Tuesday, 14 March 2023 ASX Code : LEL

MARKET ANNOUNCEMENT

Further Significant Lithium Discovery Extends Mineralisation at Solaroz Lithium Brine Project

SUMMARY

- Hole 3 (SOZDD003) of the maiden 10 hole drilling programme at the Solaroz Lithium Brine Project in the Lithium Triangle in Argentina has **confirmed a further lithium discovery**.
- Significant cumulative intersections of **215 metres of lithium brine mineralisation** were encountered across upper and lower aquifers – to a hole depth of 590m, which was the physical limit of the drill rig at SOZDD003.
- Assays from conductive brines sampled in the upper and lower (deep sand unit) aquifers have returned significant Lithium concentrations of up to **397 and 395 mg/l** respectively.
- Positive Specific Yields and significant averaged lithium concentrations confirmed from a review of Geophysical Hole Logging data and assays:
  - **347 mg/l** Lithium averaged across a **125m intersection** from 158m depth in the upper aquifer, with an averaged Specific Yield of 18%.
  - **351 mg/l** Lithium across an initial **90m intersection** from 500m depth in the lower Deep Sand Unit, with an averaged Specific Yield of 14%.
- Geophysical Hole Logging has also identified a **44m extension** of brine mineralisation in the upper aquifer (from 114 to 158m), with significant averaged Total Porosity of 28% and Specific Yield of 18% (but was not tested for lithium for operational reasons).
- Results are similar to those reported in the first hole (SOZDD001) at Solaroz (15kms away) and support the potential for the widespread occurrence of lithium brines across significant portions of the 12,000 hectare concessions held by the Company at Solaroz.
- Positive total porosity and specific yield measurements together with low Mg/Li ratio across both aquifers considered highly favourable for potential economic future brine extraction.
- The drill rig at SOZDD003 will now mobilise to the proposed 4th hole in the initial 10 hole drilling programme.
- Geophysical hole logging and assays results are pending for Hole 2 (SOZDD002).

Lithium Energy Limited (ASX:LEL) (**Lithium Energy** or **Company**) is pleased to advise that assay results and geophysical hole logging analysis have confirmed positive lithium concentrations and Specific Yields across significant brine intersections in both the upper and lower aquifers at the third (SOZDD003, located on the Chico 1 concession) drillhole at its flagship Solaroz Lithium Brine Project in Argentina (**Solaroz**).

These results follow the significant lithium discovery made at the first drillhole (SOZDD001) (located ~15km away) on the Mario Angel concession at Solaroz[1].

Cumulative intersections of **215 metre of lithium brine mineralisation** were encountered in SOZDD003, across the upper and lower aquifers:

- An upper aquifer **125 metres thick** between 158 to 283 metres depth of mostly uniform lithium brine hosting sandstone units and fine gravels, with sampling and assay results indicating significant lithium grades of up to at **397 mg/l** and **averaging 347mg/L**, and averaged Specific Yield of 18%.
- A lower aquifer (Deep Sand Unit) **at least 90 metres thick** of mostly uniform lithium brine hosting sandstone units and fine gravels, extending from 500 to at least 590 metres depth, with assay lithium grades of up to **395 mg/l** and **averaging 351 mg/L** and averaged Specific Yield of 14%. Whilst drilling was terminated (due to drill rig limitations) at a depth of 590 metres, the hole was still in lithium brine mineralisation and the Company is yet to determine the depth of the hole to basement.
- An **44 metre thick** brine bearing extension in the upper aquifer between **114 to 158 metres** depth was also identified from geophysical hole logging (post completion of drilling); this zone was not sampled for lithium due to operational reasons and represents a further area of interest to the Company in determining the true depth of potential lithium bearing brines in this hole.

William Johnson, Executive Chairman:

> *Encountering further substantial intersections of lithium brine mineralisation in our third drillhole at Solaroz, located approximately 15 kilometres from our initial lithium discovery, is highly significant as, together with interpretation of recently conducted geophysics, it supports the potential for the widespread occurrence of lithium mineralisation within the Company's 12,000 hectare Solaroz tenements. The specific yields and porosity also indicate that brine extraction conditions are favourable. With these positive results,* the Company has commenced work to determine an optimal extraction methodology.
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> *This drilling rig together with the drilling rig currently completing hole SOZDD002, will shortly be mobilising to the next holes in the planned 10 hole, 5,000 metre drilling programme. Results from this drilling programme will be used to establish a significant Maiden JORC Resource of Lithium at Solaroz.*

Drilling at SOZDD003

Drillhole SOZDD003 is located on the Chico 1 concession in the northern central section of the Salar de Olaroz basin (**Olaroz Salar**) (refer Figure 2). As previously reported[2]:

- Highly conductive brines were intersected over an interval of **125 metres** in the upper aquifer, from a depth of 158 to 283 metres, before encountering a thick halite (salt unit) layer.
- At a depth of 500 metres, drilling then transitioned through the halite layer into the targeted Deep Sand Unit.
- Highly conductive brines were also intersected in this lower aquifer from a depth of 500 metres to the hole depth of 590 metres (being an interval of **90 metres**), which was the physical limit of the drill rig.

1 Refer LEL ASX Announcement dated 10 March 2023: Positive Specific Yields and Significant Averaged Lithium Concentrations in SOZDD001 at Solaroz Lithium Brine Project

2 Refer LEL ASX Announcement dated 31 January 2023: Drilling Continues to Encounter Significant Intersections of Highly Conductive Brines at Solaroz Lithium Project

Geophysical logging identified a further **44 metre zone** of brine mineralisation between **114 metres to 158 metres** depth, which was not sampled/assayed due to operational issues but subsequent geophysical hole logging has now indicated the presence of brines in such interval and is considered by the Company as the upper part of the upper aquifer.

This part of the hole was initially not assayed as this section was drilled with a Tricone bit, which enables accelerated drilling rates but does not allow the Company to use single or double packers for sampling purposes. After drilling had completed, geophysical logging of the hole indicated the presence of brines in this upper portion of the upper aquifer which now presents a further area of interest to the Company in determining the extent of lithium bearing brines in this hole.

At the hole depth of 590 metres, the drill core was still in lithium brine hosting sandstone units and fine gravels, with the depth to basement still to be determined. The Company is encouraged therefore by the potential to extend lithium mineralisation further at depth, which will be assessed by analysis of geophysics and potentially tested by further drilling.

Assay Results

Sampling of encountered brines was conducted by the use of double packers and single packers, depending on the condition of the drill hole.

Testing of brines for conductivity, flow rates and density was undertaken in the field. Testing of the chemical composition (particularly Lithium, Potassium, Magnesium concentrations) of brines were undertaken at a local laboratory (in Argentina).

The results of the packer sampling for SOZDD003 are shown in Table 2 (Results of Packer Samples at Drillhole SOZDD003) in Annexure A.

The lithology stratigraphy of SOZDD003 is illustrated within Figure 3 (Geophysical Hole Logging Results and Drillhole Stratigraphy for SOZDD003) in Annexure A.

Geophysical Hole Logging

The geophysical hole logging undertaken on SOZDD003 provided measurements including porosity, specific yield, conductivity and spectral gamma, as shown within Figure 3 (Geophysical Hole Logging Results and Drillhole Stratigraphy for SOZDD003) in Annexure A.

The measurements of averaged Total Porosity and Specific Yield relate to the amount of brine which can ultimately be extracted and thus, are key parameters used for calculating a lithium brine resource.

The assay results (from packer sampling) were reviewed in conjunction with the geophysical hole logging data (shown in Figure 3) to calculate averaged lithium and magnesium concentrations across the upper and lower aquifers as outlined in Table 1 below:

Table 1 : Averaged Lithium Concentrations and Specific Yield in Upper and Lower Aquifers at SOZDD003

Zones		Hole Depth Range From (m)	To (m)	Interval (m)	Averaged[1] Li (mg/l)	Averaged[1] Mg (mg/l)	Averaged Mg/Li Ratio	Averaged[2] Total Porosity	Averaged[2] Specific Yield
Upper Aquifer	Unsampled	114	158	44	Not Sampled and Assayed			28%	**18%**
	Sampled	158	283	125	**367**	715	2.1	28%	**18%**
Lower Aquifer / Deep Sand Unit		500	590	90	**351**	656	1.9	23%	**14%**

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.

Both the upper and lower aquifers exhibit positive Total Porosity, Specific Yield measurements and Mg/Li ratios which would indicate very favourable lithium extraction conditions.

Lithium Energy notes that these results are similar (with respect to intersection widths, chemical composition and geophysical measurements) to the results of drilling in the first hole (SOZDD001) at Solaroz and support, when taken together with the interpretation of previously conducted geophysics, the potential for the widespread occurrence of lithium brines across significant portions of the 12,000 hectare Solaroz tenements owned by the Company.

Furthermore, these measurements of averaged lithium concentrations, Mg/Li ratio, Total 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.

The drill rig will now mobilise on to the next hole in the initial 10 hole drilling programme at Solaroz.

The Company is also awaiting the receipt and review of assay and geophysical hole logging results from its second drillhole SOZDD002, located in the Chico V concession approximately 3km NW of SOZDD003 (refer Figure 2).

AUTHORISED FOR RELEASE - FOR FURTHER INFORMATION:

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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 SOZDD003) 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:

- 10 March 2023 entitled "Positive Specific Yields and Significant Averaged Lithium Concentrations in SOZDD001 at Solaroz Lithium Brine Project"
- 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".

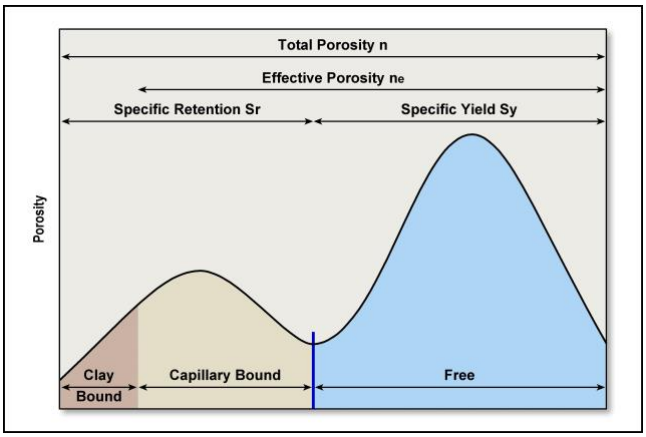
ANNEXURE A

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	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used* • *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.*	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 re-fill 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. Conductivity and Density tests are taken with a field portable High Range Hanna multi parameter meter. Testing of the chemical composition (including Lithium, Potassium, Magnesium concentrations) of brines will be undertaken at a local laboratory in Argentina. At drillhole SOZDD003, 16 water/brine samples have been collected from 16 intervals (with Samples 1 to 12 taken as single packers and Samples 13 to 16 taken as double packers), as outlined in Table 2, which also reports the field and assay results of these packer samples.
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 approximately 158m (for SOZDD003), this being the pre-collar depth. The pre-collar was then isolated and drilling continued in HQ Core. 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* • *Measurements taken to maximise sample recovery and ensure representative nature of the samples.*	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
	• *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.*	
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography.* • *The total length and percentage of the relevant intersections logged*	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, Conductivity, 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.  *Figure 1: Specific Retention and Specific Yield, as part of Total Porosity (Source: Zealandez)* 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	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffles, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, quality and*	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
	appropriateness of the sample preparation technique. • *Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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 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.*	Samples are (to be, where applicable) transported to reputable industry standard laboratories for various test work. Brine samples were sent to the Alex Stewart International Laboratory in Argentina, where detailed chemistry was 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. Table 2 contains the field brine sampling results and the analytical results from the Alex Stewart International Laboratory. Duplicate samples returned comparable values, well within acceptable limits.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes* • *Documentation of primary data, data entry procedures, data verification, data storage (physically and electronic) protocols.* • *Discuss any adjustment to assay data.*	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 topographic control.*	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.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to*	Water/brine samples were collected within isolated sections of the hole based upon the results of geological logging.

Criteria	Explanation	Comments
	establish the degree of geological and grade continuity appropriate for the Mineral Reserve and Ore Reserve estimation procedure(s) and classifications applied. • *Whether sample compositing has been applied.*	
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.* • *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.*	The brine concentrations being explored for generally occur as sub-horizontal layers and lenses hosted by conglomerate, gravel, sand, salt, silt and/or clay. Vertical diamond drilling is ideal for understanding this horizontal stratigraphy and the nature of the sub-surface brine bearing aquifers
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	• *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.* • *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.*	The Solaroz Lithium Brine Project comprises 8 concessions totalling approximately 12,000 hectares (**Solaroz Concessions**) 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 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 operating mine have been carried out by Allkem Limited (ASX/TSX:AKE) (formerly Orocobre Limited) (**Allkem** or **Orocobre**) and Lithium Americas Corporation (TSX/NYSE:LAC) (**Lithium Americas**).

Criteria	Explanation	Comments
		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: • 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 • Orocobre Limited ASX/TSX Announcement dated 23 October 2014 entitled "Olaroz Project - Large Exploration Target Defined Beneath Current Resource" • Reidel, F., Technical Report on Cauchari JV Project – Updated Mineral Resource Estimate, prepared for Advantage Lithium Corporation, 19 April 2019 • Orocobre Limited ASX/TSX Announcement dated 10 January 2019 entitled "Cauchari Drilling Update – Phase III Drilling Complete" • 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 • 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 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

Criteria	Explanation	Comments
		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 Information	• *A summary of all information material for the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  • *Easting and northing of the drill hole collar*
	  • *Elevation or RL (Reduced level-elevation above sea level in metres) and the drill hole collar*
	  • *Dip and azimuth of the hole*
	  • *Down hole length and interception depth*
	  • *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.*
		Drillhole ID: SOZDD003:
		• Easting: 3433485 E (POSGAR Zone 3 East)
		• Northing: 7421712 N (POSGAR Zone 3 North)
		• Vertical hole
		• Hole depth reached is ~590m (which was constrained by the limitations of the drill rig used).

Data aggregation methods	• *In reporting Exploration results, weighing averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	The Company has undertaken data aggregation. Within a given defined aquifer, the Company has aggregated the 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 Yield being collected at 2cm intervals. Mg/Li Ratio's have been reported which is a standard representation. Elemental lithium has been converted to Lithium Carbonate Equivalent (**LCE**) using a conversion factor of 5.323 to convert Li to Li_2CO_3); reporting lithium values in LCE units is a standard industry practice.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported,*	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.

Criteria	Explanation	Comments
	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 tabulations of intercepts would be included for any significant discovery being reported. These should include, but not be limited too plan view of drill hole collar locations and appropriate sectional views.*	The stratigraphy (of Drillhole SOZDD003) to a hole depth of ~590 metres is shown within Figure 3. The (field and assay) results of Packer Sampling at Drillhole SOZDD003 are outlined in Table 2. Downhole Geophysical logging was undertaken with a number of logging probes, including, Caliper, Conductivity, 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 SOZDD003) is also shown within 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 third drillhole (SOZDD003) 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 observations, geophysical survey results, geochemical survey results, bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or containing substances.*	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. 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. 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. 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: • 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 • Transient Electromagnetic geophysics (**TEM**), to identify the location and thickness of potential lithium-hosting conductive brines underneath the Solaroz Concessions. 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". 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". The (field and assay) results of packer sampling and geophysical hole logging at the first drillhole (SOZDD001, located on the Mario Angel concession) at Solaroz has been previously announced – refer to the Company's ASX announcement dated 10 March 2023 entitled "Positive Specific Yields and Significant Averaged Lithium Concentrations in SOZDD001 at Solaroz Lithium Brine Project".

Criteria	Explanation	Comments
		The (field) results of initial packer sampling at the second drillhole (SOZDD002, located on the Chico V concession) at Solaroz has been previously announced – refer to the Company's ASX announcement dated 31 January 2023 entitled "Drilling Continues to Encounter Significant Intersections of Highly Conductive Brines at Solaroz Lithium Project"
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, providing this information is not commercially sensitive.*	A major exploration programme is underway comprising the comprehensive interpretation and modelling of results from 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. 3 holes have been drilled to date - SOZDD001 on the Mario Angel concession), SOZDD002 (on the Chico V concession) and SOZDD003 (on the Chico I concession) – out of a planned 10 hole 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 these 3 holes 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 2 : Results of Packer Samples at Drillhole SOZDD003

Intersection Samples[A]	Hole Depth Range		Li	Mg	Mg/Li	Conductivity	pH	TDS	Flow Rate	Density
	From (m)	mg/l	mg/l	mg/l	Ratio	(mS/cm)		(g/l)	(l/min)	(g/ml)
1[B]	158	176	227	479	2.11	172.9	6.85	86.71	NA	1.161
2	177.9	194	299	587	1.96	201	6.87	101	13	1.164
3	195.5	212	342	607	1.77	206	6.76	103	16	1.18
4	215.5	230	**389**	821	2.11	207	6.88	103	8	1.181
5	231.5	248	**397**	866	2.18	204	6.75	102	8	1.189
6	246.5	266	**390**	863	2.21	209.5	6.91	104.8	4.2	1.189
7	266.5	284.5	**387**	780	2.01	216	6.64	92.3	4.2	1.19
8	458.5	488.5	59	133	2.25	225	7.23	112	1.5	1.195
9[C]	518.5	539.5	249	481	1.93	229	6.73	114.7	4	1.195
10	539.5	557.5	349	659	1.89	235	6.65	119.7	10	1.22
11	557.5	575.5	**350**	651	1.86	241.5	6.65	120.9	6	1.22
12	557	589	**383**	704	1,83	240	6.72	120.1	9	1.2
13	570	571.2	**372**	696	1.87	235	6.72	117.7	5	1,2
14	550	551.2	**395**	728	1.84	235	6.81	117.8	5.5	1.2
15	530	531.2	**359**	671	1.86	232	6.74	116	8	1.2
16[C]	510	511.2	76	158	2.08	239.4	6.98	119.7	8	1.2

Notes:

(A) A tri-cone pre collar has been isolated at a drill hole depth of ~158 metres, to separate the fresh/brackish water and to prevent dilution with the sampling and assaying of the deeper brines

(B) Sample 1 was an airlift sample collected to determine the presence of conductive brines below the pre collar (airlift samples contain a blend of brines and drilling mud, which tend to dilute assay results); Samples 2 to 12 were collected from single packers; Samples 13 to 16 were collected from double packers

(C) Samples 9 and 16 had suspected packer sampling leakage (leading to a dilution of assay results) caused by a wider annulus forming in the hole from a portion of the halite (salt unit) dissolving during the drilling/sampling process; the lithium concentrations for these sections are still to be properly determined

Part of Upper Aquifer (that was sampled with packers) (~158 – 283m)

Part of Halite (Salt Unit) Layer (~283 – 499m)

Part of Lower Aquifer / Deep Sand Unit (~500 - 590m hole depth at the physical limit of the drilling rig)

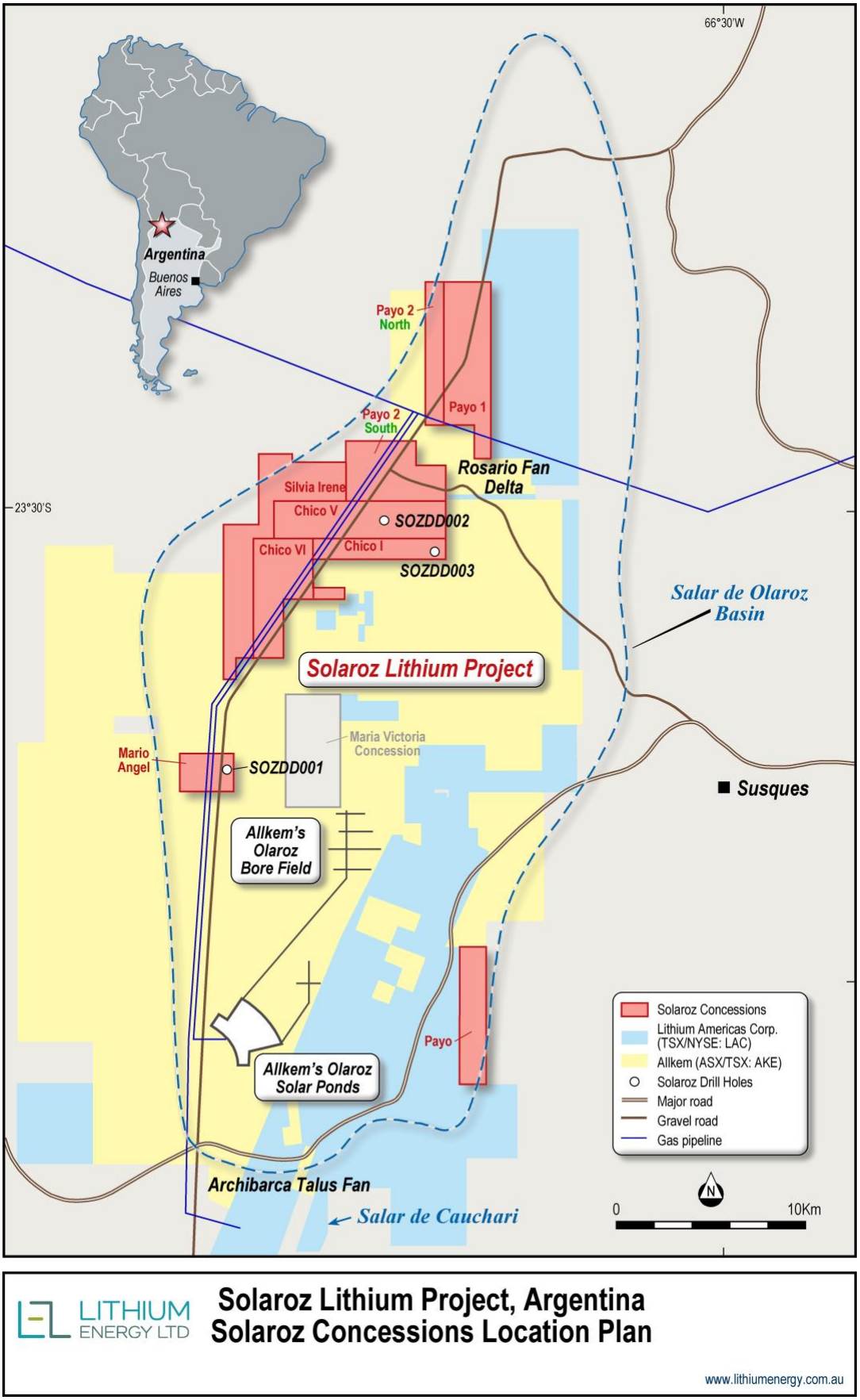


Figure 2: Solaroz Drill Hole Locations within Solaroz Concessions in Olaroz Salar
(Adjacent to Allkem and Lithium Americas Concessions)

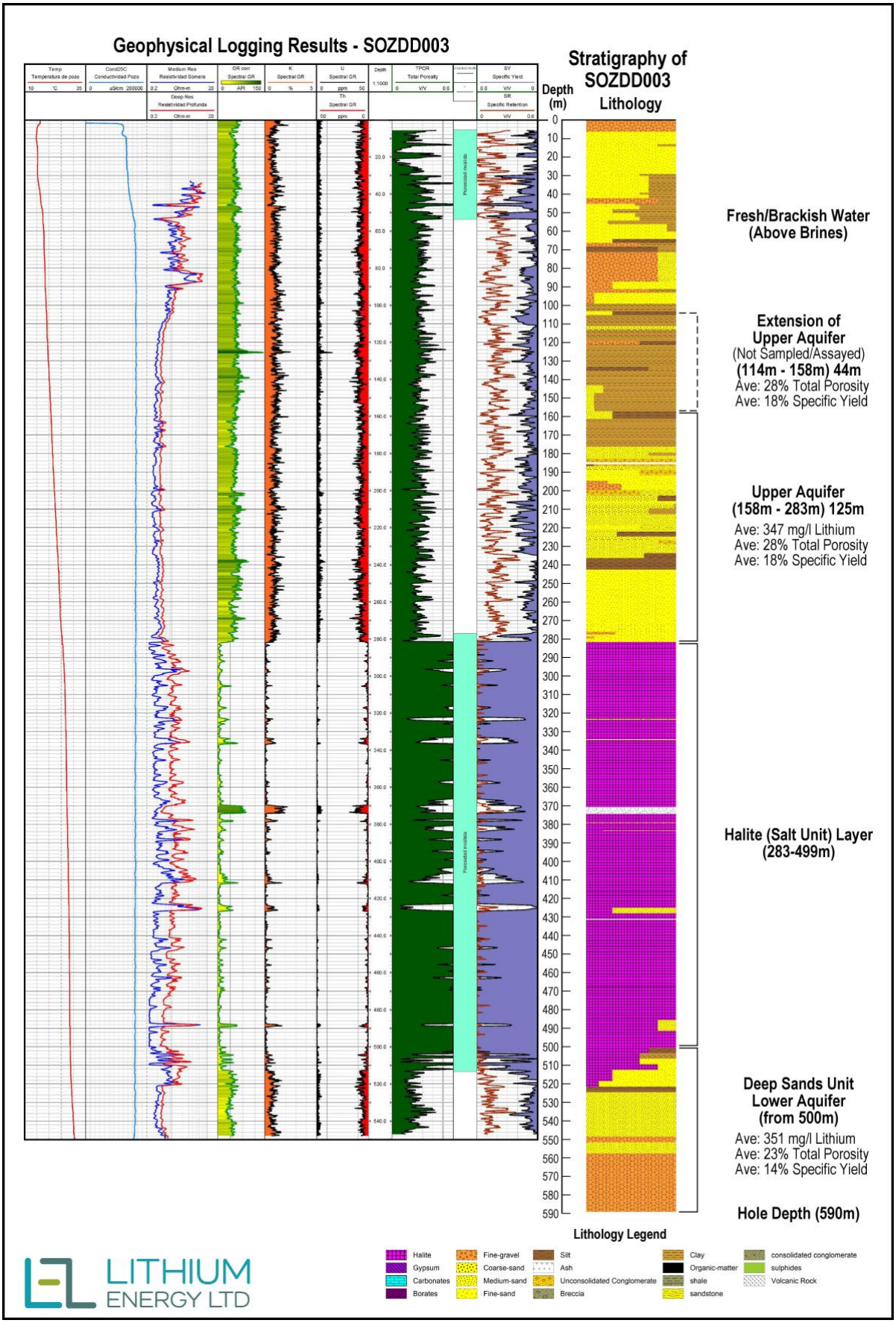


Figure 3: Geophysical Hole Logging Results and Drillhole Stratigraphy for SOZDD003