

**ASX RELEASE**

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15 February 2017

**MARICUNGA LITHIUM BRINE PROJECT  
DEEP DRILLING CONFIRMS NEW HIGH GRADE LITHIUM BRINE  
DISCOVERY TO 354m**

- Deep drilling Intersection confirms significant high grade lithium over a 336m interval and remains open at depth in high grade lithium bearing sands.
- Peak lithium grade over 1,600 mg/l and 10,600 mg/l potassium.
- Deep drill hole S19, in the centre of the Cocina tenement, recorded 975 mg/l lithium grade (average) and 7,273 mg/l potassium (average) over a 336m interval from 18m to 354m, with a peak assay of 1,614 mg/l lithium and 10,610 mg/l potassium.
- Drill hole S18, in the centre of the Litio tenements, recorded 1,382 mg/l lithium grade (average) and 11,041 mg/l potassium (average) over the 168m test interval, with a peak assay of 1,740 mg/l lithium and 13,260 mg/l potassium.
- Drill hole S2, in the northwest of the Cocina tenement, recorded 954 mg/l lithium grade (average) and 6,580 mg/l potassium (average) over the 192m test interval, with a peak assay of 1,940 mg/l lithium and 13,210 mg/l potassium.
- Lithium grades at Maricunga are significantly higher than any other brine project in South America except for that of the producing Atacama, Chile lithium brine project operated by SQM and Albemarle.
- Final assays from the Maricunga drilling program confirm high grade lithium brine is present throughout the Maricunga properties, with hole S19 suggesting the brine body is extensive and continues significantly deeper below the 200m resource drilling.

**Lithium Power International's Chief Executive Officer, Martin Holland, commented:**

"The deep drill hole S19 is a very significant result for the company, demonstrating porous sediments exist below the 200m depth of the resource drilling. This result points to the potential for a long-term mine life at the Maricunga project. The project is a major high grade lithium brine body open at depth and now that the drilling program is complete, the company is working on the resource estimate, in parallel with the environmental impact assessment and process and engineering studies for the project. We look forward to providing updates on these activities as we advance. Furthermore, the company has an extensive international investor roadshow planned from the 27<sup>th</sup> of February to the 16<sup>th</sup> of March across Chile, Toronto (PDAC) and USA".

## Deep Drill Hole S19

Hole S19 was drilled to a depth of 360m in the Cocina property, to the north of the existing resource\* in the Litio properties (Figure 1). The objective of this rotary drill hole was to provide information on the sediment type and lithium brine concentrations below the depth of the new resource drilling. This hole is significant, as it shows the thick sand and gravel sequence in the upper 200m of the joint venture properties continues at depth beneath the area of the upcoming resource estimate.

A depth of 400m was the target for this drill hole, however the extensive sandy material encountered in the hole resulted in the hole ending at 360m with the brine body open at depth and high grade lithium bearing sands at the end of the hole. The thick sequence of sand and gravel encountered in this hole has similar characteristics to the overlying sediments, from which core samples taken in other holes have been submitted for porosity and permeability testing. Visual observations of the S19 sediment samples suggest positive implications for extractable brine porosity.

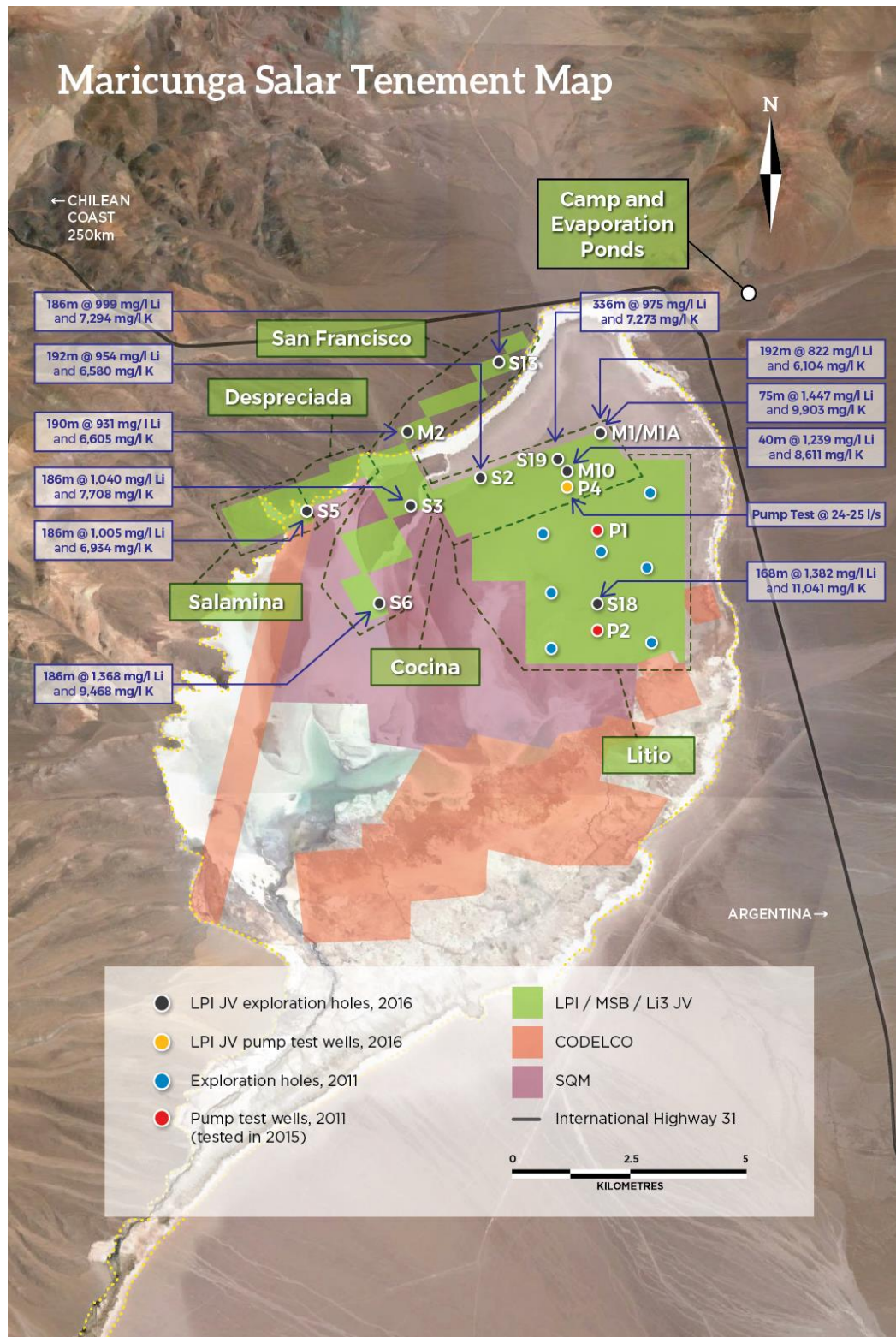
Drill hole S19, recorded 975 mg/l lithium grade (average) and 7,273 mg/l potassium (average) over the 336m interval from 18m to 354m, with a peak assay of 1,614 mg/l lithium and 10,610 mg/l potassium.

Drill cuttings were collected every two metres, while the brine samples were collected on 6m intervals from 18m to 204m. Due to the sandy material the brine sample spacing was increased from 6m to 12m between 204m and 354m, the last sample in the hole. The results presented in Tables 1 and 2 are a weighted average based on the relative lengths of sampling at 6m and 12m.

## Drill Hole S18

Drill hole S18 was drilled in the southern central area of the Litio tenements, to provide information to supplement the original Litio drilling and to extend the planned resource estimate below the existing resource\* depth of 150m. The hole was completed to 173m by sonic drilling, (Figure 2) and sampled every 6m, over a 168m test interval (from 5m to 173m). S18 is located approximately 3km south southeast from pump test hole P4 (and hole M10), and 4.2km east from hole S6 (see Figure 1). S18 is located between sonic holes C3 and C4 and hole P2 which form part of the existing resource estimate\*.

Drill hole S18 recorded 1,382 mg/l lithium grade (average) and 11,041 mg/l potassium (average) over the 168m test interval, with a peak assay of 1,740 mg/l lithium and 13,260 mg/l potassium. As with previous drill holes, S18 finished in high-grade lithium brine at the end of the hole.



**Figure 1:** Maricunga lithium brine project tenements - with location results of exploration drill holes

## Drill Hole S2

Drill hole S2 was drilled in the northwest of the “old code” Cocina tenement. The hole was completed to 200m by sonic drilling, and sampled every 6m, over a 192m test interval (from 5m to 197m). S2 is located approximately 1.3 km west of pump well P4 (and hole M10) and approximately 2.4km southwest from holes M1/M1A (see Figure 1).

Drill hole S2, recorded 954 mg/l lithium grade (average) and 6,580 mg/l potassium (average) over the 192m test interval, with a peak assay of 1,940 mg/l lithium and 13,210 mg/l potassium. The hole consists of predominantly sandy and gravelly material below a layer of salt (halite) and clay. The highest assay of lithium and potassium in this hole is in the first sample, confirming observations from other holes of especially high grade brine in the upper halite layer.



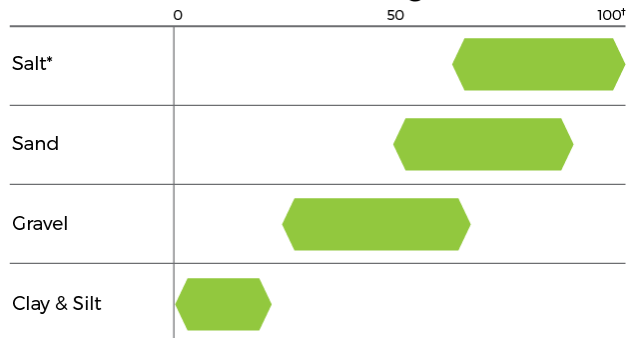
**Figure 2:** Maricunga Sonic drill rig working at night, cutting porosity core samples and gravel material in core

## Salar Porosity

A very important observation from the completed drilling program is that the Maricunga Salar contains extensive sandy to gravelly material in the joint venture properties. This is very significant as it suggests a relatively high drainable porosity and a relatively high proportion of the brine contained in the sediments could be extracted. Pump testing confirms these sediments allow high volume brine extraction (see Figure 3 for a generalized comparison of possible flow rates from different sediment types).

Porosity is a related characteristic to permeability, and refers to the percentage of pore spaces between grains of sediment that can host lithium brine. There are several different measures of porosity, but the most important metric for brine deposits is the “drainable porosity” (see Figure 4). This represents brine that can be extracted from an aquifer during pumping and used for lithium production. The drainable porosity value is lower for fine grained sediments (clays and silts) and higher for coarser sediments (salt, sands and gravels).

### Relative brine flow rate – ranges

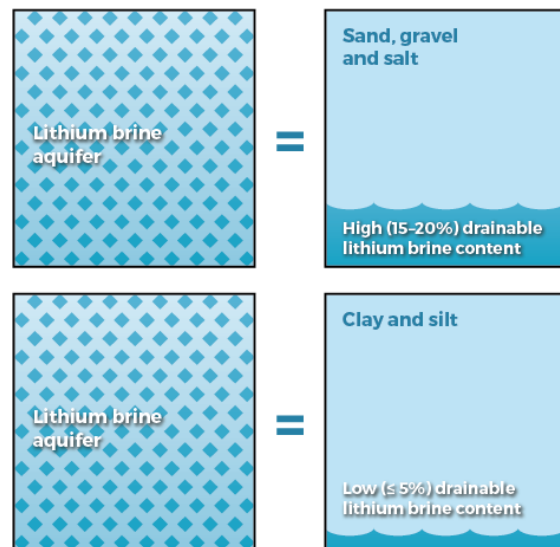


\* Flow rate indicative of salt within 50m of surface only.

† Refers to relative brine flow rate using Index 0-100.

### Aquifer composition

Like a sponge, an aquifer holds brine in its pores and crevices. The volume of drainable brine which can be extracted is determined by porosity and permeability of the underlying sediment type.



**Figure 3:** Relative brine flow rates by sediment type

**Figure 4:** Drainable brine hosted in an aquifer

### Exploration Update

Resource Drilling has now been completed at the Maricunga project with results being collated for the upcoming resource estimate. The pump test at P4 has also now been completed, and results from this will be reported shortly.

Exploration Hole Number/Name		Total Depth (m)	Assay Interval (m)	Lithium (mg/l avg)	Potassium (mg/l avg)	Drilling method	Elevation mean sea level (m)	Coordinates (WGS 84 zone 19S)		Azimuth	Dip
								UTM mN	UTM mE		
1	M10	200	40	1,239	8,611	Rotary	3,760	7,027,170	493,450	0	-90
2	M1	77	66	1,447	9,903	Rotary	3,760	7,028,190	494,270	0	-90
3	M2	198	190	931	6,605	Rotary	3,765	7,028,210	490,570	0	-90
4	S5	200	186	1,005	6,934	Rotary	3,765	7,026,390	488,540	0	-90
5	S3	200	186	1,040	7,708	Rotary	3,765	7,026,300	490,560	0	-90
6	S13	200	186	999	7,294	Rotary	3,765	7,030,020	492,310	0	-90
7	S6	200	186	1,368	9,468	Rotary	3,760	7,024,000	489,900	0	-90
8	M1A	200	192	822	6,104	Sonic	3,760	7,028,180	494,260	0	-90
9	S2	200	192	954	6,580	Sonic	3,760	7,027,145	492,131	0	-90
10	S18	173	168	1,382	11,041	Sonic	3,760	7,024,140	494,050	0	-90
11	S19	360	336	975	7,273	Rotary	3,760	7,027,380	493,100	0	-90
Pump	P4	180	Pumping well 24-25 l/s			Rotary	3,760	7,027,180	493,440	0	-90

**Table 1:** Details of drill hole locations & assay results at the Maricunga project. Drill locations are to be confirmed by a surveyor now the drilling program is complete. All coordinates are in WGS84 Zone 19 South.

**Maricunga JV Background**

The Maricunga JV is 50%-owned by LPI. The project is regarded by LPI management as one of the highest quality undeveloped pre-production lithium project globally, with a very high grade of both lithium and potassium. The Litio properties in the salar has been subject to significant past exploration by our JV partners, Minera Salar Blanco and Li3 Energy, in order to generate the existing lithium and potassium resource\*. The current drilling program and pump test are targeting an expansion of that resource on both the existing properties and additional properties (which have been acquired since), with a new JORC compliant resource estimate anticipated during 1H17.

**For further information, please contact:****Martin C Holland – CEO**

Lithium Power International

E: [info@lithiumpowerinternational.com](mailto:info@lithiumpowerinternational.com)

Ph: +612 9276 1245

[www.lithiumpowerinternational.com](http://www.lithiumpowerinternational.com)

@LithiumPowerLPI

\* The reader is referred to the previous announcement by LPI on 28 July 2016, which provided details of the Maricunga project resource and information regarding what is considered by ASX as a production target. With regards to the resource LPI confirms that it is not in possession of any new information or data relating to the resource (which is considered by ASX to be a foreign estimate) that materially impacts on the reliability of the estimate or the mining entity's ability to verify the foreign estimate as mineral resources in accordance with Appendix 5A (JORC Code). LPI confirms that all the material assumptions underpinning the production target provided in that announcement continue to apply. LPI confirms that the supporting information provided in the announcement by LPI on 28 July 2016 continues to apply and has not materially changed. LPI cautions that the foreign estimate was not reported in accordance with the JORC code.

This work was completed prior to three years before the joint venture on the project was announced by LPI on 20 July 2016. A competent person has not done sufficient work to classify the foreign estimate as mineral resources or ore reserves in accordance with the JORC Code. It is uncertain that following evaluation and/or further exploration work that the foreign estimate will be able to be reported as mineral resources or ore reserves in accordance with the JORC Code. As the Maricunga resource estimate was not undertaken under the JORC code, LPI intends to verify this foreign estimate as part of the current drilling and assaying program at the Maricunga project. Work will consist of sonic and rotary drilling and detailed sampling and analysis, with an accompanying QA/QC program. Future reporting will be under the JORC code.

#### **Competent Person's Statement – MARICUNGA LITHIUM BRINE PROJECT**

The information contained in this ASX release relating to Exploration Results has been compiled by Mr Murray Brooker. Mr Brooker is a Geologist and Hydrogeologist and is a Member of the Australian Institute of Geoscientists and the International Association of Hydrogeologists. Mr Brooker has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a competent person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. He is also a "Qualified Person" as defined by Canadian Securities Administrators' National Instrument 43-101.

Mr Brooker is an employee of Hydrominex Geoscience Pty Ltd and an independent consultant to Lithium Power International. It should be noted that Mr Brooker was awarded a number of shares and options at the recent Lithium Power International AGM and Mr Brooker hereby declares this ownership. Mr Brooker consents to the inclusion in this announcement of this information in the form and context in which it appears. The information in this announcement is an accurate representation of the available data from initial drilling at the Maricunga project.

Hole S19			Hole S19			Hole S18		
Depth m	Li mg/l	K mg/l	Depth m	Li mg/l	K mg/l	Depth m	Li mg/l	K mg/l
18	1,614	10,610	288	903	7,210	173	1,343	10,140
24	1,287	9,540	300	840	7,440	Average s18	1,382	11,041
30	1,170	7,430	312	913	7,200	Hole S2		
36	1,197	7,050	324	906	7,090	Depth m	Li mg/l	K mg/l
42	927	7,370	336	920	7,070	5	1,940	13,210
48	920	6,440	348	887	6,880	11	1,772	11,540
54	910	5,780	354	877	6,910	17	1,263	8,330
60	913	6,740	Average S19	975	7,273	23	1,186	7,370
66	923	7,090	Hole S18			29	1,123	7,070
72	843	6,670	Depth m	Li mg/l	K mg/l	35	1,150	7,210
78	927	7,250	5	1,170	8,500	41	1,586	10,230
84	920	7,050	11	1,170	8,550	47	1,106	6,560
90	940	7,130	17	1,093	8,040	53	946	6,260
96	936	7,180	23	1,160	8,350	59	940	6,220
102	870	6,460	29	1,233	9,000	65	930	5,590
108	863	6,560	35	1,103	8,120	71	860	4,950
114	857	6,540	41	1,067	8,540	77	776	5,520
120	877	6,230	47	1,450	11,590	83	640	5,060
126	1,050	6,120	53	1,734	13,200	89	660	4,690
132	1,193	6,330	59	1,267	10,270	95	720	4,890
138	1,000	7,020	65	1,740	13,260	101	770	4,870
144	1,140	6,720	71	1,167	10,580	107	776	4,840
150	1,150	6,630	77	1,163	10,500	113	770	4,910
156	1,077	6,960	83	1,167	10,710	119	770	4,910
162	960	7,110	89	1,173	10,710	125	743	5,050
168	1,140	7,070	95	1,197	10,850	131	710	4,950
174	1,020	7,160	101	1,187	10,410	137	670	5,070
180	987	7,360	107	1,207	10,530	143	700	5,670
186	1,053	8,000	113	1,526	12,200	149	693	5,790
192	977	7,520	119	1,640	12,960	155	716	5,910
198	810	7,510	125	1,654	13,210	161	723	5,940
204	987	7,850	131	1,680	13,160	167	743	6,140
216	923	7,770	137	1,640	13,240	173	763	6,500
228	983	7,810	143	1,706	13,490	179	820	6,780
240	977	8,080	149	1,620	13,160	185	913	8,940
252	990	8,220	155	1,626	12,620	191	1,310	7,350
264	980	7,890	161	1,574	12,030	197	1,310	8,820
276	910	7,320	167	1,620	12,280	Average S2	954	6,580

**Table 2:** Summary of assay results from drill holes S19, S18 and S2 at the Maricunga project

**APPENDIX 1 - JORC Code, 2012 Edition - Table 1 Report: Maricunga Salar**

Criteria	Section 1 - Sampling Techniques and Data
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>Drill cuttings were taken during rotary drilling. These are low quality drill samples, but provide sufficient information for lithological logging and for geological interpretation.</li> <li>Drill core was recovered in plastic liners and plastic bags alternating every core run during the sonic drilling.</li> <li>Brine samples were collected at 6m intervals during drilling. This involved purging brine from the drill hole and then taking a sample corresponding to the interval between the rods and the bottom of the hole. Brine samples below 204m in S19 were taken every 12m.</li> <li>The brine sample was collected in a clean plastic bottle and filled to the top to minimize air space within the bottle. Each bottle was taped and marked with the sample number and details of the hole.</li> </ul>
<i>Drilling technique</i>	<ul style="list-style-type: none"> <li>Rotary drilling – This method was used with the natural formation brine for lubrication during drilling, to minimize the development of wall cake in the holes that could reduce the inflow of brine to the hole and affect brine quality.</li> <li>Rotary drilling allowed for recovery of drill cuttings and basic geological description. During rotary drilling, cuttings were collected directly from the outflow from the drill collar. Drill cuttings were collected over two metre intervals in cloth bags, that were marked with the drill hole number and depth interval. Sub-samples were collected from the cloth bag by the site geologist to fill chip trays (also at a one metre interval).</li> <li>Sonic drilling (M1A, S2, S18) produced cores with close to 100% core recovery. This technique uses sonic vibration to penetrate the salt lake sediments and produces cores without the rotation and drilling fluid cooling of the bit required for diamond drilling – which often results in the washing away of more friable unconsolidated sediments, such as sands</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>Rotary drill cuttings were recovered from the hole in porous cloth bags to retain drilling fines, but to allow brine to drain from the sample bags (brine is collected by purging the hole every 6 m and not during the drilling directly, as this uses recirculated brine for drilling fluid).</li> <li>Sonic drill core was recovered in plastic liners, alternating with sample drilled and transferred to purpose-made tubular plastic bags.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>Rotary drilling was carried out for the collection of drill cuttings for geologic logging and for brine sampling. Drill cuttings were logged by a geologist.</li> <li>Sonic holes are logged by a geologist who splits the plastic tube (after porosity samples are taken) and geologically logs the core.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>Brine samples collected following the purging of the holes are homogenized as brine is extracted from the hole using a bailer device. No sub-sampling is undertaken in the field.</li> <li>The brine sample was collected in one-litre sample bottles, rinsed and filled with brine. Each bottle was taped and marked with the drill hole number and details of the sample. Prior to sending samples to the laboratory they were assigned unique sequential numbers with no relationship to the hole number.</li> </ul>

<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>The University of Antofagasta in northern Chile is used as the primary laboratory to conduct the assaying of the brine samples collected as part of the drilling program. They also analyzed blanks, duplicates and standards, with blind control samples in the analysis chain. The laboratory of the University of Antofagasta is not ISO certified, but it is specialized in the chemical analysis of brines and inorganic salts, with extensive experience in this field since the 1980s, when the main development studies of the Salar de Atacama were begun.</li> <li>The quality control and analytical procedures used at the University of Antofagasta laboratory are considered to be of high quality and comparable to those employed by ISO certified laboratories specializing in analysis of brines and inorganic salts.</li> <li>Samples for porosity test work are cut from the base of the plastic drill tubes every 3m.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>A full QA/QC program for monitoring accuracy, precision and to monitor potential contamination of samples and the analytical process was implemented. Accuracy, the closeness of measurements to the "true" or accepted value, was monitored by the insertion of standards, or reference samples, and by check analysis at an independent (or umpire) laboratory.</li> <li>Duplicate samples in the analysis chain were submitted to the University of Antofagasta as unique samples (blind duplicates) following the drilling process.</li> <li>Stable blank samples (distilled water) were inserted to measure cross contamination during the drilling process.</li> <li>The anion-cation balance was used as a measure of analytical accuracy and was always considerably less than +/-5%, which is considered to be an acceptable balance.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>The hole was located with a hand held GPS.</li> <li>The location is in WGS84 Zone 19 south.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>Lithological data was collected throughout the drilling. Drill holes have a spacing of approximately 2km.</li> <li>Brine samples have a 6m vertical separation and lithological samples are on 1m intervals. Porosity samples were taken every 3m in sonic core holes.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>The salar deposits that host lithium-bearing brines consist of subhorizontal beds and lenses of halite, sand, gravel and clay. The vertical holes are essentially perpendicular to these units, intersecting their true thickness.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>Samples were transported to the University of Antofagasta (primary, duplicate and QA/QC samples) for chemical analysis in sealed 1-litre rigid plastic bottles with sample numbers clearly identified.</li> <li>The samples were moved from the drill site to secure storage at the camp on a daily basis. All brine sample bottles are marked with a unique label.</li> </ul>
<i>Review (and Audit)</i>	<ul style="list-style-type: none"> <li>No audit of data has been conducted to date.</li> </ul>

Section 2 - Mineral Tenement and Land Tenure Status	
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>The Maricunga property is located approximately 170km northeast of Copiapo in the III Region of northern Chile at an elevation of approximately 3,800 masl.</li> <li>The property comprises 1,438 ha in six mineral claims known as Litio 1 through Litio 6. In addition the Cocina 19-27 properties, San Francisco, Salamina and Despreciada properties have been added since the resource estimate on the Litio properties.</li> <li>The properties are located in the northern section of the Salar de Maricunga.</li> <li>The tenements/properties are believed to be in good standing, with payments made to relevant government departments.</li> </ul>
<i>Exploration by other parties</i>	<ul style="list-style-type: none"> <li>SLM Litio drilled 58 vertical holes in the Litio properties on a 500m x 500m grid in February, 2007. Each hole was 20m deep. The drilling covered all of the Litio 1 – 6 property holdings.</li> <li>Those holes were 3.5" diameter and cased with either 40mm PVC or 70mm HDPE pipe inserted by hand to resistance. Samples were recovered at 2m to 10m depth and 10m to 20m depth by blowing the drill hole with compressed air and allowing recharge of the hole.</li> <li>Subsequently, samples were taken from each drill hole from the top 2m of brine. In total, 232 samples were collected and sent to Cesmec in Antofagasta for analysis.</li> <li>Prior to this the salar was evaluated by Chilean state organization Corfu, using hand dug pit samples.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>The sediments within the salar consist of halite, sand, gravel and clay which have accumulated in the salar from terrestrial sedimentation and evaporation of brines within the salar.</li> <li>Brines within the salar are formed by solar concentration, with brines hosted within the different sedimentary units</li> <li>Geology was recorded during drilling to of all the holes.</li> </ul>
<i>Drill hole data</i>	<ul style="list-style-type: none"> <li>Lithological data was collected from the holes as they were drilled as drill cuttings, and at the geological logging facility for sonic cores, with the field parameters (electrical conductivity, density, pH) measured on the brine samples taken on 6 m intervals.</li> <li>Brine samples were collected at 6 m intervals and sent for analysis to the University of Antofagasta, together with quality control/quality assurance samples.</li> </ul>
<i>Data aggregation</i>	<ul style="list-style-type: none"> <li>Brine samples taken from the holes every 6m represent composite samples over the sample interval.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>The lithium-bearing brine deposits extend across the properties and over a thickness of &gt; 150m to 200m (depending on the depth of drilling), limited by the depth of the drilling</li> <li>The drill holes are vertical and perpendicular to the horizontal sediment layers in the salar.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>Diagrams were provided in Technical report on the Maricunga Lithium Project Region III, Chile NI 43-101 report prepared for Li3 Energy May 23, 2012. See attached location map.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>This announcement presents representative key results from drilling at the Maricunga salar. Further information will be provided following additional drilling and field activities.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>Refer to the information provided in Technical report on the Maricunga Lithium Project Region III, Chile. NI 43-101 report prepared for Li3 Energy May 23, 2012.</li> </ul>

*Further work*

- The company will consider additional drilling on the properties which have been added to the project since the 2012 public report.