LITHIUM ENERGY LTD

ASX:LEL

ASX ANNOUNCEMENT

26 October 2023

Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource

SUMMARY

- Further drilling at the Solaroz Lithium Brine Project has upgraded the previous JORC Inferred Mineral Resource Estimate (MRE), converting a total of **2.4Mt of Lithium Carbonate Equivalent (LCE) into the JORC Indicated Mineral Resource** category within a **Total Indicated and Inferred Mineral Resource of 3.3Mt LCE**.
- Within the **2.4Mt Indicated Mineral Resource**, there is a high-grade core of **1.2Mt of LCE at an average concentration of 400 mg/l Lithium** (at a 320 mg/l Lithium cut-off grade).
- The Indicated Mineral Resource is based on drilling completed to date in the Central Block of concessions at Solaroz and supported by the extensive geophysics programmes undertaken on the Project.
- This increase in MRE confidence further solidifies the position of Solaroz as a highly strategic lithium asset, being substantial in size and grade and located directly adjacent to the Olaroz lithium brine production facilities owned by Allkem Limited (ASX:AKE).
- Further potential for resource expansion exists and will be tested by future drilling.
- Results of Hatch Scoping Study underpinned by the upgraded MRE are to be released shortly.

Lithium Energy Limited (ASX:LEL) (**Lithium Energy** or **Company**) is pleased to announce a significant upgrade of the previous maiden MRE, delivering an upgraded **2.4Mt Indicated Mineral Resource** for the Solaroz Lithium Brine Project (LEL:90%) in Argentina located next to Allkem's Lithium Facility in the Salar de Olaroz basin in the heart of South America's world-renowned 'Lithium Triangle'.

This **2.4Mt LCE Indicated Mineral Resource**, within the **3.3Mt LCE Total Indicated and Inferred Mineral Resource**, is based on drilling completed to date, together with extensive geophysics in the 'Central Block' of concessions (Chico I, V and VI, Payo 2 South and Silvia Irene) (refer Figures 2 and 3) totalling ~4,618 hectares out of the total ~12,000 hectare area of the Solaroz concessions.

Further potential for resource expansion will be tested by future drilling, with lithium mineralisation remaining open at depth within the Deep Sand Unit and underlying bedrock sediments, which were not fully tested in a number of holes due to drill rig limitations. In addition, further potential for resource expansion exists within the Northern Block of concessions (Payo 1 and Payo 2 North), where only one hole has been drilled to date (SOZDD007) and where this hole also could not fully test the extent of lithium mineralisation in the Deep Sand Unit due to drill rig limitations.

Executive Chairman, William Johnson, commented:

> *Following the release of the Maiden Resource estimate of 3.3 Mt of Inferred Resource of LCE in June 2023, continued drilling by the Company has now successfully resulted in the upgrade of 2.4 Mt of LCE from a JORC Inferred to a JORC Indicated category.*

Having the majority of the Inferred Resource converted to the higher confidence Indicated category is a very significant milestone for the Company, as these Indicated Resources will now underpin the Hatch Scoping Study for Solaroz, the results of which will be released shortly.

Solaroz is located on the Olaroz Salar (salt-lake) in North-West Argentina, one of the best locations in South America's 'Lithium Triangle' for developing large scale lithium brine operations, as evidenced by our Olaroz neighbours Allkem and Lithium Argentina. Allkem has reported production of lithium carbonate from Olaroz since 2015 using traditional brine evaporation, with latest reported cash costs of only US$4,149/tonne LCE and high margins per tonne of LCE[1].

Overview of Upgraded Solaroz JORC Mineral Resource Estimates

Solaroz has an upgraded JORC Mineral Resource as follows:

- **Total Mineral Resource of 3.3Mt LCE** (at a zero Li mg/l cut-off grade), comprising (refer Table 1):
  - **Indicated Mineral Resource of 2.36Mt LCE**; and
  - **Inferred Mineral Resource of 0.9Mt LCE**.
- Within the 3.3Mt LCE Total Mineral Resource, there is a **high-grade core of 1.3Mt of LCE** with an average concentration of **400 mg/l Lithium** (at a 320 mg/l Li cut-off grade) (refer Table 2).

Table 1 : Upgraded Total JORC Indicated and Inferred Mineral Resource

Mineral Resource Category	Lithology Units	Sediment Volume (million m^3)	Specific Yield %	Brine volume	Lithium (Li)		LCE
				million m^3	mg/l	Tonnes	Tonnes
Indicated Mineral Resource	**A** (Upper Aquifer)	7,200	10.0%	720	245	176,600	940,000
	B (Halite Salt Unit)	1,731	4.0%	69	340	23,600	125,000
	C (Lower Aquifer)	4,671	6.5%	304	363	110,000	590,000
	D (Tertiary Bedrock)	5,651	5.8%	328	406	133,000	705,000
	Total	**19,253**	**7.4%**	**1,421**	**312**	**443,200**	**2,360,000**
Inferred Mineral Resource	**A**	3,589	10.0%	359	245	88,000	470,000
	B	3,060	4.0%	122	340	42,000	220,000
	C	1,058	6.5%	69	362	25,000	130,000
	D	634	5.8%	37	405	15,000	80,000
	Total	**8,340**	**7.0%**	**587**	**289**	**170,000**	**900,000**
TOTAL INDICATED & INFERRED MINERAL RESOURCE			**7.3%**		**305**		**3,260,000**

Notes:

(a) The Indicated Mineral Resource Estimate encompasses the Chico I, Chico V, Chico VI, Payo 2 South and Silvia Irene (Central Block) concessions

(b) The Inferred Mineral Resource Estimate encompasses the Mario Angel, Payo 2 South and Silvia Irene, Payo 1 and Payo 2 North concessions, and is in addition to the Indicated Mineral Resource Estimate

(c) Lithium (Li) is converted to lithium carbonate (Li_2CO_3) equivalent (LCE) using a conversion factor of 5.323

(d) Totals may differ due to rounding

(e) Reported at a zero Lithium mg/l cut-off grade

(f) The Indicated and Inferred Mineral Resource areas within the Solaroz concessions (and drill hole locations) are shown in Figure 2.

1 Source: Allkem ASX Announcement released on 25 September 2023 entitled "Allkem confirms material growth profile underpinned by 40 Mt Resource"

Table 2 : Upgraded High-Grade Core within Total JORC Indicated and Inferred Mineral Resource

Mineral Resource Category	Lithology Units	Sediment Volume (million m³)	Specific Yield %	Brine volume million m³	Lithium (Li) mg/l	Lithium (Li) Tonnes	LCE Tonnes
Indicated Mineral Resource	A	878	10.0%	88	349	30,000	165,000
	B	1,289	4.0%	52	357	18,000	100,000
	C	3,288	5.6%	183	401	75,000	390,000
	D	4,881	4.8%	235	425	100,000	530,000
	Total	**10,337**	**5.2%**	**557**	**400**	**223,000**	**1,185,000**
Inferred Mineral Resource	B	92	4.0%	4	418	1,500	8,000
	C	436	5.7%	25	401	10,000	53,000
	D	109	4.9%	5	405	2,000	12,000
	Total	**637**	**5.3%**	**34**	**403**	**13,500**	**73,000**
TOTAL INDICATED & INFERRED MINERAL RESOURCE (HIGH-GRADE CORE)			**5.2%**		**400**		**1,258,000**

Notes:

(a) The high-grade core comprises JORC Indicated and Inferred Mineral Resources estimated within the mineralisation envelope of (not in addition to) the Mineral Resource Estimates outlined in Table 1

(b) The Indicated Mineral Resource encompasses the Chico I, Chico V, Chico VI, Payo 2 South and Silvia Irene (Central Block) concessions

(c) The inferred Mineral Resource encompasses the southern Mario Angel (Units B and C) and Payo 1 and Payo 2 North (Northern Block) (Unit D) concessions, and is in addition to the Indicated Mineral Resource Estimate

(d) Reported at a 320 mg/l Lithium cut-off grade

(e) Refer Notes (c) and (d) of Table 1

Further details are in the Mineral Resource Classification section below.

Project Background

Lithium Energy's Solaroz Lithium Brine Project (LEL:90%[2]) comprises 8 mineral concessions (**Solaroz** or **Project**) located on the Salar de Olaroz basin (the **Olaroz Salar**) in North-West Argentina within South America's 'Lithium Triangle' (refer Figure 2). The Solaroz concessions total approximately 12,000 hectares located in three groups:

- Northern Block: Payo 1 and Payo 2 North concessions totalling ~2,731ha;
- Central Block: Chico I, V and VI, Payo 2 South and Silvia Irene concessions totalling ~8,631ha; and
- Southern concessions: Mario Angel (542.92ha) and Payo (987.62ha) concessions.

The Olaroz Salar covers approximately 45,000 hectares (approximately 30 kilometres long and 15 kilometres wide). Lithium Energy is one of only three groups that control the lithium concession rights on and adjacent to the Olaroz Salar, with the remainder of these lithium rights held by Allkem Limited (ASX/TSX:AKE) (**Allkem**)[3] and Lithium Argentina Corporation (TSX:LAAC) (**Lithium Argentina**)[4] (refer Figure 2).

2 Lithium Energy has a 90% shareholding in Solaroz S.A., which holds the Solaroz concessions.

3 Allkem has announced a merger with lithium processing technology company, Livent Corporation (NYSE:LTHM) - refer Allkem ASX Announcements 10 May 2023: Allkem and Livent to Create a Leading Global Integrated Lithium Chemicals Producer and 28 September 2023: Update in relation to merger with Livent Corporation - revised; Allkem (then known as Orocobre Limited (ASX:ORE)) merged with Galaxy Resources Limited (ASX:GXY) in 2021

4 Lithium Argentina was separated, under a reorganisation, from Lithium Americas Corporation (TSX:LAC), in October 2023

Figure 1: Solaroz concessions on the Olaroz Salar in North-West Argentina

Allkem's Olaroz Lithium Facility (in a joint venture with Tokyo Stock Exchange listed Toyota Tsusho Corporation (TYO:8015)) has been extracting lithium brine and producing lithium carbonate since ~2015.[5] Lithium Argentina's Cauchari-Olaroz Project (in a joint venture with Ganfeng Lithium) has recently commenced production of lithium carbonate on the neighbouring Salar de Cauchari.[6]

Project Location

Solaroz is located approximately 230 kilometres north-west of San Salvador de Jujuy, the capital of the Province of Jujuy, at an altitude of approximately 3,900 metres. The paved international highway (National Route 52 - RN52), linking San Salvador de Jujuy to ports in the Antofagasta region of Chile, passes approximately 35 kilometres south of the Project. Solaroz is reached by the all-weather gravel road (RN70), passing west of the Olaroz Salar and the Allkem Olaroz Lithium Facility plant and camp.

RN52 is used by Allkem to export lithium carbonate product and to import key chemicals used in the production of lithium carbonate (such as soda ash). Solaroz is also located close to an existing gas pipeline. Solaroz is approximately 5 hours light vehicle travel from San Salvador de Jujuy, where Lithium Energy has a local office.

Project Geology

The Project area covers a series of gravelly alluvial fan cones to the north-west of the Olaroz Salar and west of the Rosario River, which flows into the north of the Olaroz Salar, with water evaporating and infiltrating through the gravel sequence as it flows through the basin towards the salar .

In the west of the Solaroz concessions, there are mapped outcrops of the Ordovician Puna Turbidite Sequence, which is mapped as consisting of metasediments, highly fractured sandstones and shales. The Tertiary sediments in the west of the Solaroz concessions are mapped as Sijes Formation, a Miocene Tertiary Formation, composed of sandstones and fine grained sediments deposited in a terrestrial environment, similar to the current setting of the Olaroz Salar.

There are a series of approximately north-south trending reverse faults juxtaposing Tertiary and older units in a series of fault steps on the Western side of the Olaroz Salar, with a similar structural setting, with different geological units on the east of the salar.

5 Source: Allkem ASX announcements

6 Source: Lithium Argentina public releases

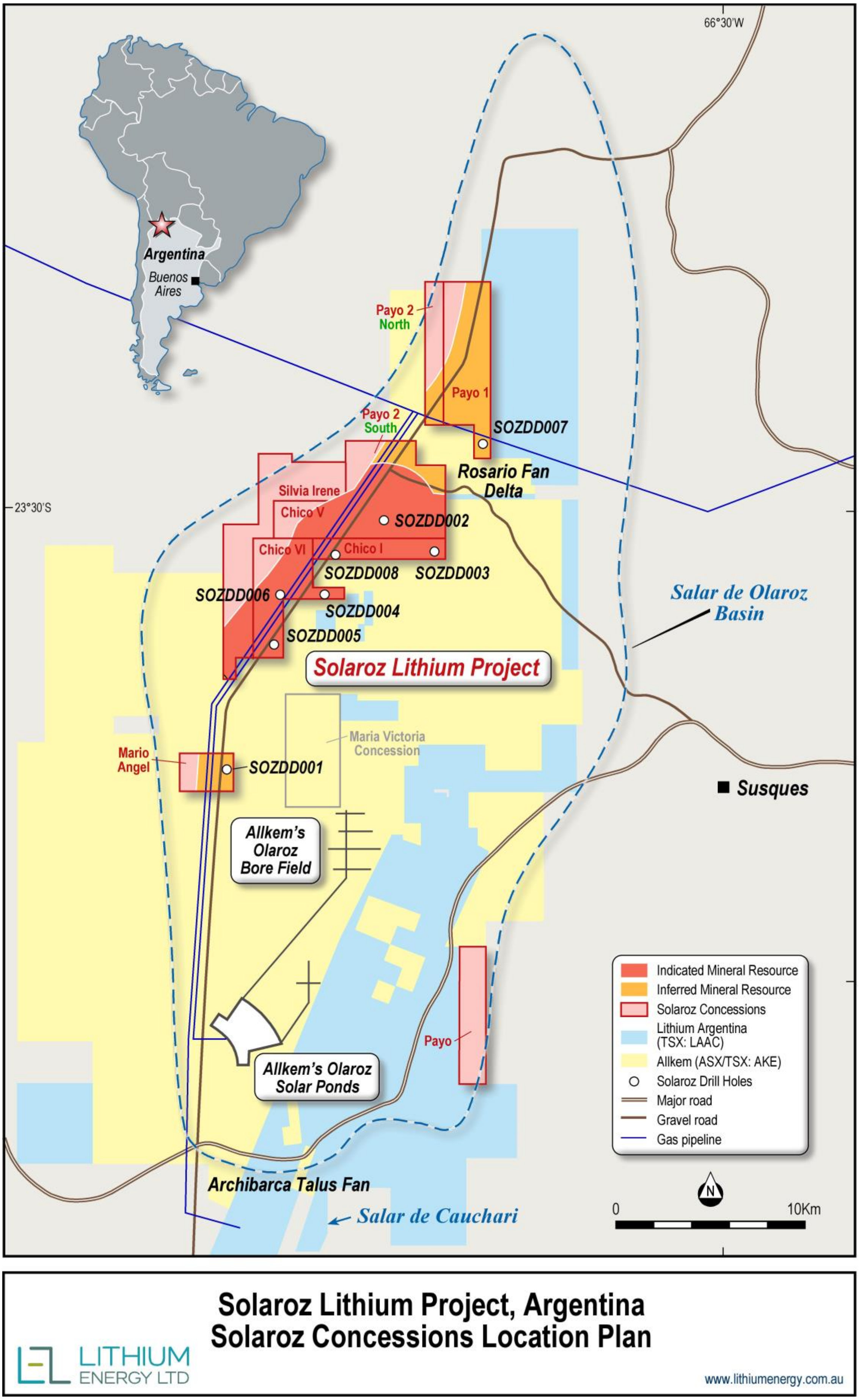

Figure 2: Mineral Resource Areas within Solaroz Concessions (and Drillhole Locations) in Olaroz Salar (Adjacent to Allkem and Lithium Argentina Concessions)

Drilling Programme

Lithium Energy has completed 8 diamond drill holes (SOZDD001 to SOZDD008) and one rotary hole (SOZDD04R, which was a twin of diamond hole SOZDD004) to date, for a total of ~5,087 metres including the twin hole (522 metres). There are 6 diamond holes in the Central Block (Chico I, IV and V concessions) and one hole each in the southern Mario Angel concession the Payo 1 concession (in the Northern Block). This initial resource definition drilling programme was designed to target areas identified as having thick sequences of brine in the TEM (electromagnetic) geophysics, which has been confirmed by the drilling. Down-hole geophysics has also been conducted on relevant holes, providing detailed characterisation of the lithologies encountered in the holes. The Geological Model for Solaroz was derived from the Company's extensive geophysical surveys and historical third-party exploration.

Drilling has encountered an upper sand and gravel sequence (**Unit A** or **Upper Aquifer**) related to the current alluvial fan landform. This overlies a halite (common salt) unit (**Unit B**) identified in four of the drill holes, which is correlated with the extensive salt unit identified by Allkem and Lithium Argentina extending through the Olaroz Salar and Salar de Cauchari salt lakes, within the basins of the same names. Beneath the halite there is another extensive sequence of gravel and sand (**Unit C** or **Lower Aquifer / Deep Sand Unit**), extending to what is interpreted as Tertiary bedrock at depths exceeding 500 metres.

An overview of the drilling highlights at Solaroz to date are shown in Figure 3 - massive **intersections of lithium-rich brines** in the upper and lower (Deep Sand Unit) aquifers **of up to 473.5 metres thick** (in Hole 4 - SOZDD004[7]) and **lithium concentrations of up to 594 mg/l** (in Hole 6 - SOZDD006[8]) have been encountered along a ~15 kilometre zone between SOZDD001 and SOZDD003.

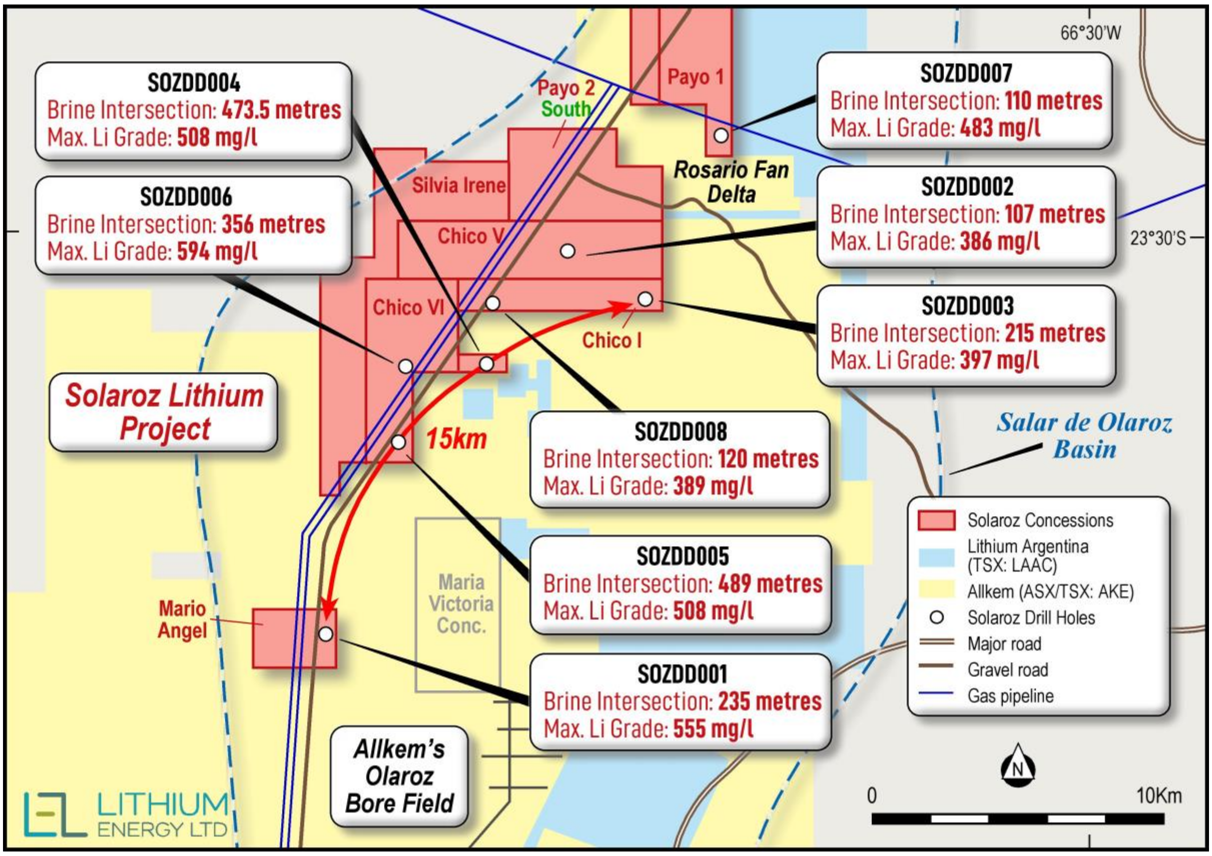

Figure 3: Location of Drillholes Across 15km Zone Between Solaroz Drillholes Where Massive Intersections of Conductive Brines Where High Lithium Concentrations Encountered

7 Refer LEL ASX Announcement dated 15 May 2023: Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz

8 Refer LEL ASX Announcements dated 27 July 2023: Highest Lithium Concentrations Encountered at Solaroz Lithium Project in Hole 6 and 29 August 2023: Lithium Mineralisation Encountered in Northern Solaroz Concession

Extensive passive seismic geophysics carried out on Solaroz has defined what is interpreted to be the contact between Unit C and the underlying Tertiary bedrock rock (**Unit D**). Re-interpretation of the lithological units shows:

- Holes SOZDD001 and SOZDD003 did not reach the bedrock beneath unconsolidated sediments; and
- Holes SOZDD004, SOZDD005, SOZDD006 and SOZDD008 (in the centre of the Central Block) intersected the Tertiary Unit D, with specific yield porosity confirmed in sand and gravel units.

SOZDD002 intersected what is interpreted as older Ordovician bedrock within a paleo topographic high, in the middle of the Central Block. Lithium concentrations in this hole are relatively low as Units B and C were not reached, due to the presence of the bedrock high.

Hole SOZDD006 intersected the Upper Aquifer Unit A and the clay equivalent of Unit B, before intersecting a thinner sequence of Unit C, overlying the Tertiary bedrock of Unit D, for a cumulative intersection of 356 metres with a maximum lithium grade of 594 mg/l Li.

SOZDD007 intersected 295 metres of Unit A sediments, with high specific yields, occupied by industrial water, brackish water and brine to the base of the unit. Beneath this, there is a thick Unit B (380 metres) interval, before Unit C is reached. The halite layer acts as a confining layer, separating the upper and lower sequences of sand and gravel.

Hole SOZDD007 intersected lithium grades of up to 483 mg/l in Unit A, with samples not obtained in Units B and C, due to drilling difficulties with the hole. Lithium concentrations at Solaroz are generally expected to be higher in Units B and C.

Hole SOZDD008 intersected a significantly thinner intersection of Unit C, overlying the Tertiary bedrock, with an intersection of 120 metres at 389 mg/l Li.

Drilling was undertaken with diamond HQ diameter drilling rods. Core samples for porosity analysis were collected directly into Lexan polycarbonate core tubes for transportation to a designated laboratory for porosity measurements. Porosity results have now been received for the first six holes (SOZDD001 to SOZDD006) of the drilling campaign and all the holes which were geophysically profiled have BMR porosity data available, with further details outlined below.

The initial resource definition drilling programme has concluded with the recent completion of Holes 7 and 8 and the upgrade of the Solaroz MRE to an Indicated Resource category.

Environmental approvals are being sought in relation to the next phases of the drilling programme at Solaroz, including:

- Additional (including in-fill) holes in the Central Block (Chico I, V and VI, Payo 2 South and Silvia Irene concessions), to improve the confidence in correlation of lithology, porosity and brine concentration between holes and to further upgrade resource confidence;
- Drilling to further evaluate the Northern Block (Payo 1 and Payo 2 North concessions);
- Drilling of large diameter production test wells for evaluation of both brine and industrial water flow rates and determination of aquifer characteristics; and
- Drilling and installation of monitoring wells to collect baseline data to support the preparation of an Environmental Impact Assessment for Solaroz.

Geophysics Programme

Lithium Energy has conducted extensive geophysical campaigns across the Solaroz concessions, consisting of[9]:

- Passive seismic tomography surveys - which were used to determine the base of the underlying bedrock. Drilling and packer testing and downhole geophysics (BMR data) have confirmed that the sediments interpreted as Tertiary bedrock are sandstone units, which have measurable specific yield and characteristics similar to Unit C. Consequently, this material is considered potentially capable of producing brine and has been included in the upgraded resource estimate (it was previously included in Unit C in the maiden mineral resource estimate, prior to the definition of Unit D). Ordovician bedrock identified in SOZDD002 is fractured but is not considered to host significant brine or have production capacity.

- Transient Electromagnetic geophysics (**TEM**) - which measures electrical conductivity at depth and was used to identify the depth of conductive brines (i.e. salty water with low electrical resistivity) above the bedrock identified by the Passive Seismic programme.

These investigations confirmed the conductive brine body identified in the historical Allkem Olaroz North AMT[10] geophysical line, which runs beside the Chico I, Chico V and Payo 2 South Solaroz concessions (refer Figure 6). Lithium Energy's own surveys have defined the top of the brine body and the contact between the unconsolidated sediments and underlying consolidated bedrock, to outline the extent of the brine body.

TEM (refer Figure 4) was undertaken to map out the distribution of the brine body in the Solaroz concessions. This method used a loop of 200 by 200 metres centred on stations every 400 metres and was able to resolve conductive zones to a depth of 500 metres or more under the gravels located off the Olaroz Salar. This technique was highly effective in mapping brine, with a conductivity of 2 ohm metre or less, with underlying units, interpreted as bedrock with information from drilling, displaying conductivities of 4 ohm metre or higher. TEM allowed definition of the outer extent of the brine, which was used to define the western boundary of the Solaroz mineral resource. This information was subsequently combined with information from the passive seismic programme.

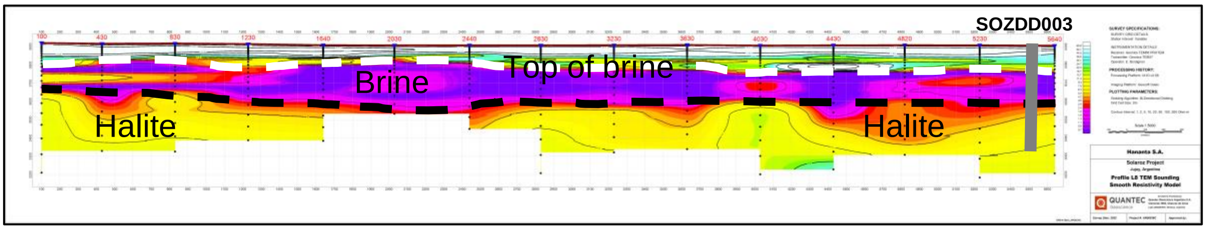

Figure 4: TEM Line 8 in the south of the Central Block, at the widest, where SOZDD003 was completed, showing the upper zone of dry sediments, the top of the brine and the top of the halite unit

9 Refer also LEL ASX Announcements dated 18 August 2022: Highly Encouraging Geophysics Paves Way for Commencement of Drill Testing of Brines at Solaroz and 9 May 2022: Geophysics Expanded Across all Concessions to Refine Drill Targets at Solaroz Lithium Project

10 Audio-frequency Magnetotellurictwin (**AMT**) method

Lithium Energy undertook an initial passive seismic (refer Figure 5) programme on a series of lines typically northwest-southeast, northeast-southwest, east-west and north-south through the Solaroz concessions (refer Figure 6). This programme successfully defined the depth to the bedrock, to understand the minimum thickness of the brine body. Given the success with this initial programme, an east-west/north-south oriented grid was established over the Project area for further data collection. The western extent of this grid was based on the western extent of the conductive zone considered to represent the brine body. The location of Allkem's (AMT and gravity) geophysics lines is also shown in Figure 6.

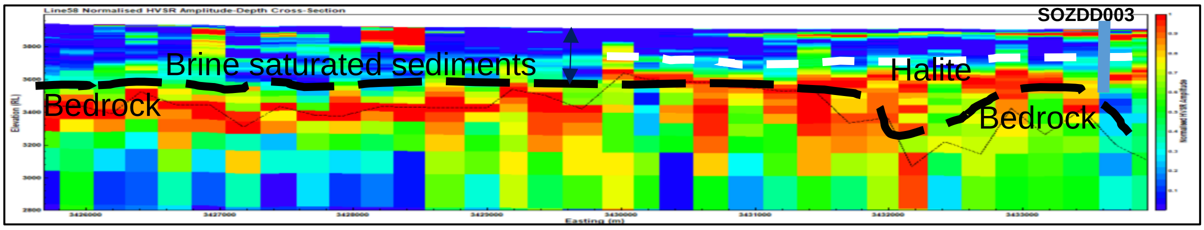

Figure 5: Passive Seismic Line 58, corresponding to TEM Line 8 (above), showing the interpreted bedrock contact and the top of the halite unit

The grid passive seismic survey, with increased frequency of data points, has allowed better definition of the bedrock, and has also allowed definition of the halite unit (discussed below) which is the middle unit (Unit B) in the Project stratigraphy and forms a notable seismic horizon in addition to the bedrock. Definition of the halite unit allows definition of the stratigraphy away from drill holes and more confident definition of the geological model for mineral resource estimate purposes. The halite unit is interpreted to be extensive in the east of the Solaroz concessions, thinning to the west. The intersection of bedrock was used to select the seismic velocity through the gravel and sand sequence, at 613 m/s. The seismic velocity is faster in the halite unit and future interpretation will be improved with a three layer model, rather than a simple two layer model.

The passive seismic survey and TEM geophysics show that the brine body is thicker towards the east of the Solaroz concessions, where it typically extends to greater depth, towards what is interpreted to have been the previous extent of the Olaroz Salar, before it was covered by alluvial sediments.

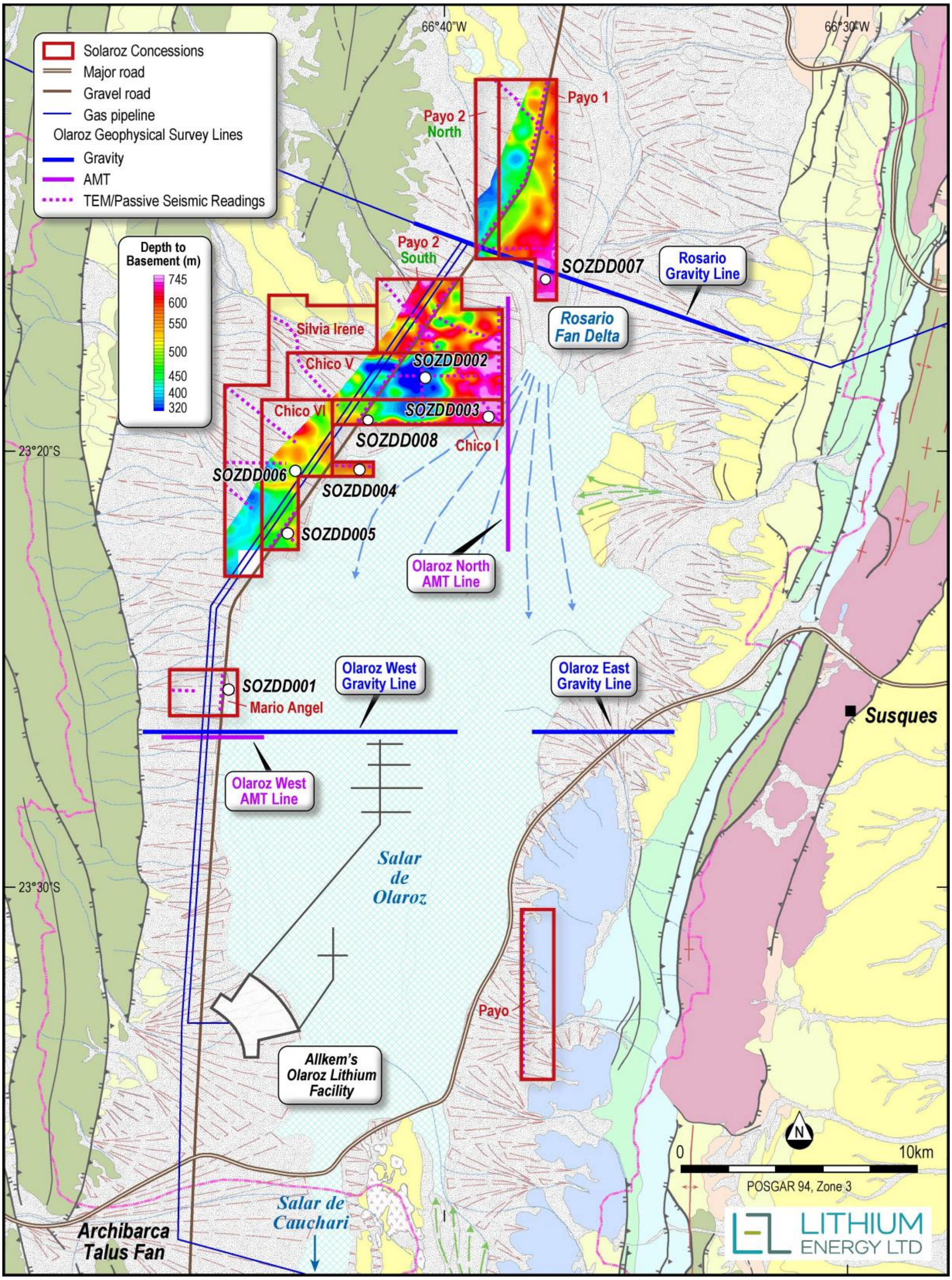

Figure 6: Location of Solaroz (TEM and passive seismic) geophysical lines and Allkem's historical (gravity and AMT) geophysical lines[11]; Geophysical image showing depths to bedrock; Geology of the Olaroz Salar; Location of the Solaroz Concessions

11 Source: Salfity Geological Consultants - www.salfitygeologicalconsultant.com

Drill Hole Stratigraphy

Drilling has established a consistent stratigraphy between the holes drilled to date, with variations in the thickness of the different units, which were deposited over an irregular eroded bedrock. This consists of an upper sequence of gravels and sands, with some clay units (Unit A), a halite (common salt) unit (Unit B) and a lower sequence of gravels and sands (Unit C), overlying compact sand and clay units, which are interpreted as probable Upper Tertiary weakly lithified bedrock (Unit D) and which, at this stage of the Project's development, have been included in the geological model as part of the bedrock. SOZDD002 intersected a deformed shale unit, which is fully lithified and is interpreted to be Ordovician bedrock, likely to extend beneath the Tertiary bedrock.

The upper sequence of gravels and sand (Unit A/Upper Aquifer) is interpreted to reflect the current alluvial fan, meeting the deltaic environment of the Rosario River Delta, which is located adjacent to the alluvial fan. This sequence contains one significant clay unit and several subordinate clayey units. In SOZDD001, there are travertine units and intervals with carbonate cement and gypsum development in the hole. These reflect the peripheral location of this hole relative to the Olaroz Salar.

The middle unit in the sequence is the halite interval (Unit B). In SOZDD003, this unit is over 200 metres thick, in the point closest to the marginal zone (the zone of mixed evaporite crust north of the Olaroz Salar). The unit is 380 m thick in SOZDD007 to the north. This unit thins to the west, where intersections in SOZDD004 and SOZDD005 are approximately 40 metres thick. In SOZDD001 (where drilling was completed to a depth of 335 metres), SOZDD006 and SOZDD008 the halite unit was not intersected. However, Unit B is interpreted to correlate laterally with the unit with clay and silt (intersected in SOZDD001 from 230 to 270 metres). The halite and clay unit form an important seal (aquitards) between the upper sand and gravel sequence and the lower sand and gravel sequence, likely to minimise any impacts of pumping from the lower sand and gravel sequence.

The lower sand and gravel sequence (Unit C/Lower Aquifer) contains fragments of the interpreted Ordovician bedrock in some gravel layers and a small portion of clay units, up to 15 metres thick. The contact with the underlying interpreted Tertiary Sediments is not sharp and appears to be erosional. The lower interval interpreted as Tertiary bedrock in SOZDD004 is a sequence of compact clays, sands and minor gravel, suggesting a similar environment to the lower sand and gravel sequence, having been subject to partial lithification. Similar sediments have been encountered in SOZDD005, 6 and 8.

The passive seismic survey identified the Tertiary and Ordovician age bedrock. However, the survey also identified the top of the halite unit as a reflector on many sections, which allowed correlation between drill holes of the distribution of the halite unit, located between the upper and lower sand and gravel sequences. This improved the geological model and assignment of porosity within the model, as the halite unit is compact, with relatively low specific yield, forming an important aquitard.

The passive seismic defined a central bedrock high in the Central Block concessions. This was confirmed with the drilling of SOZDD002, which intersected the interpreted Ordovician bedrock at 293 metres depth and the deeper intersection of interpreted Tertiary aged bedrock in SOZDD004 to SOZDD006 and SOZDD008.

By way of illustration, Figure 7 shows the drillhole lithology stratigraphy (and geophysical hole logging results) for SOZDD003. Refer also equivalent Figure 13 (for SOZDD001), Figure 14 (for SOZDD002), Figure 15 (for SOZDD004), Figure 16 (for SOZDD005), Figure 17 (for SOZDD006), Figure 18 (for SOZDD007) and Figure 19 (for SOZDD008).

Geophysical Hole Logging and Specific Yield Measurements

Holes were drilled as HQ diameter diamond holes. During the drilling, core samples were collected in Lexan polycarbonate core tubes. When samples were recovered from the core barrel they were sealed with plastic caps and a 30cm interval of core cut from the bottom of the core. This interval was sealed with caps and tape, to prevent fluid loss. The sample was labelled with top and bottom depths and sent to the GeoSystems Analysis (**GSA**) laboratory in Arizona (USA). There samples were analysed using the Rapid Brine Release (**RBR**) method, which involves applying a suction of 120 mbars to samples, followed by a suction of 330 mbar.

Down-hole Specific Yield results have been received for holes SOZDD001 through to SOZDD006. Results have been received for Borehole Magnetic Resonance (**BMR**) geophysical logging from all drill holes, and this information has been incorporated in the upgraded mineral resource model (refer Table 3). Results from the GSA porosity lab are pending for holes SOZDD007 and SOZDD008.

Table 3 : Specific Yield (Sy) Data

Units and Test		SOZDD001	SOZDD002	SOZDD003	SOZDD004	SOZDD005	SOZDD006	SOZDD007	SOZDD008
A	Lab 120 mbar	0.061	0.118	0.115	0.151	0.129	0.08	No data	Pending
	Sy Lab 330 mbar	0.127	0.173	0.174	0.198	0.179	0.15	No data	Pending
	Sy BMR	0.14	0.12	0.10	0.09	0.09	0.14	0.11	0.099
B	Lab 120 mbar	0.02	Not present	0.047	0.024	0.04	0.01	No data	Pending
	Sy Lab 330 mbar	0.031	Not present	0.08	0.035	0.074	0.044	No data	Pending
	Sy BMR	0.066	Not present	No data	0.055	No data	0.077	No data	No data
C	Lab 120 mbar	0.04	Not present	0.057	0.081	0.086	0.12	No data	Pending
	Sy Lab 330 mbar	0.076	Not present	0.098	0.105	0.121	0.167	No data	Pending
	Sy BMR	0.089	Not present	0.096	0.065	0.093	0.047	No data	0.036
D	Lab 120 mbar	No data	Not present	No data	0.035	0.091	0.038	No data	Pending
	Sy Lab 330 mbar	No data	Not present	No data	0.058	0.124	0.063	No data	Pending
	Sy BMR	No data	Not present	No data	No data	No data	0.044	No data	0.029

Notes:

(a) Information on Unit B was derived from laboratory Sy data.

(b) Information on Units A, C and D were derived from BMR Geophysical Logging of relevant drillholes

GSA developed the RBR method (Yao et al., 2018) to measure Specific Yield and total porosity. The RBR method is based on the moisture retention characteristics (**MRC**) method for direct measurement of Total Porosity (**Pt**), Specific Retention (**Sr**), and Specific Yield (**Sy**), (Cassel and Nielson, 1986). A simplified Tempe cell design (Modified ASTM D6836-16) was used to test the core samples. Brine release was measured at 120 mbar and 330 mbar of pressure for reference (Nwankwor et al., 1984, Cassel and Nielsen, 1986). Bulk density, particle size analyses and specific gravity are also determined on selected core samples.

The pressures used in the testing are based on extensive research with soils, with the 120 mbar measurement considered to represent free drainage of coarser grained sediments and the 330 mbars to represent long term gravity drainage of sediments, considered to represent the Specific Yield (Sy) of sediments.

In addition to the samples analysed in the GSA laboratory, holes are geophysically logged with a group of geophysical tools by Argentina-based company, Zelandez. Logging tools consisted of spectral gamma, resistivity, conductivity, calliper and BMR. BMR is a geophysical tool developed by the oil industry to measure porosity and permeability in-situ in wells, to assist reservoir studies.

The BMR tool used for the drilling campaign is purpose built for logging of exploration diameter drill holes and was designed and built in Australia to operate in highly saline environments like salars. The tools are factory calibrated in Australia and maintained regularly by the service provider. The data acquisition and processing methodology gives information on the Total Porosity, Specific Yield, Specific Retention and provides a computation of permeability and hydraulic conductivity with a vertical resolution of 2cm, providing much more information than individual core samples analysed for porosity with a spacing every 12 or more metres.

To date, 182 porosity samples have been received from the GSA laboratory and 31 particle size distributions have been completed. The laboratory samples show a reasonable correlation with the BMR Specific Yield Porosity Profile from the holes, although a number of samples were identified as likely to be significantly disturbed, which were excluded from the comparative analysis.

BMR logging of holes can be restricted by intervals of washout in the drill holes, where the hole diameter is greater than the investigation radius of the BMR tool. For this reason, a caliper log is run to check the hole diameter for areas where BMR measurements would not be valid, such as where the halite unit was partially dissolved during drilling. Much of the halite intervals encountered in the initial 8 hole drilling programme show some evidence of being partially dissolved, despite drilling with brine-based drilling mud. This has limited information available on the specific yield of the halite, other than core samples tested at the GSA laboratory.

As part of the evaluation of porosity data, outliers of more than 30% and less than 1% specific yield porosity were removed from the data set.

The maiden JORC Inferred Mineral Resource estimate reported in June 2023 was prepared with information from the first five drill holes, with specific yield data available for only SOZDD001 to SOZDD003. The upgraded JORC Indicated and Inferred Mineral Resource estimate is based on BMR profiles from all eight drill holes, correlated with laboratory data from the first six holes, forming a much larger information base. Consequently there is greater certainty about the specific yield values in the different units and some of the initial values used in the Maiden Inferred Resource were considerably higher than average values for the dataset which is now available.

Consequently the overall specific yield of the resource has decreased. This has been compensated for by the inclusion of the Northern Block in the resource, although this is currently in the Inferred category, reflecting limited drilling there. As previously noted the Solaroz Mineral Resource Estimate is extremely sensitive to the specific yield used in the estimation. Confirmation of the presence of a thick sequence of halite in the Northern Block has reduced the brine contained in this part of the properties.

By way of illustration, Figure 7 shows the geophysical hole logging results (and drillhole lithology stratigraphy) for SOZDD003. Refer also equivalent Figure 13 (for SOZDD001), Figure 14 (for SOZDD002), Figure 15 (for SOZDD004), Figure 16 (for SOZDD005), Figure 17 (for SOZDD006), Figure 18 (for SOZDD007) and Figure 19 (for SOZDD008).

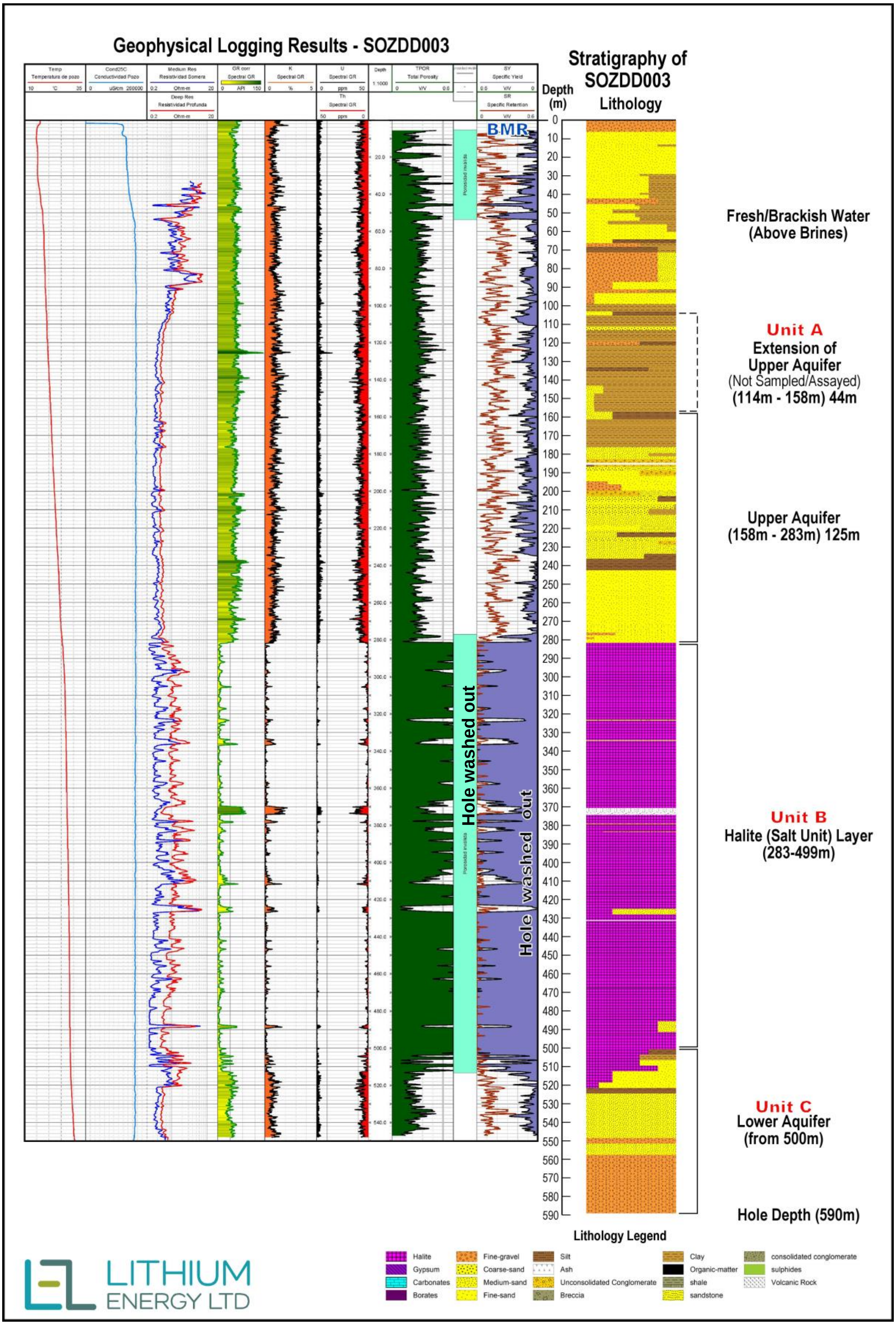

Figure 7: Geophysical Hole Logging Results and Drillhole Stratigraphy for SOZDD003, showing the downhole geophysical profiles and the geological units

Brine Sampling and Analyses

Brine samples were collected from holes using a packer sampling system. During drilling of holes, samples were taken with a single packer arrangement every approximately 18 metres (or every approximately 24 metres from SOZD004 onward). The packer is lowered into the hole and the chamber between the packer and the end of the hole is sealed by inflating the packer below the diamond drill bit. The packer sample is extracted from the chamber below the packer by injecting air into the top of the packer assembly, creating a suction effect which extracts brine from the chamber below the packer, flushing the brine to the surface, where it is diverted from the top of the hole via a pipe connected to the top of the drill rods. Purging of three well volumes of brine is conducted, prior to collecting samples for analysis.

When the hole is completed, packer samples were also collected using a double packer arrangement, sampling from the base of the hole upward, where hole stability allowed this to be undertaken. The double (straddle) packer arrangement consists of two packers sealing below the diamond bit and another packer sealing within the drill rods, to exclude vertical inflow of brine from other sections of the hole. Double packer samples are compared to single packer results as a QA/QC procedure, along with the use of field duplicate samples, certified brine standards and blank samples as an additional check on laboratory standards.

Brine samples were analysed by the Alex Stewart Laboratory, near San Salvador de Jujuy, which has an extensive history of analysing brine samples from a large number of projects in Argentina over more than a decade. Samples are delivered to the laboratory by Lithium Energy personnel, together with chain of custody data.

Samples are analysed for cations using ICP-OES spectrometry. The anions are analysed using a variety of different techniques defined by ASTM testing guidelines. Analyses include lithium, potassium, magnesium, calcium, boron, iron, manganese, strontium, barium, chloride, sulphate, carbonate and bicarbonate. Samples were submitted with unique sample numbers, related to holes and sample depths in the Project database. Samples have an average low Mg/Li ratio of 2.1 and a relatively low SO_4/Li ratio of 27, from the packer sampling conducted in the 8 holes.

A summary of average Lithium concentrations from the 8 holes drilled to date is in Table 4.

Table 4 : Summary of Average Lithium Concentrations

Drillhole	Li mg/l	SO_4 / Li Ratio	Mg/Li Ratio
SOZDD001	386	27	2.2
SOZDD002	236	29	2.0
SOZDD003	308	32	2.0
SOZDD004	341	23	2.0
SOZDD005	426	26	1.7
SOZDD006	414	23	2.0
SOZDD007	304	28	3.0
SOZDD008	385	Pending	2.0

Note:

(a) Based on drill results to date

Table 7 contains the Lithium concentrations from relevant packer samples collected (and assayed) from the 8 holes drilled to date.

QA/QC Regime

Brine samples were taken in triplicate, with the primary sample sent to the Alex Stewart laboratory in Jujuy. Duplicate samples, standard and blank samples were analysed in the primary and secondary laboratories. Sample batches consisted of field duplicates and standard and or blank samples to test for accuracy, precision and possible contamination between samples. The secondary (triplicate) check samples were sent to the Alex Stewart laboratory in Mendoza, Argentina, and compared with the primary sample and duplicate sample analysed in the Alex Stewart laboratory in Jujuy. Laboratory porosity samples have been compared with the BMR porosity data measured in holes on the Project, and show a reasonable correlation between the porosity datasets.

Geological Model

Lithium Energy's interpretation of the Olaroz Salar basin architecture is a three layer model (refer Figures 8 and 9) overlying the Tertiary and Ordovician bedrock. At Solaroz, the upper sands and gravels (Unit A) are coarser grained sediments deposited in the alluvial fan, whereas in the Olaroz Salar, the sediments are finer grained clays and sands. The halite unit encountered in Allkem's Olaroz Project and Lithium Argentina's Cauchari-Olaroz Project is the same as encountered in Solaroz (Unit B), dividing an upper and lower sequence of clastic sediments. The gravels and sands beneath the halite (Unit C) are coarser equivalents to the highly productive deep sand unit encountered in Olaroz and Cauchari. Beneath Unit C, the Tertiary bedrock displays a moderate specific yield and brine samples have slightly higher lithium concentrations than the overlying Unit C.

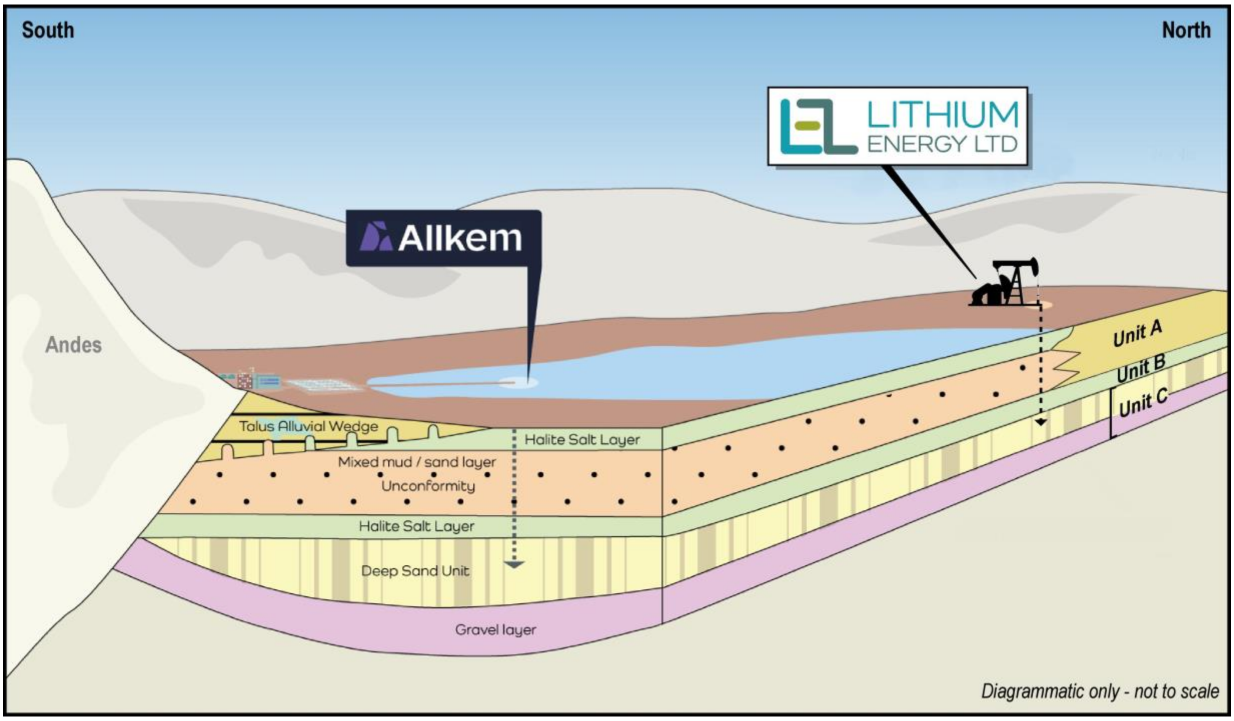

Figure 8: Solaroz Geological Model, showing the Solaroz Project to the north of the Olaroz Salar, with drilling in the Solaroz concessions encountering three geological units (A, B and C) which correlate with other units in the basin found in the Allkem and Lithium Argentina concessions

The Company notes that the Rosario Fan Delta at the northern end of the Olaroz Salar, and over which the Payo 1 and Payo 2 concessions are situated (refer Figures 2 and 6), potentially overlies part of the interpreted channel where high porosity sediments were deposited by the Rosario River, with subsequent saturation of these sediments with brine migrating from the then salar surface. A number of Gravity and AMT surveys conducted by Allkem were analysed, some of which were undertaken over or closely adjacent to the Solaroz concessions. These support the interpretation of brine hosted in coarse sediments under the Rosario Delta.

The AMT modelling at the Olaroz North AMT Line shows a thickening wedge of resistive material underlain by a conductive layer (interpreted to be conductive brine), whilst the thickening wedge of resistive material above it comprises more recent Rosario sediments, which host brackish water at shallow depths.

The geological model was updated with lithology data from recent holes drilled on the Solaroz concessions, with stratigraphic columns provided as Figure 13 (for SOZDD001), Figure 14 (for SOZDD002), Figure 7 (for SOZDD003), Figure 15 (for SOZDD004), Figure 16 (for SOZDD005), Figure 17 (for SOZDD006), Figure 18 (for SOZDD007) and Figure 19 (for SOZDD008).

The three layers referred to above were defined using a combination of intersections in the drill holes and the interpretation of the extensive TEM and passive seismic surveys over the Solaroz concessions. More recent drilling has shown there is variability in the thickness of Unit C, most likely above an eroded Tertiary bedrock (Unit D). Unit B shows significant variation through the concessions, indicting the eastern part of the Northern Block was previously part of the Olaroz Salar, extending much further north than the current salar outline.

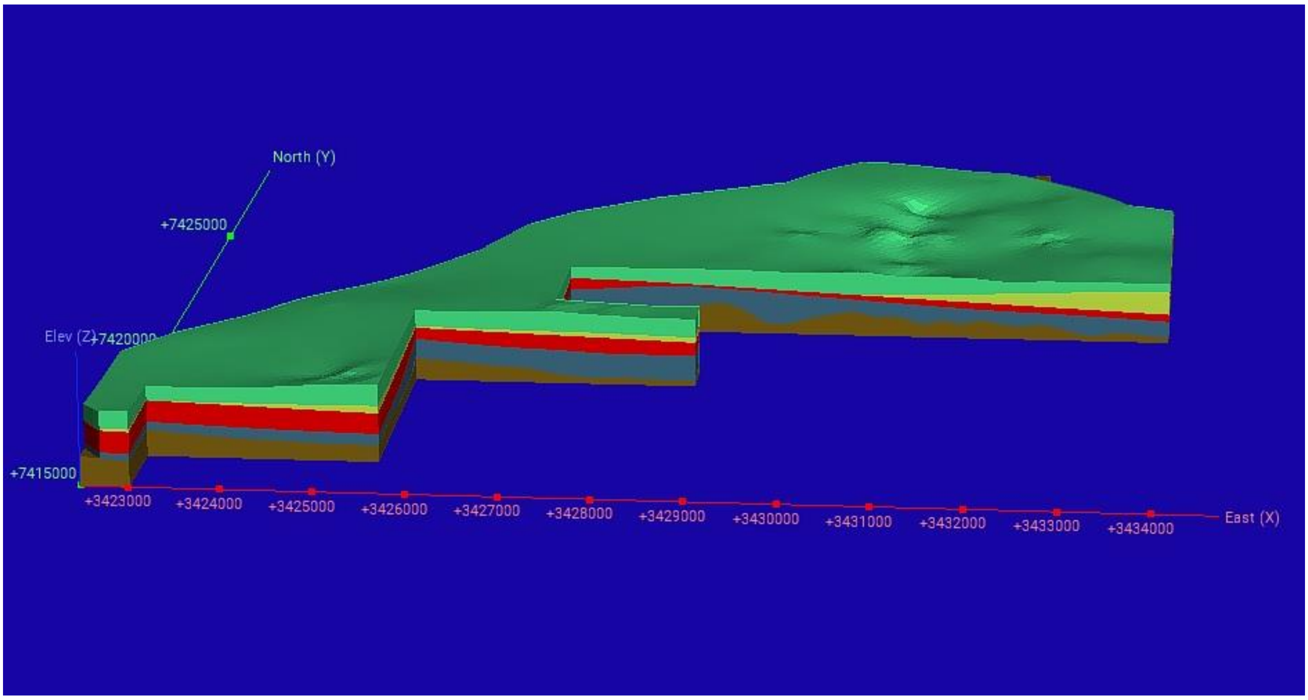

Figure 9: Solaroz Geological Model showing the central property block Indicated resource area Unit A (green), Unit B (yellow), Unit C (red) and Unit D (grey) over the bedrock (dark green)

Unit A is a sandy gravelly layer that extends from the surface to the top of the halite and is only partially saturated in brine, with the water table present within this unit and brackish water becoming progressively more concentrated with depth. Unit B is the halite layer, which is compact but includes intervals of sand. Unit C is the lower sandy-gravel layer below the halite, which contains fragments of the Ordovician bedrock.

Unit A is present in all 8 holes drilled to date with a relatively uniform thickness. Unit B is present in 4 holes, thickest in holes SOZDD003 and SOZDD007, wedging out towards the west. The deeper clay unit in SOZDD001 is interpreted to be a lateral equivalent of the halite unit (present in only 4 holes) due to lateral facies changes and is included within Unit B. In SOZDD002, the halite layer completely disappears against the bedrock high, which occurs in the centre of the Central Block of Solaroz concessions.

Resource Estimate Inputs

Brine samples were taken with a nominal spacing of 18 to 24 metres in the 8 drill holes used for resource estimation. Individual single and double brine packer sample have been used as inputs for the resource estimation, with single packer samples the primary source of information. This is considered acceptable, given the level of information available in the Olaroz Salar, the drill spacing and the lithological and brine concentration continuity between drill holes. Brine samples were not composited, given the paucity of data and spacing between individual samples.

Specific Yield data collected from BMR downhole geophysical logging was analysed by drill hole and unit and values above 30% and below 1% Specific Yield were removed (due to concern about their representativity). The BMR data was composited over 12 metres, to provide information on a similar scale to the brine analyses. BMR data by unit is summarised in Table 3. Values for units range between 0.02 (Unit B) and 0.20 (Unit A).

To define the base and the top of the model, and the distribution of brine, the geophysical data available in the Project were used. The top of the model was defined with TEM geophysics and was defined where the change from resistive to conductive (<1 ohm m) zones occurs. The base of the model was delimited by the passive seismic geophysical data, considering this method defines deeper more competent rock interpreted as the bedrock, either Tertiary moderately porous sediments or older Ordovician compact sediments (in SOZDD002). Unit C is bounded below by the top of the bedrock.

The lateral limits of the model were assigned by the Solaroz concessions, except on the western side of the model, where they are delimited by the interpreted termination of concentrated brine, based on the TEM data.

Limited information is available for the halite of Unit B, from BMR and laboratory analyses, due to partial dissolution of the halite during drilling. An average Specific Yield of 4% has been applied to this unit, as there is insufficient data for kriging of the limited values. The value reflects the combination of halite and lesser interbedded clay and sand, with the Western equivalent consisting of clayey material. This is consistent with other measurements in the Olaroz Salar (Flow Solutions, 2019). Additional drilling will assist to reduce uncertainty regarding the Specific Yield of this unit.

The thickness of the individual lithological units was defined by the geophysical logs, geological logging from the diamond cores and the surface geophysical profiles measured in the Project area.

Mineral Resource Estimation Methodology

Estimation of a brine related JORC Mineral Resource involves the definition of the following parameters:

(a) The spatial distribution of the host sediments (the geological model and aquifer distribution, defined by geophysics and drilling);

(b) The external limits (geological or property boundaries) of the resource area;

(c) The distribution of specific yield values (defined by downhole geophysics and laboratory values) within the (four) major lithological units (A through D);

(d) The distribution of elements in the brine (defined by chemical analysis of brine samples from packer sampling in drill holes); and

(e) The top and bottom of the brine body. This is because unlike on the physical salar, the brine in the alluvial fans does not begin at surface, but begins part way through the upper sand and gravel sequence (Unit A), beneath brackish water. The western extent of the brine body has been defined based on the TEM geophysics, with a decrease in the conductivity of the interpreted brine unit providing the limit. As downhole geophysics has confirmed there is moderate specific yield in the Tertiary bedrock, the depth of the drilling forms the base of this unit within the resource model. The thickness of the Tertiary sediments is unknown within the project area.

The lithium contained in the mineral resource is based on a combination of the aquifer volume, the specific yield (the portion of the aquifer volume filled by potentially extractable brine) and the concentration of lithium dissolved in the brine.

The lithological units in the Solaroz concessions are a layered sequence of sediments that can be correlated across the Central Block, Southern and Northern Blocks of properties.

The lateral extent of the mineral resource is defined between the Solaroz concession boundaries with Allkem and the western extent of the brine body, as defined by the 2 ohm metre western limit in the TEM lines. The TEM lines show the brine becomes progressively less conductive (and hence less concentrated), extending to the west. The Indicated Resource area covers 46.18 km^2 (4,618 ha) in the Central Block. The Inferred Resource covers 3.64 km^2 (364 ha) in the southern Mario Angel concession, 4.13 km^2 (413 ha) in the Central Block and 19.30 km^2 (1,930 ha) in the Northern Block, for a combined total of 73.25 km^2 (7,325 ha).

Brine extends from the top of the brine body, below the upper brackish sequence in Unit A, through Units B and C and into the Tertiary Bedrock (Unit D where defined by drilling). The availability of more information has allowed the definition of the limit between Units C and D. Although brine is expected to continue into the fractured Ordovician bedrock, this is not included in the resource and there are no plans to evaluate this unit further.

The three-dimensional distributions of the different hydrostratigraphic units were defined using Leapfrog software, with units based on geological and geophysical logging observations and correlated between resource drillholes.

BMR downhole geophysics was used to provide specific yield data for the resource estimate, with the data from holes composited and then estimated using kriging across the resource area, rather than using average values, which was required in the Maiden Inferred Resource, due to limited data at that time. The BMR data was compared with laboratory test results, and provides a more data intensive data set than the laboratory porosity samples.

The distribution of lithium was estimated from packer interval sampling data, assigned to the intervals from the packer sample from the top of the brine body to the base of the unconsolidated sediments. Brine samples were nominally spaced at 18 to 24 metre intervals, but actual sampling depended on conditions of the holes. Double packer samples were collected during sampling up the hole, upon reaching total hole depth. Comparison of results shows there is a good correlation with simple packer samples collected during drilling of the hole.

Three models were made with different estimators to evaluate the performance in this environment, where lithium grades are interpreted to decrease towards the north and west in the Solaroz concessions, with the top of the brine unit becoming progressively deeper in these directions. Sampling shows that lithium concentrations increase with depth, even within Units B and C. Kriging, nearest neighbour and the Radial Basis Function (**RBF**), which is the signature estimator of the Leapfrog software, were evaluated.

After evaluating the results, it was decided to use the RBF model for estimation of lithium, since it better represents the distribution of chemistry outside the salar environment, with the curved shape of the estimator algorithm (Figure 10) allowing for lithium concentrations decreasing towards the western edge of the resource model.

The search ellipse used for estimation was horizontal, with lateral and vertical aspects of 8:4:1 for the specific yield estimation, aligned in a NNE orientation. This anisotropic search ellipse was used, and results were contoured in 50 mg/l intervals for presentation. Estimation for lithium used the Leapfrog RBF which, with the lack of data along the western edge of the model, considered a decline in lithium concentration towards the model western edge.

Downhole plots of the results from the BMR data showed a reasonable correlation with the laboratory data, when some outliers (potentially related to sample disturbance) were removed.

The resource estimate was undertaken using Leapfrog software. The block model was constructed with 200 by 200 metre blocks, with 10 metre vertical extent.

The block model results were compared with composite and original drill hole data at the drill hole locations, to check the estimation reasonably reflects the original drill hole data. Data was considered to adequately reflect the original data.

Mineral Resource Classification

As prescribed in paragraph 22 of the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the **JORC Code**):

- *An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.*
- *An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Ore Reserve.*

Drilling of three additional diamond holes subsequent to the initial maiden Inferred Mineral Resource estimate has provided additional information on the continuity of geological units, specific yield porosity within the units and the spatial variability in this critical parameter and the variability of lithium concentrations, which is relatively low, with higher lithium concentrations extending into the north of the properties than previously anticipated.

The additional information has provided the confidence to reclassify much of the maiden Inferred Mineral Resource as Indicated Resource in this updated resource estimate. Inferred resources remain defined in Mario Angel, where there is a single drill hole and in the Northern Block of properties, where SOZDD007 is the only hole to date.

As prescribed in paragraph 21 of the JORC Code:

- *An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.*
- *An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.*

This upgraded Mineral Resource Estimate (**MRE**) for Solaroz (refer Tables 6 and 7) contains a maiden Indicated Mineral Resource and an additional updated Inferred Mineral Resource. Additional drilling is expected to result in a further upgrade to mineral resource classification in the future.

No internal cut-off Lithium concentration has been applied to the MRE, as brine resources are fluid and flow in response to pumping. The MRE is reported at a zero Lithium mg/l cut-off (as at this early stage of the Project's development, the processing technology to be used and the corresponding cut-off grade are still to be decided).

Table 5 : Upgraded Total JORC Indicated and Inferred Mineral Resource

Mineral Resource Category	Lithology Units	Sediment Volume (million m^3)	Specific Yield %	Brine volume million m^3	Lithium (Li) mg/l	Lithium (Li) Tonnes	LCE Tonnes
Indicated Mineral Resource	**A** (Upper Aquifer)	7,200	10.0%	720	245	176,600	940,000
	B (Halite Salt Unit)	1,731	4.0%	69	340	23,600	125,000
	C (Lower Aquifer)	4,671	6.5%	304	363	110,000	590,000
	D (Tertiary Bedrock)	5,651	5.8%	328	406	133,000	705,000
	Total	**19,253**	**7.4%**	**1,421**	**312**	**443,200**	**2,360,000**
Inferred Mineral Resource	**A**	3,589	10.0%	359	245	88,000	470,000
	B	3,060	4.0%	122	340	42,000	220,000
	C	1,058	6.5%	69	362	25,000	130,000
	D	634	5.8%	37	405	15,000	80,000
	Total	**8,340**	**7.0%**	**587**	**289**	**170,000**	**900,000**
TOTAL INDICATED & INFERRED MINERAL RESOURCE			**7.3%**		**305**		**3,260,000**

Notes:

(g) The Indicated Mineral Resource Estimate encompasses the Chico I, Chico V, Chico VI, Payo 2 South and Silvia Irene (Central Block) concessions

(h) The Inferred Mineral Resource Estimate encompasses the Mario Angel, Payo 2 South and Silvia Irene, Payo 1 and Payo 2 North concessions, and is in addition to the Indicated Mineral Resource Estimate

(i) Lithium (Li) is converted to lithium carbonate (Li_2CO_3) equivalent (LCE) using a conversion factor of 5.323

(j) Totals may differ due to rounding

(k) Reported at a zero Lithium mg/l cut-off grade

Table 6 : Upgraded High-Grade Core within Total JORC Indicated and Inferred Mineral Resource

Mineral Resource Category	Lithology Units	Sediment Volume (million m^3)	Specific Yield %	Brine volume million m^3	Lithium (Li) mg/l	Lithium (Li) Tonnes	LCE Tonnes
Indicated Mineral Resource	**A**	878	10.0%	88	349	30,000	165,000
	B	1,289	4.0%	52	357	18,000	100,000
	C	3,288	5.6%	183	401	75,000	390,000
	D	4,881	4.8%	235	425	100,000	530,000
	Total	**10,337**	**5.2%**	**557**	**400**	**223,000**	**1,185,000**
Inferred Mineral Resource	**B**	92	4.0%	4	418	1,500	8,000
	C	436	5.7%	25	401	10,000	53,000
	D	109	4.9%	5	405	2,000	12,000
	Total	**637**	**5.3%**	**34**	**403**	**13,500**	**73,000**
TOTAL INDICATED & INFERRED MINERAL RESOURCE (HIGH-GRADE CORE)			**5.2%**		**400**		**1,258,000**

Notes:

(f) The high-grade core comprises JORC Indicated and Inferred Mineral Resources estimated within the mineralisation envelope of (not in addition to) the Mineral Resource Estimates outlined in Table 1

(g) The Indicated Mineral Resource encompasses the Chico I, Chico V, Chico VI, Payo 2 South and Silvia Irene (Central Block) concessions

(h) The inferred Mineral Resource encompasses the southern Mario Angel (Units B and C) and Payo 1 and Payo 2 North (Northern Block) (Unit D) concessions, and is in addition to the Indicated Mineral Resource Estimate

(i) Reported at a 320 mg/l Lithium cut-off grade

(j) Refer Notes (c) and (d) of Table 1

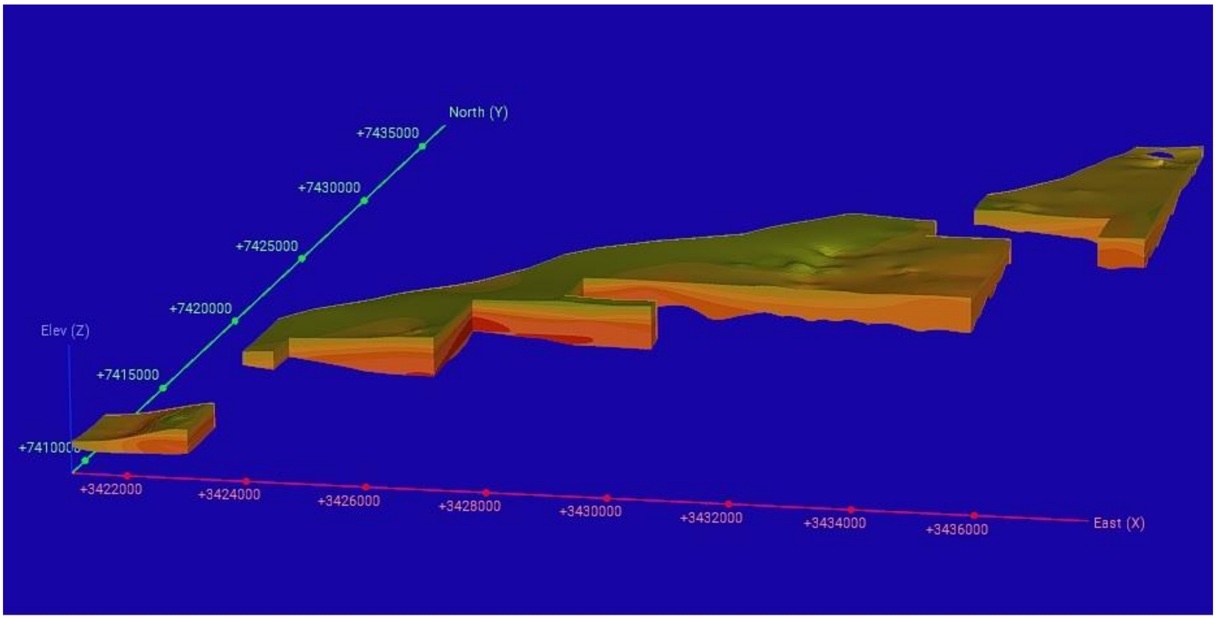

Figure 10: Solaroz Resource Model showing the distribution of lithium concentrations through the Central and Northern Blocks and the southern Mario Angel concession;
Concentrations decrease towards the west and north; Warmer colours are higher lithium concentrations;

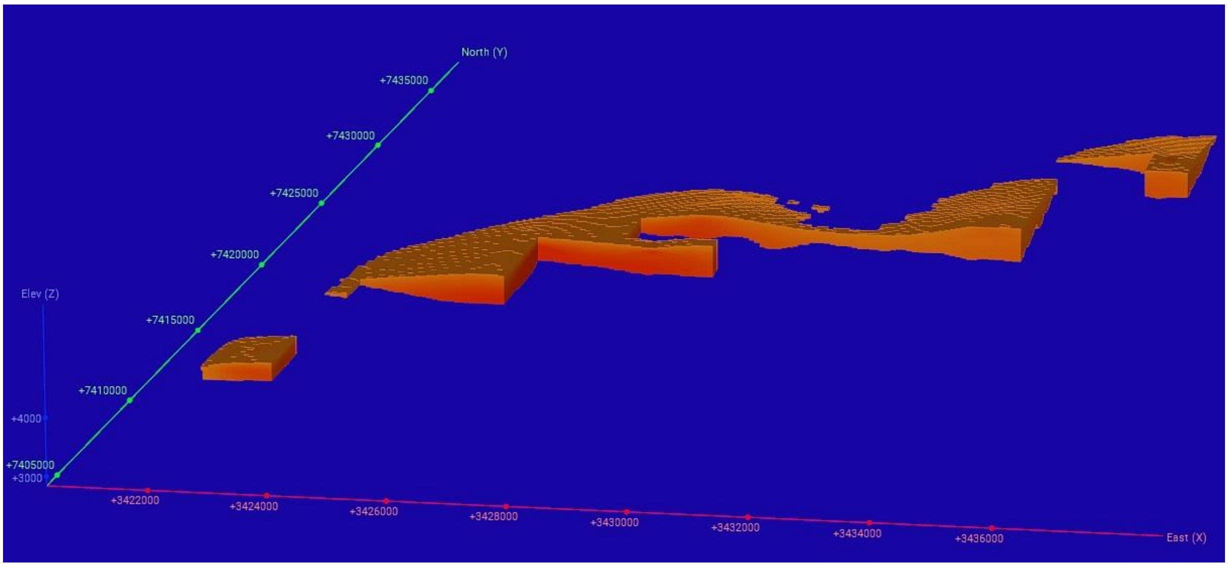

Figure 11: Solaroz Resource Model showing the distribution of lithium concentrations through the Central Block with concentrations > 320 mg/l (averaged overall lithium concentration of 400 mg/l Li);
Concentrations decrease towards the west and north; Warmer colours are higher lithium concentrations;
This corresponds to the high-grade core of the Mineral Resource referred to in Table 6;
The small contribution from the Northern Block reflects the presence of thick halite (Unit B) there

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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 and Corella Graphite Projects in Queensland. The Solaroz Lithium Project (LEL:90%) comprises 12,000 hectares of highly prospective lithium mineral concessions (where an initial JORC Inferred Mineral Resource of lithium has been delineated) located strategically within the Salar de Olaroz Basin in South America's "Lithium Triangle" in north-west Argentina. Lithium Energy shares the lithium rights in the Olaroz Salar basin with lithium carbonate producers Allkem Limited (ASX/TSX:AKE) and Lithium Argentina (TSX:LAAC). The Burke and Corella Graphite Deposits (LEL:100%) in Queensland, Australia, contains high grade JORC Indicated and Inferred Mineral Resources of graphite; Lithium Energy is undertaking a Prefeasibility Study on a proposed vertically integrated battery anode material manufacturing facility in Queensland.

JORC CODE COMPETENT PERSONS' STATEMENTS

(1) The information in this document that relates to Mineral Resources (and the interpretation and reporting of Exploration Results related thereto) in relation to the Solaroz Lithium Brine Project is based on information compiled by Mr Murray Brooker (MAIG, MIAH), a Competent Person who is a Member of the Australian Institute of Geoscientists (**AIG**). Mr Brooker is an employee of Hydrominex Geoscience Pty Ltd, an independent consultant to Lithium Energy Limited. 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' (the **JORC Code**). Mr Brooker consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

(2) The information in this document that relates to Exploration Results (assays of brine samples taken from drillholes SOZDD001 through SOZDD008, geophysical hole logging results, geophysics programme) in relation to the Solaroz Lithium Brine Project is based on information compiled by Mr Peter Smith (BSc (Geophysics) (Sydney) AIG ASEG), a Competent Person who is a Member of AIG. Mr Smith is an Executive Director of Lithium Energy Limited. Mr Smith 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 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.

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

- 9 October 2023 entitled "Evaporation and Direct Lithium Extraction (DLE) Metallurgical Testwork Programmes Advancing at Solaroz Lithium Project"
- 20 September 2023 entitled "Drillhole 7 Yields Highest Grade Lithium to Date in Upper Aquifer"
- 5 September 2023 entitled "Conventional Solar Evaporation Option for Solaroz Lithium Project as Multiple EV Battery Parties Seek Partnership"
- 29 August 2023 entitled "Lithium Mineralisation Encountered in Northern Solaroz Concession"
- 31 July 2023 entitled "Quarterly Activities and Cash Flow Reports – 30 June 2023"
- 27 July 2023 entitled "Highest Lithium Concentrations Encountered at Solaroz Lithium Project in Hole 6"
- 13 July 2023 entitled "Drilling Commences at Hole 7 and Hole 6 Intersects Lithium-Rich Brines at Solaroz Lithium Project"
- 29 June 2023 entitled "Significant Maiden JORC Lithium Resource of 3.3Mt LCE at Solaroz Project in Argentina"
- 1 June 2023 entitled "Hole 6 Intersects Conductive Brines in Upper Aquifer at Solaroz Lithium Brine Project"
- 15 May 2023 entitled "Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz"

- 12 May 2023 entitled "Massive Intersections of Brine Continue at Solaroz at up to ~780 Metre Depth"
- 1 May 2023 entitled "Massive Intersections of Lithium Rich Brine Confirm World Class Potential of Solaroz Lithium Project"
- 19 April 2023 entitled "Holes 4 and 5 Encounter Significant Intersections of Conductive Brines at Solaroz Lithium Project"
- 14 March 2023 entitled "Further Significant Lithium Discovery Extends Mineralisation at Solaroz Lithium Brine Project"
- 10 March 2023 entitled "Positive Specific Yields and Significant Averaged Lithium Concentrations in SOZDD001 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"
- 26 May 2021 entitled "Geophysical Data Supports Highly Encouraging Exploration Potential for Solaroz"

The information in the original announcements is based on information compiled by Mr Peter Smith (BSc (Geophysics) (Sydney) AIG ASEG), a Competent Person who is a Member of AIG. Mr Smith is an Executive Director of Lithium Energy Limited. Mr Smith 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 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).

OTHER REFERENCES

Allkem Limited (ASX/TSX:AKE) (formerly Orocobre Limited (ASX:ORE))

- Allkem Limited ASX/TSX Announcement dated 25 September 2023 entitled "Allkem confirms material growth profile underpinned by 40 Mt Resource".
- Allkem Limited ASX/TSX Announcement dated 27 March 2023 entitled "Olaroz resource increases 27% to 20.7 million tonnes LCE".
- Allkem Limited ASX/TSX Announcement dated 4 April 2022 entitled "Olaroz resource upgraded 2.5x to 16.2 million tonnes LCE – Confirmation of strong project economics for Olaroz stage 2".
- 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".
- Orocobre Limited ASX/TSX Announcement dated 23 October 2014 entitled "Olaroz Project - Large Exploration Target Defined Beneath Current Resource".
- 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.
- Flow Solutions, Prefeasibility Study of the Cauchari JV Lithium Project, Jujuy Province, Argentina, 2019.

Lithium Argentina Corporation (TSX:LAAC) (formerly part of Lithium Americas Corporation (TSX:LAC))

- 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 Argentina Corporation, 30 September 2020.

FORWARD LOOKING STATEMENTS

This document contains “forward-looking statements” and “forward-looking information”, including statements and forecasts which include without limitation, expectations regarding future performance, costs, production levels or rates, mineral reserves and resources, the financial position of Lithium Energy, industry growth and other trend projections. Often, but not always, forward-looking information can be identified by the use of words such as “plans”, “expects”, “is expected”, “is expecting”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates”, or “believes”, or variations (including negative variations) of such words and phrases, or state that certain actions, events or results “may”, “could”, “would”, “might”, or “will” be taken, occur or be achieved. Such information is based on assumptions and judgements of management regarding future events and results. The purpose of forward-looking information is to provide the audience with information about management’s expectations and plans. Readers are cautioned that forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Lithium Energy and/or its subsidiaries to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Such factors include, among others, changes in market conditions, future prices of minerals/commodities, the actual results of current production, development and/or exploration activities, changes in project parameters as plans continue to be refined, variations in grade or recovery rates, plant and/or equipment failure and the possibility of cost overruns. Forward-looking information and statements are based on the reasonable assumptions, estimates, analysis and opinions of management made in light of its experience and its perception of trends, current conditions and expected developments, as well as other factors that management believes to be relevant and reasonable in the circumstances at the date such statements are made, but which may prove to be incorrect. Lithium Energy believes that the assumptions and expectations reflected in such forward-looking statements and information are reasonable. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used. Lithium Energy does not undertake to update any forward-looking information or statements, except in accordance with applicable securities laws.

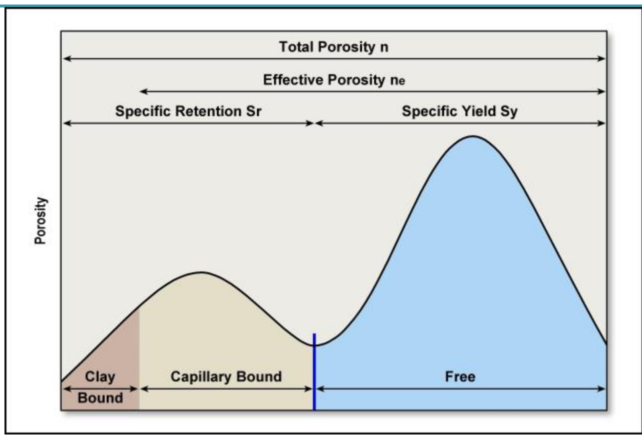
JORC CODE (2012 EDITION)
CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA
FOR EXPLORATION RESULTS

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.*	**Drill Samples** The pre-collars from surface were drilled using the Tricone drilling method, and chips were logged as collected, to variable depths below surface, depending on the hole. 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 to obtain representative samples of the stratigraphy and sediments that host brine. Water/brine samples were taken from target intervals, using single packer sampling descending and double packers as check samples ascending the holes (depending on the condition of the drillhole). Packer samples isolate a volume of the stratigraphy around the hole, to collect representative brine samples from that interval. Brine was collected by purging isolated sections of the hole of all fluid, removing more than three volumes of the sampling chamber and drilling rods to minimise 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), with collection of the hole in triplicate. The casing lining the hole ensures contamination with water from higher levels in the borehole is likely prevented. Samples were taken systematically in the holes based upon geological logging and conductivity testing of water. Samples were taken as descending packers with a spacing of ~18m (later ~24m) between samples descending in the holes. Conductivity and Density measurements are taken with a field portable High Range Hanna multi parameter meter and floating densiometers. Testing of the chemical composition (including Lithium, Potassium, Magnesium concentrations) of brines are undertaken at a local laboratory in Argentina. Relevant results of Lithium concentration assayed from brine samples taken at various intervals in drillholes SOZDD001, SOZDD002, SOZDD003, SOZDD004, SOZDD005, SOZDD006, SOZDD007 and SOZDD008 are presented in Table 8 – the Company has also previously announced field and assay results of samples in respect of some of these holes. **Geophysics** Sampling was carried out with TROMINO® Passive Seismic equipment. TROMINO® is a small (1 dm^3, < 1 kg) all-in-one instrument, equipped with: • 3 velocimetric channels (adjustable dynamic range) • 3 accelerometric channels • 1 analog channel • GPS receiver • built-in radio transmitter/receiver (for synchronization among different units) • radio triggering system (for MASW surveys and similar)

Criteria	Explanation	Comments
		TROMINO® works in the [0.1, 1024] Hz range. Samples were collected for a 20 minute duration at station spacing of 250m and in the second campaign for a 40 minute duration. Transient Electromagnetic Surveys **(TEM)** were carried out by Quantec Geophysics, based out of Mendoza, Argentina: • Transmitter: Geonics Protem. • Receiver: EM37 Receiver, with 3 Component Coil sensor. • Method: Soundings (300m loops) • Station spacing approx. 400m
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 pre-collars from surface were drilled using the Tricone drilling method; chips were logged as collected, to the pre-collar depth, which was deeper in the holes further north on the Olaroz Salara. The pre-collar was then cemented in (isolated) 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 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.* • *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.*	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. No relationship exists between core recovery and lithium concentration, as the lithium is present in brine. Brine is extracted during sampling and the sediments are not the target for lithium extraction (I.e. the sediments are not mined, milled or processed), the lithium is extracted directly from the brine.
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*	**Drilling** Lithium Energy has geologists at each drillhole 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. Downhole geophysical logging was undertaken by Zelandez, 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 sediment. (b) Specific Yield (Sy) is the amount of water/brine that is actually available within the sediment for groundwater pumping.

Criteria	Explanation	Comments
		 *Figure 12: Specific Retention and Specific Yield, as part of Total Porosity (Source: Zelandez)* 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. Physical samples of the core are also sent to the Geosystems Analysis porosity laboratory in Arizona (USA) for measurements of specific yield and total porosity. This sampling is undertaken as a check on the BMR sampling, with a comparison of variance and averages undertaken. **Geophysics** The TROMINO® Passive Seismic equipment works in the [0.1, 1024] Hz range. The TEM equipment was operated at 2.5Hz and 25 Hz.
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 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.*	**Drill Samples** Water/brine samples were collected by using an inflatable packer to purge the hole of all fluid, to minimise the possibility of contamination by drilling fluid. The packer allowed sampling of isolated sections of the hole, allowing the packer interval to re-fill with groundwater following purging. Samples were then taken from the relevant section, with three well volumes of brine purged where this was possible. Lower flows were obtained from the halite unit. Packer sampling is considered the most appropriate way for collecting brine samples. All methods have advantages and disadvantages. Field duplicate samples are collected in the field, with samples collected in triplicate. Single packer samples are taken during the progression of drilling. Once the hole is completed, double packer samples are taken in an upward progression leaving the hole, as a check on the initial single packer samples. Brine sample sizes are considered appropriate to be representative of the formation brine. Cores are geologically logged and ~30cm intervals from the base of Lexan tubes are collected every ~12m. These samples are cut from the bottom of the Lexan tubes and sealed with caps to prevent moisture loss, before sending to the Geosystems Analysis laboratory in the USA for testing. Cores are representative of the interval in which they are taken. Porosity can vary significantly in clastic salt lake sequences over less than 1 metre and for this reason downhole BMR logging is undertaken. **Geophysics** No sub sampling was carried out as the Passive Seismic method is not invasive and is passive in nature. The TEM data has been bundled into standard bin widths, as is the default with the ProTEM receiver.
Quality of assay data	• *The nature, quality and appropriateness of the*	**Drill Samples**

Criteria	Explanation	Comments
and laboratory tests	*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 transported to the Geosystems Analysis (GSA) porosity testing laboratory in Arizona, USA. The laboratory has extensive experience testing core samples from salt lakes for porosity. Sub-samples will be analysed in a secondary porosity laboratory, as a check on the GSA results. Results are plotted versus BMR data on downhole plots, to compare results from the two methods. Brine samples were sent to the Alex Stewart International Laboratory in Jujuy, 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. The Company has previously announced field brine sampling results and the analytical results from the Alex Stewart International Laboratory in respect of drillholes SOZDD001, SOZDD002, SOZDD003, SOZDD004, SOZDD005, SOZDD006 and SOZDD007 - relevant results of Lithium concentration assayed from brine samples taken at various intervals in these drillholes are presented in Table 8. Field duplicate samples returned comparable values, within acceptable limits. Two certified standard samples are submitted regularly with the brine samples and analyses are considered to be acceptable. Blank distilled water samples are also submitted as part of the QA/QC regime, with 20% QA/QC samples (duplicates, standards, blanks). Samples are analysed in a secondary laboratory as an external check on the primary assay results. This is the Alex Stewart Laboratory in Mendoza, Argentina, where samples are submitted with different sample numbers to the primary samples. **Geophysics** Individual Passive Seismic readings are continuous in nature, at up to 1000Hz, and can be statistically processed to optimise the data quality. The TEM is a result of stacking on the individual readings per station. The data quality noted by the field technicians is of a high quality giving confidence in the collected data.
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.*	**Drill Samples** Field duplicates, standards and blanks are used to monitor potential contamination of samples and the repeatability of analyses. Duplicate and blank samples were sent to the Alex Stewart Laboratory in Mendoza, Argentina, as blind duplicates and standards, for analysis in this secondary laboratory. Samples were accompanied by chain of custody documentation. Assay results were imported directly from laboratory spreadsheet files to the Project database. Due to challenges encountered with completing SOZDD004, the drilling company has drilled an adjacent (twin) hole (SOZDD04R) for geophysical hole logging (at their cost). Geophysical hole logging was completed to a depth of 403 metres in SOZDD004 and 464 metres in the twin-hole SOZDD04R, located 10 metres from the original SOZDD004. With completion of this twin-hole, measurements were completed for total porosity, specific yield, conductivity, resistivity and spectral gamma. Due to drill hole conditions and the limitations of the drill rig, geophysical hole logging was not able to be completed to the hole depth at 787.5 metres. **Geophysics** The TROMINO® Passive Seismic equipment is equipped with internal and external GPS and is processed by external consultants proficient in passive seismic data collection and processing. Repeats and cross line correlation have been used to assist in sampling verification and QAQC.
Location of data points	• *Accuracy and quality of surveys used to locate drill*	**Drilling**

Criteria	Explanation	Comments
	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. **Geophysics** The TROMINO® Passive Seismic equipment is equipped with internal and external GPS, and is processed to present the data in POSGAR Argentine Zone 3 co-ordinates (a local Argentinian Grid format similar to a UTM grid). The TEM equipment was located in the field by GPS, and co-ordinated with the WGS UTM Zone 19S co-ordinate system.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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 classifications applied.* • *Whether sample compositing has been applied.*	**Drilling** Water/brine samples were collected within isolated sections of the hole based upon the results of geological logging. Brine samples were collected with a frequency of every ~18 to ~24m down hole with single packer samples. Double packer sample frequency ascending in the holes depended on hole stability and other factors. Samples were taken over ~1m intervals, the limitation of the packer spacing, with samples taken less frequently than the descending single packer samples. Laboratory porosity samples were collected on a nominal ~12m spacing down hole, but samples analysed depended on the checking of sample condition at the laboratory. Downhole BMR porosity logging was undertaken, with data collected approximately every ~2-5cm, providing very extensive characterisation of the sediments and variation. BMR data was composited for resource estimation. Samples were not composited for reporting. **Geophysics** Passive Seismic data spacing is on lines selected nominally perpendicular to known Geology, and at station spacing of 250m. TEM data spacing is on lines selected nominally perpendicular to known Geology, and at station spacing of ~250m.
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.*	**Drilling** The brine concentrations being explored generally occur as sub-horizontal layers and lenses hosted by 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. **Geophysics** Passive Seismic data spacing is on lines selected nominally perpendicular to known Geology, and at station spacing of ~250m. TEM data spacing is on lines selected nominally perpendicular to known Geology, and at station spacing of ~250m.
Sample security	• *The measures taken to ensure sample security.*	**Drilling** 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 sites to secure storage at the camp on a daily basis. **Geophysics** Data collection is stored digitally, and uploaded daily to the external consultant for processing.

Criteria	Explanation	Comments
Audits or reviews	• *The results of and audits or reviews of sampling techniques and data.*	**Drilling** No audits or reviews have been conducted to date. The initial resource definition drilling programme has been completed. The Company's independent Competent Person (in respect of the delineation of a JORC Mineral Resource for the Project) has approved the procedures to date and visited the site (on multiple occasions) to review first-hand the drilling practice and logging, sampling, QA/QC controls and data management. **Geophysics** No external audit or review of the data has taken place.

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** or **Project**) located in the Jujuy Province in northern Argentina (refer 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 (1,973.24ha) (4) Payo 2 – File N°1515-M-2010 (2,192.63ha; comprising South block (1,435.13ha) and North block (757.5)) (5) Chico I – File N°1229-M-2009 (835.24ha) (6) Chico V – File N°1312-M-2009 (1,800ha) (7) Chico VI – File N°1313-M-2009 (1,400.18ha) (8) Silvia Irene, File N°1706-S-2011 (2,348.13ha) 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 an operating mine have been carried out by Allkem Limited (ASX/TSX:AKE) (formerly Orocobre Limited) (**Allkem** or **Orocobre**) and Lithium Argentina Corporation (TSX:LAAC) (formerly part of Lithium Americas Corporation (TSX:LAC)) (**Lithium Argentina**). The Company has reviewed the relevant open file published documents and images relating to the Salar de Olaroz (**Olaroz Salar**) 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". • Allkem Limited ASX/TSX Announcement dated 27 March 2023, "Olaroz resource increases 27% to 20.7 million tonnes LCE". • Reidel, F., Technical Report on Cauchari JV Project – Updated Mineral Resource Estimate, prepared for Advantage Lithium Corporation, 19 April 2019.

Criteria	Explanation	Comments
		• 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 Argentina 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 Cauchari to the south, suggesting the two basins operated as a continuous hydrologic entity at that stage. Succeeding Units suggest continued subsidence in the centre of the basin, with a climate that was variable, but never as arid as during the period dominated by the abundant Halite development. Influx of water and sediment is primarily from the Rosario catchment at the north of Salar de Olaroz and alluvial fans around the edge of the basin. At depth a thick highly porous sand aquifer has been intersected in both the Salar de Cauchari (by Lithium Argentina) and the Salar de Olaroz (by Orocobre). Due to its depth the aquifer was only intersected in a few holes, as of the 23 October 2014 Orocobre announcement. However, more recent drilling at Olaroz has confirmed the extent and importance of this unit. The significance of the 'Deep Sand Unit' is that sands of this type have free draining porosity of up to 25%, based on previous third party test work, 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*
		Details of the collar location, azimuth, depth for Drillhole ID's SOZDD001 to SOZDD008 are reported in Table 7.
		All holes are drilled vertically through the unconsolidated clastic sediments and halite (salt) unit.

Criteria	Explanation	Comments
	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 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.*	Where 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 been averaged over the aquifers' interpreted width, with the underlying Total Porosity and Specific Yield being collected at ~2cm intervals from down hole BMR geophysical logging. 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, there should be a clear statement to this effect (e.g. 'down hole length, true width not known')*	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.
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.*	Figure 2 shows the location of the Solaroz Concessions (and relevant infrastructure) adjacent to the concessions held by Allkem and Lithium Argentina on the Olaroz Salar, the location of drill holes SOZDD001 to SOZDD008 and the Indicated and Inferred Mineral Resource areas within the Solaroz Concessions. Figure 3 shows the location of drillholes SOZDD001 to SOZDD008 within the Solaroz Concessions and highlights of the drilling results (to date). Figure 4 (TEM Line 8) and Figure 5 (corresponding Passive Seismic Line 58) illustrates the results of geophysics undertaken near the location of SOZDD003. Figure 6 shows the Company's (TEM and passive seismic) geophysical lines and Allkem's historical (gravity and AMT) geophysical lines, geophysical images showing depths to bedrock within parts of the Solaroz concessions, the geology of the Olaroz Salar and the Location of the Solaroz Concessions. Figures 8 and 9 a illustrates the Project's geological model. Figures 10 and 11 illustrates the resource model for the mineral resource estimate and the distribution of the higher grade zone

Criteria	Explanation	Comments
		within this resource. Downhole Geophysical logging of holes 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 (specific retention) and Specific Yield. Figure 13 shows the geophysical hole logging results and drillhole lithology stratigraphy for SOZDD001. Figure 14 shows the geophysical hole logging results and drillhole lithology stratigraphy for SOZDD002. Figure 7 shows the geophysical hole logging results and drillhole lithology stratigraphy for SOZDD003. Figure 15 shows the geophysical hole logging results and drillhole lithology stratigraphy for SOZDD004. Figure 16 shows the geophysical hole logging results and drillhole lithology stratigraphy for SOZDD005. Figure 17 shows the geophysical hole logging results and drillhole lithology stratigraphy for SOZDD006. Figure 18 shows the drillhole lithology stratigraphy for SOZDD007. Figure 19 shows the drillhole lithology stratigraphy for SOZDD008.
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' projects on the Olaroz Salar and Salar de Cauchari (to the south) - the Company has not validated these results but has no reason to doubt the balanced reporting of the various technical open file reports. The results presented and used for the mineral resource estimate are from the initial exploration drilling and geophysics programme on the Solaroz Concessions.
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 bedrock 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 bedrock. The Company has undertaken its own geophysics programme across all the Solaroz Concessions, comprising: • Passive seismic surveys, to determine the depth of the underlying bedrock (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 also 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". Some of the TEM survey lines undertaken across the Solaroz Concessions (also identified) are also shown in Figure 6 of the Company's ASX announcement dated 16 November 2022 entitled "Drilling Completed at Maiden Drillhole at Solaroz Lithium Brine Project".

Criteria	Explanation	Comments
		Two passive seismic surveys have been carried out – an initial survey consisting of lines in different orientations through the Solaroz Concessions, followed by a more detailed grid programme, with ~1,242 stations measured. The results of the two passive seismic programmes have been interpreted and referenced against the TEM survey data, to develop the best possible geophysical interpretation. This data has incorporated the initial results of the diamond core drilling programme to develop the geological model for the Project and the resource model for the mineral resource estimate. 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 also 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". The (field) results of initial packer sampling at the second drillhole (SOZDD002, located on the Chico V concession) at Solaroz has also 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". The (field and assay) results of packer sampling and geophysical hole logging at the third drillhole (SOZDD003, located on the Chico I concession) at Solaroz has also been previously announced – refer to the Company's ASX announcement dated 14 March 2023 entitled "Further Significant Lithium Discovery Extends Mineralisation at Solaroz Lithium Brine Project". The (field and assay) results of packer sampling at the fourth drillhole (SOZDD004, located on the Chico I concession) have been previously reported – refer to the Company's ASX Announcement dated 15 May 2023 entitled "Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz" and 29 August 2023 entitled "Lithium Mineralisation Encountered in Northern Solaroz Concession". The (field and assay) results of packer sampling and geophysical hole logging at the fifth drillhole (SOZDD005, on the Chico VI concession) have been previously reported – refer to the Company's ASX Announcements dated 31 July 2023 entitled "Quarterly Activities and Cash Flow Reports – 30 June 2023" and 15 May 2023 entitled "Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz". The (field and assay) results of airlift and packer sampling and geophysical hole logging at the sixth drillhole (SOZDD006, on the Chico VI concession) have been previously reported – refer to the Company's ASX Announcements dated 31 July 2023 entitled "Quarterly Activities and Cash Flow Reports – 30 June 2023", 27 July 2023 entitled "Highest Lithium Concentrations Encountered at Solaroz Lithium Project in Hole 6" and 29 August 2023 entitled "Lithium Mineralisation Encountered in Northern Solaroz Concession". The (field and assay) results of airlift and packer sampling at the seventh drillhole (SOZDD007, on the Payo 1 concession) have been previously reported – refer to the Company's ASX Announcements dated 29 August 2023 entitled "Lithium Mineralisation Encountered in Northern Solaroz Concession" and 20 September 2023 entitled "Drillhole 7 Yields Highest Grade Lithium to Date in Upper Aquifer". The (field) results of airlift sampling at the eighth drillhole (SOZDD008, on the Chico I concession) have been previously reported – refer to the Company's ASX Announcement dated 20 September 2023 entitled "Drillhole 7 Yields Highest Grade Lithium to Date in

Criteria	Explanation	Comments
		Upper Aquifer".
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.*	The Company has completed a major exploration programme on the Solaroz Concessions comprising comprehensive geophysical surveys (passive seismic and TEM surveys) and a significant (diamond with rotary precollars) drilling programme (comprising 8 holes totalling ~5,000m), which has led to the discovery of lithium bearing brines of economic interest, compilation of information on the hydrogeological and geochemical characteristics of the brine rich aquifers (including data related to basic physical parameters of the different hydrogeological units) that comprises the Olaroz Salar underneath the Solaroz Concessions and the delineation of a maiden and upgraded JORC Indicated and Inferred Lithium Mineral Resource. 8 holes have been drilled in this initial drilling programme - SOZDD001 (on the Mario Angel concession), SOZDD002 (on the Chico V concession), SOZDD003 (on the Chico I concession), SOZDD004 (on the Chico I concession), SOZDD005 (on the Chico VI concession), SOZDD006 (on the Chico VI concession), SOZDD007 (on the Payo 1 concession) and SOZDD008 (on the Chico I concession). Additional (including in-fill) holes are planned in the Central Block (Chico I, V and VI, Payo 2 South and Silvia Irene concessions), to improve the confidence in correlation of lithology, porosity and brine concentration between holes in the Central Block. Drilling is planned to further evaluate the Northern Block (Payo 1 and Payo 2 North concessions). The Company expects that the current JORC Indicated and Inferred Lithium Mineral Resource will be further upgraded as a consequence of on-going additional drilling on the Solaroz Concessions. Large diameter wells will be drilled and installed on relevant areas for pump testing. Hydrological studies will be undertaken, to support groundwater modelling to define lithium brine extraction rates. Process test work (which is equivalent to metallurgical test work) will be undertaken on relevant lithium brine samples. The Company is finalising a Scoping Study for the production of battery grade lithium carbonate from the lithium rich brines at Solaroz, via both traditional pond evaporation and direct lithium extraction (DLE) technology). 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) for the development of the Project into production.

Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	Explanation	Comments
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	Data was transferred directly from laboratory spreadsheets to the database. Data was checked for transcription errors once in the database, to ensure coordinates, assay values and lithological codes are correct. Data was plotted to check the spatial location and relationship to adjoining sample points. Duplicates and standards have been used throughout the assay process. Brine assays and porosity test work have been analysed and compared with other publicly available information for reasonableness. Comparisons of original and current datasets were made to ensure no lack of integrity.

Criteria	Explanation	Comments
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	The Competent Person and his assistant has visited the site multiple times since the start of the drilling and sampling programme in 2022. Some improvements to procedures were made during visits by the Competent Person, improving the consistency of geological logging and sample collection.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	There is a reasonable confidence in the geological model for the Project, with eight holes completed to date, along with comprehensive geophysical surveys. There are relatively distinct geological units in essentially flat lying, relatively uniform, clastic sediments, with the halite unit as a distinctive marker in the middle of the sequence. This is consistent with observations from the Allkem and Lithium Argentina lithium brine projects further to the south on the Olaroz Salar/Salar de Cauchari. Geophysics and drilling data has been used to define lithological surfaces, in particular the top of the halite unite and the bedrock. Any alternative interpretations in the area of drilling are restricted to smaller scale variations in sedimentology, related to changes in grain size and fine material in units. There is greater uncertainty further to the west and north. However, the geophysics suggests the halite unit continues, suggesting the same stratigraphy is relevant. Geology is key for defining the resource estimate. A thicker or a thinner halite unit would have significant impact on the contained lithium tonnage, as the specific yield is lower in the halite unit. Changes in specific yield porosity were responsible for differences between the maiden Inferred Mineral Resource and the upgraded Indicated and Inferred Mineral Resource. The specific yield is significantly higher for the upper (Unit A) compared to the lower (Unit C and D) clastic units, which are more compact. As the porosity characteristics of the halite unit are distinct, the thickness of this unit in the Inferred Mineral Resource in the Northern Block has significant influence on the contained lithium tonnage. Sedimentary processes affect the continuity of geology, whereas the concentration of lithium and other elements in the brine is related to water inflows, evaporation and brine evolution in the salar and location relative to the salar, where brine was formed and concentrated.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource*	The lateral extent of the Mineral Resource estimate has been defined by the boundary of the Solaroz Concessions and the extent of the brine, as indicated by the TEM geophysics. The brine mineralisation in the resource model covers an area of 46.18 km^2 (4,618 ha) for the Indicated Resource, in the Central Block. The Inferred Resource consists of 3.64 km^2 (364ha) in the southern Mario Angel concession, 4.13 km^2 (413 ha) in the North of the Central Block and 27.07 km^2 (2,707 ha) in the Northern Block. The combined total resource area is 73.25 km^2 (7,325 ha). The top of the geological model coincides with the topography obtained from the Also Palsar imagery. The original elevations were locally adjusted for each drill hole collar with the most accurate coordinates available. The top of the brine is based on interpretation of the geophysics and the intersections in the drill holes of brine, with a concentration of ~200 mS/cm or more. The depth to the top of the brine increases further from the salar, at higher elevations and because brine is further below ground surface further from the salar, where brine is formed. Such a deepening with greater depth from the salar is expected and observed in other salt lake basins. In hole SOZDD002, the brine concentration is low, as Unit A directly overlies bedrock and the deeper Units B, C and D, which have higher lithium concentrations, are not present. The base of the Mineral Resource is limited by the interpreted bedrock surface, which

Criteria	Explanation	Comments
		is based on the passive seismic survey and the intersections of the interpreted bedrock rocks in drill holes.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the Resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	The Mineral Resource estimate for the Project was developed using Leapfrog Software and the Edge estimation package. The geological model is considered a reliable initial representation of the local lithology. Generation of histograms and box plots were conducted for the Exploratory Data Analysis for lithium. Regarding the interpolation parameters, it should be noted that the search radii are flattened ellipsoids with the shortest distance in the Z axis. No outlier restrictions were applied to the lithium concentration, as distributions of the different elements do not show anomalously high values. However, some anomalously low values, out of context with surrounding samples, were rejected, as they are considered to be diluted samples contaminated by drilling fluids. No grade cutting, or capping was applied to the Lithium. Lithium concentrations increase down hole, becoming progressively more concentrated in lithium beneath an upper brackish zone. The lithium concentration reaches a consistent concentration within and below the halite unit. The BMR data was reviewed and values above 30% specific yield were cut, as these are high specific yield values. Similarly, values below 1% were cut. Results from the primary porosity laboratory (GSA) were compared with results from the down hole BMR logging. A simple volumetric check estimate was carried out using the volume of the geological units and representative values for porosity and lithium concentration. Potassium is the most economically significant element dissolved in the brine after lithium. Potassium can be produced using the evaporative process as for lithium. However, the final production of potassium requires independent processing from the lithium brine. The potassium recovery process is well understood and could be implemented in the Project. However, potassium production does not add significantly to the economics of the Project and hence is not considered. Interpolation of lithium for each block in mg/l used the Leapfrog Radial Basis Function (not kriging, which is used to estimate specific yield). The presence of brine is not necessarily controlled by the lithologies and lithium concentrations are independent of lithology. Geological units had hard boundaries for estimation of porosity. Deleterious elements in the brine consist of Mg, Ca, B and SO_4 in particular. The distribution of these elements was estimated along with lithium, as these elements are routinely analysed. Estimation of Mineral Resources used the average Specific Yield value for each geological unit, based on the drillhole data. The block size (200 x 200 x 10m) has been chosen for providing a workable number of the blocks inside the geological model, considering the number of drill holes and arial extent. No assumptions were made regarding selective mining units and selective mining is difficult to apply in brine deposits, where the brine flows in response to pumping. No assumptions were made about correlation between variables. Lithium was estimated independently of other elements. The geological interpretation was used to define each geological unit and the property limits were used to enclose the Mineral Resources. The lithium concentration is not necessarily related to a particular lithology. No grade capping or cutting was used, as grades do not show extreme outliers. However, assessment of the sampling process and results suggests that a number of samples were most likely contaminated by drilling fluid, resulting in anomalously low lithium concentrations.

Criteria	Explanation	Comments
		This has been noted on many other lithium projects. The relevant low outlier (off-trend) lithium values were not used for Mineral Resource estimation, given concerns about their validity. Validation was performed using a series of checks including comparison of univariate statistics for global estimation bias, visual inspection against samples on plans and sections and swath plots. Visual validation shows a good agreement between the samples and the estimates.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Moisture content of the cores was not measured (porosity and density measurements were made), but as brine will be extracted by pumping not mining, that is not relevant for the Mineral Resource estimation. Tonnages are estimated as metallic lithium dissolved in brine, which is converted to Lithium Carbonate Equivalent (LCE) by a factor of 5.323.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	No cut-off grade has been applied to the Mineral Resource, as it is not yet clear what processing method will be applied.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	The Mineral Resource has been quoted in terms of brine volume, concentration of dissolved elements, contained lithium and LCE. No mining or recovery factors have been applied (because the use of the specific yield (equivalent to drainable porosity) reflects the reasonable prospects for economic extraction with the proposed mining methodology). There are lithium brine operations that have been extracting and producing lithium products in Argentina and Chile for over 25 years. Dilution of brine concentrations is likely to occur over time and typically there are lithium losses in both the ponds and processing plant in conventional brine mining operations which are estimated as part of the delineation of an Ore Reserve. Potential dilution will be estimated in the groundwater model simulating brine extraction to define the Project's Ore Reserve. The conceptual mining method is recovering brine from beneath the gravels via a network of wells, the established practice on existing lithium brine projects. Detailed hydrologic studies of the Project area and basin will be undertaken as the Project develops further. This would support future groundwater modelling to define the Project's Ore Reserve and extraction rate.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	The preferred brine processing route has yet to be determined by test work to establish the optimum process. The characteristics of the brine are very similar to the public information on the Olaroz and Olaroz-Cauchari projects owned by Allkem and Lithium Argentina respectively. Consequently, there is confidence conventional pond evaporation and processing is feasible. However, with recent developments in direct lithium extraction (DLE) technology and the 25-year experience of producer Livent Corporation (NYSE:LTHM) using one form of this, the possibilities of direct extraction are yet to be fully evaluated but are also a likely feasible means of producing saleable lithium end product. Process test work (which can be considered equivalent to metallurgical test work) is proposed to be carried out on the Project brine. The DLE extraction to be undertaken by Lanshen to produce lithium carbonate can be considered as a commercial scale pilot plant, to produce lithium carbonate.

Criteria	Explanation	Comments
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	Impacts of a lithium operation at the Solaroz Project would include surface disturbance from the creation of extraction/processing facilities, ponds and associated infrastructure, accumulation of various salt tailing impoundments and extraction from brine and freshwater aquifers regionally. In the event that DLE is used then ponds or brine injection infrastructure would be required. The Allkem Olaroz and Lithium Argentina Olaroz-Cauchari lithium projects to the south of the Solaroz Project are fully permitted and the Olaroz Project has been extracting brine since 2015. In this context, the Project is more comparable to a brownfields project.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Density measurements were taken as part of the drill core assessment. This included determining dry density and particle density as well as field measurements of brine fluid density. Note that no open pit or underground mining is to be carried out as brine is to be extracted by pumping and consequently sediments are not mined but the lithium is extracted by pumping. No bulk density was applied to the estimates because Mineral Resources are defined by volume, rather than by tonnage. The salt unit is compact but can contain fractures and vugs which host brine and within contained sand intervals.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result*	The Mineral Resource has been classified in the Indicated and Inferred categories, based on the intermediate stage of exploration to date. Additional drilling is anticipated to support future reclassification of the Mineral Resource, particularly with the addition of holes further west in the resource area, to better understand how the lithium concentration varies towards the western limit of the strongly conductive zone corresponding to brine. The Indicated Resource is defined within 3km of drill holes in the Central Block of concession, where most of the drilling has been conducted and where the extensive geophysical programmes completed provide additional support and confidence in the correlation of drilling data. 3km was selected, rather than the 5km suggested as a maximum by Houston et. Al., (2011), because the resource is defined off the salar and the lithium concentrations may change more significantly in this environment. There is also less control along the Western edge of the resource. Therefore 3km was

Criteria	Explanation	Comments
	appropriately reflects the Competent Person's view of the deposit	considered a reasonable distance for correlation, which is supported by the correlation between drill holes and consistent lithological Units A through D. There are reasonable correlations between holes in terms of lithological units and specific yield porosity. The greatest uncertainty is the lack of drilling along the Western side of the resource area, to define with greater certainty the lithium concentration along this edge of the resource. The defined Inferred Mineral Resource reflects the early stage of exploration, with complete laboratory porosity data not yet received for all holes. The Inferred Resource is defined using the suggestion of Houston et. Al. (2011) of 7 to 10km for distances between holes for Inferred classification. The northern extent of the Northern Block is slightly less than 10km from SOZDD007. There is extensive geophysical coverage of this property and SOZDD007 has improved the interpretation in this area. Consequently, there is reasonable confidence in the continuity of geology and porosity within the Mineral Resource area and the lithium concentration variation laterally and vertically will be better defined by further drilling. In the view of the Competent Person, the Mineral Resource classification is believed to adequately reflect the available data and is consistent with the suggestions of Houston et. al., 2011.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates*	This Mineral Resource was estimated by independent consultancy Hydrominex Geoscience Pty Ltd. This upgraded estimate has not been independently audited or reviewed. An internal 'sense check' has been conducted with a simple volumetric estimate.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the Resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	Univariate statistics for global estimation bias, visual inspection against samples on sections and swath plots were evaluated to detect any spatial bias and shows a reasonable agreement between the samples and the estimate. The model is highly sensitive to specific yield values used. The BMR values used for the estimation are generally less than the specific yield laboratory values.

Table 7 - Drillhole Collar Location, Azimuth and Depth for Diamond Core Holes SOZDD001 to SOZDD008

Hole ID	Easting	Northing	Elevation	Inclination	Azimuth (Grid)	Approx. Hole Depth
	POSGAR Zone 3		AHD	Degrees	Degrees	Metres
SOZDD001	3422471	7409972	3908	90	0	337.5
SOZDD002	3430878	7423314	3925	90	0	482.5
SOZDD003	3433485	7421712	3910	90	0	590
SOZDD004	3430878	7423314	3905	90	0	787.5
SODDD04R	3427673	7419384	3905	90	0	522
SOZDD005	3425076	7416791	3909	90	0	689
SOZDD006	3425341	7419415	3915	90	0	623
SOZDD007	3436083	7427413	3910	90	0	695
SOZDD008	3428343	7421517	3918	90	0	360.6
TOTAL						**5,087.1**

Notes:

(a) SOZDD001 - Drilling was stopped for operational reasons whilst still in lithium brine mineralisation in the Deep Sand Unit, which remains open at depth[12]

(b) SOZDD002 – Drilling was terminated due to unstable drill hole conditions[13]

(c) SOZDD003 – Drilling was terminated due to drill rig limitations; the hole was still in lithium brine mineralisation (hosted in sand units and fine gravels); the full depth of lithium mineralisation is yet to determined[14]

(d) SOZDD004 - - Drillhole completed[15]

(e) SOZDD04R is a twin-hole located 10 metres from SOZDD004; due to challenges encountered with completing SOZDD004. This adjacent hole for geophysical hole logging was drilled (at the drilling company's cost).[16]

(f) SOZDD005 - - Drillhole completed[15]

(g) SOZDD006 - Drillhole completed[17]

(h) SOZDD007 – Drilling was terminated in the lower aquifer (Unit C) due to drill rig issues; geophysical hole logging was unable to be undertaken due to drill hole conditions

(i) SOZDD008 – Drilling was terminated in the interpreted tertiary bedrock and geophysical hole logging was completed

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

13 Refer LEL ASX Announcements dated 27 February 2023: Drilling Continues to Advance at Solaroz Lithium Brine Project and 31 January 2023: Drilling Continues to Encounter Significant Intersections of Highly Conductive Brines at Solaroz Lithium Project

14 Refer LEL ASX Announcement dated 14 March 2023: Further Significant Lithium Discovery Extends Mineralisation at Solaroz Lithium Brine Project

15 Refer also LEL ASX Announcements dated 15 May 2023: Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz, 12 May 2023: Massive Intersections of Brine Continue at Solaroz at up to ~780 Metre Depth, 1 May 2023: Massive Intersections of Lithium Rich Brine Confirm World Class Potential of Solaroz Lithium Project, 19 April 2023: Holes 4 and 5 Encounter Significant Intersections of Conductive Brines at Solaroz Lithium Project and 29 August 2023: Lithium Mineralisation Encountered in Northern Solaroz Concession

16 Refer LEL ASX Announcement dated 29 August 2023: Lithium Mineralisation Encountered in Northern Solaroz Concession

17 Refer also LEL ASX Announcement dated 27 July 2023: Highest Lithium Concentrations Encountered at Solaroz Lithium Project in Hole 6 and 29 August 2023: Lithium Mineralisation Encountered in Northern Solaroz Concession

Table 8 - Consolidated Results of Relevant Lithium Assays from Brine Samples – SOZDD001 to SOZDD008

Hole	Hole Depth Range		Li	Mg	Mg/Li	Hole	Hole Depth Range		Li	Mg	Mg/Li
	From (m)	To (m)	(mg/l)	(mg/l)	Ratio		From (m)	To (m)	(mg/l)	(mg/l)	Ratio
SOZDD001	72.6	74.1	**158**	363	2.3	SOZDD004	552.5	575.5	**493**	709	1.4
SOZDD001	75.6	79.4	**101**	226	2.2	SOZDD004	600.5	623.5	**482**	751	1.6
SOZDD001	93.6	97.1	**399**	931	2.3	SOZDD004	624	647.5	**501**	786	1.6
SOZDD001	111.6	115.1	**414**	968	2.3	SOZDD005	86.5	110.5	**243**	473	2
SOZDD001	129.6	133.1	**416**	962	2.3	SOZDD005	110	134.5	**295**	540	1.8
SOZDD001	147.6	153.3	**270**	650	2.4	SOZDD005	111.3	112.9	**315**	580	1.8
SOZDD001	227	229.5	**555**	1201	2.2	SOZDD005	134	158.5	**305**	562	1.8
SOZDD001	268	274.4	**517**	1074	2.1	SOZDD005	158.5	182.5	**301**	561	1.9
SOZDD001	275	293	**485**	739	1.5	SOZDD005	182.5	206.5	**345**	654	1.9
SOZDD002	191	193	**127**	279	2.1	SOZDD005	230.5	254	**421**	771	1.8
SOZDD002	193	204	**199**	438	2.2	SOZDD005	254.5	278.5	**433**	709	1.6
SOZDD002	206.5	211	**242**	526	1.9	SOZDD005	278.5	302.5	**439**	718	1.6
SOZDD002	211	226	**256**	524	2	SOZDD005	302.5	326	**408**	775	1.9
SOZDD002	226	228	**149**	306	2.1	SOZDD005	326.5	350.5	**356**	684	1.9
SOZDD002	266	268	**162**	313	1.9	SOZDD005	350.5	374	**430**	712	1.7
SOZDD002	281	283	**162**	308	1.9	SOZDD005	374.5	398.5	**468**	740	1.6
SOZDD002	284	301	**125**	278	2.2	SOZDD005	398	422	**479**	684	1.4
SOZDD002	301	320	**295**	614	2.1	SOZDD005	422	446	**475**	755	1.6
SOZDD002	320	343	**339**	664	2	SOZDD005	446	470.5	**480**	850	1.8
SOZDD002	366	368	**266**	475	1.8	SOZDD005	470	494	**472**	905	1.9
SOZDD002	368	391	**294**	564	1.9	SOZDD005	494.5	518.5	**490**	703	1.4
SOZDD002	392	415	**294**	556	1.9	SOZDD005	518.5	542.5	**495**	717	1.5
SOZDD002	416	439	**325**	609	1.9	SOZDD005	542.5	566.5	**492**	746	1.5
SOZDD003	177.9	194	**299**	587	2	SOZDD005	566.5	602.5	**486**	885	1.8
SOZDD003	195.5	212	**342**	607	1.8	SOZDD005	590.5	614.5	**507**	928	1.8
SOZDD003	215.5	230	**389**	821	2.1	SOZDD005	614	638	**496**	798	1.6
SOZDD003	231.5	246.5	**397**	866	2.2	SOZDD006	67	71	**25**	187	7.5
SOZDD003	246.5	266	**390**	863	2.2	SOZDD006	134	152	**214**	509	2.4
SOZDD003	266.5	284.5	**387**	780	2	SOZDD006	152.2	176.5	**327**	785	2.4
SOZDD003	539.5	550	**349**	659	1.9	SOZDD006	176.5	200	**331**	708	2.1
SOZDD003	550	553	**395**	728	1.8	SOZDD006	200.5	224.5	**354**	741	2.1
SOZDD003	557	589	**383**	704	1,83	SOZDD006	227.5	248.5	**372**	813	2.2
SOZDD004	51	60	**111**	630	5.7	SOZDD006	272.5	296.5	**328**	666	2.0
SOZDD004	71	80	**184**	504	2.7	SOZDD006	296.5	320	**448**	675	1.5
SOZDD004	80	90	**223**	528	2.4	SOZDD006	344	368	**483**	880	1.8
SOZDD004	90	100	**224**	530	2.4	SOZDD006	416	440	**543**	799	1.5
SOZDD004	111	120	**298**	566	1.9	SOZDD006	488	512	**594**	1133	1.9
SOZDD004	121	144	**220**	442	2.0	SOZDD007	23	25	**10**	14	1.4
SOZDD004	145	168	**215**	423	2.0	SOZDD007	56	61	**10**	17	1.7
SOZDD004	168	192	**215**	443	2.1	SOZDD007	85	90	**10**	18	1.8
SOZDD004	193	216	**288**	593	2.1	SOZDD007	135	140	**10**	10	1.0
SOZDD004	217	240	**302**	624	2.1	SOZDD007	170	185	**38**	207	5.4
SOZDD004	241	264.5	**288**	593	2.1	SOZDD007	185	209	**133**	463	3.5
SOZDD004	265	287.5	**239**	494	2.1	SOZDD007	209	233	**386**	855	2.2
SOZDD004	336	360	**424**	627	1.5	SOZDD007	233	257	**483**	1379	2.9
SOZDD004	360	384	**508**	655	1.3	SOZDD007	281	305	**400**	793	2.0
SOZDD004	384.5	407.5	**500**	638	1.3	SOZDD008	170.5	194.5	**311**	666	2.1
SOZDD004	408.5	431.5	**461**	623	1.4	SOZDD008	194.5	218.5	**355**	759	2.1
SOZDD004	432	456.5	**474**	668	1.4	SOZDD008	218.5	242.5	**389**	808	2.1
SOZDD004	456	480	**482**	790	1.6	SOZDD008	242.5	266	**441**	807	1.8
SOZDD004	480	504	**456**	719	1.6	SOZDD008	266	290.5	**451**	790	1.8

Notes:

(a) A pre-collar has been cemented in place to a drill hole depth of ~50 to 60 metres. Drilling uses HQ rods, followed by HWT casing, to isolate fresh/brackish water in the upper part of the hole and to prevent dilution with the sampling and assaying of the deeper brines.

(b) Brine samples, which evidence suggests were diluted and are considered to be contaminated samples, have been excluded from the Mineral Resource Estimate.

(c) Double packer (DP) sampling upon hole completion has been used to obtain check samples to compare with original primary packer samples. Results have generally shown reasonable repeatability between the sampling rounds. Double packer sampling was not possible in all holes and was not completed in holes SOZDD006, 7 and 8.

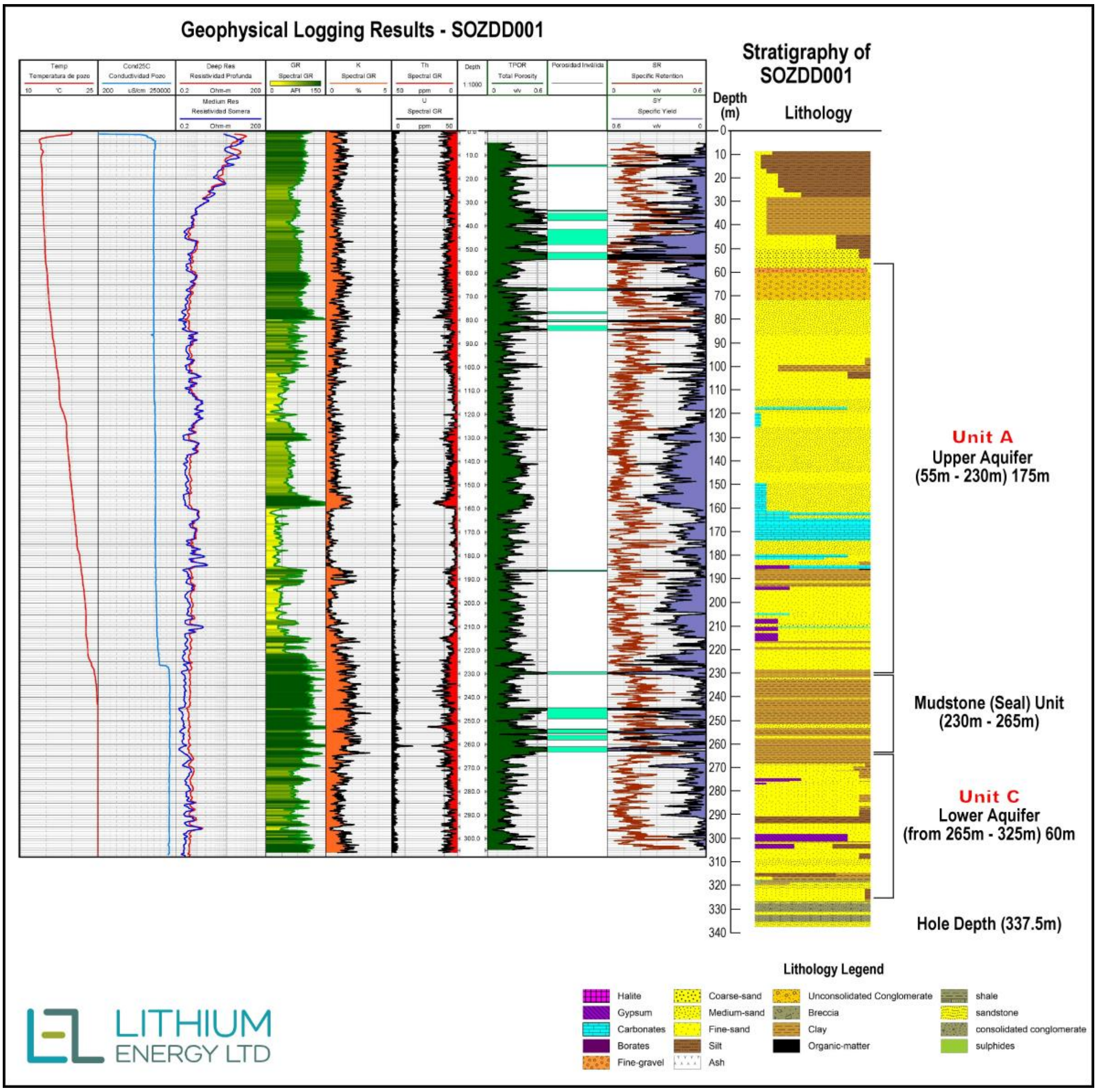


Figure 13: Geophysical Hole Logging Results and Drillhole Stratigraphy for SOZDD001, showing the downhole geophysical profiles and the geological units

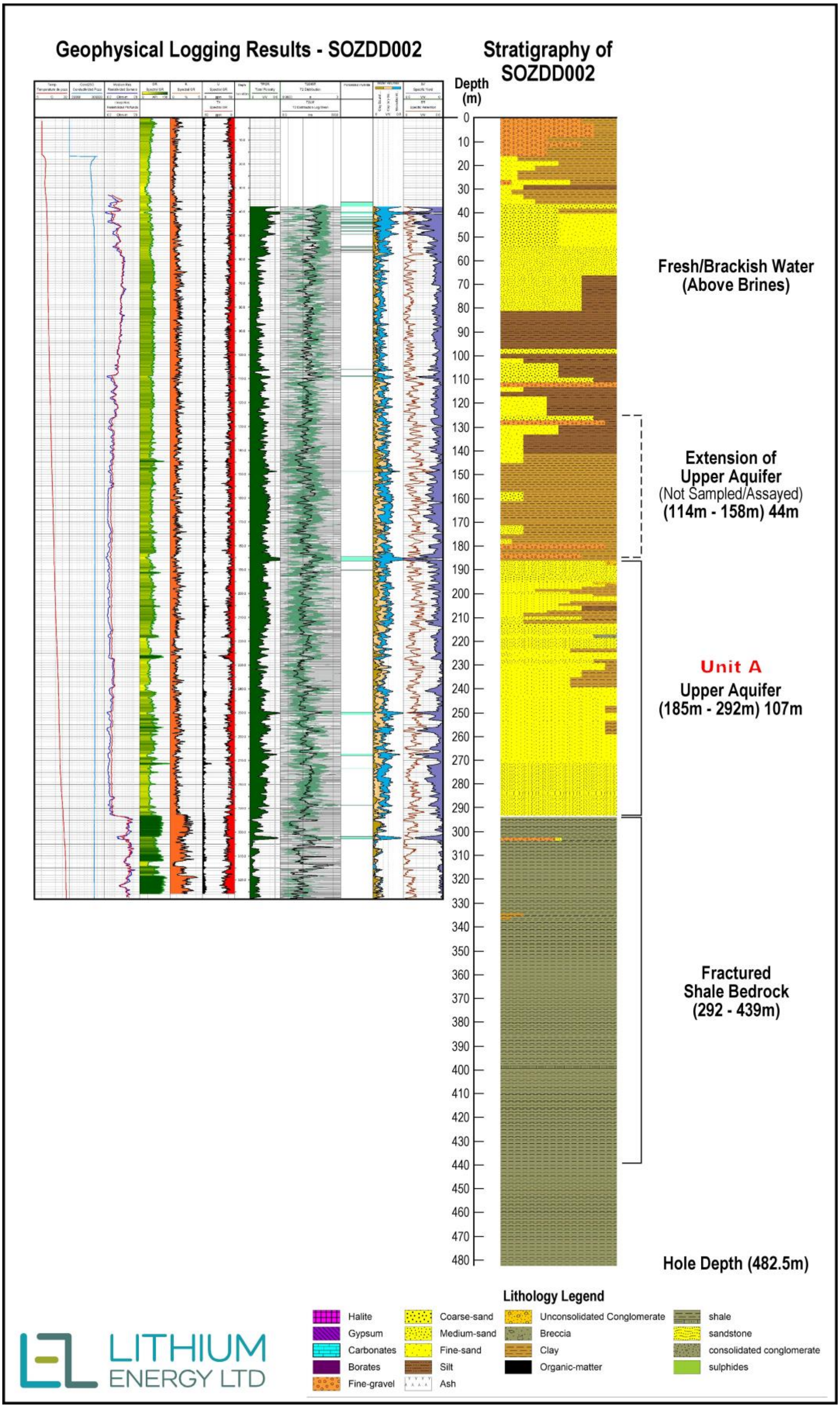


Figure 14: Geophysical Hole Logging Results and Drillhole Stratigraphy for SOZDD002, showing the downhole geophysical profiles and the geological unit

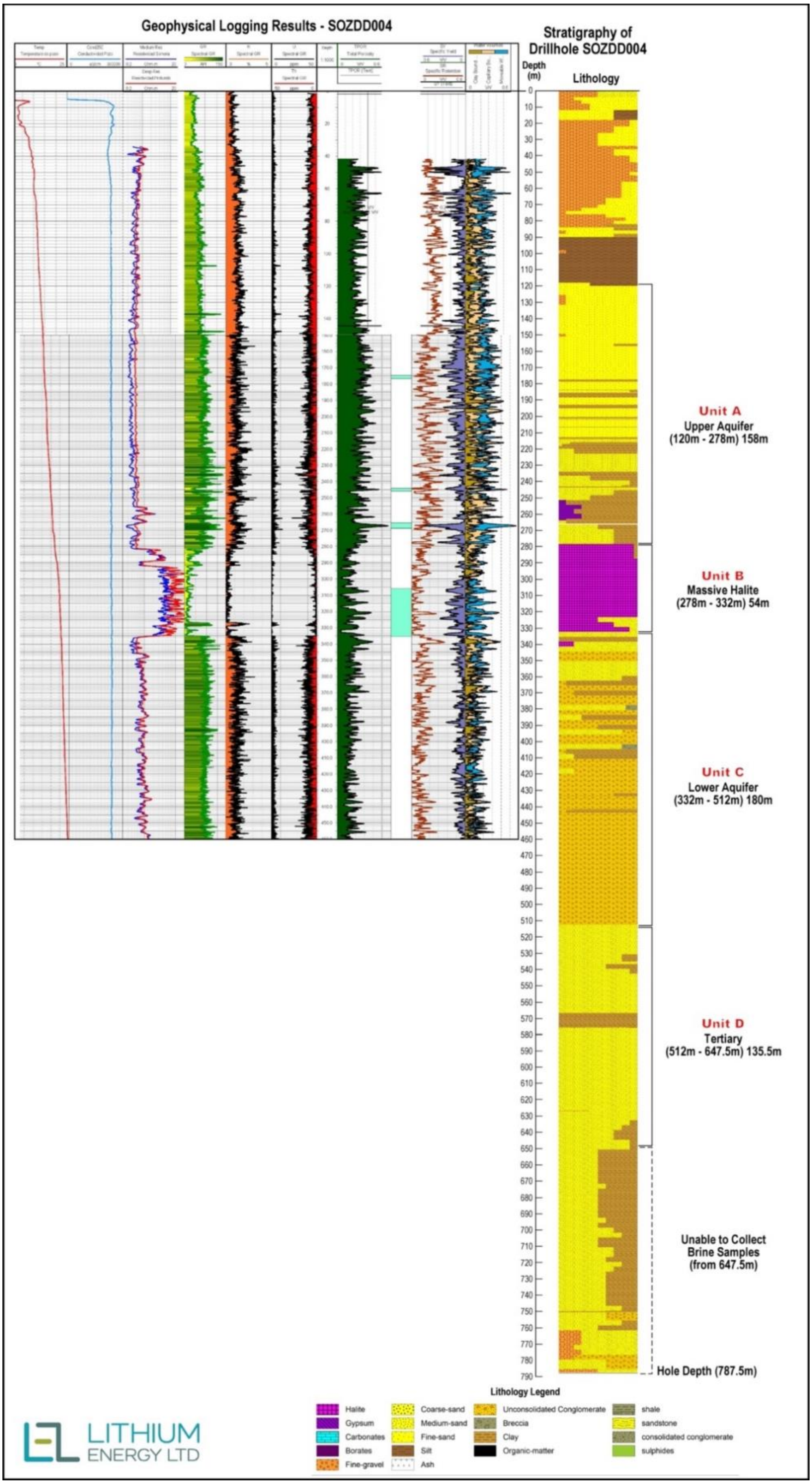


Figure 15: Geophysical Hole Logging Results (which includes the results from twin-hole SOZDD04R) and Drillhole Stratigraphy for SOZDD004, showing the downhole geophysical profiles and the geological units

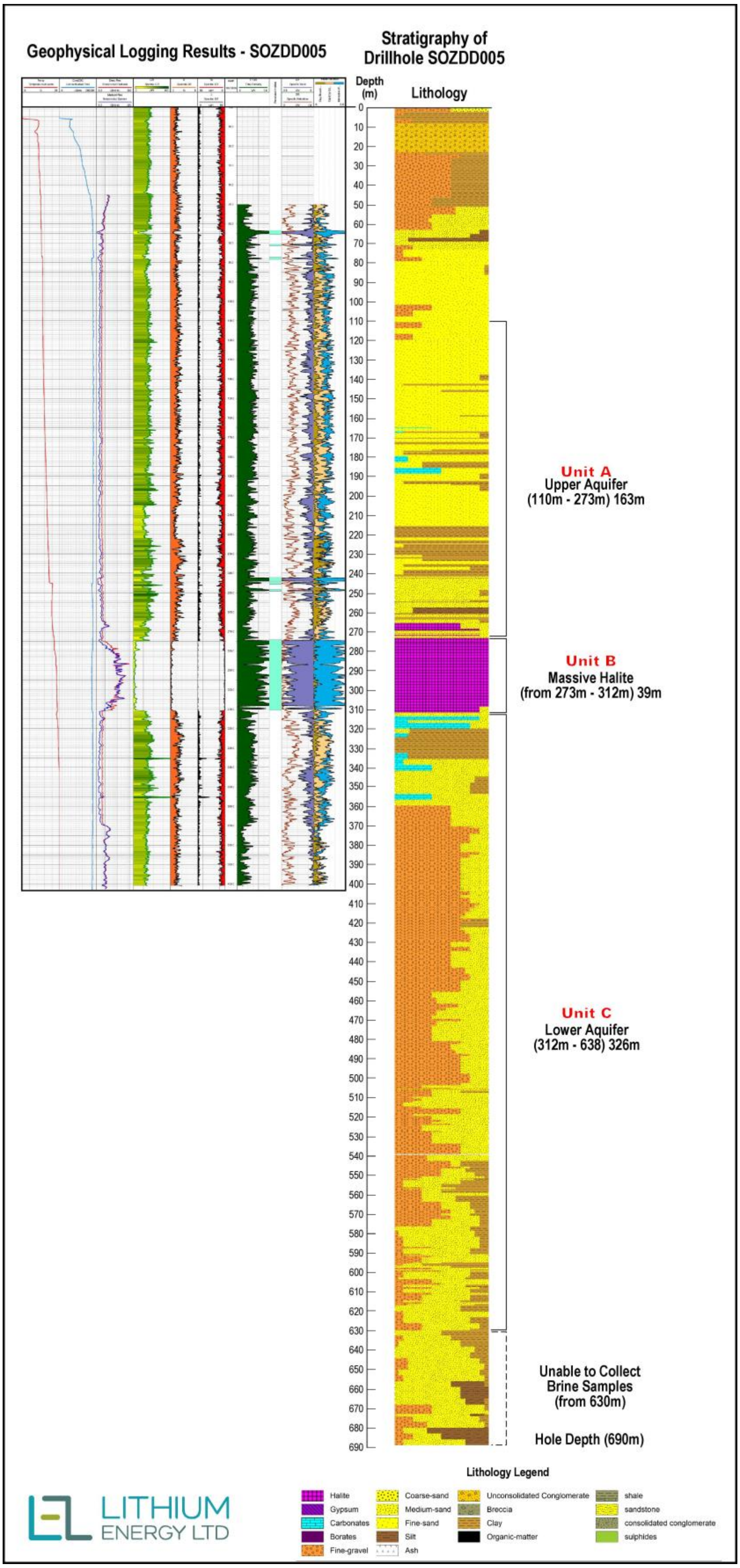


Figure 16: Geophysical Hole Logging Results and Drillhole Stratigraphy for SOZDD005, showing the downhole geophysical profiles and the geological units

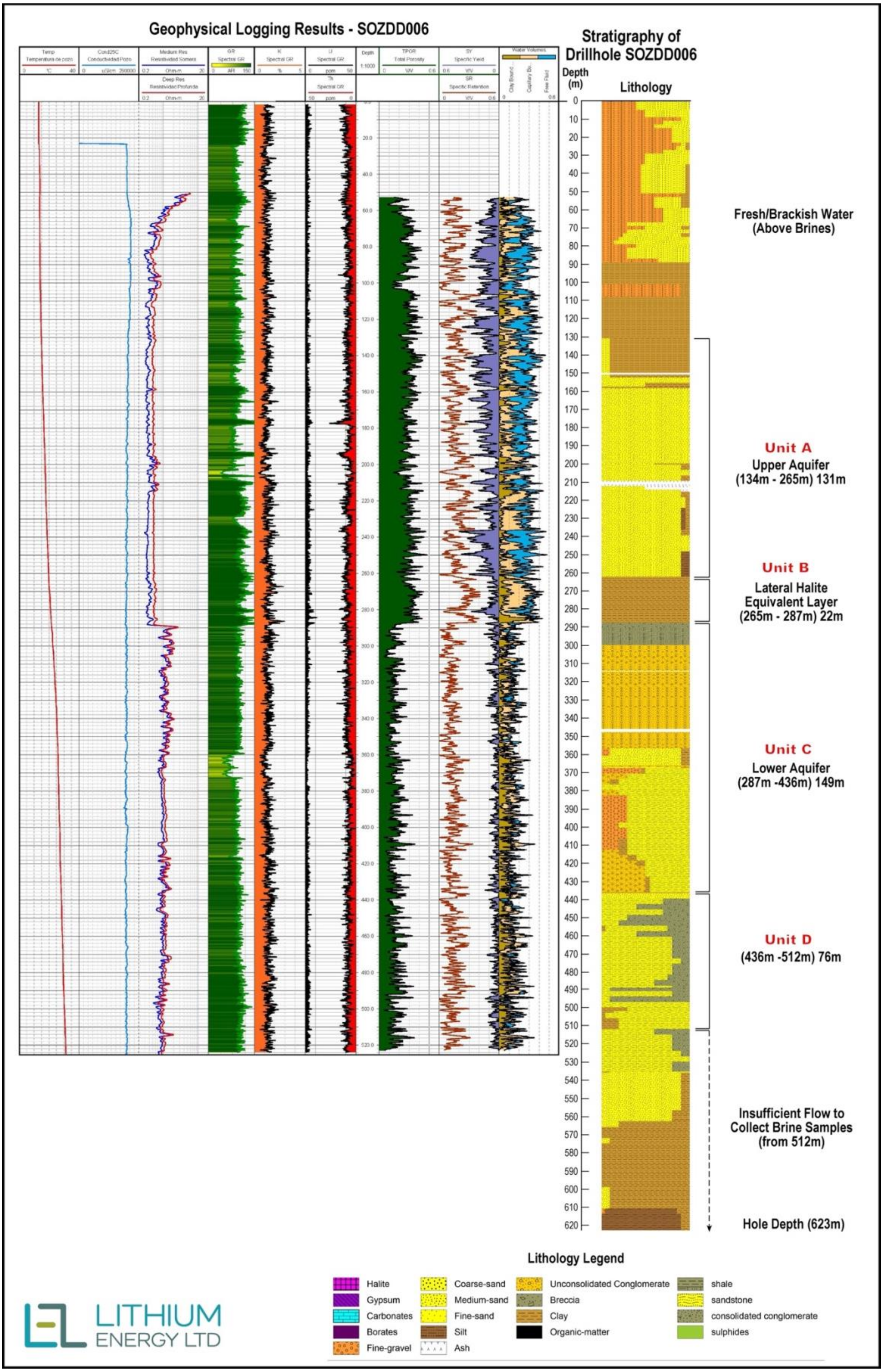


Figure 17: Geophysical Hole Logging Results and Drillhole Stratigraphy for SOZDD006, showing the downhole geophysical profiles and the geological units

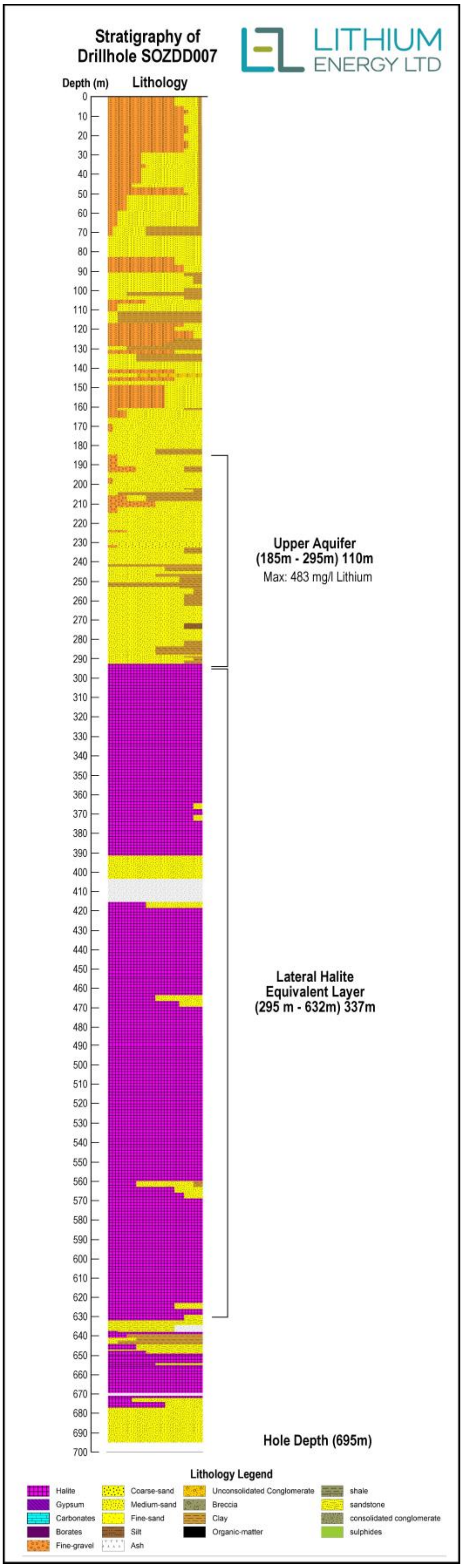


Figure 18: Drillhole Stratigraphy for SOZDD007. No geophysical logging was undertaken in the hole

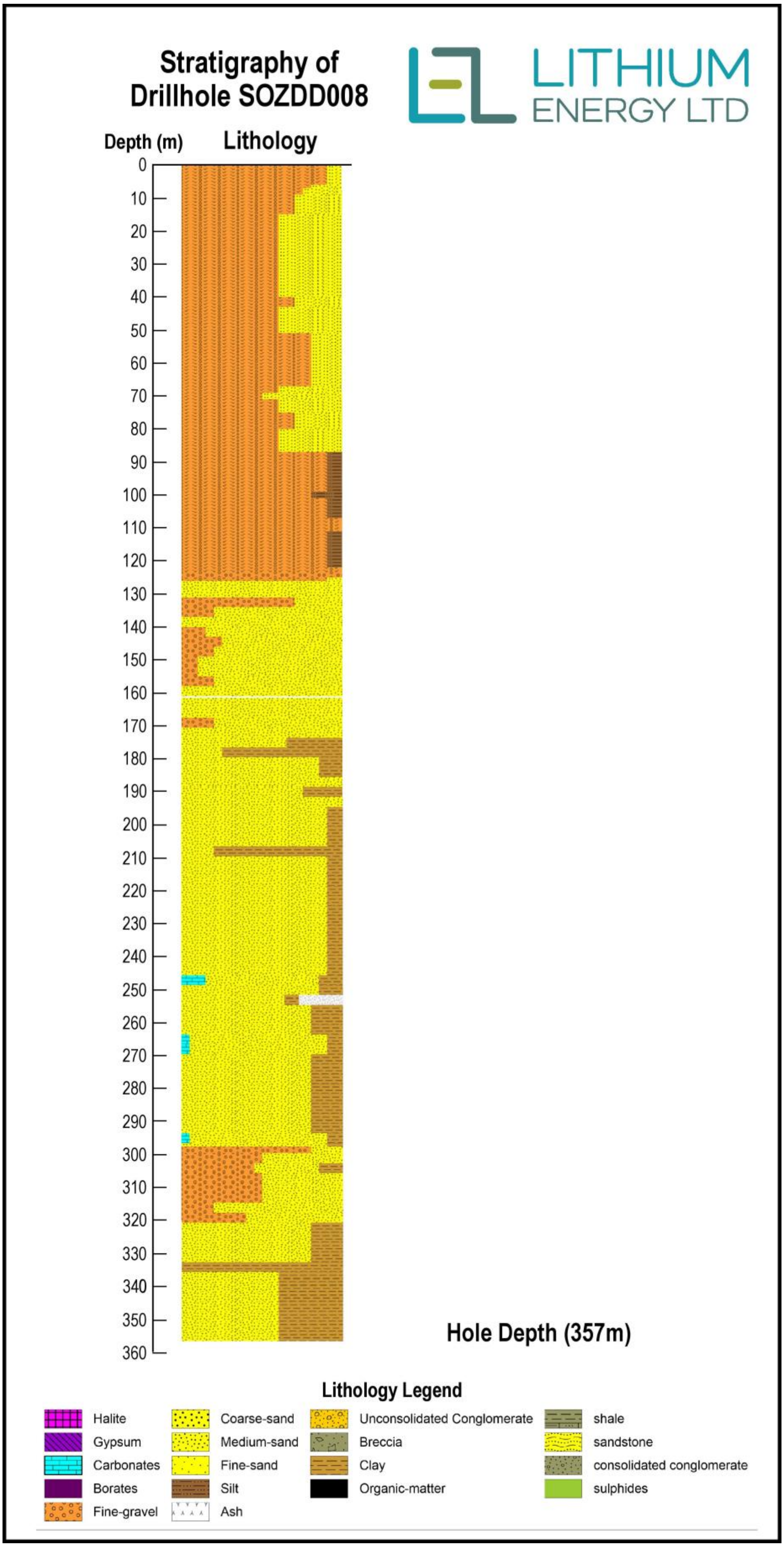


Figure 19: Drillhole Stratigraphy for SOZDD008