

# Noram Lithium Corp: Zeus PEA shows 31% After-Tax IRR USD\$1.299 Billion After-Tax NPV

Vancouver, British Columbia – December 8, 2021 – Noram Lithium Corp. ("Noram" or the "Company") (TSX - Venture: NRM / Frankfurt: N7R / OTCQB: NRVTF) today announced the summary results of a National Instrument 43-101 compliant Preliminary Economic Assessment ("PEA") for the high-grade lithium deposit at its wholly-owned Zeus Lithium Project ("Zeus" or the "Project") located less than 1 mile from Albermarle's Silver Peak Mine, which is currently the only lithium production facility in the United States. The PEA was prepared by ABH Engineering ("ABH",) an independent engineering services firm with extensive experience in mining and mineral processing. All dollar values are in US dollars.

## **PEA Highlights**

- Robust Economics.
  - \$1.299 Billion Net Present Value ("NPV"). Base case after-tax Net Present Value ("NPV") of \$1.299 billion (8% discount rate).
  - o **31% Internal Rate of Return ("IRR")**. Base case after-tax IRR of 31%.
  - Capital Costs ("CAPEX"). Estimated initial CAPEX of \$528M with after-tax payback period of 3.23 years.
  - Gross Revenue of \$303.4 Million/year
  - Low Operating Cost. Operating Cost ("OPEX") of \$3,355.30/tonne Lithium Carbonate Equivalent ("LCE") with a break-even price of \$4016.6/tonne LCE LOM.
- Long Mine Life ("LOM). The mine production rate during full operation is set at 17,000 tpd. The production schedule uses ore from the first 11 phases, which results in 40-year mine life ("LOM"). The mine production schedule results in 245.4 million tonnes averaging 1,093 ppm Li.
- **Very Low Strip Ratio.** Mining strip ratios are very low, averaging **0.07:1 for LOM.** Mining consists of a truck and shovel method, with blasting being unnecessary due to the ore softness.
- Low Environmental Impact. The leaching and filtration flowsheet includes dry stack tailings, thus, eliminating the environmental risk and long-term management issues associated with tailings ponds.
- **LCE market Price.** Base case market price of \$9500/tonne LCE is well below long term forecasted rate of \$14,000/tonne<sup>1</sup>.
- **Price Sensitivity.** As noted in the sensitivity chart below, the after-tax **NPV reaches \$2.665** billion at \$14,250/Tonne LCE (8% discount rate).

<sup>&</sup>lt;sup>1</sup> Lithium Carbonate Price (2015-2040) (Lane, T.; Harvey, J. T.; Fayram, T.; Samari, H.; Brown, J. J.;, 2018)



"We are thrilled with the results of this PEA," stated Sandy MacDougall, Noram's Chief Executive Officer and Director. "This study represents the most significant milestone to date for Noram and establishes us among limited peers as the newest low cost, high-grade, near-term lithium producer in North America. I am very pleased with what our team has achieved quickly, on schedule, and at the opportune time considering current and forecasted demand for Lithium Carbonate. This initial economic assessment is the most significant step to date towards our goal of lithium production and provides the market with a benchmark to evaluate our project's viability and value compared with other lithium developers. We are excited as we enter 2022 pushing aggressively towards the completion of a Pre-Feasibility Study."

Net Present Value ("NPV")	US\$1.299 Billion
Internal Rate of Return ("IRR")	31%
Life of Mine ("LOM")	40 years
Operating Cost ("OPEX")	US\$3355.30/tonne
Capital Cost Estimate	US\$528 Million
Average Annual Production Lithium Carbonate Equivalent ("LCE")	31,900 tonnes
Average Daily Mine Production Rate LOM	17,000 tpd
LOM Production	245.4 MT @ 1093 ppm Li
LCE Market Price used in PEA Study*	US\$9500/tonne
Strip Ratio	0.07 : 1.00
Pay Back Period	3.23 years
Gross Revenue per Year	US\$303.4 Million

# **PEA Summary**

### Infrastructure

The project is located next to the Cypress Development's Clayton Valley Lithium Project and within 1 mile of Albermarle's Silver Peak Lithium Mine. The Project is accessible via the Silver Peak Road, a two-lane road that connects the Silver Peak mine with Highway 95 to the east. General site infrastructure includes administration, laboratory, warehouse, reagent, comminution plant, and lithium recovery plant. Tailings are to be conveyed to the tailings storage areas for final spreading and contouring by dozers.

# **Metallurgical Testing**

The objective of the metallurgical test program conducted on the Zeus Lithium deposit was to develop a viable process flowsheet to produce lithium carbonate. Information generated during the test program was used to define the process variables. Metallurgical testing began in 2018 at Actlabs Ltd (Actlabs) and AuTec Innovative Extractive Solutions Ltd (AuTec). This PEA report includes metallurgical test work conducted by SGS Canada Inc. in collaboration with ABH Engineering.

The following observations, conclusions and interpretations were obtained from the metallurgical test program:

- Zeus Lithium deposit ore is soft and disintegrates easily if agitated in water.
- Sulfuric acid solution effectively leaches lithium at high extraction.



• Test work achieved 90% lithium extraction at 65°C, 30% solids density and 2 hours residence time.

# **Mine Option Selection**

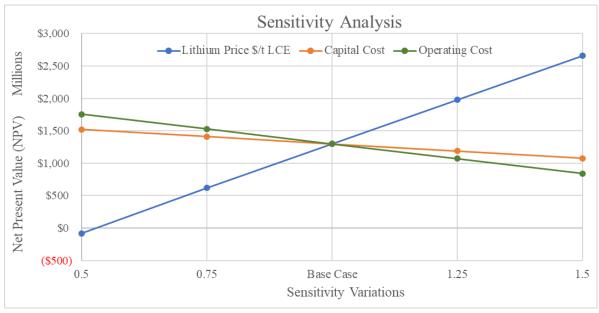
An ultimate pit of processable material will be created, consuming most of the property area. The ultimate pit has been divided into phases of which the first 11 contain enough resources for 40 years of production at a 17,000 tpd production rate. Resources contained within the entire ultimate pit limits provide enough ore for over 190 years of production at 17,000 tpd. All resources regardless of the material classification are treated equally for the purpose of this study.

An optimized cut-off grade of 850 ppm was used to schedule the processed feed, compared to the economic cut-off grade of 400 ppm. Low-grade ore with grades between the economic cut-off of 400 ppm and optimized cut-off of 850 ppm are scheduled to be deposited in the low-grade ore stockpile. This is done to initially increase the average processed ore grade and improve the overall economics of the project by accelerating higher grade material to earlier years.

Category	Units Value		
Gross Revenue	\$M	303.4	
Operating Cost	\$/tonne LCE	3,355.3	
Capital Cost	\$M	528.0	
Property tax	% of Capex	1.05%	
State Tax	%	Up to 5%	
Federal Tax	% of net income	21%	
Discount Rate	%	8%	
Pre-Tax NPV (8%)	\$M	1,675.1	
After-Tax NPV (8%)	\$M	1,299.9	
Pre-Tax IRR	Pre-Tax IRR % 36		
After-Tax IRR	%	31%	
Payback Period	od years 3.23		
Break-even Price (0% IRR)	\$/tonne LCE	4,016.6	

Economic Analysis for Zeus Lithium Project





Sensitivity Analysis at 8% NPV with Varying Conditions



		Measured					
Li Cutoff	Tonnes x	Li Grade	Contained Li	LCE			
(ppm)	1,000,000	(ppm)	(tonnes)	(tonnes)			
400	66.74	927	61,863	329,299			
600	61.34	964	59,128	314,738			
800	46.47	1051	48,840	259,975			
1000	27.70	1150	31,854	169,558			
	Indicated						
Li Cutoff	Tonnes x	Li Grade	Contained Li	LCE			
(ppm)	1,000,000	(ppm)	(tonnes)	(tonnes)			
400	296.42	922	272,297	1,454,762			
600	279.66	947	264,837	1,409,728			
800	221.64	1007	223,193	1,188,059			
1000	103.76	1128	117,044	623,023			
	Measured + Indicated						
Li Cutoff	Tonnes x	Li Grade	Contained Li	LCE			
(ppm)	1,000,000	(ppm)	(tonnes)	(tonnes)			
400	363.15	923	335,191	1,784,222			
600	341.00	950	323,945	1,724,361			
800	268.11	1014	271,865	1,447,135			
1000	131.46	1133	148,945	792,836			
	Inferred						
Li Cutoff	Tonnes x	Li Grade	Contained Li	LCE			
(ppm)	1,000,000	(ppm)	(tonnes)	(tonnes)			
400	827.22	884	731,261	3,892,501			
600	715.91	942	674,383	3,589,743			
800	546.48	1013	553,588	2,946,750			
1000	265.47	1134	301,043	1,602,452			

Final Tonnages and Grades of the Classes of Mineral Resources



## **Qualified Person**

The technical information contained in this news release has been reviewed and approved by Brad Peek., M.Sc., CPG, who is a Qualified Person with respect to Noram's Clayton Valley Lithium Project as defined under National Instrument 43-101.

## **About Noram Lithium Corp.**

Noram Lithium Corp (TSX - Venture: NRM / Frankfurt: N7R / OTCQB: NRVTF) is a Canadian based junior exploration company, with a goal of developing lithium deposits and becoming a low - cost supplier. The Company's primary business is the Zeus Lithium Project ("Zeus") in Clayton Valley, Nevada. The Zeus Project has a recently updated resource estimate of 363 million tonnes at 923 ppm lithium measured + indicated resources, and 827 million tonnes lithium at 884 ppm lithium inferred resources (400 ppm Li cut-off).

Noram's long term strategy is to build a multi-national lithium minerals company to produce and sell lithium into the markets of North America, Europe, and Asia.

Please visit our web site for further information: www.noramlithiumcorp.com.

### ON BEHALF OF THE BOARD OF DIRECTORS

Sandy MacDougall CEO, Director

## **Investor Relations Contact:**

Rich Matthews
Managing Partner
Integrous Communications
rmatthews@integcom.us
+1 604 757 7179

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