

**FORM 51-102F3  
MATERIAL CHANGE REPORT**

**ITEM 1      Name and Address of Company:**

Rodinia Lithium Inc.  
65 Queen Street West  
8<sup>th</sup> Floor  
Toronto, Ontario  
M5H 2M5

**ITEM 2      Date of Material Change:**

April 1, 2011

**ITEM 3      News Release:**

A press release regarding this material change was issued on April 1, 2011 and filed under the profile of the Company on SEDAR.

**ITEM 4      Summary of Material Change:**

Rodinia Lithium Inc. (“Rodinia” or the “Company”) announced an update to its previously disclosed independent brine resources estimate for its Salar de Diablillos lithium-brine project (“Diablillos” or the “Salar”), located in Salta, Argentina, conducted by AMEC Internacional Ingenieria y Construccion Limitada (“AMEC”).

**ITEM 5      Full Description of Material Change:**

Rodinia Lithium Inc. (“Rodinia” or the “Company”), as a result of a regulatory review by staff of the OSC, issued a press release to clarify and revise the disclosure in its March 2, 2011 press release. The Company is pleased to announce an update to its previously disclosed independent brine resource estimate for its Salar de Diablillos lithium-brine project (“Diablillos” or the “Salar”) located in Salta, Argentina, conducted by AMEC Internacional Ingenieria y Construccion Limitada (“AMEC”).

The updated estimate reports an inferred recoverable brine resource estimate of 530,000 tonnes of lithium metal, 5,911,000 tonnes of potassium and 615,000 tonnes of boron, which is equivalent to 2,817,000 tonnes of LCE, 11,270,000 tonnes of potash and 3,519,000 tonnes of Boric Acid. William Randall, CEO of Rodinia, commented “we are extremely pleased with the recoverable resource estimate and the overall geology of Diablillos. The dominant sand and gravel stratigraphic sequences observed in Diablillos imply potentially favourable pumping conditions. During the coming months we will endeavour to further refine our understanding of these parameters through core testing and well tests as we move the project towards a Preliminary Economic Assessment.”

Table 1 provides the details for the Diablillos brine resource, including estimates of recoverable Li, K, and B using specific yields.

**Table 1 – Brine Resource Estimate, Diablillos Lithium-Potash Project, Salta, Argentina as of March 29, 2011**

Aquifer	Recoverable Brine Volume (1000 m <sup>3</sup> )	Specific Yield (%)	S. G.	Concentration			Recoverable Tonnage			Recoverable LCE (1000)	Recoverable PE (1000)	Recoverable BAE (1000)
				Li (mg/l)	K (mg/l)	B (mg/l)	Li (Mt) (1000)	K (Mt) (1000)	B (Mt) (1000)			
I	41,470	15.00%	1.10	592	6,298	647	25	261	27	131	498	153
II	270,825	18.50%	1.07	471	5,269	540	128	1,427	146	679	2,721	836
III	640,258	18.50%	1.10	589	6,595	691	377	4,223	442	2,007	8,051	2,530
TOTAL	952,553	18.31%	1.09	556	6,206	646	530	5,911	615	2,817	11,270	3,519

Table 1 - Inferred recoverable brine resource estimate for the Salar de Diablillos. Equivalent tonnages are reported as recoverable in metric tonnes ("Mt") and were calculated using standard conversion rates as determined by the chemical composition of the final product, and are independent of price and mining processes. A 230 mg/l Li cut off was used for all resource estimations.

Notes:

1. Recoverable resources are determined by the specific yield which is the unit volume of fluid that will drain under gravity. The specific yield values may change when further data from the Diablillos deposit are collected. These resources do not include allowance for losses in extraction of Li, K and B from brines in a treatment plant.
2. The economic cut-off applied was based on analogous deposits.
3. Assumptions regarding thicknesses of Aquifer II and III may change with more detailed drilling and geophysical data.
4. The effective date of the estimate is March 1, 2011.

Rodinia began work on Diablillos in 2010. By the end of the same year management had completed an extensive auger sampling program and had drilled 16 reverse circulation drill holes covering the entire basin, collecting data that included lithology, specific gravity, reverse circulation return flow rates, temperature and other field measurements. Additionally, downhole geophysical logging (porosity and density), sediment and brine sampling was conducted at regular intervals where possible. The exploration program included a property-wide gravity and topographical survey. The results were deemed adequate for an initial resource estimate.

Lithium mineralization is confined within the enclosed basin. Vulcan software wireframe solids were generated by AMEC for the different domains, as well as the basement and topography surfaces. The Diablillos block model was created using Vulcan using a 250x250x6m block size with sub blocks down to 50x50x2m for aquifers II and III. For Aquifer I, where auger sampling was done on a 300x300m spacing, and the parent block size was 50x50x6m with sub blocks down to 25x25x2m. Block grades were calculated using inverse distance squared ("ID2") grade estimation methodologies. All blocks were assigned an Inferred brine resource classification. At depth resources within the third aquifer, were limited by an interpolated surface representing 30m below the total depth of drill holes.

An updated inferred recoverable resource has been estimated using assumed specific yield values of 18.5% for aquifers II and III and 15% for aquifer I which represents reasonable prospects for economic extraction in line with CIM Definition Standards. The assumed specific yield values were based primarily on information from analogous salars as well as the available information from drill logs, reverse circulation return flow rates and artesian conditions, and downholes geophysical logs. Specific yield provides an indication of the volume of brine that may be extracted from the subsurface aquifers by conventional pumping techniques, and therefore provides an estimate of recoverable resources.

The independent brine resource estimate prepared by AMEC is consistent with the standards set out in Canadian Securities Administrators' National Instrument

43-101 and the Company is treating the inferred brine resource estimate as a

National Instrument 43-101 resource estimate. The Company anticipates that a

report consistent with the format of a National Instrument 43-101 Technical

Report, which will incorporate the brine resource estimate, will be filed on SEDAR by April 18, 2011.

In addition, the Company would like to clarify statements made in its press release dated March 2, 2011 with respect to the Salar. While management of the Company does believe in the potential of the project and its future development, the statement that the project has the potential to become a producer of lithium, potassium and boron products is not supported by the necessary economic analysis at this time.

#### **About Rodinia Lithium Inc.:**

Rodinia Lithium Inc. is a Canadian mineral exploration and development company with a primary focus on Lithium exploration and development in North and South America. The Company is also actively exploring the commercialization of a significant Potash co-product that is recoverable through the lithium harvesting process.

Rodinia's Salar de Diablillos lithium-brine project in Salta, Argentina, contains 2.82 million tonnes inferred lithium carbonate equivalent resource and 11.27 million tonnes inferred potassium chloride equivalent resource. Throughout 2011, Rodinia will focus on continuing to develop the Diablillos project by completing additional drilling and advancing through scoping study.

The Company also holds 100% mineral rights to approximately 70,000 acres in Nevada's lithium-rich Clayton Valley in Esmeralda County, and is currently in the process of assessing the size, quality and processing alternatives of this deposit. The Clayton Valley project is located in the only known lithium-brine bearing salt lake in North America, and looks to represent the only new source for domestic lithium carbonate supply.

#### **Regulatory Notes**

The resource model and brine resource estimate was completed and/or supervised by Paula Larrondo, Principal Geologist, P. Geo., of AMEC Internacional Ingenieria y

Construccion Limitada, Santiago, Chile. By virtue of her background and professional experience is a "Qualified Person" as defined by NI 43-101.

The Project was supervised by Ray Spanjers, Rodinia's Manager of Exploration. Mr.

Spanjers is considered a Qualified Person, as defined by National Instrument 43-101.

Except for statements of historical fact contained herein, the information in this material change report constitutes "forward-looking information" within the meaning of Canadian securities law. Such forward-looking information may be identified by words such as "plans", "proposes", "estimates", "intends", "expects", "believes", "may", "will" and include without limitation, statements regarding the resource estimate, the impact of the drill program at the Diablillos property and results of such drill program; the potential of the Diablillos property; the potential results and timetable for further exploration with respect to the Clayton Valley project and the Diablillos property, the timetable with respect to future acquisitions and exploration developments at Clayton Valley and Diablillos, timetable for further exploration, analysis and development, title disputes or claims; and governmental approvals and regulation. There can be no assurance that such statements will prove to be accurate; actual results and future events could differ materially from such statements. Factors that could cause actual results to differ materially include, among others, metal prices, competition, financing risks, acquisition risks, risks inherent in the mining industry, and regulatory risks. Most of these factors are outside the control of the Company. Investors are cautioned not to put undue reliance on forward-looking information. Except as otherwise required by applicable securities statutes or regulation, the Company expressly disclaims any intent or obligation to update publicly forward-looking information, whether as a result of new information, future events or otherwise.

**ITEM 6            Reliance on subsection 7.1(2) or (3) of National Instrument 51-102:**

This report is not being filed on a confidential basis.

**ITEM 7            Omitted Information:**

Not applicable.

**ITEM 8            Executive Officer:**

Aaron Wolfe  
Vice President, Corporate Development

Tel: +1 (416) 309-2696

**ITEM 9**

**Date of Report:**

April 7, 2011