



TSX-V: LI

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NEWS RELEASE

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Lithium One Reports 794 mg/L Lithium and 9,054 mg/L Potassium from Shallow Aquifer and Begins DRILLING PROGRAM at Sal de Vida Project, Argentina

Lithium One Inc (the "Company") (TSX-V: LI), is pleased to report initial results from its ongoing sampling program and the commencement of drilling at the Sal de Vida Lithium Brine Project in Argentina. The Sal de Vida project is located adjacent to FMC Corporation's Fenix lithium brine operation, which produced approximately 14% of the world's lithium in 2008[†]. This program constitutes the first large-scale systematic sampling and drilling on the east side of Salar del Hombre Muerto.

A total of 50 pits on 1 to 2 km spacings have been completed to date. The sampling has intersected a consistent near-surface sand aquifer yielding average values of lithium and potassium of 794 milligrams per litre (mg/L) [679 ppm] and 9,054 mg/L [0.774 weight%] respectively, as well as an average magnesium to lithium ratio of 1.68 (Table 1). These values are similar to those reported from the neighbouring FMC operation[†].

Lithium President and CEO Patrick Highsmith commented, "*We are very excited with the first round of results in our pitting program. The sands constitute a widespread aquifer throughout the eastern part of the salar that we have shown to be highly enriched in lithium and potassium over more than 40km² and open in all directions. There are also hot spots, such as a cluster near the southwestern boundary of our property, where 9 pits average over 1,000 mg/L lithium. The pitting program is continuing; and on the advice of our hydrogeologist, the Company is embarking on a drill program to test the depth and brine content of our 300km² of Hombre Muerto salar.*"

Pit Sampling Program

After confirming the presence of high lithium and potassium in near-surface brine during due diligence sampling, the Company implemented a systematic program of geophysics and sampling (See News Release dated 21st Sept 09). A gravity survey has been completed and a rigorous pit sampling program is nearing completion. Using pitting and augering, sampling has reached depths as great as 6 metres, and at every site field teams measure conductivity, density, pH, and temperature.

Table 1. Brine assay results for samples from depths of 3 - 5 metres. Number of samples = 35

	Lithium (mg/L)	Potassium (mg/L)	Magnesium (mg/L)	Mg:Li
Mean Value	794 (679 ppm)	9,054 (0.774 %)	1,284	1.68
Max Value	1,234	14,670	1,810	
Min Value	404	4,733	403	

Please refer to the Lithium One website (www.lithium1.com) where additional discussion of these results, plan maps of the data and photos from the field will shortly be posted.

[†] Economics of Lithium 11th Edition, Roskill Information Services (2009)

Drill Program

The initial drill program at Sal de Vida will consist of 6 rotary drill holes targeting depths between 50 and 200 metres, sited using the results of the pit sampling program and the gravity survey.

The objective of the drill program is to provide information about the reservoir characteristics and brine chemistry at depth on the east side of Salar del Hombre Muerto. The drilling, sampling, geological logging, and down-hole testing will conform with procedures developed by the company's hydrogeological consultant, Mr. John Houston (MSc., C.Geol.). Mr. Houston is a highly experienced resource hydrogeologist, having carried out the reserve evaluations at the Salar de Atacama and the FMC Hombre Muerto project, as well as contributing significantly to the development of other brine projects throughout the world. In addition to brine and cuttings sampling, the Company will also conduct down-hole logging, including natural gamma, neutron, density, and sonic methods.

Quality Control and Reporting Units

The liquid samples from Sal de Vida have been analyzed by Alex Stewart Assayers of Mendoza, Argentina by dilution and direct aspiration atomic absorption. Alex Stewart's Mendoza lab is accredited to ISO 9001:2008 and ISO14001:2004 for its geochemical and environmental labs for the preparation and analysis of numerous sample types, including waters.

Analytical quality was monitored through the use of randomly inserted quality control samples, including standards, blanks and duplicates, as well as check assays at an independent lab. Results of the analyses at Alex Stewart indicate acceptable accuracy, well within $\pm 10\%$, for the standards analyses and acceptable precision, or reproducibility to within $\pm 4\%$, for the duplicate samples. Blank analyses indicated no issues with carry-over contamination. Check analyses were conducted at ALS-Chemex located in Santiago and show good correlation and acceptable reproducibility between the laboratories.

Lithium analyses are reported by Alex Stewart in units of milligrams per liter (mg/L). This is equivalent to parts per million (ppm) when the density of fluid being analyzed is 1.0 gram per cubic centimeter (g/cm^3). However, the field samples from Sal de Vida are usually brines, which are aqueous fluids having densities greater than approximately 1.15 g/cm^3 . A conversion based on density would be required to report the results of analysis in parts per million. At Sal de Vida, Lithium One will continue to report results using International Standard Units and accepted practice in the hydrology community.

Corporate Update

In corporate matters, Lithium One announces the resignation of Neil Steenberg as Corporate Secretary. The Board of Directors and management of Lithium One wish to thank Mr. Steenberg for his service to the Company.

Lithium One further announces the appointment of Rebecca Hudson as Corporate Secretary of the Company. Ms. Hudson is also the Company's Chief Financial Officer.

Pursuant to the Company's stock option plan, the Company has granted 100,000 incentive stock options to consultants of the company, each option exercisable at \$1.29 per share until January 13, 2012.

About Lithium One

Lithium One Inc is a well-financed explorer and developer of mineral properties with a specific focus on lithium. The Company now has two major lithium projects: the Sal de Vida lithium brine project in Argentina and the James Bay bulk tonnage spodumene project in Quebec. The Company continues to

advance both projects toward the resource stage, expecting NI 43-101 compliant resource estimates by the second quarter of 2010. Lithium One believes that lithium demand will grow as its value and efficacy in “green energy” applications is fully realized. The Company’s strategy is to build a portfolio of high quality producing lithium assets.

The contents of this press release have been reviewed and approved by Mr. John Houston. Mr. Houston is a Chartered Geologist as conferred by the Geological Society of London and a qualified person as defined by National Instrument 43-101. He is an independent consultant to the Company, holding no shares or options.

ON BEHALF OF THE BOARD OF DIRECTORS,

Patrick Highsmith, M.Sc.
President and Chief Executive Officer

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