

# Nemaska Lithium Releases 2018 Feasibility Study

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**Highlights Include Increased Hydromet Production Capacity by 20%, Increased Mine Life to 33 years, After-Tax IRR at 31% and Improved After-Tax NPV to \$2.4 B**

QUEBEC CITY, QUEBEC--(Marketwired - Jan. 9, 2018) - [Nemaska Lithium Inc.](#) ("Nemaska Lithium" or the "Corporation") (TSX:NMX)(OTCQX:NMKEF)(FRANKFURT:N0T) is pleased to announce the results of its 2018 Feasibility Study of the Whabouchi Mine and Concentrator located in the Eeyou Istchee James Bay territory in Québec, and on the Hydromet Plant located in Shawinigan, Québec. A conference call on the 2018 Feasibility Study will be held on Tuesday, January 9, 2018 at 11:00 AM (EST) / 10:00 AM (CST) / 09:00 AM (GMT). Conference call details are set out at the end of this press release. All amounts are in Canadian dollars, except where otherwise indicated, and some figures are also rounded for presentation.

"With more than a year of experience in building, commissioning and operating the Hydromet Phase 1 Plant in Shawinigan, Québec, the production of over 1,050 t of above 6% spodumene concentrate from a bulk sample at the Whabouchi Mine, our confidence in the Hydromet process at both the Mine and Hydromet Plant has increased and we believe our project is significantly de-risked. As we have updated our resource block model following the 2016 and 2017 drilling campaign has allowed us to increase the Whabouchi Mine life from 26 to 33 years," said Guy Bourassa, President and CEO of Nemaska Lithium. "The 2018 Feasibility Study takes into consideration our operational experience and our current off-take contracts as well as on-going discussions with potential customers and our assessment of the lithium market. Accordingly, we have increased the overall capacity of the comminution project by 20% and added flexibility to the Hydromet Plant, increased the lithium carbonate production capacity up to 100% while maintaining the flexibility to produce up to 100% of lithium hydroxide, as both products are in high demand and the current lithium carbonate sales price is now very similar to that of lithium hydroxide."

The 2018 Feasibility Study shows a pre-tax NPV (8% discount) base case of \$3.3 Billion and a pre-tax IRR of 34.4%. There has been a considerable strengthening of the lithium salts market which has been reflected in the selling prices for lithium hydroxide and lithium carbonate. The 2018 Feasibility Study uses an average sales price of US\$14,000/t for lithium hydroxide throughout the life of mine, while the average selling price for lithium carbonate is US\$9,500/t for the first 5 years and US\$12,000/t for the remaining life of mine.

On the OPEX side, with costs per tonne during the almost equal to 24 years open-pit mine life of \$3,655 (US\$2,811/t) for lithium hydroxide and of \$4,424/t (US\$3,403/t) for lithium carbonate, Nemaska Lithium remains a low-cost producer of both products and confirms its competitive position among global lithium salts producers.

The current CAPEX for the Mine, Concentrator and Hydromet Plant is \$801 M, excluding already invested CAPEX of \$1.2 Billion. The CAPEX reflects the process optimization as well as the additional equipment required to increase production of lithium carbonate from 3,250 tonnes/y up to 16,000 tonnes/y, which is reflected in the increase in the total output capacity of the Hydromet Plant from 20% to 27%, going from a capacity of 27,400 t/y LCE to 33,000 t/y LCE. In addition, based on the operating experience gained at the Mine and the Hydromet Plant, the 2018 Feasibility Study includes, among other things, the addition of an ore sorting circuit at the Mine. Additional equipment and buffer zones have also been added throughout the process at both sites to increase throughput while enhancing process reliability as well as allowing on-going maintenance without disrupting operations, thus ensuring high plant performance.

Bourassa continued, "We have been actively engaged on project financing for several months and are now at the stage of confirmatory due diligence with numerous groups interested in participating in the financing of the Project. Given the alternative financing options being evaluated, we are confident that the Project financing will be completed during the current quarter."

"I am confident that, given the current stage of the Project, the strong economics of this 2018 Feasibility Study will position the Corporation for the ongoing financing discussions and help the Corporation in completing the required Project financing structure for the benefit of all stakeholders of the Corporation," said Steve Nadeau, Chief Financial Officer of Nemaska Lithium.

The 2018 Feasibility Study encompasses a combined open pit and underground mine operation, concentration facilities, water management at mine site as well as a hydrometallurgical processing facility in Shawinigan. It was prepared by Met-Chem/DRA and Hatch Ltd. with contribution from SGS Geostat for resource evaluation, SNC-Lavalin for waste-tailings management, codisposal and water management, Nardella for the project schedule and from Michel L. Bilodeau, B.Eng., M. Sc. (App. Sc.) for the economic model. The Mineral Reserve in this 2018 Feasibility Study has an effective date of November 7, 2017.

The 2018 Feasibility Study positively compares to the 2016 Feasibility Study on a number of fronts:

#### 2018 Feasibility Study Highlights

(All calculations assume a 6.25% Li<sub>2</sub>O spodumene concentrate)

(All figures are quoted in Canadian Dollars (CDN\$), unless otherwise specified)

Expected Mine Life	33 years
Life of Mine Revenue	\$19.2 Billion (US\$14.8 B) (average of \$581 M/yr)
Pre-Tax Net Undiscounted Cash Flow	\$13.2 Billion (US\$10.2 B) (average of \$425 M/yr before tax)
After-Tax Net Undiscounted Cash Flow	\$9.6 Billion (US\$7.4 B)
Pre-Tax NPV 8% Discount (base case)	\$3.3 Billion (US\$2.5 B)
After-Tax NPV 8% Discount (base case)	\$2.4 Billion (US\$1.8 B)
Pre-Tax Internal Rate of Return (IRR)	34.4%
After-Tax Internal Rate of Return (IRR)	30.5%
Total Initial Capital Costs	\$801 Million (US\$616 M) in cash
After-Tax Pay Back of Capital Costs *	2.9 years
Average Selling Price Lithium Hydroxide over LOM	US\$14,000/t Ex Works Shawinigan
Average Selling Price Lithium Carbonate over LOM	US\$11,719/t Ex Works Shawinigan
Spodumene Concentrate Average Production Cost Per Tonne (Open Pit)	\$285/t (US\$219/t) Ex Works Shawinigan
Spodumene Concentrate Average Production Cost Per Tonne (Underground)	\$353/t (US\$272/t) Ex Works Shawinigan
Lithium Hydroxide Average Production Cost Per Tonne (from the Open Pit Concentrate)	\$3,655/t (US\$2,811/t) Ex Works Shawinigan
Lithium Carbonate Average Production Cost Per Tonne (from the Open Pit Concentrate)	\$4,424/t (US\$3,403/t) Ex Works Shawinigan
Life of Mine Production	7 million tonnes spodumene concentrate, 1.4 million tonnes lithium hydroxide and almost equal amount of lithium carbonate (average per year of almost 2 million tonnes of lithium hydroxide and almost 1 million tonnes of lithium carbonate)
Exchange Rate CDN\$ to \$US	1 : 0.769
* After start of commercial production	

### *Mine and Hydromet Plant Plan*

The Feasibility Study outlines a combined open pit and underground mine. The open pit mine Proven and Probable Reserves are 24 million tonnes at 1.53% Li<sub>2</sub>O. The underground mine Proven and Probable Reserves are 13 million tonnes at 1.16% Li<sub>2</sub>O. The combined open pit and underground Proven and Probable Reserves are 37 million tonnes at 1.40% Li<sub>2</sub>O.

During the first 23.6 years, production will be derived from an open-pit developed to a maximum depth of 224 meters and an average strip ratio of 2.95 to 1. The open pit will be mined using a standard fleet of off-road mining trucks and hydraulic excavators at a rate of 2,830 tonnes of ore per day.

During the last 9.4 years, the ore production will be derived from an underground operation at 3,665 tonnes per day and accessed via a ramp within the open pit. The underground development will reach an average depth of 55 metres below the pit bottom. The selected underground mining method is longhole stoping with the crown pillar below the pit recovered at the end of the stope.

Nemaska Lithium has received the General Certificate of Authorization (CA) for the Whabouchi mine Project from the Québec Ministry of Sustainable Development, Environment and The Fight Against Climate Change on September 8, 2015 and a positive federal decision on July 29, 2015 and therefore has now obtained all basic environmental authorizations enabling it to move forward with its Whabouchi Mine Project. In addition, the Québec Ministry of Energy and Natural Resources ("MERN") issued a mining lease for the Whabouchi Lithium Project in compliance with Section 100 of the Mining Act. This lease covers the mining and surface rights necessary to exploit the Whabouchi deposit, and is valid for an initial period of 20 years (from October 25, 2015 to October 25, 2037). The lease can thereafter be renewed every 10 years for the duration of the mining operation. Also, Nemaska Lithium has obtained the required leases for the Occupation of the Domain of the State as per Section 239 of the Mining Act, allowing the use of lands for tailings disposal, concentrator and ancillary installations, and other facilities necessary for the mining activities. Nemaska Lithium has also made its initial payment for 50% of the reclamation plan approved by the MERN in the amount of \$4,603,239.

At the Mine site, the construction of the commercial concentrator building and administrative offices is complete, most of the site preparation is done while the 13 km 69 kV power line is currently under construction and should be connected to the grid in March 2018.

#### Whabouchi Feasibility Study Results and Key Assumptions

Mining Parameters (OP + UG)	Tonnes Processed (Mt)	37
	Waste Rock & Overburden (Mt)	72
	Diluted Grade (% Li <sub>2</sub> O)	1.40
	Mine Life (LOM) (years)	33
Mining Cost Parameters	Pre-Production CAPEX (\$M)	\$7
	Hydroelectricity Price (\$/kWh)	\$0.053 - (H-Q, Tariff L)
	LOM OPEX Open Pit (\$/t concentrate)	\$98
	LOM OPEX Underground (\$/t concentrate)	\$167
Concentrator Cost Parameters	CAPEX (\$M) (incl closure costs payment)	\$263
	OPEX concentrator (\$/t concentrate)	\$95
	OPEX Tailings & Water Management (\$/t concentrate)	\$13
	G&A OPEX (\$/t concentrate)	\$72
	OPEX Transport Cost (\$/t concentrate)	\$50
Hydromet Plant Cost parameters	CAPEX (\$M)	\$531
	OPEX (\$/t Lithium Product) Hydromet plant only	\$1,817
	OPEX (\$/t Lithium Product) All inclusive	\$4,012
	Overall Sustaining Capital LOM SUSTAINING CAPEX (\$M)	\$604
Revenue Parameters (real terms)	Gross Revenue (\$M over LOM)	
	Concentrate	\$264
	Lithium Hydroxide (LiOH-H <sub>2</sub> O)	\$13,283
	Lithium Carbonate (Li <sub>2</sub> CO <sub>3</sub> )	\$5,504
	Lithium Hydroxide (LiOH-H <sub>2</sub> O) toll services	\$129
Lithium compounds Parameters	Cash Operating Margin	\$14,640
	Product (US \$ over LOM Average Selling price / t)	
	Lithium Hydroxide (LiOH-H <sub>2</sub> O)	US \$14,000
	Lithium Carbonate (Li <sub>2</sub> CO <sub>3</sub> )	US \$11,719
	Exchange rate	1 C\$=0.769 US\$
Schedule Parameters	Date for NPV Calculation	January 1, 2018
	Construction Mobilization	Q3, 2016
	Concentrator Commissioning Starts	Q2, 2019 (est.)
	Commercial Production Declared	Q4, 2019 (est.)
	Hydromet Commissioning Starts	Q1, 2020 (est.)
Valuation Parameters	Commercial Production Declared	Q4, 2020 (est.)
	Pre-Tax NPV 8% (\$B)	\$3.3
	Pre-Tax IRR	34.4%
	After-Tax NPV 8% (\$B)	\$2.4
	After-Tax IRR	30.5%

#### Conference Call

Nemaska Lithium will host a conference call on the 2018 Feasibility Study on Tuesday, January 9, 2018 at 11 am Eastern Time. To participate in the call, dial 1-877-223-4471 or +1-647-788-4922 local or internationally. A playback will be made available two hours after completion of the call until January 31, 2018. To access this playback dial 1-800-585-8367 or +1 416-621-4642 with the conference ID code

2389707.

## Qualified Persons

The complete NI 43-101 Technical Report ("Report") being prepared by Met-Chem/DRA and Hatch Ltd. and signed by each Qualified Person will be posted on [www.sedar.com](http://www.sedar.com) within 45 days. It will also be made available on Nemaska Lithium's website at <http://nemaskalithium.com>. The technical information in this press release has been reviewed and approved by Mr. Rock Gagnon, Eng. of Met-Chem/DRA, and other Qualified Persons as relevant to their area of responsibility and expertise.

*The following disclosure on Met-Chem/DRA, Hatch, SGS Canada, L. Nardella and SNC-Lavalin was provided to the Corporation by these firms.*

## About Met-Chem/DRA

The Met-Chem division of DRA Americas was originally established in 1969 as a consulting engineering company, headquartered in Montreal, and provides a wide range of technical and engineering services. Met-Chem is well-recognized for its capabilities in mining, geology and mineral processing and has a talented team of engineering, technical and project management personnel with experience in North America, Latin America, Europe, West Africa and India. DRA is a multi-disciplinary global engineering group that originated in South Africa and delivers mining, mineral processing, energy, water treatment and infrastructure services from concept to commissioning, as well as comprehensive operations and maintenance services for the mineral resources, water, agriculture and energy sectors. DRA has offices in Africa, Australia, Canada, China and the United States.

## About Hatch

Hatch is an employee-owned and independent company with experience spanning over 150 countries around the world in the metals, energy, infrastructure, digital, and investments market sectors. Hatch embraces its client visions as its own and partner with them to develop better ideas that are smarter, more efficient, and innovative. Hatch's exceptional, diverse teams combine vast engineering and business knowledge, working in partnership with its clients to develop market strategies, manage and optimize production, develop new game-changing technologies, and design and deliver complex capital projects.

## About SGS Canada

SGS is the world's leading inspection, verification, testing and certification company. We are recognized as the global benchmark for quality and integrity. With more than 90,000 employees, we operate a network of more than 2,000 offices and laboratories around the world. Our flowsheet development, geology, geostatistics, pilot plant testing, chemical analysis and laboratory outsourcing staff have earned the respect of the global minerals industry. We offer an extensive range of services that covers exploration, plant design and engineering, production, industrial applications and decommissioning and closure.

SGS Geostat is known globally as an expert in ore body modeling and reserve evaluation, with over 35 years of experience providing the mining industry with computer-assisted mineral resource estimation services using cutting edge geostatistical techniques. We bring the disciplines of geology, geostatistics, and mining engineering together to provide accurate and timely mineral project evaluation solutions. We also offer a broad range of services to the mining and exploration industries to reduce risk and enhance value including exploration services, customizable software solutions, ore body modeling, resource estimation, mine engineering, mine optimization, mine audits, mine to plant reconciliation, technical due diligence, desktop Studies and Technical Reports (NI 43-101, JORC and SAMREC), sample selection for metallurgical tests and more.

## About L. Nardella Associates

L. Nardella Associates Ltd. (LNA) is a multi-disciplined company that provides professional services in

Project Management, Construction Management, Procurement & Supply Management and Project Commissioning in the heavy industry for greenfield projects, brownfield projects and major shutdowns. With almost 25 years of success, the company has provided services on more than 200 projects in major sectors such as Mining and Metallurgy, Paper and Pulp, Oil & Gas, Energy & Alternative Energy, Petrochemical & Chemical, Effluent Treatment, and other heavy construction industries.

LNA also provides key services for the Project Implementation Strategy during the study phases, planning, execution, monitoring and control. LNA has been developing comprehensive, cost-effective and adaptive solutions for projects, and has built an excellent reputation based on a strong team of professionals and positive project outcomes. LNA has proved the ability to innovate and to reduce costs for our clients by defining a construction driven approach.

#### About SNC-Lavalin

Founded in 1911, SNC-Lavalin is one of the leading engineering and construction groups in the world and a major player in the ownership of infrastructure. From offices in over 50 countries, SNC-Lavalin's employees are proud to build what matters. Our teams provide engineering, procurement, construction, completions and commissioning services together with a range of sustaining capital services to clients in four industry sectors: oil and gas, mining and metallurgy, infrastructure and power. SNC-Lavalin can also combine these services with its financing and operations and maintenance capabilities to provide complete end-to-end project solutions. [www.snclavalin.com](http://www.snclavalin.com)

#### About Nemaska Lithium

Nemaska Lithium's vision is to "Facilitate access to green energy through its products and processes, for the benefit of humanity". It intends to become a lithium hydroxide and lithium carbonate supplier to the emerging lithium battery market that is largely driven by electric vehicles, energy storage, cell phones, tablets and other consumer products. The Corporation is developing in Québec, Canada, one of the most important spodumene lithium hard rock deposit in the world, both in volume and grade. The spodumene concentrate produced at Nemaska Lithium's Whabouchi mine will be shipped to the Corporation's lithium compounds processing plant to be built in Shawinigan, Quebec. This plant will transform spodumene concentrate into high purity lithium hydroxide and carbonate using the proprietary methods developed by the Corporation, and for which the Corporation holds nine issued patents and several patent applications that are pending in different countries, covering different aspects and improvements of its proprietary technology for preparing high purity lithium hydroxide and carbonate, in an eco-friendly fashion.

#### Cautionary Statement on Forward-Looking Information

*All statements, other than statements of historical fact, contained in this press release including, but not limited to, the 2018 Feasibility Study results (e.g. the Project's NPV, IRR, CAPEX and OPEX), constitute "forward-looking information" and "forward-looking statements" within the meaning of certain securities laws and are based on expectations, estimates and projections as of the date of this press release, such as, without limitation, (A) the expected demand and selling prices for lithium hydroxide and carbonate, which are based on the Corporation's assessment of the lithium market; (B) the expected mine life increase, which ensues from drilling results and the updated resource block model; and (C) the key assumptions set out in the table immediately above the conference call details.*

*Forward-looking statements contained in this press release include, without limitation, those related to (i) the Corporation remaining a low-cost and competitive producer of lithium hydroxide and carbonate, (ii) the 20% increase in the Hydromet Plant capacity, (iii) the process reliability enhancement and ongoing maintenance with no disruption to operations which will ensure optimal performance, (iv) the completion of project financing during the current quarter, (v) the Proven and Probable Reserves and respective durations of open pit and underground mining operations, (vi) the power line connection to the grid in March 2018, and (vii) generally, the above "About Nemaska Lithium" paragraph which essentially describe the Corporation's outlook constitute "forward-looking information" or "forward-looking statements" within the meaning of certain securities laws, and are based on expectations, estimates and projections as of the time of this press release. Forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by the Corporation as of the time of such statements, are inherently subject to significant business, economic and competitive uncertainties and contingencies. These estimates*

*and assumptions may prove to be incorrect.*

*Many of these uncertainties and contingencies can directly or indirectly affect, and could cause, actual results to differ materially from those expressed or implied in any forward-looking statements. There can be no assurance that the 2018 Feasibility Study results and the forward-looking statements featured in this press release will prove to be accurate, as actual results and future events could differ materially from those anticipated in the 2018 Feasibility Study and in such statements. Forward-looking statements are provided for the purpose of providing information about management's expectations and plans relating to the future. All of the forward-looking statements made in this press release are qualified by these cautionary statements and those made in our other filings with the securities regulators of Canada including, but not limited to, the cautionary statements made in the "Risk Factors" section of the Corporation's Annual Information Form dated October 5, 2017 and the "Risk Exposure and Management" section of the Corporation's quarterly Management Discussion & Analysis. The Corporation disclaims any intention or obligation to update or revise any forward-looking statements or to explain any material difference between subsequent actual events and such forward-looking statements, except to the extent required by applicable law.*

*Further information regarding Nemaska Lithium is available in the SEDAR database ([www.sedar.com](http://www.sedar.com)) and on the Corporation's website at: [www.nemaskalithium.com](http://www.nemaskalithium.com).*

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