

Friday, 10 March 2023 ASX Code: LEL

## MARKET ANNOUNCEMENT

### **Positive Specific Yields and Significant Averaged Lithium** Concentrations in SOZDD001 at Solaroz Lithium Brine Project

#### **SUMMARY**

- Review of Geophysical Hole Logging data and assays at the first Drillhole (SOZDD001) at the Solaroz Lithium Brine Project in Argentina confirms positive Specific Yields and significant averaged lithium concentrations across 235 metres of lithium brine mineralisation in two aguifers.
- Averaged lithium concentration of 446 mg/L across an 175 metre intersection from 55 metres depth in the upper aquifer, with an averaged Specific Yield of 15%.
- Averaged lithium concentration of 501 mg/L across a 60 metre intersection from 265 metres depth in the lower Deep Sands Unit, with an averaged Specific Yield of 11%.
- Positive total porosity and specific yield measurements together with low Mg/Li ratio across both aquifers considered highly favourable for potential future brine extraction.
- Drilling of Holes 2 (SOZDD002) and 3 (SOZDD003) at Solaroz are now complete and pending geophysical hole logging and assays results and review. Holes 4 and 5 of the Initial 10 hole programme to commence shortly.

Lithium Energy Limited (ASX:LEL) (Lithium Energy or Company) is pleased to confirm that a review of geophysical hole logging data and assay results at the maiden drillhole of its flagship Solaroz Lithium Brine Project (Solaroz) has confirmed excellent averaged lithium concentrations across significant intersection widths in both the upper and lower aguifers.

As previously reported<sup>1</sup>, cumulative intersections of up to 235 metres of lithium brine mineralisation were encountered in hole SOZDD001, located in the Mario Angel concession at Solaroz, across upper and lower aquifers.

A subsequent review of the geophysical hole logging and assay results from packer sampling of conductive brines has enabled the determination of the averaged lithium concentrations across each of the two aquifers. The lithium concentration averaged 446 mg/L in the upper aquifer (across an intersection of 175 metres) and 501 mg/L in the lower aquifer (across an intersection 60 metres), with both aquifers exhibiting positive Specific Yield measurements and Mg/Li ratios which would indicate very favourable lithium extraction conditions.

Refer LEL ASX announcements dated 16 November 2022: Drilling Completed at Maiden Drillhole at Solaroz Lithium Brine Project; 1 November 2022: Further Significant Lithium Concentrations Encountered in Maiden Drillhole at Solaroz Lithium Brine Project; 19 October 2022: Major Lithium Discovery Confirmed In First Drillhole of Maiden Programme at the Solaroz Lithium Brine Project and 5 October 2022: Significant Intersection of Highly Conductive Brines in Maiden Drillhole at Solaroz Lithium Brine Project



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Geophysical hole logging undertaken on SOZDD001 provided measurements including porosity, specific yield, conductivity and spectral gamma. The measurements of averaged Total Porosity and Specific Yield (which is a measure of the amount of brine which can ultimately be extracted and thus is a key parameter used for calculating a lithium brine resource) across both the upper and lower aquifers are reported below:

	Hole Depth Range			Averaged <sup>1</sup>			Averaged <sup>2</sup>	Averaged <sup>2</sup>
7	E ()	T- ()	Interval	Li ((1)	Averaged <sup>1</sup>	Average	Total	Specific
Zones	From (m)	To (m)	(m)	(mg/l)	Mg (mg/l)	d Mg/Li	Porosity	Yield
Upper Aquifer	55	230	175	446	1016	2.3	26%	15%
Lower Aquifer/Deep								
Sands Unit	265	325	60	501	907	1.8	29%	11%

#### Notes:

- (1) Averaged Lithium and Magnesium were determined by numerical average of the designated geological unit (ie. aquifer)
- (2) Total Porosity and Specific Yield were determined by the Borehole Magnetic Resonance (BMR) Probe, with Specific Yield being the portion of the Total Porosity free for brine movement, with the averaged results determined by numerical average of samples 2cm apart through the length of the geophysical log.

These measurements of averaged lithium concentrations, Mg/Li ratio, Porosity and Specific Yield are all considered to be highly positive and will provide important data for the delineation of a maiden JORC Mineral Resource at Solaroz.

#### **Summary of Hole 1 Assay Geophysical Hole Logging Results**

Drilling at the first diamond drill hole (borehole SOZDD001) at Solaroz (refer Figure 2) was completed to a depth of ~337.5 metres, with cumulative intersections of up ~235 metres of lithium brine mineralisation (hosted in porous sandstones) with significant levels of Lithium brine concentrations encountered, as follows:

- An upper aquifer 175 metres thick between 55 to 230 metres depth of mostly uniform lithium brine hosting sandstone units and fine gravels, with packer sampling assay results indicating significant lithium grades generally increasing with depth from 399mg/l at 94 metres to up to 555mg/l at 229 metres depth, averaging of 446 mg/L across the full width of the intersection.
- A lower aquifer (the Deep Sands Unit) 60 metres thick of mostly uniform lithium brine hosting sandstone units and fine gravels, extending from 265 to 325 metres depth, with assay results of up to 517 mg/l lithium sampled at 274 metres depth, averaging 501 mg/L across the full width of the intersection.

The results from individual packer samples for SOZDD001 are in Table 1 (also previously announced<sup>2</sup>). These results have been further reviewed in conjunction with the subsequent geophysical hole logging (refer also Figure 3), to calculate averaged lithium concentrations across the upper and lower aquifers as outlined above.

#### **AUTHORISED FOR RELEASE - FOR FURTHER INFORMATION:**

William Johnson
Executive Chairman
T | (08) 9214 9737
E | chair@lithiumenergy.com.au

Peter Smith
Executive Director
T | (08) 9214 9737

E | cosec@lithiumenergy.com.au

<sup>2</sup> Refer LEL ASX Announcement 1 November 2022: Further Significant Lithium Concentrations Encountered in Maiden Drillhole at Solaroz Lithium Brine Project

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## Positive Specific Yields and Significant Averaged Lithium Concentrations in SOZDD001 at Solaroz Lithium Brine Project

#### ABOUT LITHIUM ENERGY LIMITED (ASX:LEL)

Lithium Energy Limited is an ASX listed battery minerals company which is developing its flagship Solaroz Lithium Brine Project in Argentina and the Burke Graphite Project in Queensland. The Solaroz Lithium Project (LEL:90%) comprises 12,000 hectares of highly prospective lithium mineral concessions located strategically within the Salar de Olaroz Basin in South America's "Lithium Triangle" in north-west Argentina. The Solaroz Lithium Project is directly adjacent to or principally surrounded by mineral concessions being developed into production by Allkem Limited (ASX/TSX:AKE) and Lithium Americas Corporation (TSX/NYSE:LAC). The Burke Graphite Project (LEL:100%) contains a high grade graphite deposit and presents an opportunity to participate in the anticipated growth in demand for graphite and graphite related products.

#### JORC CODE COMPETENT PERSON'S STATEMENTS

The information in this document that relates to Exploration Results (in relation to drillhole SOZDD001) in relation to the Solaroz Lithium Project are based on, and fairly represents, information and supporting documentation prepared by Mr Peter Smith, BSc (Geophysics) (Sydney) AIG ASEG. Mr Smith is a Member of the Australian Institute of Geoscientists (AIG) and an Executive Director of the Company. Mr Smith has the requisite experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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' (the JORC Code). Mr Smith consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

The information in this document that relates to Exploration Targets and other Exploration Results in relation to the Solaroz Lithium Project is extracted from the following ASX market announcements made by Lithium Energy dated:

- 27 February 2023 entitled "Drilling Continues to Advance at Solaroz Lithium Brine Project"
- 31 January 2023 entitled "Drilling Continues to Encounter Significant Intersections of Highly Conductive Brines at Solaroz Lithium Project"
- 14 December 2022 entitled "Intersections of Conductive Brines Encountered in Further Drillholes at Solaroz Lithium Project in Argentina"
- 16 November 2022 entitled "Drilling Completed at Maiden Drillhole at Solaroz Lithium Brine Project"
- 1 November 2022 entitled "Further Significant Lithium Concentrations Encountered in Maiden Drillhole at Solaroz Lithium Brine Project"
- 19 October 2022 entitled "Major Lithium Discovery Confirmed In First Drillhole of Maiden Programme at the Solaroz Lithium Brine Project"
- 5 October 2022 entitled "Significant Intersection of Highly Conductive Brines in Maiden Drillhole at Solaroz Lithium Brine Project"
- 18 August 2022 entitled "Highly Encouraging Geophysics Paves Way for Commencement of Drill Testing of Brines at Solaroz"
- 9 May 2022 entitled "Geophysics Expanded Across all Concessions to Refine Drill Targets at Solaroz Lithium Project"
- 8 June 2021 entitled "Substantial Lithium Exploration Target Identified at the Solaroz Project in Argentina"
- 26 May 2021 entitled "Geophysical Data Supports Highly Encouraging Exploration Potential for Solaroz"

The information in the original announcements is based on, and fairly represents, information and supporting documentation prepared and compiled by Mr Peter Smith (BSc (Geophysics) (Sydney) AIG ASEG). Mr Smith is a Member of AIG and a Director of the Company. Mr Smith has the requisite experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements (referred to above). The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements (referred to above).

Lithium Energy's ASX Announcements may be viewed and downloaded from the Company's website: www.lithiumenergy.com.au or the ASX website: www.asx.com.au under ASX code "LEL".



#### **ANNEXURE A**

# JORC CODE (2012 EDITION) CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA FOR EXPLORATION RESULTS

#### **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections)

Criteria	Explanation	Comments
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used</li> <li>Aspects of the determination of mineralisation that are material to the Public report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	The Precollar from surface was drilled using Tricone drilling method, and chips were logged as collected, to a depth of 60m, this being the pre-collar depth. The pre-collar was then cemented in and HQ Core drilled.  Core recovery from the HQ was carefully measured by comparing the measured core to the core runs, and then a total recovery per section determined.  HQ Drill core sampling was undertaken along the entire length of the hole to obtain representative samples of the stratigraphy and sediments that host brine.  Water/brine samples were taken from target intervals, using Double and Single Packer sampling (depending on the condition of the drillhole) where brine is collected by purging isolated sections of the hole of all fluid for a total of ~1500L to minimize the possibility of contamination by drilling fluid. The hole was then allowed time to refill with ground water, where a sample for laboratory analysis is collected (~1.5L).  The casing lining the hole ensures contamination with water from higher levels in the borehole is likely prevented. Samples were taken from the relevant section based upon geological logging and conductivity testing of water.  Nine (9) water/brine samples have been collected in total from the following intervals: 71-75m, 75-79m, 93-97m, 111-115m, 129-133m, 148-152m, 227-229m, 268-274m and 275-293m.  Conductivity, and Density tests are taken with a field portable High Range Hanna multi parameter meter.  The results of such sampling are in Table 1, which have also been previously reported - refer the Company's ASX Announcement dated 1 November 2022 entitled "Further Significant Lithium Concentrations Encountered in Maiden Drillhole at Solaroz Lithium Brine Project."
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method etc.).	The Precollar from surface was drilled using Tricone drilling method, and chips were logged as collected, to a depth of 60m, this being the pre-collar depth. The pre-collar was then cemented in and HQ Core drilled.  Core recovery from the HQ was carefully measured by comparing the measured core to the core runs, and then a total recovery per section determined.  HQ Drill core sampling was undertaken along the entire length of the hole to obtain representative samples of the stratigraphy and sediments that host brine.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	Core recovery from the HQ was carefully measured by comparing the measured core to the core runs, and then a total recovery per section determined.





Criteria	Explanation	Comments
	<ul> <li>Measurements taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged</li> </ul>	Lithium Energy has Geologists on site logging the drill core 24/7.  The core is logged by a senior geologist and contract geologists (who are overseen by the senior geologist). The senior geologist also supervises the taking of samples for laboratory analysis.  Logging is both qualitative and quantitative in nature. The relative proportions of different lithologies which have a direct bearing on the overall porosity, contained and potentially extractable brine are noted, as are more qualitative characteristics such as the sedimentary facies. Cores are photographed.  All core is logged by a geologist.  Downhole geophysical logging was undertaken by Zealandez, a Salta (Argentina) based specialist Borehole Geophysical Logging company with a number of logging probes, including, Caliper, Conductivty, Resistivity, Borehole Nuclear Magnetic Resonance (NMR or BMR), Spectral Gamma.  The BMR probe in particular provides information of Total Porosity, Specific Retention and Specific Yield.  The total porosity of a rock formation represents the total pore space.  Although Total Porosity has two principal components, Specific Retention and Specific Yield:  (a) Specific Retention (Sr), represents the portion of the Total Porosity that is retained by clay and capillary bound sections of a rock formation.  (b) Specific Yield (Sy) is the amount of water/brine that is actually available for groundwater pumping.
		Porosity  Specific retention Sr  Specific yield Sy  Specific Yield is a key parameter when calculating a Lithium Brine Resource — the Company has determined Specific Yield from Geophysical Logging with a down hole BMR probe.
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffles, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> </ul>	Water/brine samples were collected by purging isolated sections of the hole of all fluid in the hole, to minimize the possibility of contamination by drilling fluid, then allowing the hole to re-fill with ground water. Samples were then taken from the relevant section.





Criteria	Explanation	Comments
	<ul> <li>For all sample types, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected,</li> </ul>	
	including for instance results for field duplicate/second-half sampling.  • Whether sample sizes are appropriate to the grain size of	
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their</li> </ul>	Samples are (to be, where applicable) transported to reputable industry standard laboratories both in country (Argentina) and in the USA for various test work.  Brine samples were sent to the Alex Stewart International Laboratory in Argentina, where detailed chemistry is being processed. The laboratory is ISO 9001 and ISO 14001 certified and specialises in the chemical analysis of brines and inorganic salts, with considerable experience in this field.  The field brine sampling results and the analytical results from the Alex Stewart International Laboratory are in Table 1, which have also been previously reported - refer the Company's ASX Announcement dated 1 November 2022 entitled "Further Significant Lithium Concentrations Encountered in Maiden Drillhole at Solaroz Lithium
	derivation, etc.  Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Brine Project."  Duplicate samples returned comparable values, well within acceptable limits.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physically and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	Field duplicates, standards and blanks will be used to monitor potential contamination of samples and the repeatability of analyses.  Duplicate and blank samples are planned to be sent to the laboratories in due course as unique samples (blind duplicates)
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resources estimation.      Specification of the grid system used.      Quality and adequacy of	Locations are positioned using modern Garmin handheld GPS units with an accuracy of +/- 5m.  The grid system used is: POSGAR 94, Argentina Zone 3.  Topographic control was obtained by handheld GPS units and the topography is mostly flat with very little relief.





Criteria	Explanation	Comments			
	topographic control.				
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Reserve and Ore Reserve estimation procedure(s) and</li> </ul>	Water/brine samples were collected within isolated sections of the hole based upon the results of geological logging.			
	<ul><li>classifications applied.</li><li>Whether sample compositing has been applied.</li></ul>				
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The brine concentrations being explored for generally occur as s horizontal layers and lenses hosted by conglomerate, gravel, sa salt, silt and/or clay. Vertical diamond drilling is ideal understanding this horizontal stratigraphy and the nature of the s surface brine bearing aquifers			
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.				
Sample security	The measures taken to ensure sample security.	Data was recorded and processed by trusted employees and contractors and overseen by senior management ensuring the data was not manipulated or altered.  Samples are transported from the drill site to secure storage at the			
		camp on a daily basis			
Audits or reviews	The results of and audits or reviews of sampling techniques and data.	No audits or reviews have been conducted to date. The drilling is at a very early stage, however, the Company's independent Competent Person (in respect of the potential delineation of a JORC Mineral Resource in the future) has approved the procedures to date and visited the site to review first-hand the drilling practice and all logging, sampling, QA/QC controls and data management.			

#### **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section)

Criteria	Explanation	Comments
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interest, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	The Solaroz Lithium Brine Project comprises 8 concessions totalling approximately 12,000 hectares ( <b>Solaroz Concessions</b> ) located in the Jujuy Province in northern Argentina (refer also Figure 2):  (1) Mario Angel – File N°1707-S-2011 (542.92ha)  (2) Payo – File N°1514-M-2010 (987.62ha)  (3) Payo 1 – File N°1516-M-2010 (1973.24ha)  (4) Payo 2 – File N°1515-M-2010 (2192.63ha)  (5) Chico I – File N°1229-M-2009 (835.24ha)  (6) Chico V – File N°1312-M-2009 (1800ha)  (7) Chico VI – File N°1313-M-2009 (1400.18ha)  (8) Silvia Irene, File N°1706-S-2011 (2348.13ha)  The Company has a 90% shareholding in Solaroz S.A. (formerly Hananta S.A.), an Argentine company which, in turn, owns the Solaroz Concessions - refer to the Company's ASX announcement dated 31





Criteria	Explanation	Comments				
		October 2022 entitled "Early Exercise of Option to Acquire Solaroz Lithium Brine Project Concessions".				
Exploration done by other parties	Acknowledgement and appraisal of exploration by other parties.	Extensive open file drilling, geochemistry, geophysical and development work from exploration to development, and operation mine have been carried out by Allkem Limited (ASX/TSX:Ak (formerly Orocobre Limited) (Allkem or Orocobre) and Lithiu Americas Corporation (TSX/NYSE:LAC) (Lithium Americas).				
		The Company has reviewed the relevant open file published documents and images relating to the Salara de Olaroz and from this review made its interpretations relating to the Company's Solaroz Concessions.				
		The published data upon which the geological model for the Company's Solaroz Project has been developed includes the following works:				
		<ul> <li>Houston, J., Gunn, M., Technical Report on the Salar De Olaroz Lithium-Potash Project, Jujuy Province, Argentina. NI 43-101 report prepared for Orocobre Limited, 13 May 2011</li> </ul>				
		<ul> <li>Orocobre Limited ASX/TSX Announcement dated 23 October 2014 entitled "Olaroz Project - Large Exploration Target Defined Beneath Current Resource"</li> </ul>				
		<ul> <li>Reidel, F., Technical Report on Cauchari JV Project – Updated Mineral Resource Estimate, prepared for Advantage Lithium Corporation, 19 April 2019</li> </ul>				
		Orocobre Limited ASX/TSX Announcement dated 10 January 2019 entitled "Cauchari Drilling Update – Phase III Drilling Complete"				
		<ul> <li>Burga, E. et al, Technical Report - Updated Feasibility Study and Mineral Reserve Estimation to support 40,000 tpa Lithium Carbonate Production at the Cauchari-Olaroz Salars, Jujuy Province, Argentina, prepared for Lithium Americas Corporation, 30 September 2020</li> </ul>				
		Salfity Geological Consultants Map for Salar de Olaroz				
Geology	Deposit type, geological settings and style of mineralisation.	The Salar de Olaroz originated as a structurally bounded, closed basin during the late Paleogene-Early Neogene. During much of the Miocene it appears to have slowly filled with medium to coarse grained alluvial fans and talus slopes eroded from the surrounding mountain ranges. As accommodation space was filled the sediments became progressively finer grained, braidplain, sandflat, playa and fluvial architectures are noted in the Upper Miocene and Pliocene. As the climate became more arid during the Pliocene evaporitic deposits first appeared. Normal faulting created additional accommodation space probably initiated at this time too. The lowest drilled sediments indicate an arid climate with abundant halite. These Units are probably Pleistocene in age and are likely contiguous with the lowest drilled and reported sediments in the Salar de Olaroz originated as a structurally bounded, closed basin during the late Paleogene-Early Neogene.				
		During much of the Miocene it appears to have slowly filled with medium to coarse grained alluvial fans and talus slopes eroded from the surrounding mountain ranges. As accommodation space was filled the sediments became progressively finer grained, braidplain, sandflat, playa and fluvial architectures are noted in the Upper Miocene and Pliocene. As the climate became more arid during the Pliocene evaporitic deposits first appeared. Normal faulting created additional accommodation space probably initiated at this time too.				
		The lowest drilled sediments indicate an arid climate with abundant halite. These Units are probably Pleistocene in age and are likely contiguous with the lowest drilled and reported sediments in the Salar de Cauchari to the south, suggesting the two basins operated as a continuous hydrologic entity at that stage. Succeeding Units				





Criteria	Explanation	Comments
		suggest continued subsidence in the center of the basin, with a climate that was variable, but never as arid as during period dominated by the 'Deep Sand Unit' and abundant Halite development. Influx of water and sediment is primarily from the Rosario catchment at the north of Salar de Olaroz.
		At depth a thick highly porous sandstone aquifer has been intersected in both the Salar de Cauchari (by Lithium Americas) and the Salar de Olaroz (by Orocobre). Due to its depth the aquifer has only been intersected in a few holes, as of the 23 October 2014 Orocobre announcement.
		The significance of the 'Deep Sands Unit' is that sands of this type have free draining porosity of between 20 and 25% based on previous testwork, and the sands unit could hold significant volumes of lithium-bearing brine which could be added to the resource base by future drilling" (per Orocobre's 23 October 2014 announcement).
Drill hole	A summary of all information	Drillhole ID: SOZDD001:
Information	material for the understanding of the	• Easting: 3422471 E (POSGAR Zone 3 East)
	exploration results including a	Northing: 7409972 N (POSGAR Zone 3 North)
	tabulation of the following information for all Material	Vertical hole
	drill holes:	Hole depth reached is ~337.5m.
	<ul> <li>Easting and northing of the drill hole collar</li> </ul>	
	<ul> <li>Elevation or RL (Reduced level-elevation above sea level in metres) and the drill hole collar</li> </ul>	
	<ul> <li>Dip and azimuth of the hole</li> </ul>	
	<ul> <li>Down hole length and interception depth</li> </ul>	
	Hole length	
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data	• In reporting Exploration	The Company has undertaken data aggregation.
aggregation methods	results, weighing averaging techniques, maximum and/or	Within a given defined aquifer, the Company has aggregated the
	minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually material and should be stated.	assays based on a numerical average of the samples.  Total Porosity and Specific Yield have also been averaged over the aquifers' interpreted width, with the underlying Total Porosity and Specific Yeild being collected at 2cm intervals.
	Where aggregate intercepts	Mg/Li Ratio's have been reported which is a standard representation.
	incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such	Elemental lithium has been converted to Lithium Carbonate Equivalent (LCE) using a conversion factor of 5.323 to convert Li to Li <sub>2</sub> CO <sub>3</sub> ); reporting lithium values in LCE units is a standard industry practice.
	aggregation should be stated and some typical examples of such aggregations should be	
	shown in detail.	
	The assumptions used for any	





Criteria	Explanation	Comments			
	reporting of metal equivalent values should be clearly stated.				
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to</li> </ul>	It is assumed that the brine layers lie sub-horizontal and, given that the drillhole is vertical, that any intercepted thicknesses of brine layers would be of true thickness.			
J	the drill hole angle is known, its nature should be reported.				
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known')				
Diagrams	• Appropriate maps and sections (with scales) and	The stratigraphy (of Drillhole SOZDD001) to a hole depth of ~337.5 metres is presented in Figure 1.			
	tabulations of intercepts would be included for any significant discovery being reported. These should include, but not be limited too	The results of Packer Sampling at Drillhole SOZDD001 are in Table 1, which have also been previously reported - refer the Company's ASX Announcement dated 1 November 2022 entitled "Further Significant Lithium Concentrations Encountered in Maiden Drillhole at Solaroz Lithium Brine Project."			
	plan view of drill hole collar locations and appropriate sectional views.	Downhole Geophysical logging was undertaken with a number of logging probes, including, Caliper, Conductivty, Resistivity, BMR, Spectral Gamma.			
		The BMR probe in particular provides information of Total Porosity, Retained Porosity and Specific Yield.			
		The results of the Geophysical logging (of Drillhole SOZDD001) is presented in Figure 3.			
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Historical and open file reports have been collated and are consistent across numerous companies and the Company has no reason to doubt the balanced reporting of the various technical open file reports.  The results are from the initial stages of the first and only drillhole to be drilled at Solaroz to date.			
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological	As part of the review of exploration results in the Olaroz Salar, the Company has analysed a number of Gravity and AMT surveys conducted by Orocobre, some of which were undertaken over or closely adjacent to the Solaroz Concessions.			
	observations, geophysical survey results, geochemical survey results, bulk samples –	The proximity of these surveys has been very useful and highly encouraging for the Company to develop in greater detail an exploration outline for the Solaroz Concessions.			
	size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential	The Gravity Line surveys undertaken by Orocobre were conducted principally to determine the depth below surface to the basement rock in the Olaroz Salar, which practically sets the lowest depth limit to which lithium-rich brines could be encountered in the basin.			
	deleterious or containing substances.	The AMT Line surveys (which measure resistivity) were conducted to identify the interfaces between fresh water and the more conductive brines, facilitating the identification of the location and extent of potentially lithium-rich brines occurring above the basement rock.			
		The Company has undertaken its own geophysics programme across all the Solaroz Concessions, comprising:			



#### **MARKET ANNOUNCEMENT**

Criteria	Explanation	Comments				
		Passive seismic surveys, to determine the depth of the underlying basement rock (i.e. the theoretical limit of potential lithium mineralisation) underneath the concessions; and				
		<ul> <li>Transient Electromagnetic geophysics (TEM), to identify the location and thickness of potential lithium-hosting conductive brines underneath the Solaroz Concessions.</li> <li>Further details are in the Company's ASX announcement dated 18 August 2022 entitled "Highly Encouraging Geophysics Paves Way for Commencement of Drill Testing of Brines at Solaroz".</li> </ul>				
		The TEM survey lines undertaken across the Solaroz Concessions (also identified) are also shown in Figure 2 of the Company's ASX announcement dated 16 November 2022 entitled "Drilling Completed at Maiden Drillhole at Solaroz Lithium Brine Project".				
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step- out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and</li> </ul>	A major exploration programme is underway comprising the comprehensive interpretation and modelling of results from recently completed geophysical surveys (passive seismic and TEM surveys) and a significant (rotary and diamond) drilling programme, aimed at locating potentially lithium bearing brines of economic interest, obtaining preliminary information related to the hydrogeological and geochemical characteristics of the brine rich aquifer that comprises the Olaroz Salar underneath the Solaroz Concessions, and delineating a maiden JORC Mineral Resource.				
	future drilling areas, providing this information is not commercially sensitive.	Drillhole SOZDD001 (on the Mario Angel concession) is the first in a planned 10 drillhole drilling campaign to assess the distribution and geochemistry of the brine and to obtain data related to basic physical parameters of the different hydrogeological units underneath the Solaroz Concessions.				
		The location of the second drillhole (SOZDD002 located on the Chico V concession and third drillhole (SOZDD003 located on the Chico I concession) are also shown in Figure 2.				
		In addition to the above works, the Company will be undertaking an assessment of relevant mine economic criteria to assist in developing a pathway to the completion of feasibility study(s), including the delineation of a maiden JORC Mineral Resource.				





Table 1: Results of Packer Sampling at Drillhole SOZDD001

Intersection	Hole Deptl	h Range	Li	К	Mg	Mg/Li	Conductivity	Flow Rate	Density
Samples <sup>(A)</sup>	From (m)	To (m)	(mg/l)	(mg/l)	(mg/l)	Ratio	(mS/cm)	(I/min)	(g/ml)
1 <sup>(B)</sup>	72.6	74.1	158	1359	363	2.30	199	14.3	1.132
2 <sup>(B)</sup>	75.6	79.4	101	844	226	2.24	215	15.4	1.156
3	93.6	97.1	399	3121	931	2.33	215	13.1	1.158
4	111.6	115.1	414	3249	968	2.34	216.1	7.36	1.166
5	129.6	133.1	416	3232	962	2.31	230.2	17.2	1.17
6 <sup>(C)</sup>	147.6	153.3	270	2178	650	2.41	208.3	11.5	1.141
7	227	229	555	4277	1201	2.16	224.4	9.6	1.196
8	268	274	517	4012	1074	2.08	224.5	4.7	1.193
9 <sup>(D)</sup>	275	293	485	3581	739	1.52	218.1	8.3	1.193

#### Notes:

- (A) A pre-collar has been cemented in place at a drill hole depth of ~50 to 60 metres, to isolate the fresh/brackish water and to prevent dilution with the sampling and assaying of the deeper brines.<sup>3</sup>
- (B) Sampling affected by dilution due to packer leakage allowing fresh water to penetrate. The lithium concentration for this section is still to be properly determined.
- (C) Sampling for this intersection was for approximately half the time of the other intersections and accordingly, the well fluids may not have flushed out fully prior to sampling. The lithium concentration for this section is still to be properly determined.
- (D) Sampling likely affected by dilution due to use of modified single packer (as opposed to double packers used for sample of all other intersections). The lithium concentration for this section is still to be properly determined.

<sup>3</sup> Refer LEL ASX Announcement dated 21 September 2022: Drilling of First Hole Advancing on Schedule at Solaroz Lithium Brine Project in Argentina

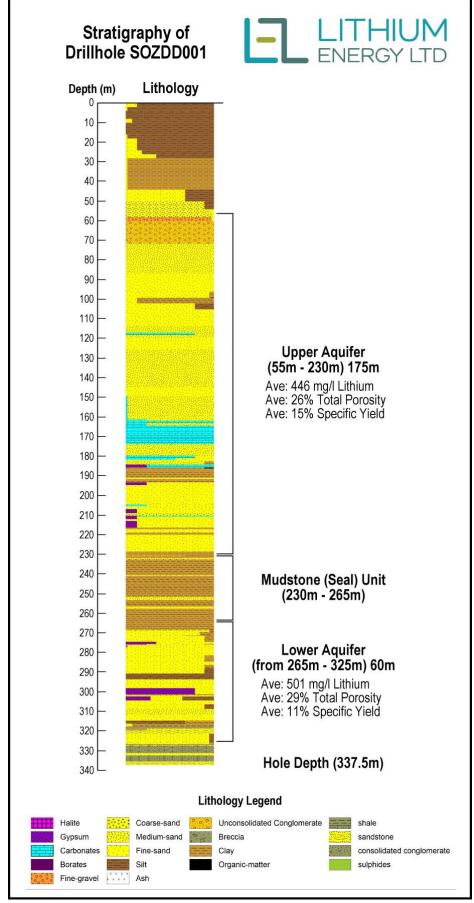


Figure 1: Drillhole (SOZDD001) Stratigraphy showing Upper (175m) and Lower (60m) Aquifers (Cumulative 235m) to Hole Depth

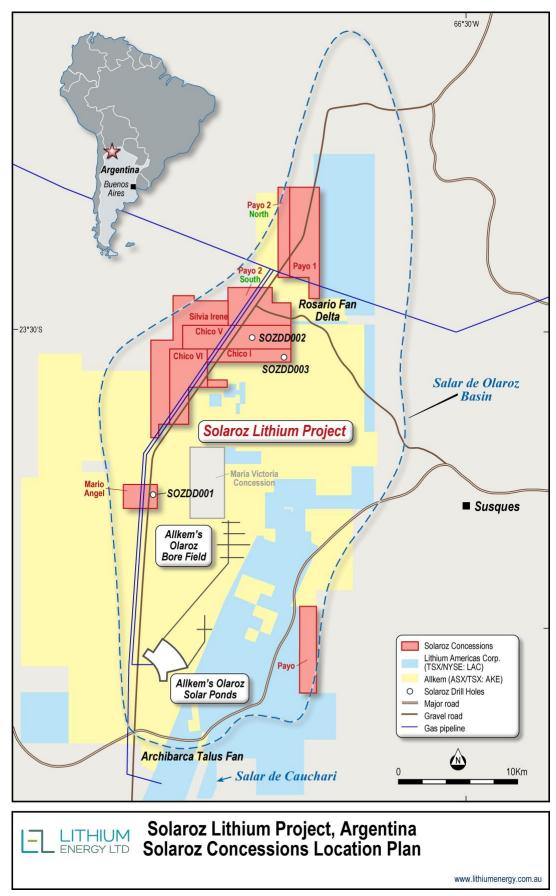


Figure 2: Solaroz Drill Hole Locations within Solaroz Concessions in Olaroz Salar (Adjacent to Allkem and Lithium Americas Concessions)





Hole Completion Report for SOZDD001 Defines Significant Average Lithium Concentrations at Solaroz Lithium Brine Project

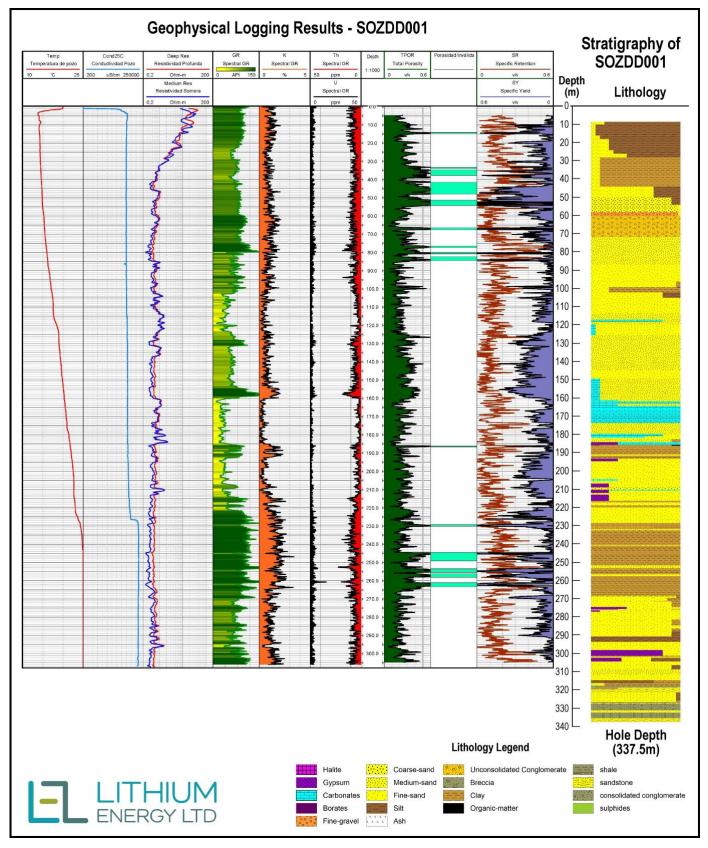


Figure 3: Geophysical Hole Logging Results for SOZDD001