates long term brine recovery, based on rigorous assembly of groundwater flow and solute transport parameters.

The tonnage, grade, and classification of the Mineral Reserves captured within the PFS mine plan are summarized below.

Year	Brine Volume (Mm^3) ***	Average Li concentration (mg/l) ***	Li metal (tonnes)		Lithium Carb	
			Proven	Probable	Proven	Prob
1	3.3	1,177	1,113	2,542	5,923	13,5
2-10	73	1,000	21,549	44,038	114,642	234

11-20	101	841	20,211	53,472	107,524	284
21-35	183	670	18,694	81,513	99,453	433
Total 35 years production**	360	790	61,600	182,000	328,000	966

Total M&I resources 4,005,000 tonnes of lithium carbonate @ 400 mg/l cut-off / ** Rounded / * These two include some incidental capture from the inferred resource, which is excluded from the reserve estimate.*

In the initial 10 years of the PFS mine plan, 5 wells would each produce 51 l/s of high-grade brine. During the subsequent 10 years, the same wells would produce 64 l/s. From 20 years onward, a total of 11 wells would be in operation, with individual production rates between 23 l/s to 49 l/s. These variable brine recovery rates are designed to maintain a relatively constant production rate of approximately 20,000 tonnes of Lithium Carbonate Equivalent (“LCE”). The required yields are reasonable within the known parameters of the brine aquifer. However, ample space exists within the resource for additional production wells, if required. The Company has already installed one production well capable of sustained production of 84 l/s from the high-grade zone.

Process Recovery Method

The process begins with the extraction of brine from pumping wells into solar evaporation pre-concentration ponds. Sodium chloride and other salts crystallize out from the brine after approximately 120 days. The potash is harvested in a subsequent pond, with no requirement for reagents. Subsequently, the brine is transferred to calcium chloride precipitation ponds and thickeners are used to extract most of the calcium that precipitates as antarctite (calcium chloride with 6 molecules of water). Minor amounts of hydrochloric acid are required for pH control and to crystallize boric acid out of the brine. Residence time in the calcium chloride ponds is approximately 105 days. When the brine achieves a lithium concentration of 3.4-3.8%, it is transported to the brine processing plant. The total time to get to this stage is approximately 225 days and lithium recovery in the ponds is approximately 60-63%.

Brine lithium grade is predicted to change over the mine life, from 1,177 mg/l in year 1 to 670 mg/l in year 35 as exploitation starts in the high-grade core. Consequently, pre-concentration ponds must be expanded over time to keep production constant. In the initial phase, 406.2 hectares of pre-concentration ponds will be utilized. This will be followed by two expansions of 101.6 hectares, each in year 10 and year 20. The 99 hectares of the calcium chloride ponds and thickeners remain constant over the life of mine. Average production is 20,000 tonnes LCE per year. The need for capital at the beginning of the project is minimized by mining the high grade first.

Processing of the concentrated brine is achieved in four stages;

- Solvent Extraction to remove remaining boron;
- Sulfation to remove remaining calcium;
- Mix with mother liquor and minor soda ash to remove traces of calcium and magnesium; and
- Addition of soda ash and heat to precipitate lithium carbonate, followed by drying and packaging.

Recovery in the sulfation plant is 92.5% and recovery in the carbonation plant is 85%. The Company is now operating a 1:500 scale pilot plant in Fiambalá, to fine-tune this standard method. The general approach has been proven in industry by major producers, to achieve battery grade lithium carbonate.

Capital and Operational Costs

Initial capital costs are estimated at approximately $319 million. Life-of-mine deferred and sustaining capital costs are estimated at approximately $207 million, and closure costs are estimated at approximately $26 million.

Average operating costs per tonne processed will be $2,914 per tonne LCE from which 50% are chemical reagents and 6% are indirect costs.

Lithium Markets and Price

Neo Lithium commissioned a market study by Benchmark Minerals Ltd. in December 2018, which shows the following results:

	$/tonne				
Year	2021	2022	2023	2024	Average onwards
Lithium Carbonate	14,100	16,000	14,800	11,500	11,606

The average lithium carbonate pricing estimate over the life of mine is approximately $11,882 per tonne.

Environmental and Permitting Considerations

Neo Lithium is fully permitted for the current work program, through feasibility and up to construction. The Company has completed the baseline studies and the final environmental impact assessment report for mine construction. The company is waiting for final approval from mining authorities in Catamarca Province before the year end.

Technical Information

The Technical Report is being prepared in accordance with NI 43-101 by GHD and Groundwater Insight, in conjunction with a team of globally recognized consultants. The two independent qualified persons that lead the team of consultants are:

- Gino Zandonai, P.Eng., a Chilean Professional Mining Engineer and competent person under CRISCO#0155, is the independent qualified person signing the report prepared by GHD Chile SA; and
- 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 prepared by Groundwater Insight.

Both qualified persons have reviewed the technical information in respect to the Technical Report and this press release, and certify that all the information is accurate and have approved the written disclosure of such information.

Other than as set forth above, all scientific and technical information contained in this press release has been reviewed, verified, and approved by Mr. Perez, Ph.D. and P.Geo., CEO and Director of Neo Lithium, and a qualified person for the purposes of NI 43-101, and also supervised the preparation of and approved the contents of this news release.

Other Corporate Matters

The Company also announces that it has retained the services of Renmark Financial Communications Inc. to handle its investor relations activities. In consideration of the services to be provided, the monthly fees incurred by Neo Lithium will be a cash consideration of CDN$8,000, starting April 15, 2019 for a period of six months ending on October 15, 2019 and monthly thereafter.

Renmark Financial Communications does not have any interest, directly or indirectly, in Neo Lithium or its securities, or any right or intent to acquire such an interest.

About Neo Lithium Corp.

Neo Lithium Corp. has quickly become a prominent new name in lithium brine exploration by virtue of its high quality 3Q Project and experienced team. Already well capitalized, Neo Lithium is rapidly advancing its recently discovered 3Q Project - a unique high-grade lithium brine lake and salar complex in Latin America’s “Lithium Triangle”.

The 3Q Project is in Catamarca Province, 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.

The technical team that has discovered the 3Q Project characterized this unique salar complex as one of the most experienced in lithium salars. For example, this team discovered and led the technical work, including resource definition and full feasibility study, that established the Cauchari lithium salar as one of the largest lithium brine resources in the world.

Additional information regarding Neo Lithium Corp. is available on SEDAR at www.sedar.com under the Company's profile and at its website at www.neolithium.ca, including various pictures of ongoing work at the project.

The technical report is available on SEDAR at www.sedar.com under the Company's profile and at its website at www.neolithium.ca

For further information, please contact:

Neo Lithium Corp.
Carlos Vicens
cvicens@neolithium.ca

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release. The TSX Venture Exchange Inc. has in no way approved nor disapproved the contents of this press release.

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, statements as to lithium brine grades at depth being consistent with surface results, the potential for resource expansion at depth, the potential of the northern salar sediments, and deeper sediments, for hosting brine, the ability to proceed to scoping studies quickly, proceeding with continued work for additional economic studies the potential for production expansion in the Company’s assessment of the economic potential of the 3Q Project, that test results are indicative of future results, and the additional of additional independent directors. 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, risks related to failure to obtain adequate financing on a timely basis and on acceptable terms, political and regulatory risks associated with mining and exploration activities, including environmental regulation, risks and uncertainties relating to the interpretation of drill and sample results, risks related to the uncertainty of cost and time estimation and the potential for unexpected delays, costs and expenses, risks related to metal price fluctuations, the market for lithium products, competition for experienced directors in the junior mineral exploration and development sector, and other risks and uncertainties related to the Company's prospects, properties and business detailed elsewhere in the Company’s disclosure record. 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.

Dieser Artikel stammt von Rohstoff-Welt.de
Die URL für diesen Artikel lautet:
https://www.rohstoff-welt.de/news/325641--Neo-Lithium-Announces-Filing-of-Technical-Report-for-the-Pre-Feasibility-Study-on-its-3Q-Project.html

Für den Inhalt des Beitrages ist allein der Autor verantwortlich bzw. die aufgeführte Quelle. Bild- oder Filmrechte liegen beim Autor/Quelle bzw. bei der vom ihm benannten Quelle. Bei Übersetzungen können Fehler nicht ausgeschlossen werden. Der vertretene Standpunkt eines Autors spiegelt generell nicht die Meinung des Webseiten-Betreibers wieder. Mittels der Veröffentlichung will dieser lediglich ein pluralistisches Meinungsbild darstellen. Direkte oder indirekte Aussagen in einem Beitrag stellen keinerlei Aufforderung zum Kauf-/Verkauf von Wertpapieren dar. Wir wehren uns gegen jede Form von Hass, Diskriminierung und Verletzung der Menschenwürde. Beachten Sie bitte auch unsere AGB/Disclaimer!

Die Reproduktion, Modifikation oder Verwendung der Inhalte ganz oder teilweise ohne schriftliche Genehmigung ist untersagt!
Alle Angaben ohne Gewähr! Copyright © by Rohstoff-Welt.de -1999-2026. Es gelten unsere AGB und Datenschutzrichtlinen.