International Lithium Announces Positive Preliminary Economic Assessment Results for the Mariana Lithium Brine Project, Salta, Argentina

written by Raj Shah | December 6, 2018

December 6, 2018 (Source) — International Lithium Corp. (TSXV: ILC) (the "**Company**" or "**ILC**") is pleased to announce the results of a Preliminary Economic Assessment ("PEA") for the Mariana Lithium Brine Project located in the province of Salta, Argentina.

PEA Highlights:

- 25-year mine life producing 10,000 tonnes per year ("TPY") Lithium Carbonate Equivalent ("LCE") plus 84,000 TPY Sulphate of Potash ("SOP").
- The estimated CAPEX and OPEX are for a conventional brine extraction facility, solar evaporation ponds and SOP processing with a level of accuracy of -30/+50%.
- CAPEX estimated at US $243 million for 25-year mine life.
- NPV = US $192 million after-tax at 10% discount rate, IRR = 20% post-tax.
- Project results remain positive, even with important negative variations on the driver variables, indicating project strength and resilience; thus, the PEA study indicates Mariana's proposed 10,000 TPY LCE concentrated brine and 84,000 TPY SOP fertilizer operation has the potential to generate strong economic returns.

The PEA was prepared by Advisian ("Advisian"), a division of the WorleyParsons Group, for Mariana Lithium Corp. to provide a PEA of its Mariana Lithium Brine Project in accordance with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101"). The PEA technical report assesses the potential economic viability of developing the 14 exploration licenses (Minas), that cover the Salar de Llullaillaco (the Salar) and surrounding area (23,560 hectares), for the purpose of extraction of lithium brine resources and processing of two products – Lithium Carbonate Equivalent and Sulphate of Potash. All figures are quoted in US dollars. It should be noted that the Company did not play any significant part in the production of the PEA report, and that the conclusions are therefore those of the consultants.

Cautionary Note:

The preliminary economic assessment (PEA) is preliminary in nature, and it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized. The PEA includes the results of an economic analysis of mineral resources, and mineral resources that are not mineral reserves do not have demonstrated economic viability.

Current ownership of the Mariana Project is through a joint venture company, Litio Minera Argentina S. A., a private company registered in Argentina, owned 82.754% by Ganfeng Lithium through its wholly-owned subsidiary, Mariana Lithium Corp. and 17.246% by ILC. In addition, ILC has an option to acquire another 10% in the Mariana Project through a back-in right.

John Wisbey, Chairman and CEO of the Company said, "It is good finally to have received this Preliminary Economic Assessment (PEA) showing a post-tax NPV for Mariana of over US $190 million (over CAD $250 million at current exchange rates) with net annual cashflows of US $96 million after production starts. It is significant how much the high concentration of Sulphate of Potash is worth to the project, which is a large credit on top of the lithium revenues. Our present share in Mariana is 17.246% and it would rise to 27.246% if we exercised our back-in right which would currently cost us about CAD $7 million. It should be noted that the conclusions of the PEA were prepared by Advisian based on work carried out by the project managers. The cutoff for data supporting the PEA is March 31, 2018. The process methodology is based on the assumption that conventional brine extraction and evaporation methods will be the only method used for the production of lithium and potassium compounds at Mariana. It is our belief that additional value can be created for the project by use of appropriate membrane technology onsite in Argentina, and we will be supportive of initiatives to use this method to complement the current plans for evaporation. Additionally we are hopeful that the estimate of 10,000 tonnes per annum of production and a 25-year mine life are on the conservative side, given the 1,248,000 tonnes of indicated resource and the 618,000 tonnes of inferred resource reported in 2016. Nevertheless, these solid numbers in the PEA give us great encouragement that Mariana has been worth investing in and that, provided that Ganfeng and we can together finance the project appropriately, it is capable of delivering a significant return to our shareholders."

Preliminary Economic Analysis

The economic analysis of the Mariana Lithium Project (the "Project") is based on an operating capacity of 40,150 TPY of 4.7% lithium concentration brine and production of 84,000 TPY of SOP fertilizer product.

To perform the Project's economic evaluation, Advisian used a discounted cash flow (DCF) financial model with a 10% discount rate. Capital and operating costs estimates are as shown in the following sections. Other main inputs for this model are an assumed ramp up and production program, and a market and pricing forecast included below.

Results of the model comprise the Project's NPV and IRR. Table 1 presents the Project's base case economic analysis results.

Table 1: Economic Evaluation – Base Case Summary.

Description	**Units**	**LCE**	**SOP**	**Total**
Production	tpy	10,000	84,000	
Mine Life	years			25
Capital Cost (CAPEX)	US$			243,425,000
Operating Cost (OPEX)	US$			46,666,000
Lithium Carbonate Refining Cost	US$/t	2,900	N/A	
Average Selling Price	US$/t	9,683	550	
Annual Revenue	US$	96,830,000	46,200,000	143,030,000
Discount Rate	%			10%
Net Present Value (NPV) Pre-Tax	US$			288,017,000
Internal Rate of Return (IRR) Pre-Tax	%			23.7
Net Present Value (NPV) Post-Tax	US$			**191,670,000**
Internal Rate of Return (IRR) Post-Tax	%			**20.0**

Capital and Operating Costs

Capital expenditures are based on an operating capacity of 40,150 TPY of 4.7% lithium concentrated brine and production of 84,000 TPY of SOP fertilizer product. Capital equipment costs were obtained from in-house data and solicited budget price information. The estimate is compliant to AACE Class 5 standard. Accuracy of this estimate is expected to be within a -30% / +50% range.

Table 2: CAPEX Summary.

Area Code & Name	**Cost US$**
1000 Brine Field	24,428,000
2000 Evaporation Ponds	87,547,000
3000 SOP Process Plant	41,742,000
4000 On Site Infrastructure & Auxiliaries	6,888,000
5000 Tailings Management Area (TMA)	4,617,000
6000 Lithium Carbonate Plant	N/A
7000 Off-Site Infrastructure	22,316,000
Direct Cost Sub-Total	**187,538,000**
8000 Owner’s & Misc. Indirect Costs	18,754,000
9000 EPCM Services	15,003,000
Indirect Cost Sub-Total	**33,757,000**
Total Cost (Direct +Indirect)	221,295,000
Contingency (10%)	22,130,500
TOTAL	**243,425,000**

Table 3: Annual Operating Cost Summary.

Item №	**Description**	**Cost (US$)**

1	Manpower	2,052,000
2	Electrical Power	12,023,000
3	Reagents, Fuel & Consumables	14,715,000
4	Ponds Harvesting & TMA Operation	5,954,000
5	Water	531,000
6	Camp Operations & Personnel Transport	1,084,000
7	Sustaining Capital Cost	3,808,000
8	Product Transportation	3,966,000
9	Miscellaneous Direct Expenditures	662,000
10	**Sub-Total**	**44,134,000**
11	Indirect Operational Expenditures	1,870,000
	TOTAL	**46,666,000**

Summary and Conclusions

- **The technical solutions included in the PEA technical report are standard, time proven designs for main operating facilities. This approach provides a solid, workable base case to which other design alternatives can be related and compared.**
- **Advisian has estimated CAPEX and OPEX for a conventional brine extraction facility, solar evaporation ponds and SOP processing with a level of accuracy of -30/+50%, including equipment, materials, indirect costs and contingencies during the construction period, is estimated to be US $243.4 million.**
- **The Project economic analysis indicates that, for the base case, the After Tax (AT) NPV (10%) is US $191.7 million and IRR is 20.0%.**

- **Project results remain positive, even with important negative variations on the driver variables, indicating project strength and resilience; thus, the PEA study completed by Advisian indicates the Project's proposed 10,000 TPY LCEconcentrated brine and 84,000 TPY SOP fertilizer operation has the potential to generate strong economic returns.**

An NI 43-101 technical report is required to be filed, in conjunction with the disclosure of the PEA in this news release, within 45 days.

Afzaal Pirzada, P. Geo., a Qualified Person as defined by NI 43-101 and a consultant to the Company, has reviewed and approved the all disclosure of scientific or technical information in this news release.

About International Lithium Corp.

International Lithium Corp. has a significant portfolio of projects, strong management, and a strategic partner and key investor, Jiangxi Ganfeng Lithium Co. Ltd., ("Ganfeng Lithium") a leading China-based lithium product manufacturer.

The Company's primary strategic focus is now on the Mariana project in Argentina and on the Raleigh Lake project in Canada.

The Company has a strategic stake in the Mariana lithium-potash brine project located within the renowned South American "Lithium Belt" that is the host to the vast majority of global lithium resources, reserves and production. The Mariana project strategically encompasses an entire mineral rich evaporite basin, totalling 160 square kilometres that ranks as one of the more prospective salars or 'salt lakes' in the region. Current ownership of the project is through a joint venture company, Litio Minera Argentina S. A., a private company registered in

Argentina, owned 82.754% by Ganfeng Lithium and 17.246% by ILC. In addition, ILC has an option to acquire 10% in the Mariana project through a back-in right.

The Raleigh Lake project, now consisting of 3,027 hectares of adjoining mineral claims in Ontario, is now regarded by ILC management as ILC's most significant project in Canada. It is 100% owned by ILC, is not subject to any encumbrances, and is royalty free.

Complementing the Company's lithium brine project at Mariana and rare metal pegmatite property at Raleigh Lake, are interests in two other rare metal pegmatite properties in Ontario, Canada known as the Mavis Lake and Forgan Lake projects, and the Avalonia project in Ireland, which encompasses an extensive 50-km-long pegmatite belt.

The ownership of the Mavis Lake project is now 51% Pioneer Resources Limited ("Pioneer") and 49% ILC. In addition, ILC owns a 1.5% NSR on Mavis Lake. Pioneer has an option to earn an additional 29% by sole-funding a further CAD $8.5 million expenditures of exploration activities, at which time the ownership will be 80% Pioneer and 20% ILC.

The Forgan Lake project will, upon Ultra Lithium meeting its contractual requirements pursuant to its agreement with ILC, become 100% owned by Ultra Lithium, and ILC will retain a 1.5% NSR on Forgan Lake.

The ownership of the Avalonia project is currently 55% Ganfeng Lithum and 45% ILC. Ganfeng Lithium has an option to earn an additional 24% by either incurring CAD $10 million expenditures on exploration activities or delivering a positive feasibility study on the project, at which time the ownership will be 79% Ganfeng Lithum and 21% ILC.

With the increasing demand for high tech rechargeable batteries used in electric vehicles and electrical storage as well as portable electronics, lithium has been designated “the new oil”, and is a key part of a “green tech”, sustainable economy. By positioning itself with solid strategic partners and projects with significant resource potential, ILC aims to be one of the lithium and battery metals resource developers of choice for investors and to continue to build value for its shareholders.

International Lithium Corp.’s mission is to find, explore and develop projects that have the potential to become world class lithium, potash and rare metal deposits. A key goal is to become a well funded company to turn that aspiration into reality.

On behalf of the Company,

John Wisbey
Chairman and CEO

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Cautionary Statement Regarding Forward-Looking Information

Except for statements of historical fact, this news release contains certain “forward-looking information” within the meaning of applicable securities law. Forward-looking information or forward-looking statements in this or other news releases may include: the effect of results of the preliminary economic assessment of the Mariana Joint Venture Project, timing *of publication of the PEA technical report, anticipated production rates, the timing and/or anticipated results of drilling on the Raleigh Lake or Mavis Lake projects, the expectation of feasibility studies, lithium recoveries, modeling of capital and operating costs, results of studies utilizing membrane technology at the Mariana Project, budgeted expenditures and planned exploration work on the Avalonia Joint Venture, satisfactory completion of the sale of mineral rights at Forgan Lake, satisfactory completion of the purchase of additional mineral rights at Raleigh Lake, increased value of shareholder investments, and continued agreement between the Company and Jiangxi Ganfeng Lithium Co. Ltd. regarding the Company's percentage interest in the Mariana project. Such forward-looking information is based on a number of assumptions and subject to a variety of risks and uncertainties, including but not limited to those discussed in the sections entitled "Risks" and "Forward-Looking Statements" in the interim and annual Management's Discussion and Analysis which are available at www.sedar.com. While management believes that the assumptions made are reasonable, there can be no assurance that forward-looking statements will prove to be accurate. Should one or more of the risks, uncertainties or other factors materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in forward-looking information. Forward-looking information herein, and all subsequent written and oral forward-looking information are based on expectations, estimates and opinions of management on the dates they are made that, while considered reasonable by the Company as of the time of such statements, are subject to significant business, economic and competitive uncertainties and contingencies. These estimates and assumptions may prove to be incorrect and are expressly qualified in their entirety by this cautionary statement. Except as required by law, the Company assumes no obligation to update forward-looking information* *should circumstances or management's estimates or opinions change.*