LITHIUM ENERGY LTD

ASX:LEL

QUARTERLY ACTIVITIES REPORT

FOR THE PERIOD ENDING 30 SEPTEMBER 2023

31 OCTOBER 2023

HIGLIGHTS

Solaroz Lithium Project

- Scoping Study confirms the suitability of conventional solar pond evaporation as a development pathway for the Solaroz Lithium Brine Project and exceptionally strong project economics associated with a 40,000 tpa battery grade LCE production capacity:
  - Pre-tax Net Present Value (**NPV_{10}**) of **US$3.9Bn (~A$6.2Bn)**.
  - Internal Rate of Return (**IRR**) of **44%**
  - **Payback period** of **2 years**.
  - Average life of mine (LOM) EBITDA of **US$730 million** per year.
  - Forecast **Cash Operating cost of US$4,611/t LCE** in lowest quartile of global industry LCE cost curve.

  Design and Engineering component of Study completed by Hatch.
- Upgrade of previous JORC Inferred Mineral Resource Estimate (MRE), converting a total **2.4Mt 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) – this underpins the Scoping Study outcomes, being **~36 years of LCE production at 20ktpa or ~19 years production at 40ktpa**.
- Significant upside opportunity with potential for resource expansion to be tested by future drilling and ongoing evaluation of DLE production methods, which could further improve Project capacity, economics and sustainability.

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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 a JORC Indicated and 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 Corporation (TSX:LAAC). Lithium Energy has completed a Scoping Study on Solaroz and is investigating the development of a 20/40ktpa lithium carbonate equivalent (LCE) production facility using conventional evaporation ponds; the Company is also evaluating direct-lithium extraction (DLE) technologies. The Burke and Corella Graphite Projects (LEL:100%) in Queensland, Australia, contains high grade JORC Indicated and Inferred Mineral Resources of graphite; Lithium Energy is investigating the proposed development of a vertically integrated battery anode material manufacturing facility in Queensland.

- Approaches from a number of significant parties active in the EV battery sector expressing an interest in a strategic partnership or investment opportunity to participate in the development of Solaroz. Completion of Scoping Study is a key milestone to progress these discussions; a number of parties have already completed site visits.
- Initial resource definition drilling programme completed with 8 diamond drill holes (SOZDD001 to SOZDD008) and one rotary hole (SOZDD04R, which was a twin of diamond hole SOZDD004) drilled for a total of ~5,087 metres.
  - Hole 7 (SOZDD007, on Payo 1), the first drillhole to test the Northern Block of concessions on the Olaroz Salar, encounters **483 mg/L lithium** (from 233 to 257 metres depth), being the **highest lithium grade to date from the upper aquifer** at Solaroz.
  - Hole 6 (SOZDD006, Chico VI) assay results of **594 mg/l Lithium** is the **highest lithium concentration grade encountered to date** at Solaroz.
- Appointment of Mr Raúl Di Lena as General Manager, Solaroz S.A., in Argentina, an operations executive with extensive lithium development experience gained at neighbouring Cauchari-Olaroz Project (owned by Lithium Argentina).

Burke and Corella Graphite Projects

- Results of latest testwork continued to support the potential development of a vertically integrated manufacturing facility of Purified Spherical Graphite (**PSG**) (a battery anode material) in Queensland, Australia.
- Burke Graphite Deposit metallurgical testwork completed by BGRIMM in China providing excellent flake concentrate results.
- +95% total graphitic carbon (**TGC**) graphite flake concentrate achieved for Burke Graphite, allowing next step PSG development testwork to commence (by ProGraphite in Germany).
- ~500kg of Corella Graphite samples have been sent to BGRIMM to commence metallurgical testwork.
- PFS in progress to assess mining at Burke to produce +95% TGC concentrate as feedstock into a PSG manufacturing facility to produce battery anode material for use in lithium-ion battery manufacturing or for battery energy storage solutions.

PROJECTS

SOLAROZ LITHIUM BRINE PROJECT (ARGENTINA) (90%)

Scoping Study

Lithium Energy Limited (ASX:LEL) (**Lithium Energy** or the **Company**) recently announced the outstanding results of the Scoping Study (**Study**) for the Company's flagship Solaroz Lithium Brine Project in Argentina (**Solaroz** or **Project**), located next to Allkem's Olaroz Lithium Facility in the Salar de Olaroz basin (the **Olaroz Salar**) in the heart of South America's world renowned 'Lithium Triangle'.

The Study is supported by the recently upgraded Solaroz Mineral Resource Estimate (**MRE**) of **3.3Mt** Lithium Carbonate Equivalent (**LCE**), comprising an **Indicated Mineral Resource** of **2.36Mt LCE** and an **Inferred Mineral Resource of 0.9Mt LCE** (at a zero Li mg/l cut-off grade).[1] 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). This high-grade core underpins the Study outcomes, being **~36 years of LCE production at 20ktpa or ~19 years production at 40ktpa**.

Solaroz is located on the Olaroz Salar adjacent to the Allkem Limited[2] (ASX:AKE) (**Allkem**) Olaroz Lithium Facility, with FY22 production of 13ktpa and targeted ramp-up in production to 42.5ktpa LCE[3]. Also neighbouring the Project is the recently commissioned Lithium Argentina Corporation[4] (TSX:LAAC) (**Lithium Argentina**) Cauchari-Olaroz Facility, targeting an annual production capacity of 40ktpa LCE[5] (refer Figures 1 and 2).

Hatch, a global multidisciplinary project management, engineering and professional services consultancy group, completed the design and engineering components of the Study. Hatch has substantial experience in lithium engineering processing of brines, including projects located on salars in Argentina.

Economic modelling was undertaken by the Company using the Study outputs together with the Company's own forecast of long-term LCE pricing and other economic assumptions.

The successful completion of the Study is a key milestone for Lithium Energy to progress the Project with a number of financiers and potential partners, where the Company has received unsolicited interest and has ongoing discussions underway. A number of these parties have already completed site visits.

The outstanding results of the Study demonstrate that Solaroz has the potential to be a world class project, supported by exceptional margins, environmental credentials, product quality and located in a salar hosting established lithium brine producers.

1 Refer LEL Announcement dated 26 October 2023: Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource

2 Allkem has announced a merger with lithium processing technology company, Livent Corporation (NYSE:LTHM)

3 Source: Allkem ASX announcements

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

5 Source: Lithium Argentina public releases

Key Study Highlights

Table 1: Summary Project Financials for Conventional Evaporation Pond Processing Plant

Study Parameters[1]	Units	LCE Production Scenarios	
		20ktpa	40ktpa
Lithium Carbonate (Li_2CO_3) Production	Tonnes/year	20,000	40,000
Project Life Estimate[2]	Years	36	19
Total Capital Cost (CAPEX)[3]	US$M	542	987
Direct Capital Cost[4]	US$M	372	714
Average Annual Operating Cost (OPEX)	US$/tonne	4,985	4,611
Average Li_2CO_3 Selling Price[5]	US$/tonne	25,000	25,000
Average Annual EBITDA	US$M	378	730
Pre-Tax Net Present Value (NPV_{10}[6]) [7]	US$M	2,290	3,879
Pre-Tax Internal Rate of Return (IRR)	%	41	44
After-Tax Net Present Value (NPV_{10})[8]	US$M	1,319	2,200
After-Tax and Royalties IRR	%	29	32
Payback Period (After-Tax)	Years	2.5	2.0

Notes:

(1) Presented in 100% terms (Lithium Energy own 90% of Solaroz)

(2) Including ramp-up

(3) Excludes 30% contingencies

(4) Excludes contingencies, indirect costs and Owner's costs

(5) Assumed to be constant over life of mine (LOM), based upon an internal Company assessment, taking into account current and historical LCE prices together with various forecasts of future demand and supply from third-party sources; compares with the current Lithium Carbonate (FOB, South America) price of US$28,250/t (as at 18 October 2023) and a 12 month high of US$64,500/t (as at 25 January 2023)[6]

(6) NPV is calculated using a 10% discount rate

(7) Includes royalties

(8) Includes working capital and depreciation

6 Source. S&P Global Market Intelligence, 27 October 2023

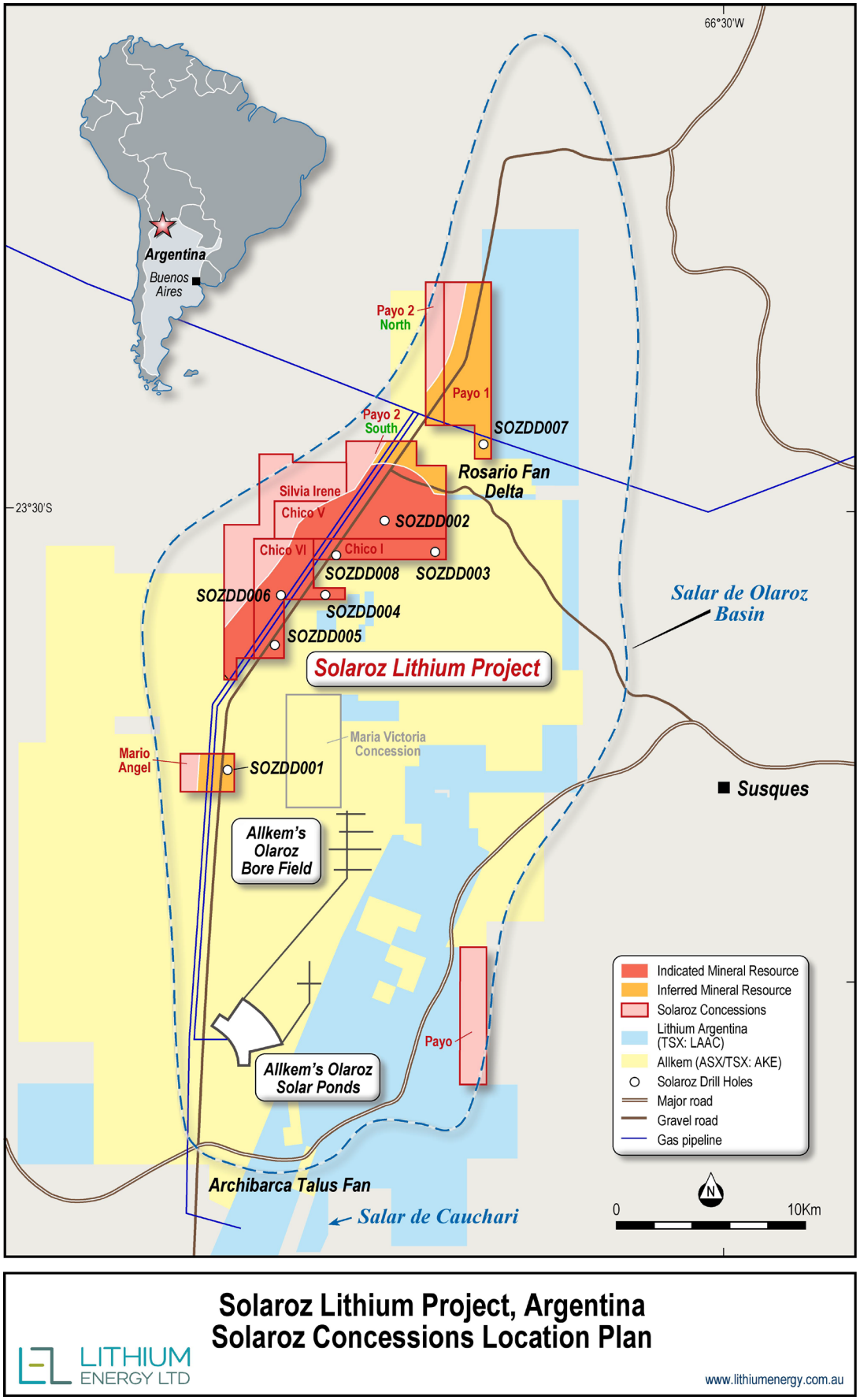


Figure 1: Mineral Resource Areas within Solaroz Concessions (and Drillhole Locations) in Olaroz Salar (Adjacent to Allkem and Lithium Argentina Concessions)

Overview

The Study conducted modelling, engineering and estimating to assess the suitability of the Solaroz brine grades and chemistry for processing by either evaporation processing or DLE technologies to produce a battery-grade lithium carbonate. In the Study, two process configurations were conceptually reviewed for the initial concentration and recovery of lithium as part of the overall flowsheets to nominally produce 20ktpa of LCE:

(1) A conventional brine solar evaporation pond process design - as implemented by Solaroz neighbours in the Olaroz Salar, Allkem's Olaroz Lithium Facility and Lithium Argentina's Cauchari-Olaroz Facility, and others; and

(2) Direct Lithium Extraction (DLE) options, which replaces the use of evaporation ponds - DLE consists of several chemical processes that can bypass the need for large evaporation ponds for the production of lithium from brines.

The Study assumed brine feed with an average grade of 400 mg/L Lithium, consistent with the high-grade core of 1.3Mt LCE Indicated and Inferred Mineral Resource at Solaroz (refer Table 5).

The simulation and modelling results based on the Solaroz lithium brine chemistry and grade support the production of lithium carbonate using conventional evaporation pond technology. The Company considers that this conventional evaporation scenario currently presents the lowest risk pathway to production when considering permits and approvals in Argentina, as well as being a proven processing methodology for processing brine from the same salar as Solaroz, currently being used by the neighbouring operations of Allkem and Lithium Argentina.

DLE processing technology that was assessed in the Study shows the potential to offer a range of potential benefits when compared to evaporation pond processing. These potential benefits include:

- Lower capital and operating costs;
- Increased lithium recovery;
- Faster pathway to production;
- Improved sustainability; and
- Reduced physical footprint.

Given the relatively low technical risk and likely easier pathway for permitting and approvals, conventional evaporation pond technology is currently considered by the Company as the 'base case' go-forward development option for Solaroz. However, given the potential benefits presented by DLE, Lithium Energy will continue to evaluate DLE in parallel as an alternative or complimentary production methodology, before making a final determination of the technical development pathway for Solaroz.

Conventional Evaporation Pond Processing

The results of the brine chemistry and pond modelling conducted in the Study indicate that the Solaroz concessions have the capacity to host pond areas to support up to 40ktpa LCE production. Two separate evaporation pond locations were identified each with sufficient areas to support up to 20ktpa LCE production (refer Figure 2).

This proposed pond configuration supports dual 20ktpa processing trains, providing the opportunity to assess a staged approach to production development and the opportunity to generate early cashflow from 20ktpa LCE production before potentially expanding to 40ktpa LCE production.

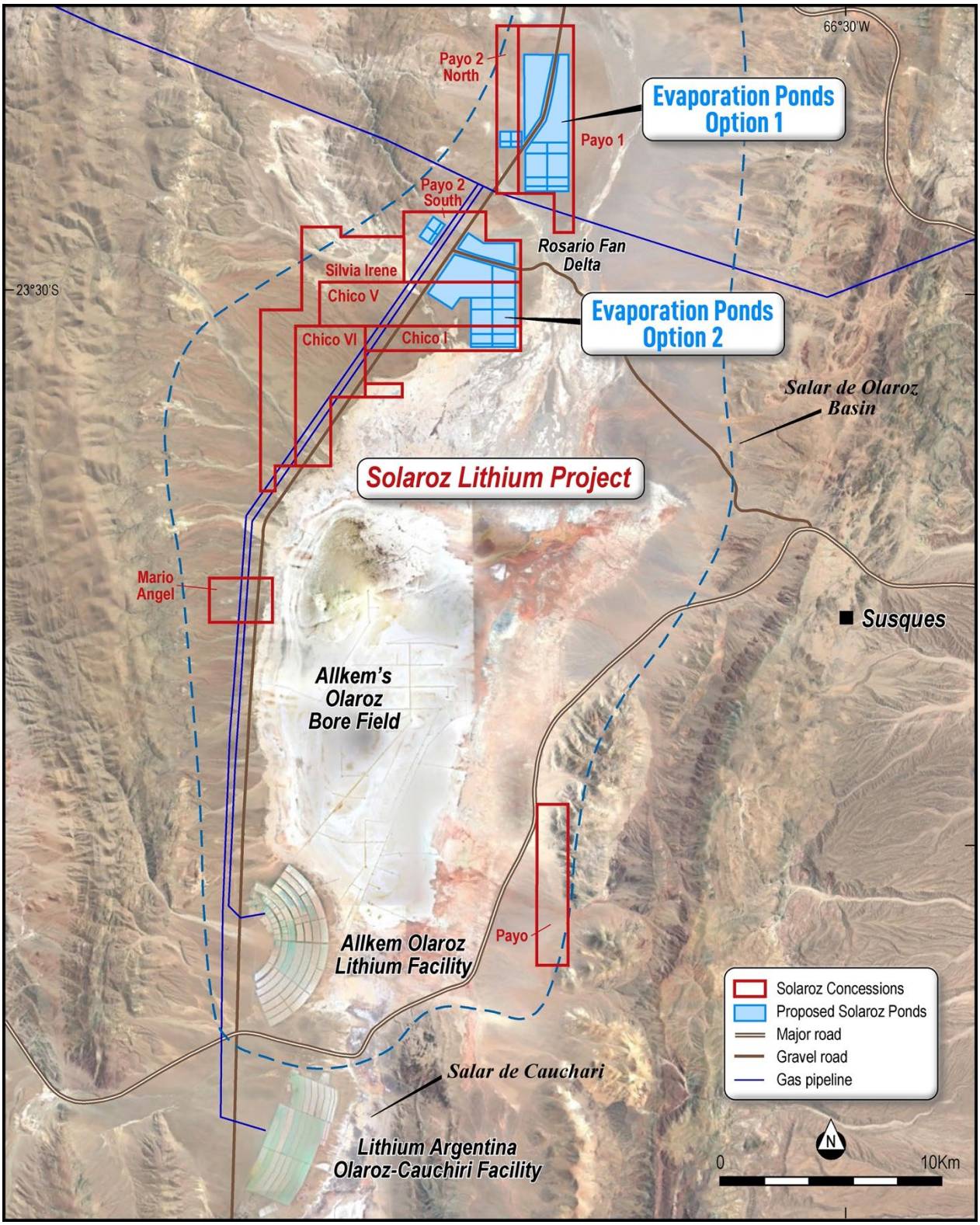


Figure 2: Potential Solar Evaporation Pond Locations (two options shown) within the Solaroz Concessions; and proximity to Allkem and Lithium Argentina Lithium Evaporation Ponds and LCE Processing Facilities

The Solaroz flowsheet for the conventional evaporation ponds is based on the standard configurations for a typical LCE production process which are similar to the commercially proven Olaroz (Allkem) and Cauchari-Olaroz (Lithium Argentina) operations on the neighbouring Olaroz Salar/Salar de Cauchari brines (refer Figure 3).

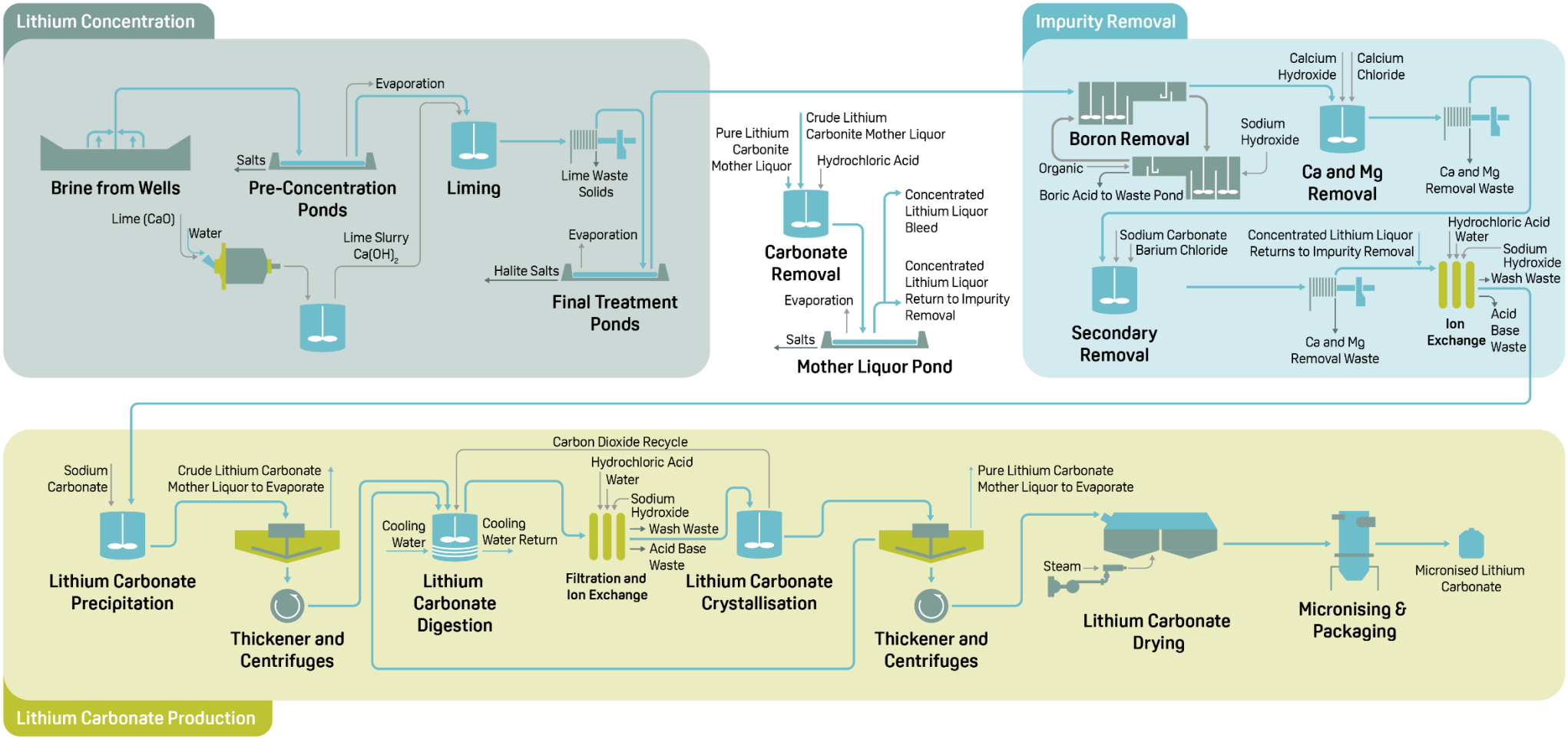


Figure 3: Schematic of the conventional process configuration to produce battery-grade lithium carbonate

Lithium Carbonate Production Plant Layout

A preliminary 3D model was developed for the lithium carbonate production plant shown in Figure 4 below. The layout includes a single-train plant for the production of 20 ktpa LCE, with space for a second train to bring the total production to 40ktpa LCE. A total area of approximately 300,000m^2 (30ha) is required. The layout includes an area for DLE should this technology be integrated into the plant.

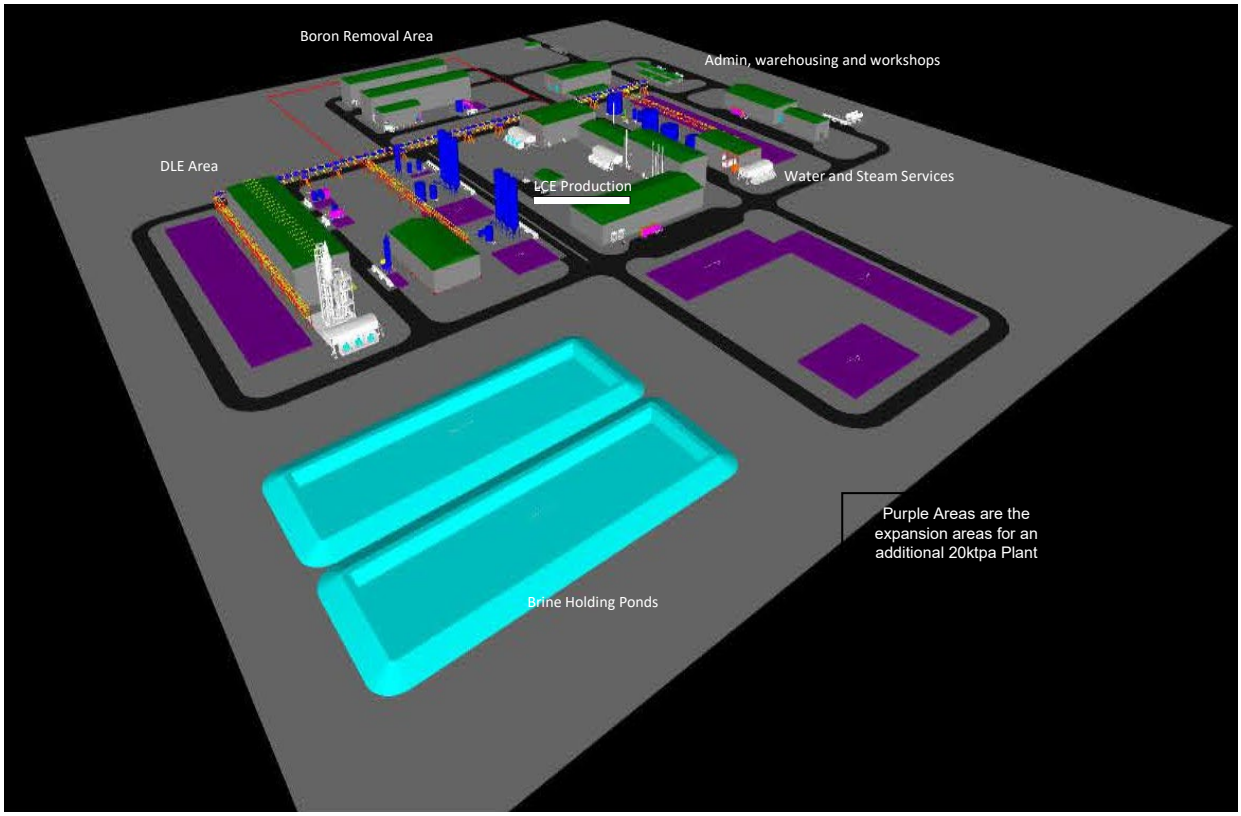


Figure 4: Layout Overview from the 3D Model

Summary of CAPEX and OPEX

A summary of the capital (CAPEX) and operating (OPEX) costs for a 20ktpa LCE and 40ktpa LCE conventional pond production operation are shown in Tables 2 and 3 respectively.

Table 2: Summary of Capital Cost Estimates for Evaporation Pond Processing LCE Plants

	LCE Production Scenarios	
Capital Costs (US$M)	**20 ktpa LCE**	**40 ktpa LCE**
Total direct costs	$371.6	$714.5
Total indirect costs	$142.1	$243.6
Sub-Total Direct and Indirect CAPEX	**$513.7**	**$958.1**
Owner's Costs	$28.5	$28.5
Contingency (30%)	$162.7	$296.0
TOTAL CAPEX	**$704.9**	**$1,282.6**
	$35,246 / t LCE	*$32,052 / t LCE*

Notes:

(1) Compiled based upon Study outputs following concept study order of magnitude methodologies to a target accuracy of -30% to +50%.

Table 3: Summary of Operating Cost Estimates for Evaporation Pond Processing LCE Plants

Operating Costs (US$M per year)[1]	LCE Production Scenarios	
	20 ktpa LCE	40 ktpa LCE
Well costs	$0.9	$1.8
Labour	$9.9	$11.0
Reagents	$55.0	$109.9
Utilities	$11.5	$22.3
Others (consumables, maintenance, waste disposal, transport, general and admin)	$20.5	$39.4
TOTAL OPEX	**$99.7**	**$184.4**
	$4,985 / t LCE	*$4,611 / t LCE*

Notes:

(1) On an FOB (Free on Board), Buenos Aires, basis

(2) Prepared with a target accuracy of ±50% - typical for a scoping study with order of magnitude costings.

Project Implementation Plan

Lithium Energy is planning to focus on conducting the technical studies and environmental impact assessment work during the next 12 to 18 months to ensure a solid basis is defined on which an investment decision can be based. Figure 5 below provides a high-level view of the of the proposed Solaroz Implementation Plan

Figure 5: Project Implementation Plan

Forward Work Plan

The key focus of the 18-month forward work plan is to define appropriate, representative and suitable data and design information which will underpin the next stage feasibility studies. This work will include:

Metallurgical Testwork

- Evaporation Pond and Processing metallurgical testwork to define evaporation rates, brine chemistry and salt precipitation conditions and lithium recovery, which will be used in designing the evaporation ponds.
- DLE metallurgical testwork will be undertaken by Lanshen in their Santiago based laboratory pilot plant, where key design criteria such as resin performance, lithium recovery and spent brine chemistry will be determined.

Feasibility Studies

- On completion of the metallurgical testwork programmes, feasibility studies will be undertaken to further define the Project designs, capital costs and operating costs to an appropriate level to support an investment decision and funding. A key outcome will be a final decision on capacity strategy and processing technology.
- Part of the feasibility study process will be to undertake key ground works including geotechnical investigations, production well drilling and pumping simulations and defining water resources to support the Project.
- Utility supplies, including gas and electricity, will be defined and designed into the Project scope.

Statutory Approvals

- Environmental data collection and monitoring will be undertaken during the next 18 months, supported by design and further study work to develop an Environmental Impact Assessment (**EIA**), with the aim of securing all necessary environmental and other permits and approvals for Project development.
- Community engagement and agreements will also be ongoing, building on the positive community relationships developed to date by the Company.
- Permits and approvals to mine, produce and export product will be supported by the EIA and community agreements and are targeted to be secured by mid-2025.

Mineral Resource Upgrade

The initial maiden JORC Mineral Resource for Solaroz (defined in June 2023[7]) was recently upgraded in October 2023[8] to:

- **Total Mineral Resource of 3.3Mt LCE** (at a zero Li mg/l cut-off grade), comprising (refer Table 4 and Figures 1 and 6):
  - **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 5 and Figure 10).

Further details are in the Mineral Resources Statement section below and in the Company's ASX Announcement dated 26 October 2023 entitled "Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource".

Appointment of General Manager

During the quarter, Lithium Energy appointed Mr Raúl Di Lena as General Manager, Solaroz S.A., in Argentina[9]. Mr Di Lena is a chemical engineer with a 25-year career including senior positions with ICI Argentina and Akzo Nobel. Most recently, between 2019 to 2023, Mr Di Lena was Operations Manager for Minera Exar S.A (Exar), the local joint venture between Lithium Argentina (TSX:LAAC) and Ganfeng Lithium which developed and is now operating the recently commissioned 40,000 tonne per annumlithium carbonate Cauchari-Olaroz Project, located on the Salar de Cauchari adjacent and to the south of the Olaroz Salar (where Solaroz is located).

As Operations Manager for Exar, Mr Di Lena played a significant role in the successful development and commissioning of the 40,000 tpa lithium carbonate facility, including the optimisation of key parts of the lithium carbonate production process.

7 Refer LEL ASX Announcement dated 29 June 2023: Significant Maiden JORC Lithium Resource of 3.3Mt LCE at Solaroz Project in Argentina

8 Refer LEL ASX Announcement dated 26 October 2023: Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource

9 Refer LEL ASX Announcement dated 1 August 2023: Experienced Lithium Operations Executive Appointed General Manager Solaroz in Argentina

As well as this key technical role, he gained extensive experience in managing alliances with local government with responsibility for compliance with all local regulations and procedures as well as managing commercial partnerships with key stakeholders and preserving relationships with local communities.

As General Manager for Solaroz S.A. (based in San Salvador de Jujuy, in north-west Argentina), Mr Di Lena will be responsible for leading the Company's local operations in the development of Solaroz.

Drilling

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 have also been conducted on relevant holes, providing detailed characterisation of the lithologies encountered in the holes.

Drilling has encountered an upper sand and gravel sequence (**Unit A** or **Upper Aquifer**). 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. 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 6 - 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[10]) and **lithium concentrations of up to 594 mg/l** (in Hole 6 - SOZDD006[11]) have been encountered along a ~15 kilometre zone between SOZDD001 and SOZDD003.

Drillhole 8 – SOZDD008 (Chico I concession)

Hole 8 (SOZDD008, on the Chico I concession; refer Figures 1 and 6) is located along a ~15 kilometre zone where previous drilling revealed massive **intersections of lithium-rich brines** in the upper and lower (Deep Sand Unit) aquifers **of up to 489 metres thick** (in Hole 5 - SOZDD005[12]) and **lithium concentrations of up to 594 mg/l** (in Hole 6 - SOZDD006[13]) (refer Figure 6):

- Assay results have confirmed a continuous **120 metre intersection of lithium-rich brines** from 170.5 to 290.5 metres depth, with up to **451 mg/l Lithium** in medium grained sandstone.
- Drilling was terminated at 360.6 metres in the interpreted tertiary bedrock.
- Geophysical hole logging was completed (to a depth of 350 metres) where measurements were undertaken for total porosity, specific yield, conductivity, resistivity and spectral gamma.
- Assay results from core samples pending
- The results of the brine samples for SOZDD008 are shown in Table 9.
- The geophysical logging results and lithology stratigraphy of SOZDD008 is illustrated in Figure 14.

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

11 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

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

13 Refer LEL ASX Announcement dated 27 July 2023: Highest Lithium Concentrations Encountered at Solaroz Lithium Project in Hole 6

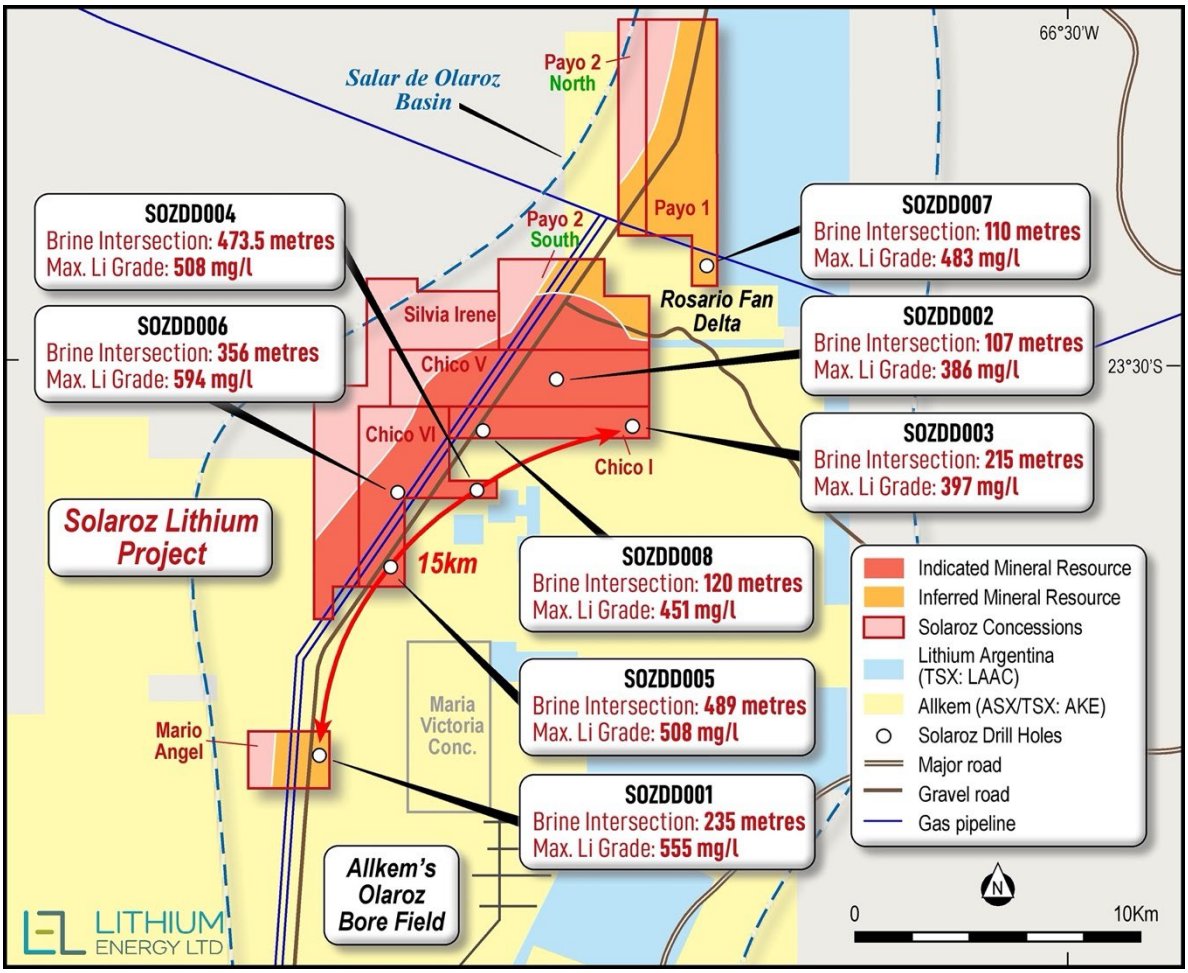


Figure 6: Mineral Resource Areas and Location of Drillholes Across 15km Zone Between Solaroz Drillholes Where Massive Intersections of Conductive Brines Where High Lithium Concentrations Encountered

Drillhole 7 – SOZDD007 (Payo 1 concession)

Drillhole 7 (SOZDD007, on the Payo 1 concession; refer Figures 1 and 6) is a step-out drillhole from the resource area encompassing the initial maiden JORC Inferred Mineral Resource of 3.3Mt[14] at Solaroz, to test conductive brines identified by geophysics in this relatively large, previously undrilled Northern Block area (Payo 1 and Payo 2 North):

- Assay results have confirmed a continuous **110 metre intersection of lithium-rich brines** from 185 to 295 metres depth, with up to **483 mg/l Lithium** (from a depth of 233 to 257 metres) in sandstone in the upper aquifer, being the **highest lithium grade to date from the upper aquifer** at Solaroz.
- A massive 337 metre lateral halite layer was encountered from a depth of 295 to 632 metres, before transitioning into the Deep Sand Unit.
- Drilling was terminated at a depth of 695 metres in the lower aquifer (Unit C) due to drill rig issues.
- Geophysical hole logging was completed (to a depth of 212 metres) where measurements were undertaken for total porosity, specific yield, conductivity, resistivity and spectral gamma - due to drill hole conditions, geophysical hole logging was not able to be completed in the lower aquifer to the hole depth at 695 metres.
- Assay results from core samples are pending.
- The results of the brine samples for SOZDD007 are shown in Table 10.

14 Refer LEL ASX Announcement dated 29 June 2023: Significant Maiden JORC Lithium Resource of 3.3Mt LCE at Solaroz Project in Argentina

- The geophysical logging results and lithology stratigraphy of SOZDD007 is illustrated in Figure 13.

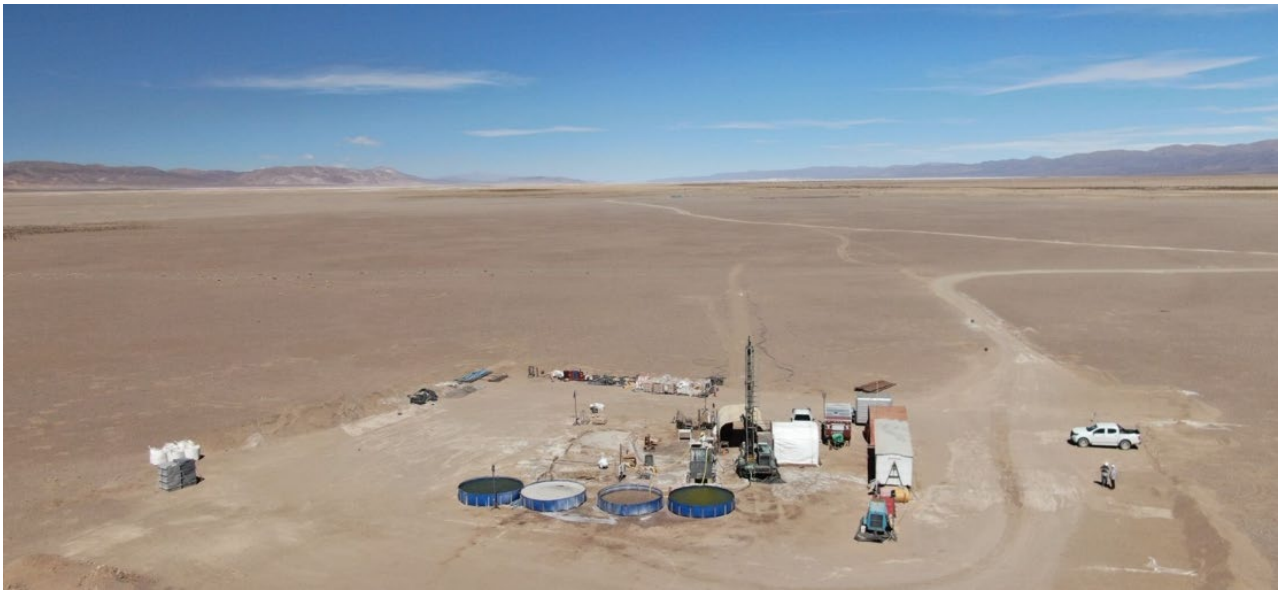


Figure 7: Diamond Drill Rig at SOZDD007, Payo 1 Concession on Olaroz Salar

Drillhole 6 – SOZDD006 (Chico VI concession)

Drilling at Drillhole 6 (SOZDD006, on the Chico VI concession, refer Figures 1 and 6) has been completed with final assay results confirming a total **356 metre intersection of lithium-rich brines** (across the upper and lower aquifers) with concentrations of up to **594 mg/l Lithium**, including as follows:

- Significant **131 metre intersection** of lithium-rich brines encountered across the upper aquifer, from a depth of 134 to 265 metres, in brine hosting unconsolidated sandstone units and fine gravels - assays have returned Lithium concentrations of up to **354 mg/l**.
- The transition from the upper to lower aquifers is evidenced by a clay (lateral halite equivalent) layer of 22 metres encountered from a depth of ~265 to 287 metres.
- The lower aquifer (Deep Sand Unit) commences at a depth of ~287 metres, in brine hosting sandstone units and some unconsolidated conglomerates, **intersecting 225 metres** of lithium-rich brines from ~287 to 512 metres (to the depth of the last packer sample taken) - assays have returned Lithium concentrations of up to **594mg/l**.
- Drilling has been completed to a depth of ~623 metres (in consolidated clays/siltstones).
- Geophysical hole logging was completed (to a depth of 526 metres) where measurements were undertaken for total porosity, specific yield, conductivity, resistivity and spectral gamma - due to drill hole conditions, geophysical hole logging was not able to be completed to the hole depth at 623 metres.
- The results of the brine samples for SOZDD006 are shown in Table 11.
- The geophysical logging results and lithology stratigraphy of SOZDD006 is illustrated in Figure 12.

Future Drilling Programmes

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.

BURKE AND CORELLA GRAPHITE PROJECTS (QUEENSLAND, AUSTRALIA) (100%)

Lithium Energy is actively developing a vertically integrated Battery Anode Material (**BAM**) business in Australia. The Company plans to utilise the high grade graphite from the Company's Burke and Corella Graphite Deposits as feed sources to a Purified Spherical Graphite (**PSG**) manufacturing facility located in Queensland.

The Burke Graphite Project comprises EPM 25443 (the **Burke Tenement**) and the Corella Graphite Project comprises EPM 25696 (the **Corella Tenement**) totalling ~26km^2 located in the Cloncurry region in North Central Queensland, where there is access to well-developed transport infrastructure to an airport at Mt Isa (~122km) and a port in Townsville (~783km). The Burke Tenement is located 125km north of Cloncurry adjacent to the Mt Dromedary Graphite Project held by Novonix Limited (ASX: NVX). The Corella Tenement is located 40km west of Cloncurry near the Flinders Highway that links Mt Isa to Townsville.

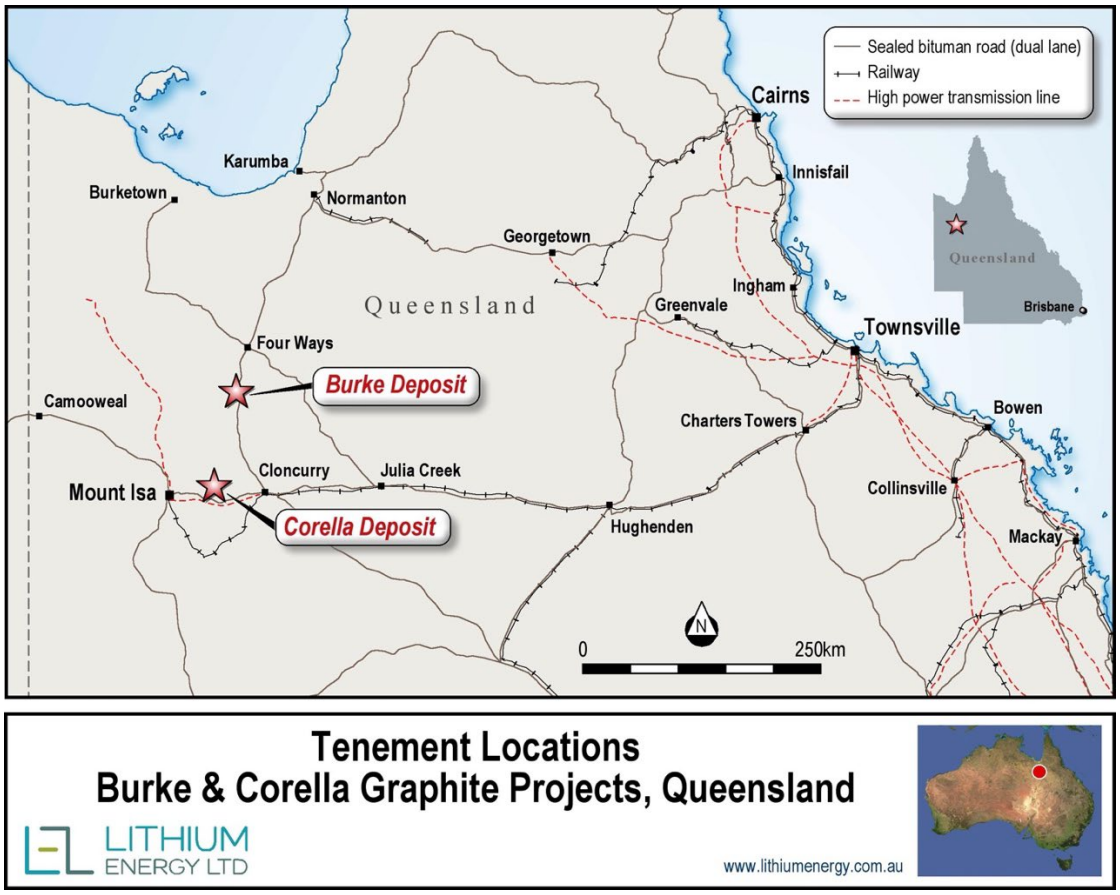


Figure 8: Burke & Corella Graphite Projects location map

Lithium Energy succeeded in doubling its Total Graphite Inventory to **2.6Mt of contained graphite**, with the delineation of a maiden JORC Inferred Mineral Resource Estimate of **13.5Mt at 9.5% total graphitic carbon (TGC)** for 1.3Mt contained graphite at Corella Tenement[15] and an upgrade of the Burke Deposit to a total JORC Indicated and Inferred Mineral Resource of **9.1Mt at 14.4% TGC** for a total of 1.3Mt contained graphite[16].

15 Refer LEL ASX Announcement 16 June 2023: Maiden Corella Graphite Mineral Resource Delivers Doubling of Graphite Inventory

16 Refer LEL ASX Announcement 5 April 2023: Burke Graphite Mineral Resource Upgrade Delivers Significant Increases in Size and Confidence

Testwork Update

The Burke Graphite Deposit metallurgical testwork was completed by the Beijing General Research Institute for Mining and Metallurgy Technology Group (**BGRIMM**) in China providing excellent flake concentrate results[17]. Results of latest testwork continue to support the potential development of a vertically integrated manufacturing facility of Purified Spherical Graphite (**PSG**) (a battery anode material) in Queensland, Australia. The +95% total graphitic carbon (**TGC**) graphite flake concentrate achieved for Burke Graphite, allows for next step PSG development testwork to commence (by ProGraphite in Germany).

The Burke Graphite flake concentrate will be used as test feedstock material for a testwork programme to define and optimise the metallurgical and process conditions to produce PSG suitable for use in Lithium ion battery anodes. ProGraphite GmbH, a leading natural graphite consultancy and laboratory based in Germany, has been engaged to conduct comprehensive testwork programme on ~15kg of Burke Graphite 95% TGC flake concentrate processed by BGRIMM. This ProGraphite testwork programme encompasses:

- Initial material characterisation;
- spherical graphite (micronising and spheronisation) testwork;
- purification of the spherical graphite; and
- electrochemical characterisation of the purified spherical graphite.

Lithium Energy's **Total Graphite Inventory** (across the Burke Graphite Deposit and the Corella Graphite Deposit) has **doubled to 2.6Mt of contained graphite**, following the delineation of a maiden JORC Inferred Mineral Resource Estimate for graphite at the Corella Graphite Project.[18]

The significant doubling of the **Total Graphite Inventory** (across the Burke Graphite Deposit and the Corella Graphite Deposit) **to 2.6Mt of contained graphite** has allowed the Company to explore the suitability of Corella Graphite as additional feedstock to supplement Burke Graphite at the proposed PSG Plant currently being examined under the PFS.

As the first step in this process, a ~500kg sample of Corella Graphite was sent to BGRIMM to undergo the same type of metallurgical testwork and flake concentrate production as the recently completed Burke Graphite testwork programme.

Key aspects will be to initially test the Corella Graphite performance in the flowsheet developed for the Burke Graphite, to determine whether the same or a similar flowsheet methodology can be used for graphite sourced from Corella.

Similarly, bulk flake concentrate produced by BGRIMM from the Corella Graphite will be sent to ProGraphite to undergo PSG testwork.

The outcomes of this critical metallurgical and PSG testwork will form the basis of an assessment of the PSG production capacities of the combined Burke and Corella Graphite Deposits.

Pre-Feasibility Study

Lithium Energy has commenced a PFS (being undertaken by Wave International Pty Ltd and the Measured Group) for the development of a vertically integrated PSG manufacturing facility in Queensland.[19]

17 Refer to ASX Announcement dated 28 July 2023 - Burke and Corella Graphite Projects Testwork Update

18 Refer LEL ASX Announcements dated 16 June 2023: Maiden Corella Graphite Mineral Resource Delivers Doubling of Graphite Inventory and 5 April 2023: Burke Graphite Mineral Resource Upgrade Delivers Significant Increases in Size and Confidence

19 Refer LEL ASX Announcement dated 23 May 2023: Excellent Metallurgical Testwork Results at Burke Graphite Project Pave Way for Commencement of PFS

The PFS envisages mining graphite from the Burke Graphite Deposit and producing a +95% TGC graphite flake concentrate at the mine site. The flake concentrate will then be transported to a proposed PSG manufacturing facility in Queensland for processing by firstly mechanically shaping and spheronising the flakes and then chemically purifying the spheronised graphite to form a high quality PSG product.

It is proposed that this PSG product will be sold as an battery anode material for use in lithium-ion battery manufacturing or for battery energy storage solutions.

The following diagram illustrates the basic steps required to create a PSG product.

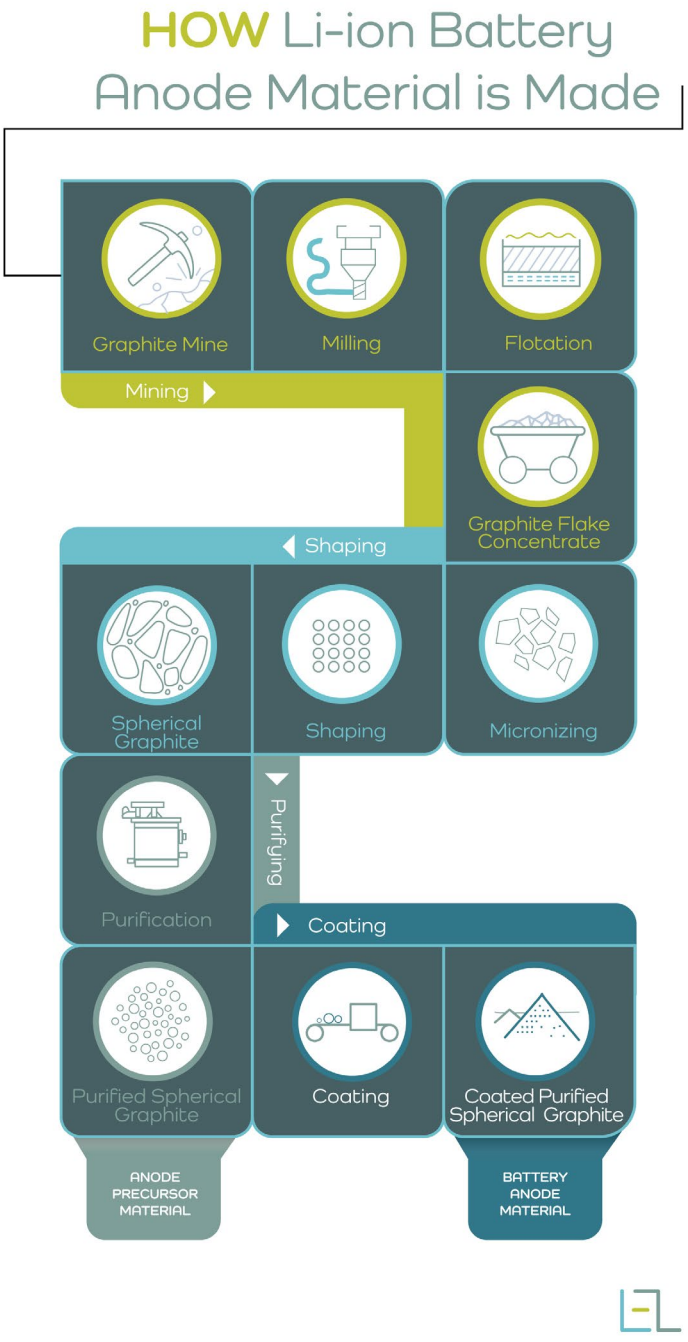


Figure 9: Illustrative Vertically Integrated Operations from Graphite Mine to Production of PSG (Anode Precursor Material) and Coated PSG (Battery Anode Material)

MINERAL RESOURCE ESTIMATES

Solaroz Lithium Brine Project (Argentina) (90%)

The initial maiden JORC Mineral Resource for Solaroz (defined in June 2023[20]) was recently upgraded in October 2023[21] to:

- **Total Mineral Resource of 3.3Mt LCE** (at a zero Li mg/l cut-off grade), comprising (refer Table 4):
  - **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 5).

Table 4 : 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 Tonnes
				million m^3	mg/l	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 1.

(g) Total Specific Yields are weighted averages

20 Refer LEL ASX Announcement dated 29 June 2023: Significant Maiden JORC Lithium Resource of 3.3Mt LCE at Solaroz Project in Argentina

21 Refer LEL ASX Announcement dated 26 October 2023: Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource

Table 5 : 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
	Sub-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
	Sub-Total	**5.3%**	**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 4

(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), (d) and (g of Table 4

Further details are in the Company's ASX Announcement dated 26 October 2023 entitled "Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource".

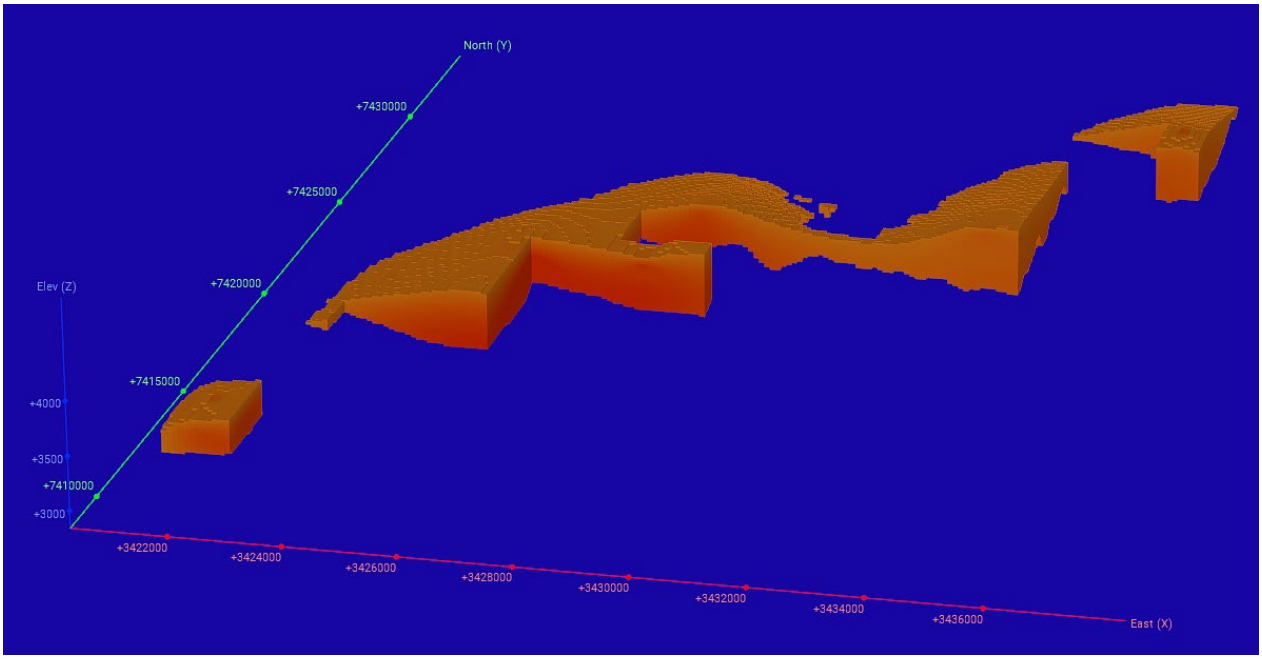


Figure 10: Solaroz Resource Model (x2 vertical exaggeration) showing the distribution of lithium concentrations through the Central Block with concentrations > 320 mg/l (averaged overall lithium concentration of 400 mg/l Li); Warmer colours are higher lithium concentrations; This corresponds to the high-grade core of the Mineral Resource referred to in Table 5

Burke Graphite Project (Queensland, Australia) (100%)

The Burke Deposit (on Burke EPM 25443 tenement) has a JORC Mineral Resource as follows:

- **Total Mineral Resource** of **9.1Mt at 14.4% Total Graphitic Carbon (TGC)** for a total of **1.3Mt contained graphite** (at a 5% TGC cut-off grade), comprising:
  - **Indicated Mineral Resource** of **4.5Mt at 14.7% TGC** for **670kt of contained graphite**; and
  - **Inferred Mineral Resource** of **4.5Mt at 14.2% TGC** for **640kt of contained graphite**.
- Within the mineralisation envelope, there is included a higher grade **Total Mineral Resource** of **7.1Mt at 16.2% TGC** for **1.1Mt of contained graphite** (at a 10% TGC cut-off grade).[22]

Table 6 : Burke Tenement - JORC Indicated and Inferred Mineral Resource Estimate

Mineral Resource Category	Weathering State	Resource (Mt)	Total Graphitic Carbon (TGC) (%)	Contained Graphite (kt)
Indicated Mineral Resource	Weathered	0.2	12.5	30
	Primary	4.3	14.8	640
	Sub-total	**4.5**	**14.7**	**670**
Inferred Mineral Resource	Weathered	0.1	8.1	10
	Primary	4.4	14.4	630
	Sub-total	**4.5**	**14.2**	**640**
Total Indicated and Inferred Mineral Resource	Weathered	0.3	11.1	40
	Primary	8.7	14.6	1,270
	TOTAL	**9.1**	**14.4**	**1,310**

Notes:

(a) Mineral Resource estimates are reported above a cut-off grade of 5% TGC; Mineral Resources reported on a dry in-situ basis; Totals may differ due to rounding.

(b) For further details, refer to the Company's ASX Announcement dated 5 April 2023 entitled "Burke Graphite Mineral Resource Upgrade Delivers Significant Increases in Size and Confidence"

Corella Graphite Project (Queensland, Australia) (100%)

The Corella Deposit (on Corella EPM 25696 tenement) has a JORC Mineral Resource as follows:

- Inferred Mineral Resource of **13.5Mt at 9.5% TGC** for **1.3Mt contained graphite** (at a 5% TGC cut-off grade).
- Within the mineralisation envelope, there is included a higher grade Inferred Mineral Resource of **4.5Mt at 12.7% TGC** for 0.57Mt of contained graphite (at a 10% TGC cut-off grade).[23]

Table 7: Corella Tenement - JORC Inferred Mineral Resource Estimate

Mineral Resource Category	Weathering State	Resource (Mt)	TGC (%)	Contained Graphite (kt)
Inferred Mineral Resource	Weathered	4.5	9.7	440
	Primary	9.0	9.3	840
	TOTAL	**13.5**	**9.5**	**1,280**

Notes:

(a) Mineral Resource estimates are reported above a cut-off grade of 5% TGC; Mineral Resources reported on a dry in-situ basis; Totals may differ due to rounding.

(b) For further details, refer to the Company's ASX Announcement dated 16 June 2023 entitled "Maiden Corella Graphite Mineral Resource Delivers Doubling of Graphite Inventory"

22 Refer Mineral Resource estimates at different %TGC cut-off grades reported in Table 2 of LEL ASX Announcement dated 5 April 2023: Burke Graphite Mineral Resource Upgrade Delivers Significant Increases in Size and Confidence

23 Refer Mineral Resource estimates at different %TGC cut-off grades reported in Table 3 of LEL ASX Announcement dated 16 June 2023: Maiden Corella Graphite Mineral Resource Delivers Doubling of Graphite Inventory

CORPORATE

Securities on Issue

Class of Security	Quoted on ASX	Unlisted	Total
Fully paid ordinary shares	103,010,000	-	**103,010,000**
Executive Options ($0.30, 18 Mar 2024)[24]	-	10,000,000	**10,000,000**
Broker Options ($0.30, 4 May 2024)[25]	-	4,000,000	**4,000,000**
Executive Options ($1.39, 29 Nov 2024)[26]	-	3,500,000	**3,500,000**
SIP Options ($1.595, 15 February 2025)[27]	-	100,000	**100,000**
Broker Options ($1.50, 20 September 2025)[28]	-	750,000	**750,000**
Executive Options ($1.06, 4 October 2025)[29]	-	17,500,000	**17,500,000**
SIP Options ($1.32, 30 November 2025)[30]	-	400,000	**400,000**
SIP Options ($0.935, 10 August 2026)[31]	-	250,000	250,000
TOTAL	**103,010,000**	**36,500,000**	**139,510,000**

The Company issued the unlisted Securities Incentive Plan (**SIP**) options during the quarter to employees:

Class of Unlisted Options	Issue Date	Exercise Price	Expiry Date	Number of options
SIP Options ($0.935, 10 August 2026)	11 Aug 2023	$0.935	10 Aug 2025	250,000

Summary of Expenditure Incurred[32]

A summary of expenditure incurred by Lithium Energy during the quarter, in relation to cash flows from operating and investing activities reported in the accompanying Appendix 5B Cash Flow Report is as follows:

	Expenditure Incurred / Cash Outflows		
	Operating	Investing	Total
For Quarter ending 30 September 2023	$'000		
Exploration and evaluation expenditure	-	3,645	3,645
Personnel expenses	281	-	281
Occupancy expenses	32	-	32
Corporate expenses	185	-	185
Administration expenses	138	-	138
TOTAL EXPENDITURE	**636**	**3,645**	**4,281**

There were no mining production and development activities during the quarter.

Payments to Related Parties[33]

During the quarter, Lithium Energy paid a total of $114k in respect of Directors' remuneration, comprising salaries, PAYG remittances to the ATO and statutory employer superannuation contributions. This is disclosed in Item 6 of the accompanying Appendix 5B Cash Flow Report.

24 Refer Section 16.3 (Rights Attaching to Executive Options) of the Company's Prospectus (dated 30 March 2021) for terms and conditions of the Executive Options

25 Refer Section 16.2 (Rights Attaching to Broker's Options) of the Company's Prospectus (dated 30 March 2021) for terms and conditions of the Broker Options

26 Refer LEL Announcement dated 2 December 2021: Notification regarding unquoted securities – LEL and Annexure B (Terms and Conditions of New Executive Options) of LEL's Notice of Annual General Meeting and Explanatory Statement dated 18 October 2021 and released on ASX on 28 October 2021

27 Refer LEL Announcement dated 18 February 2022: Notification regarding unquoted securities – LEL

28 Refer LEL Announcement dated 21 September 2022: Notification regarding unquoted securities – LEL

29 Refer LEL Announcement dated 5 October 2022: Notification regarding unquoted securities – LEL and Annexure B (Terms and Conditions of Executive Options) of LEL's Notice of Annual General Meeting and Explanatory Statement dated 22 August 2022 and released on ASX on 2 September 2022

30 Refer LEL Announcement dated 5 December 2022: Notification regarding unquoted securities – LEL

31 Refer LEL Announcement dated 16 August 2023: Notification regarding unquoted securities – LEL

32 Per ASX Listing Rule 5.3.1

33 Per ASX Listing Rule 5.3.5

LIST OF MINERAL CONCESSIONS

Lithium Energy has interests in the following mineral concessions/tenements as at the end of the quarter and currently:

Solaroz Lithium Brine Project (Argentina) (90%)

Concession Group	Concession Name	Area (Ha)	Province	File No
Northern Block	Payo 1	1,973	Jujuy	1516-M-2010
	Payo 2 (North)	758	Jujuy	1515-M-2010
	Payo 2 (South)	1,435		
Central Bock	Chico I	835	Jujuy	1229-M-2009
	Chico V	1,800	Jujuy	1312-M-2009
	Chico VI	1,400	Jujuy	1313-M-2009
	Silvia Irene	2,465	Jujuy	1706-S-2011
Southern Block	Mario Ángel	543	Jujuy	1707-S-2011
	Payo	990	Jujuy	1514-M-2010

Burke and Corella Graphite Projects (Queensland, Australia) (100%)

Tenement Name	Tenement Type and No.	Grant Date	Expiry Date	Area (blocks)	Area (km²)
Burke	EPM 25443	4/9/2014	3/9/2024	2 sub-blocks	~6.58
Corella	EPM 25696	2/4/2015	1/4/2025	6 sub-blocks	~19.74
Leichhardt Crossing	EPM 28715	12/4/2023	11/4/2028	30-sub-blocks	~97

- *EPM means Exploration Permit for Minerals*

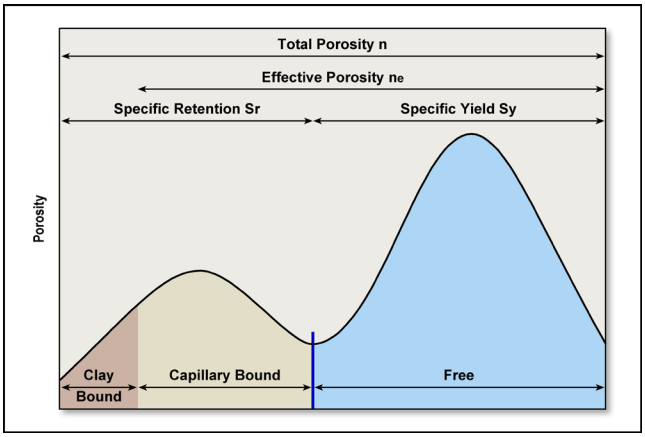
JORC CODE (2012 EDITION)
CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA
FOR EXPLORATION RESULTS

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 9 – 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) TROMINO® works in the [0.1, 1024] Hz range.

Criteria	Explanation	Comments
		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 11: Specific Retention and Specific Yield, as part of Total Porosity (Source: Zealandez)* Specific Yield is a key parameter when calculating a Lithium Brine Resource – the Company has determined Specific Yield from Geophysical Logging with a down hole BMR probe. 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*	**Drill Samples**

Criteria	Explanation	Comments
and laboratory tests	*appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	Samples are 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 SOZDD008, SOZDD007 and SOZDD006 are presented in Tables 9, 10 and 11 respectively. 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*	**Drilling**

Criteria	Explanation	Comments
	used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resources estimation. • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Locations are positioned using modern Garmin handheld GPS units with an accuracy of +/- 5m. The grid system used is : POSGAR 94, Argentina Zone 3. Topographic control was obtained by handheld GPS units and the topography is mostly flat with very little relief. **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 1): (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 40ktpa 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*
		Details of the collar location, azimuth, depth for Drillhole ID's SOZDD001 to SOZDD008 are reported in Table 8.
		All holes are drilled vertically through the unconsolidated clastic sediments and halite (salt) unit.

Criteria	Explanation	Comments
	information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data 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 1 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 6 illustrates the resource model for the high-grade core of the Mineral Resource referred to in Table 5. Figure 5 shows the Indicated and Inferred Mineral Resource areas and location of drillholes SOZDD001 to SOZDD008 within the Solaroz Concessions and highlights of the drilling results (to date). 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 12 shows the geophysical hole logging results and drillhole

Criteria	Explanation	Comments
		lithology stratigraphy for SOZDD006. Figure 13 shows the geophysical hole logging results and drillhole lithology stratigraphy for SOZDD007. Figure 14 shows the geophysical hole logging results and 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". Passive seismic surveys have been carried out consisting of lines in different orientations through the Solaroz Concessions. 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

Criteria	Explanation	Comments
		(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 and assay) results of airlift sampling at the eighth drillhole (SOZDD008, on the Chico I concession) have been previously reported – refer to the Company's ASX Announcements dated 20 September 2023 entitled "Drillhole 7 Yields Highest Grade Lithium to Date in Upper Aquifer" and 26 October 2023 entitled "Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource".
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

Criteria	Explanation	Comments
		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.
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.*	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

Criteria	Explanation	Comments
	• *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.*	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 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*	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

Criteria	Explanation	Comments
	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.*	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. 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*	Moisture content of the cores was not measured (porosity and density measurements were made), but as brine will be extracted by

Criteria	Explanation	Comments
	with natural moisture, and the method of determination of the moisture content.	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.
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*	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

Criteria	Explanation	Comments
	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.	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 appropriately reflects the Competent Person's view of the deposit*	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 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

Criteria	Explanation	Comments
		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 8 - 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[34]

(b) SOZDD002 – Drilling was terminated due to unstable drill hole conditions[35]

(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[36]

(d) SOZDD004 - - Drillhole completed[37]

(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).[38]

(f) SOZDD005 - - Drillhole completed[16]

(g) SOZDD006 - Drillhole completed[39]

(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

34 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

35 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

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

37 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

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

39 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 9 : Results of Sampling at Drillhole SOZDD008

Zone	Intersection Samples	Hole Depth Range		Li mg/l	Mg mg/l	Mg/Li Ratio	Conductivity (mS/cm)	pH	TDS (g/l)	Flow Rate (l/min)	Density (g/ml)
		From (m)	To (m)								
Fresh/ Industrial Water	1AL	61	63	<10	17	-	1.94	8.3	1	5	1.00
	2AL	71	74	24	217	9	30	7.12	15	6	1.02
	3AL	86	90	119	627	5.2	82	7.40	40	14	1.05
	4AL	95	106	169	542	3.2	134	7.34	1.38	4.90	1.08
Transition Zone	5AL	118	122	237	507	2.1	180	7.11	90.47	10	1.12
Upper Aquifer	6	170.5	194.5	311	666	2.14	219.1	6.76	109.6	6.3	1.17
	7	194.5	218.5	355	759	2.14	222	6.65	111.3	15.4	1.17
	8	218.5	242	**389**	808	2.08	224	6.6	112	9.5	1.176
	9	242	266	**441**	807	1.83	225	6.62	113	5.4	1.18
	10	266	290.5	**451**	790	1.75	229	6.5	114.6	5.6	1.19

Notes:

(1) A tri-cone pre-collar has been isolated at a drill hole depth of ~45 metres, to separate the fresh/brackish water and to prevent dilution with the sampling and assaying of the deeper brines.

(2) Sampling were initially conducted using airlift and pumping (designated with 'AL' in the Sample ID).

Table 10 : Results of Sampling at Drillhole SOZDD007

Zone	Intersection Samples	Hole Depth Range		Li mg/l	Mg mg/l	Mg/Li Ratio	Conductivity (mS/cm)	pH	TDS (g/l)	Flow Rate (l/min)	Density (g/ml)
		From (m)	To (m)								
Fresh/ Industrial Water	1AL	23	25	<10	14	1.4	0.004	8.4	1.8	14	1.00
	2AL	61	66	<10	17	1.7	0.003	8.4	1.5	13	1.00
	3AL	85	90	<10	18	1.8	0.003	8.15	1.25	14	1.00
	4AL	135	140	<10	<10	-	0.730	7.88	1.38	17	1.00
Transition Zone	5	170	185	38	207	5.45	61	7.6	30	6.1	1.03
	6	185	209	133	463	3.48	150	7.1	73	6.5	1.08
Upper Aquifer	7	209	233	**386**	855	2.22	247	6.87	117	6.87	1.17
	8	233	257	**483**	1379	2.85	240	6.45	120	3.3	1.18
Halite (Salt) Layer	9	281	305	**400**	793	1.64	243	6.30	122	1.5	1.2

Notes:

(1) A tri-cone pre-collar has been isolated at a drill hole depth of ~166 metres, to separate the fresh/brackish water and to prevent dilution with the sampling and assaying of the deeper brines.

(2) Sampling were initially conducted using airlift and pumping (designated with 'AL' in the Sample ID) , before transitioning to the use of single packers.

Table 11 : Results of Sampling at Drillhole SOZDD006

Zones	Intersection Samples	Hole Depth Range		Li mg/l	Mg mg/l	Mg/Li Ratio	Conductivity (mS/cm)	pH	TDS (g/l)	Flow Rate (l/min)	Density (g/ml)
		From (m)	To (m)								
Fresh to Brackish Zone	1AL	67	71	25	187	7.48	28.26	7.44	14.1	12.5	1.01
	2AL	107	110	Not assayed			124.6	7.2	62.3	8.3	1.02
Upper Aquifer	3AL	134	152	214	509	2.37	179.4	7.33	89.84	3.07	1.1
	4	152.5	176.5	327	785	2.40	228.2	6.97	114	3.03	1.15
	5	176.5	200	331	708	2.14	235	7	117	3.38	1.16
	6	200	224.5	**354**	741	2.09	236.4	6.67	118	2.2	1.17
Lateral Halite Equivalent Unit	7	227.5	248.5	372	813	2.18	237.8	6.71	119	2.0	1.17
	8	272.5	296.5	328	666	2.03	218	6.82	109	0.3	1.14
Lower Aquifer	9	296	320	**448**	675	1.50	244	6.6	123	3.3	1.19
	10	344	368	**483**	880	1.96	249.8	6.58	125.9	2	1.2
	11	416	440	**543**	799	1,47	247	6.5	124	1.3	1.2
	12	488	512	**594**	1133	1.91	250	6.5	122	1.3	1.2

Notes:

(1) A tri-cone pre-collar has been isolated at a drill hole depth of ~45 metres, to separate the fresh/brackish water and to prevent dilution with the sampling and assaying of the deeper brines.

(2) Sampling were initially conducted using airlift and pumping (designated with 'AL' in the Sample ID), before transitioning to the use of single packers.

(3) Exact aquifer/interval boundaries will be determined after completion of geophysical logging of the hole.

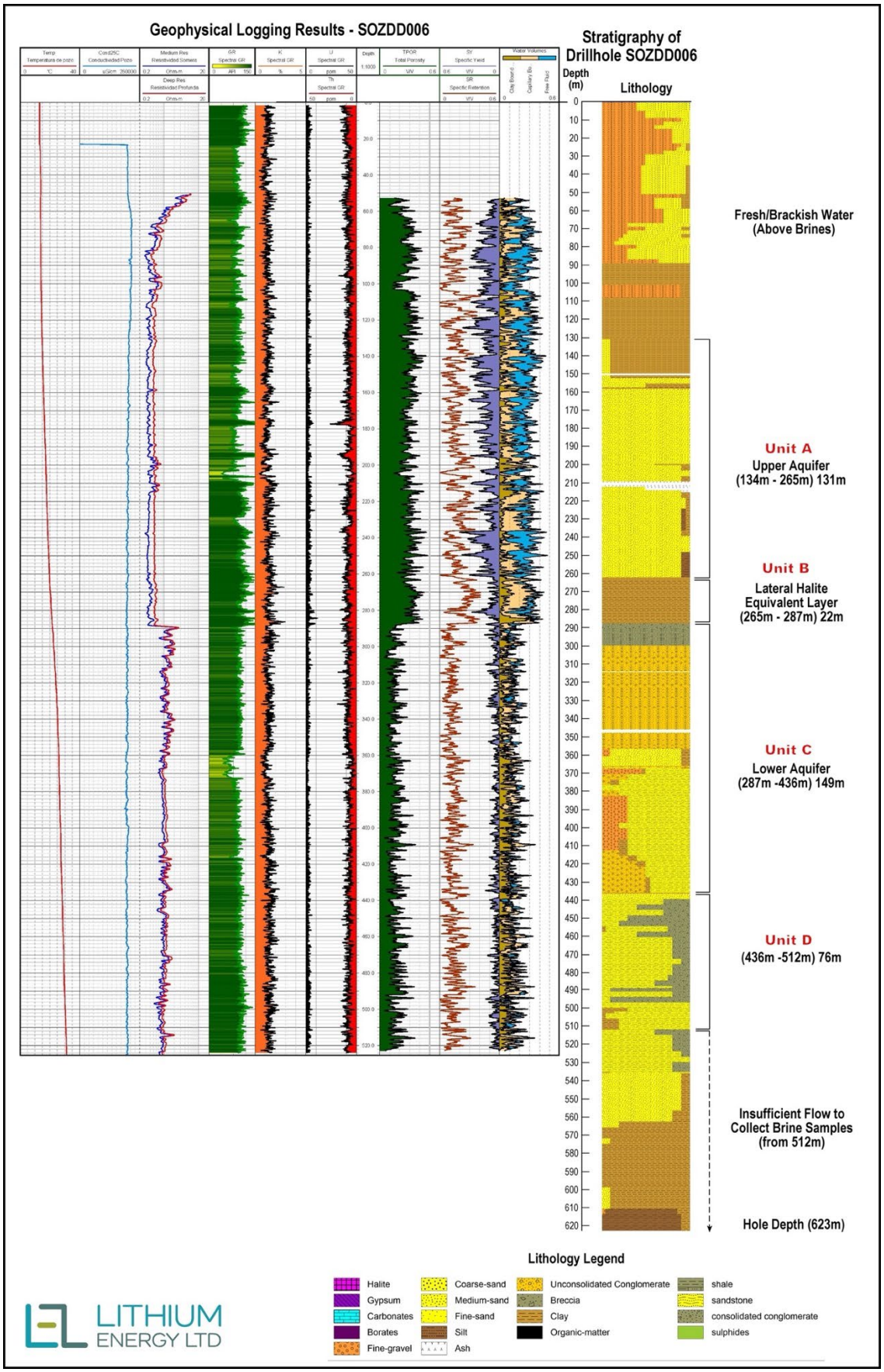


Figure 12: Geophysical Hole Logging Results and Drillhole Stratigraphy for SOZDD006, showing the downhole geophysical profiles and the geological units

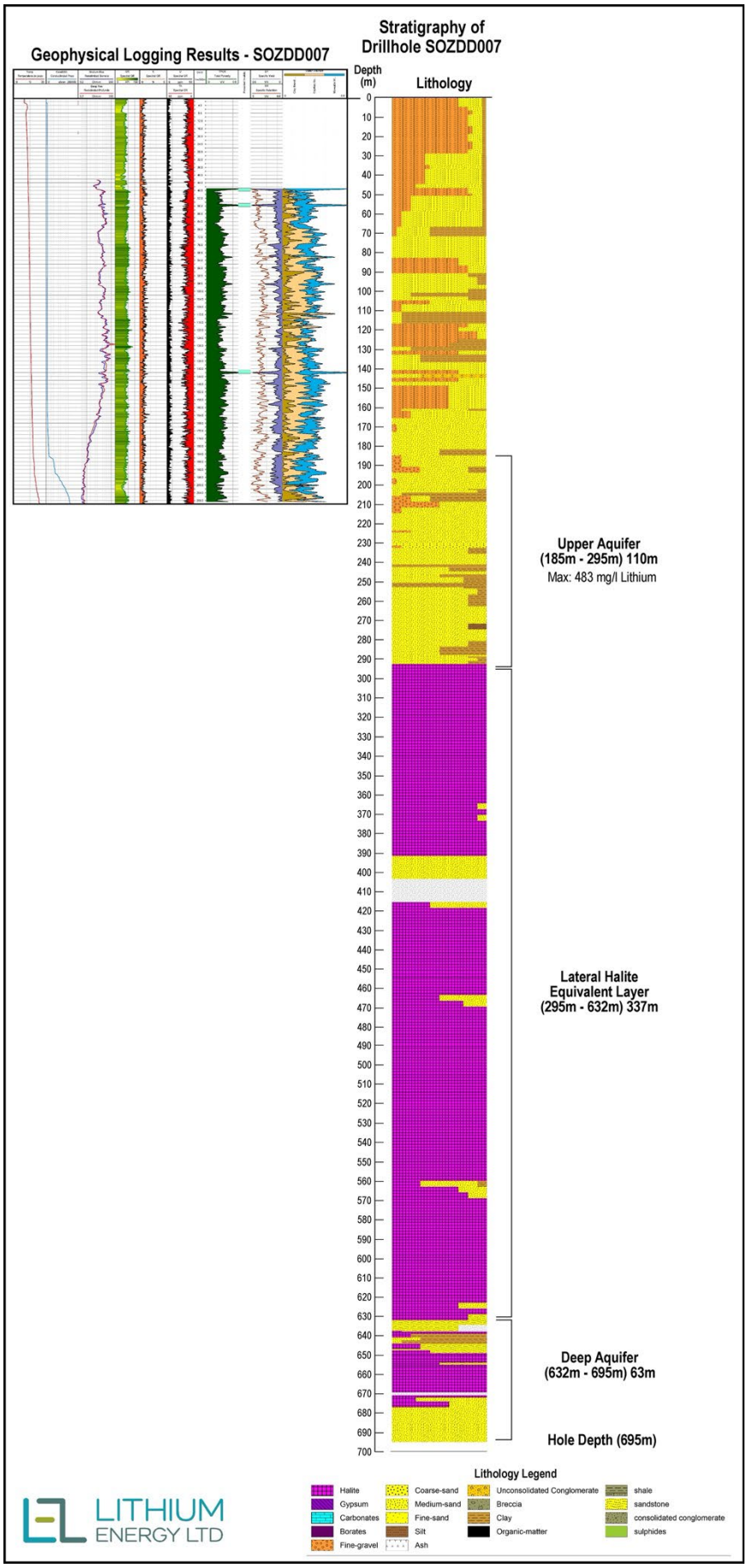


Figure 13: Geophysical Hole Logging Results and Drillhole Stratigraphy for SOZDD007

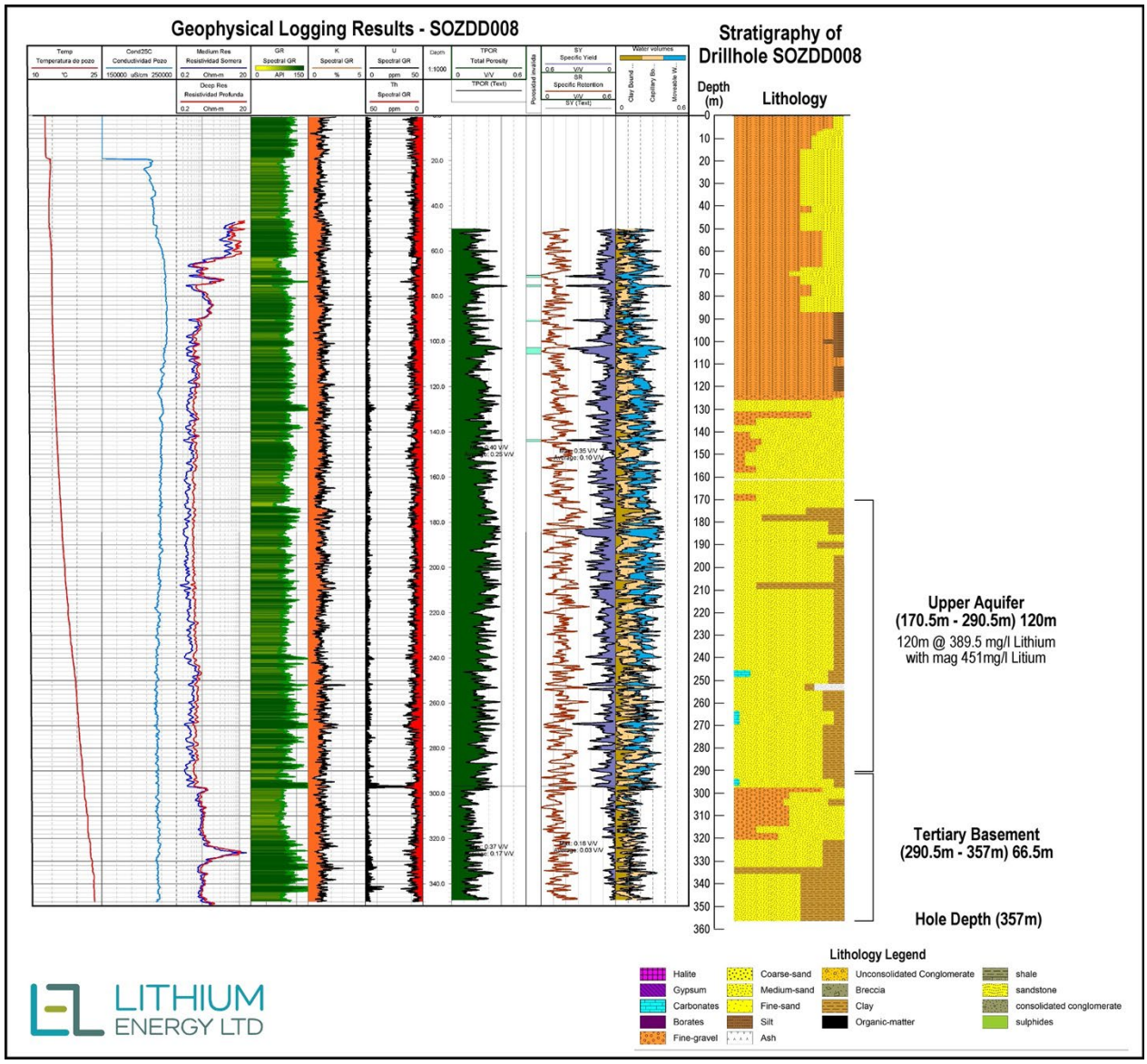


Figure 14: Geophysical Hole Logging Results and Drillhole Stratigraphy for SOZDD008

JORC CODE COMPETENT PERSON'S STATEMENTS

Solaroz Lithium Brine Project (Argentina)

(1) The information in this document that relates to Exploration Results (in relation to drillholes SOZDD007 and SOZDD008) in relation to the Solaroz Lithium Brine Project are based on information compiled by Mr Peter Smith, BSc (Geophysics) (Sydney) AIG ASEG, a Competent Person who is a Member of the Australian Institute of Geoscientists (**AIG**). Mr Smith is an Executive Director of the Company. Mr Smith has sufficient experience which 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 Smith 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 Mineral Resources (and the interpretation and reporting of Exploration Results related thereto) in relation to the Solaroz Lithium Brine Project is extracted from the following ASX market announcements made by Lithium Energy Limited dated:

- 26 October 2023 entitled "Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource"
- 29 June 2023 entitled "Significant Maiden JORC Lithium Resource of 3.3Mt LCE at Solaroz Project in Argentina"

The information in the original announcements is based on information compiled by Mr Murray Brooker (MAIG, MIAH), a Competent Person who is a Member of AIG. Mr Brooker is an employee of Hydrominex Geoscience Pty Ltd, an independent consultant to Lithium Energy Limited. Mr Brooker has sufficient experience which 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 announcement (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).

(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:

- 26 October 2023 entitled "Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource"
- 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 which 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).

Burke and Corella Graphite Projects

(1) The information in this document that relates to Mineral Resources in relation to the Burke and Corella Graphite Projects is extracted from the following ASX market announcements made by Lithium Energy Limited dated:

- 16 June 2023 entitled "Maiden Corella Graphite Mineral Resource Delivers Doubling of Graphite Inventory"
- 5 April 2023 entitled "Burke Graphite Mineral Resource Upgrade Delivers Significant Increases in Size and Confidence"

The information in the original announcements is based on information compiled by Mr Shaun Searle, a Competent Person who is a Member of the AIG. Mr Searle is an employee of Ashmore Advisory Pty Ltd, an independent consultant to Lithium Energy Limited. Mr Searle has sufficient experience which 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).

(2) The information in this document that relates to metallurgical test work results in relation to the Burke Graphite Project is extracted from the following ASX market announcement made by Lithium Energy Limited dated:

- 23 May 2023 entitled "Excellent Metallurgical Testwork Results at Burke Graphite Project Pave Way for Commencement of PFS".

The information in the original announcement is based on information compiled by Mr Graham Fyfe, who is a Member of the Australian Institute of Mining and Metallurgy (**AusIMM**). Mr Fyfe is an employee (General Manager, Projects) of Lithium Energy Limited. Mr Fyfe has sufficient experience which 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 announcement (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 announcement (referred to above).

(3) The information in this document that relates to other Exploration Results in relation to the Burke and Corella Graphite Projects is extracted from the following ASX market announcements released by:

(a) Lithium Energy Limited dated:

- 2 June 2023 entitled "Significant High Grade Graphite Discovery at the Corella Project".

(b) Strike Resources Limited (ASX:SRK) (**Strike**) (the former parent company of Lithium Energy Limited (and subsidiaries) that hold the interests in the Burke and Corella Graphite Projects; Lithium Energy Limited was spun out of Strike into a new ASX listing in May 2021) dated:

- 26 June 2018 entitled "Burke Graphite Project – New Target Area Identified from Ground Electro-Magnetic Surveys".

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 was a consultant to Strike and is an Director of Lithium Energy Limited. Mr Smith has sufficient experience which 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).

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.

Rule 5.5

Appendix 5B
Mining Exploration Entity or Oil and Gas Exploration Entity Quarterly Cash Flow Report

Name of entity

LITHIUM ENERGY LIMITED (ASX:LEL) and its controlled entities

ABN

94 647 135 108

Quarter Ended (current quarter)

30 September 2023

Consolidated statement of cash flows		Current Quarter Sep-2023 $A' 000	Year to Date 3 months $A' 000
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	-	-
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	**(281)**	**(281)**
	(e) administration and corporate costs	**(355)**	**(355)**
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	**59**	**59**
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	-	-
1.9	**Net cash from / (used in) operating activities**	**(577)**	**(577)**
2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) exploration & evaluation	**(3,645)**	**(3,645)**
	(e) investments	-	-
	(f) other non-current assets	-	-

Consolidated statement of cash flows	Current Quarter Sep-2023 $A' 000	Year to Date 3 months $A' 000
2.2 Proceeds from the disposal of:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	-	-
(d) investments	-	-
(e) other non-current assets	-	-
2.3 Cash flows from loans to other entities	-	-
2.4 Dividends received (see note 3)	-	-
2.5 Other (provide details if material)	-	-
2.6 Net cash from / (used in) investing activities	**(3,645)**	**(3,645)**
3. Cash flows from financing activities		
3.1 Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2 Proceeds from issue of convertible debt securities	-	-
3.3 Proceeds from exercise of options	-	-
3.4 Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5 Proceeds from borrowings	-	-
3.6 Repayment of borrowings	-	-
3.7 Transaction costs related to loans and borrowings	-	-
3.8 Dividends paid	-	-
3.9 Other (provide details if material)	-	-
3.10 Net cash from / (used in) financing activities	**-**	**-**
4. Net increase / (decrease) in cash and cash equivalents for the period		
4.1 Cash and cash equivalents at beginning of period	**8,976**	**8,976**
4.2 Net cash from / (used in) operating activities (item 1.9 above)	**(577)**	**(577)**
4.3 Net cash from / (used in) investing activities (item 2.6 above)	**(3,645)**	**(3,645)**
4.4 Net cash from / (used in) financing activities (item 3.10 above)	**-**	**-**
4.5 Effect of movement in exchange rates on cash held	**16**	**16**
4.6 Cash and cash equivalents at end of period	**4,770**	**4,770**

5.	**Reconciliation of cash and cash equivalents** at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	**Current Quarter $A' 000**	**Previous Quarter $A' 000**
5.1	Bank balances	720	7,926
5.2	Call deposits	4,050	1,050
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**4,770**	**8,976**

6.	**Payments to related parties of the entity and their associates**	**Current Quarter $A' 000**
6.1	Aggregate amount of payments to related parties and their associates included in item 1	(114)
6.2	Aggregate amount of payments to related parties and their associates included in item 2	**-**

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments

7.	**Financing facilities** *Note: the term "facility' includes all forms of financing arrangements available to the entity.* *Add notes as necessary for an understanding of the sources of finance available to the entity.*	**Total facility amount at quarter end $A' 000**	**Amount drawn at quarter end $A' 000**
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	**Total financing facilities**	**-**	**-**

7.5	**Unused financing facilities available at quarter end**	**-**

Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.

Nil

8.	**Estimated cash available for future operating activities**	**$A' 000**
8.1	Net cash from / (used in) operating activities (item 1.9)	(577)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(3,645)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(4,222)
8.4	Cash and cash equivalents at quarter end (item 4.6)	4,770
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	4,770
8.7	**Estimated quarters of funding available** (item 8.6 divided by item 8.3)	**1.13**

Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7

8.8 If Item 8.7 is less than 2 quarters, please provide answers to the following questions:

8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

LEL notes that some exploration and evaluation expenditure relates to activities which are not expected to continue in future quarters; the Company will prudently manage its expenditure in future quarters having regard to its current and expected cash position.

8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

The Company will consider capital raising initiatives in the future if appropriate.

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Yes, LEL will prudently manage its expenditure in future quarters having regard to its current and expected cash position.

Compliance statement

1. This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
2. This statement gives a true and fair view of the matters disclosed.

Authorised By:

31 October 2023

Victor Ho
Company Secretary

See Chapter 19 of ASX Listing Rules for defined terms

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.

2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.

3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee"

5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.

AUTHORISED FOR RELEASE - FOR FURTHER INFORMATION:

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