Wednesday, 24 May 2023 ASX Code : LEL

Excellent Metallurgical Testwork Results at Burke Graphite Project Pave Way for Commencement of PFS

This is a Replacement Announcement to the release dated 23 May 2023 with the same title, to add a Competent Person's Statement (in respect of metallurgical test work results) and Annexure A (JORC Code (2012 Edition) Checklist of Assessment and Reporting Criteria for Exploration Results)

SUMMARY

- BGRIMM test work has confirmed excellent metallurgical testwork results where standard floatation processes effectively upgrade Burke Graphite to battery grade material, with graphite concentrate grades achieved at >96% Total Graphitic Carbon (TGC).
- Overall graphite recoveries by BGRIMM by closed loop testing also confirm excellent recovery rates of >85%.
- With the excellent met-results confirmed and the high grade Burke Deposit of 9.1Mt at 14.4% TGC, the Company will now progress with a Pre-Feasibility Study (PFS) to produce battery anode material.
- Wave International (Wave) in conjunction with the Measured Group have been appointed to conduct a PFS for the development of a vertically integrated Purified Spherical Graphite (PSG) manufacturing facility in Queensland, utilising Burke Graphite as feedstock.
- The PFS will build upon the excellent results to date from the extensive metallurgical test work programme being conducted by the Beijing General Institute of Mining and Metallurgy (BGRIMM).
- Key design criteria metrics have now been developed to support the planned PFS.

Lithium Energy Limited (ASX:LEL) (**Lithium Energy** or the **Company**) is pleased to confirm excellent metallurgical testwork results from the Burke Graphite Project which provides the impetus to immediately progress towards a Pre-Feasibility Study (**PFS**) for the Project.

The Company has appointed Wave International Pty Ltd (**Wave**) and the Measured Group to conduct the PFS, which will identify the requirements, operational outcomes and commercial parameters for a vertically integrated Purified Spherical Graphite (**PSG**) (a battery anode precursor material) manufacturing facility in Queensland utilising graphite from the Burke Deposit as feedstock.

Wave International is a well known and highly qualified engineering consulting service provider with extensive experience in graphite concentration and battery anode material plant design.

The PFS work will be undertaken by Wave in conjunction with the Measured Group, who will conduct the mine and pit design components of the PFS.

The award of the PFS coincides with the completion of the flowsheet definition stage of the metallurgical testwork programme being undertaken by the Beijing General Institute of Mining and Metallurgy (**BGRIMM**) in China.[1]

The completed BGRIMM testwork (to date) has defined the concentrator process flowsheet requirements that will be required to produce a +95% TGC graphite flake concentrate, which will be suitable as feedstock for a proposed PSG plant. The key metrics in relation to reagents, flotation and regrind residence times and recovery have now been determined and will be used as inputs to the concentrator process design in the PFS.

The key outputs of grade (>96% TGC) and recovery (>85%) were achieved using standard flotation and regrind milling technology, which is typical of the graphite processing industry.

The bulk (flake graphite) concentrate required as feed material for the PSG testwork programme will be produced (at the BGRIMM in-house Pilot Plant) using the process metrics defined by the flowsheet definition testwork. This bulk concentrate will be provided to other specialist consultants to conduct further PSG testwork required to support the PSG Plant portion of the PFS.

Executive Chairman, William Johnson*:*

> *We are very pleased to have secured the engineering services of Wave International and the Measured Group to undertake our Burke Graphite PFS. We are confident that this PFS will demonstrate that Burke can deliver a successful, vertically integrated and environmentally sustainable business manufacturing high value battery anode material right here in Australia.*
>
> *Decarbonisation and the EV revolution are driving the demand for natural graphite as a key battery anode material. The Burke Graphite Project is very well positioned to take advantage of this expected massive growth in demand for battery anode material, given the exceptionally high grade of the Burke Deposit, its metallurgical characteristics and favourable location in North-West Queensland. We are excited to be taking this next step in the advancement of Burke and to be playing an important role in supporting the decarbonisation of the world.*

About Wave International

Wave International is a consulting firm specialising in battery and technology metals, with over 20 years experience in the sector. Wave's operations span Australian, Canada, Europe, Mongolia and Africa. In particular, Wave has a track record in developing projects in central and far north Queensland.

Wave and its key personnel have extensive global experience in the feasibility, design, commissioning and operation of natural graphite projects. Wave is an industry leader and promotor of downstream graphite industries globally, and are key consultants for the development of multiple significant global battery anode material projects. Wave brings a deep understanding of the anode market and end user requirements, and downstream process technology, which will be leveraged to determine the optimal economic outcome for the Burke Graphite PFS.

About Measured Group

The Measured Group specialise in mining studies and mine development including resource and reserve evaluations and advanced 3D geological modelling. The Measured Group team includes specialist technicians and consultants, mining and geotechnical engineers, geologists, resource professionals and data scientists.

1 Refer also LEL ASX Announcement dated 16 March 2023: Burke Graphite Metallurgical Testwork Programme Commences in China

Burke Graphite Project Background

The Burke Graphite Project comprises EPM 25443 (the **Burke Tenement**) and EPM 25696 (the **Corella Tenement**) being two granted Exploration Permits for Minerals (**EPM**) totalling approximately 26 square kilometres 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) (refer Figure 1).

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.

The Lansdown Eco-Industrial Precinct near Townsville in North Queensland is emerging as an important location for the production of critical materials for battery technologies in Australia.

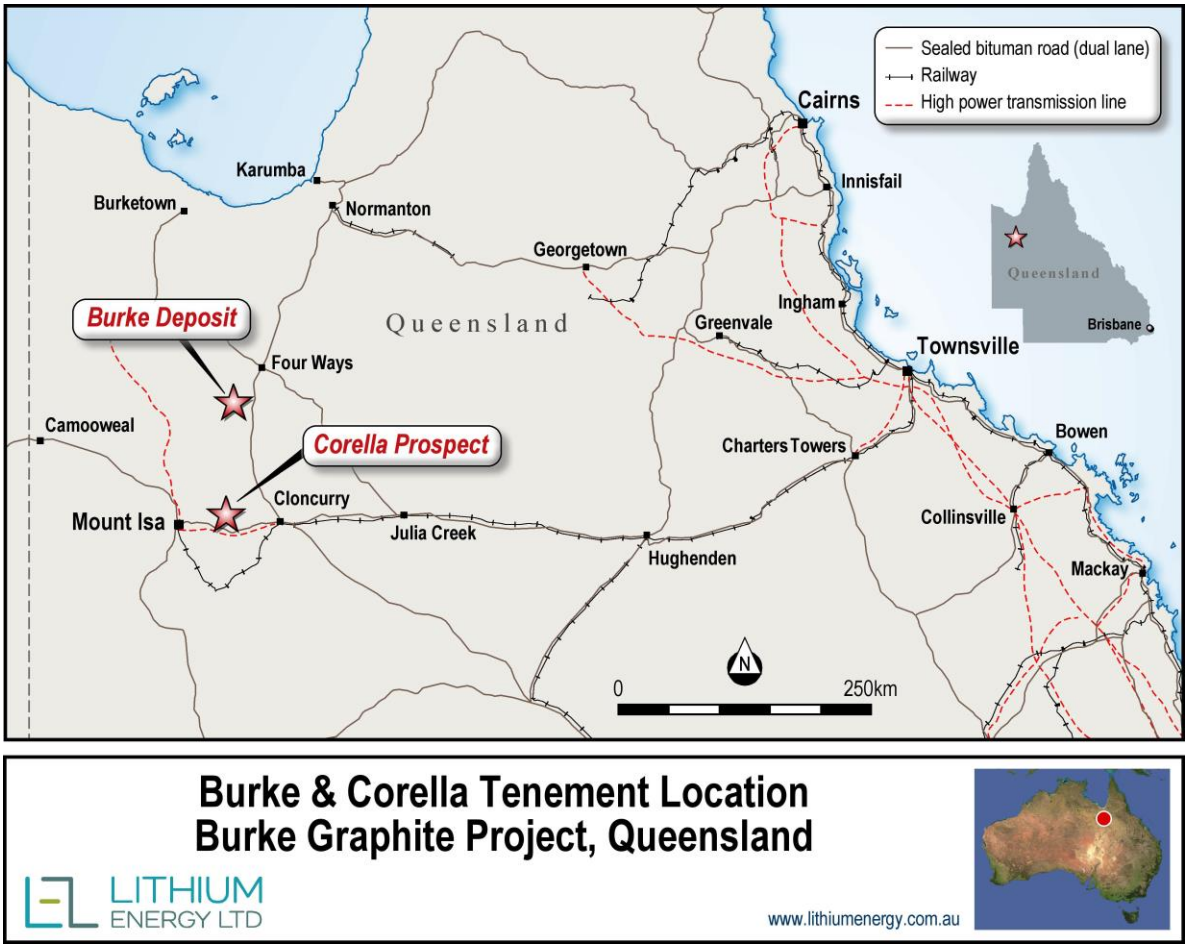

Figure 1: Burke Graphite Project Tenement Locations in North Central Queensland

Burke Graphite Deposit

- **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).[2]

Table 1 : Mineral Resource Estimate for Burke Tenement (the Burke Deposit)

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:

- *Mineral Resource estimates are constrained by the mineralisation solids and reported above a cut-off grade of 5% TGC; Mineral Resources reported on a dry in-situ basis; Totals may differ due to rounding.*
- *Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results.*
- *For further details, refer to LEL ASX Announcement dated 5 April 2023 entitled "Burke Graphite Mineral Resource Upgrade Delivers Significant Increases in Size and Confidence".*

AUTHORISED FOR RELEASE - FOR FURTHER INFORMATION:

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ABOUT LITHIUM ENERGY LIMITED (ASX:LEL)

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

2 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

JORC CODE (2012) COMPETENT PERSON STATEMENTS

(a) The information in this document that relates to metallurgical test work results in relation to the Burke Tenement (EPM 25443) 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, Graphite) 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 which he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves' (**JORC Code (2012)**). Mr Fyfe consents to the inclusion in this document of the matters based on this information in the form and context in which it appears.

(b) The information in this document that relates to Mineral Resources in relation to the Burke Tenement (EPM 25443) within the Burke Graphite Project is extracted from the following ASX market announcement made by Lithium Energy dated:

- 5 April 2023 entitled "Burke Graphite Mineral Resource Upgrade Delivers Significant Increases in Size and Confidence".

The information in the original announcement is based on, and fairly represents, information and supporting documentation prepared and compiled by Mr Shaun Searle, who is a Member of the Australasian Institute of Geoscientists (AIG). Mr Searle is an employee of Ashmore Advisory Pty Ltd, an independent consultant to Lithium Energy Limited. Mr Searle has the requisite experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code (2012)). 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).

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.

ANNEXURE A

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

Section 1 Sampling Techniques and Data

Criteria	Explanation	Comments
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld 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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g 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 (eg submarine nodules) may warrant disclosure of detailed information.*	**Sampling Methodology – Diamond Drill Core** Detailed geochemical sampling was routinely conducted on a 1-metre interval basis of Quarter-Split Triple Tube HQ drill core collected from the Burke Tenement. The HQ and PQ triple tube drill core was initially split 50% using a diamond core saw cutting machine. Half-split core is being retained initially as a visual reference and for use as a bulk metallurgical sample. The remaining half-core was then split 50% into quarter-core, again using a manual core saw. The quarter-split core was routinely submitted for geochemical analysis. Samples were analysed for %TGC (Total Graphitic Carbon) by Intertek method C73/CSA and for %TC by Intertek method CSA01. Sulphur was assayed on drill core by Intertek method FP1/OM. The remaining Quarter-Split Core was used as a metallurgical sample. Selective Petrological sampling of some lithological units identified in drill core was undertaken. These petrology samples are by necessity a small sample, but were selected on the basis of being "typical" of the lithological unit from which they were collected.
Drilling techniques	• *Drill type (eg core, reverse circulation, open hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).*	**Diamond Drill Core** DDH1 Drilling undertook the diamond drilling programme and supplied a UDR650 multi-purpose track mounted rig. HQ and PQ Triple Tube diamond core was selected as the optimum sampling method for drilling the graphite mineralised zones at the Burke Graphite Project, on the basis of maximising recovery of graphite, as the method minimises disturbance to core, limiting potential losses in drilling water. Drill core was oriented with a Reflex Act III orientation tool.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures 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.*	**Diamond Drilling** Diamond Drill Core recovery was routinely recorded every drill run (core barrel of 6m), with overall recovery of > 92.5% achieved for the drillhole.

Criteria	Explanation	Comments
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.*	**Logging Drill Core** Core was initially cleaned to remove drill mud and greases. The core was then orientated using "Top of Core" marks from the Reflex orientation tool, marked into 1m intervals and the core recovery recorded. The core was then photographed using high-resolution digital camera and then geologically logged. Geological logging of Drill Core was routinely undertaken on a systematic one-metre interval basis, recording the following geological data: 1. Core Recovery 2. Rock Lithology 3. Colour 4. Minerals 5. Texture 6. Hardness 7. Minerology 8. Oxidation 9. Graphite Content Geotechnical data was collected, including Rock Quality Designation (RQD), Fracture Density and orientations of structures such as faults, fractures, joints, foliation, bedding, veins recorded. The Specific Gravity was collected using an *Archimedes Principle* water displacement device. The core was then split into one half and then into 2x quarters using a manual core saw. One ¼ split core was used for geochemical analysis and the other ¼ split core used for bulk Variability metallurgical testing. The core was then stored in a secured container in Mt Isa.
Subsampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all subsampling 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.*	One-metre intervals of quarter-split drill core were submitted into an Intertek sample preparation laboratory in Townsville, Queensland. Geochemical analysis was subsequently performed at an Intertek laboratory in Perth, Western Australia. Samples were analysed for %TGC by Intertek method C73/CSA and for %TC by Intertek method CSA01. Sulphur was assayed on drill core by Intertek method FP1/OM. No work has been completed to determine if sample size is appropriate to the grain size of the material being sampled, with grain size of the graphite being determined post drilling by combination of petrology and metallurgical analysis.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the*	**Geochemical Analysis** One-metre intervals of Quarter-Split Drill Core were submitted into Intertek sample preparation laboratory in Townsville. Geochemical analysis was subsequently performed at Intertek laboratory in Perth.

Criteria	Explanation	Comments
	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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	The laboratory inserted its own standards, Certified Reference Material (CRM) plus blanks and completed its own QAQC. Company standards, duplicates and blanks were routinely inserted every 25th sample. No geophysical methods or hand-held XRF units have been used.
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 (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	The QA/QC protocols adopted for the December 2022/January 2023 Burke Tenement drilling programme involved routinely inserting a Certified Graphite Reference Standard (2 different Standards used), duplicates or Blank sample into the tag book number sequence every 25 samples. The QA/QC sample density is considered to be adequate and robust. Additional QA/QC controls were also provided by internal laboratory repeats and standards. Laboratory performance and all reported analytical results was statistically evaluated using QA/QC monitoring software. All Certified Reference Materials reported within 1 Standard Deviation of the Certified value. Significant intersections were visually field verified by Company Geologists and also by the Competent Person for the Burke Tenement (5 April 2023) Mineral Resource Estimate (Shaun Searle of Ashmore Advisory Pty Ltd) during a site visit in January 2023 and the Competent Person (Graham Fyfe) during a number of site visits in December 2022 and January 2023.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	*M.H. Lodewyk Pty Ltd* licensed surveyors of Mt Isa were contracted to accurately survey each drillhole collar to sub-metre accuracy, using a Differential Positioning System (DGPS) instrument, in the MGA Zone 54 projection. Downhole surveys were routinely collected every 18m, using a *Reflex* Gyro after completion of the hole, with surveying carried out both going into the hole (inside of rods), and also coming out of the hole. Results were averaged to determine the final drillhole deviation information.
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 Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	Data was routinely collected on a continuous one-metre interval basis. Samples were collected at one-metre intervals down each hole.
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*	**Drill Hole Orientation** Drill holes were designed to intersect graphite mineralisation at perpendicular to strike observed in outcrop. **Core Orientation** Core orientation was routinely undertaken during drilling using a *Reflex ACT III* tool. The unit is attached to the top of the core inner tube barrel and initialised. The unit is removed

Criteria	Explanation	Comments
	structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	and the orientation marked on the Top of Core using a coloured paint marker or chinagraph pencil.
Sample security	• *The measures taken to ensure sample security.*	All samples were collected by Company consultants/contractors, retaining chain of custody until delivery to the laboratory.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	The Competent Person for the Burke Tenement (5 April 2023) Mineral Resource Estimate (Shaun Searle of Ashmore Advisory Pty Ltd) reviewed drilling and sampling procedures during a site visit in January 2023 and confirmed that all procedures and practices conformed to industry standards. The Competent Person (Graham Fyfe) undertook and confirmed the same during a number of site visits in December 2022 and January 2023. Mr Fyfe attended and witnessed the core cutting process and sample selection and also visited the Beijing General Research Institute for Mining and Metallurgy Technology Group (**BGRIMM**) laboratories in China during their metallurgical testwork programme (in April 2023).

Section 2 Reporting of Exploration Results

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 interests, 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.*	Exploration Permit for Minerals (**EPM**) No. 25443 "Mt Dromedary" (**Burke Tenement**) was lodged with the Queensland Government Department of Mines and Energy on 2 December 2013. The tenement was granted on 4 September 2014 to Burke Minerals Pty Ltd (**BMPL**), for an initial period of five years, which was renewed for a further 5 years in October 2019 (expiring on or about 4 September 2024). Lithium Energy Limited (ASX:LEL) (**LEL**) is the ultimate parent company of BMPL. The Burke Tenement is in good standing with no known impediments.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	The Mt Dromedary graphite occurrences were first identified by Bill Bowes in the 1970's. Mr Bowes was the manager of the nearby Coolullah Station. A few small pits were excavated and no further work was carried out. The Mt Dromedary area was explored by Nord Resources (Pacific) Pty Ltd (EPM 6961) from 1991-1999, Nord collected numerous rock chips and submitted them for petrological and preliminary metallurgical appraisal by *Peter Stitt and Associates.* The preliminary flotation studies were encouraging and indicated 60-70% flake graphite (>75um size), whilst the floatation techniques utilised failed to achieve suitable recoveries. CRAE Exploration entered into a JV with Nord focusing on Copper exploration, and also did further rock chip sampling and trenching. CRAE's internal Advanced Technical Development division did a brief petrographical review which indicated the samples were predominately < 75um. Based on this advice exploration activity by CRAE for Graphite ceased.

Criteria	Explanation	Comments
Geology	• *Deposit type, geological setting and style of mineralisation.*	The Mt Dromedary graphite project on EPM25443 was identified by previous exploration dating back to the 1970's, and is hosted by a mapped graphitic schist (Qld Dept NRM) as a sub unit of the Corella Formation, within the Mary Kathleen Group and is of Proterozoic age. The graphitic schists within EPM 25443, are intruded by the Black Mountain (1685-1640Ma) gabbro, and sills, with subsequent metamorphism to amphibolite grade during the Isan Orogeny 1600-1580Ma. The style of mineralisation sought is crystalline graphite within the graphitic schists
Drill hole Information	• *A summary of all information material to 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* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* – *dip and azimuth of the hole* – *down hole length and interception depth* of *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	Holes were orientated to intersect outcropping graphitic schists with a dip angle of 60o, the drillhole azimuth was aimed to perpendicular intersect graphite beds. Downhole surveys were taken with the Reflex Gyro every 20m. With the survey being done within the drill rods, by running the Gyro down the inside of the rods at the end of the drillhole, surveying going down and coming out of the hole. **Diamond Drill Core** Diamond core drilling was undertaken and HQTT core recovered in 6m core barrels. Core orientation was routinely undertaken during drilling using a *Reflex ACT III* tool. Full details of the collar location, azimuth, depth for Drillhole ID's BGDD002 to BGDD008 are reported in Table 1. The Competent Person (Graham Fyfe) has access to all information in the drill hole/drilling database.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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.*	No data aggregation results are reported. No metal equivalent values are reported.
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*	Foliation structural data from the borehole televiewer and structural core measurements indicates the graphite mineralisation was intersected orthogonally down-dip and is close to true width.

Criteria	Explanation	Comments
	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 (eg 'down hole length, true width not known').*	The graphite schist is relatively undisturbed other than broad folding, offset faulting and the foliation is interpreted to represent original bedding. Intercept widths are down hole widths.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts would be included for any significant discovery being reported. These should include, but not be limited too plan view of drill hole collar locations and appropriate sectional views.*	Figure 2 shows the location of drillholes on the Burke Tenement. The Reverse Circulation (**RC**) holes in the 2022/2023 drilling programme are designated as "BGRC" and the diamond core holes are designated as "BGDD". The location of drillholes in respect of the 2022/2023 drilling programme on the Burke Tenement have also been previously reported - refer the Company's ASX Announcements dated 22 February 2023 entitled "Update – Infill Drilling Results at Burke Graphite Deposit" (Figure 1) and 16 February 2023 entitled "Significant High Grade Graphite Intercepts Continue at Burke Graphite Deposit" (Figure 1).
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.*	The information reported in this document is factual in nature and considered to be balanced.
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.*	The Beijing General Research Institute for Mining and Metallurgy Technology Group (BGRIMM) in China is undertaking a comprehensive flowsheet development metallurgical testwork programme on a representative sample of graphite from the Burke Tenement, to assess aspects of the Burke graphite and develop an optimised flake concentrator flowsheet, including: assessing and optimising flotation conditions; conducting open circuit flowsheet development testwork to optimise the concentrator flowsheet; and conducting closed loop circuit testwork to optimise flowsheet recovery. BGRIMM will also utilise their in-house Pilot Plant to produce bulk flake concentrate which will be used as test feedstock material for a planned Anode development testwork programme to define and optimise the metallurgical and process conditions to produce Purified Spherical Graphite (**PSG**) suitable for use in Lithium-ion battery anodes. Further details in relation to the BGRIMM metallurgical testwork programme/results are as follows: • Half core samples from the 2022/2023 drilling programme were collected from diamond drillholes BGDD002, 003, 004, 005, 006 and 008. Samples were collected across all depths to create a 2.5 tonne representative sample across depth, lithology and grade zones. A one tonne representative sample was shipped to BGRIMM. • The sample was homogenised and crushed to -3mm. The sample was riffled and assayed to determine the average grade, which was 13.3%TGC. • Multiple specific test were conducted on the sample to assess and determine reagents, grind time, flotation

Criteria	Explanation	Comments
		time and regrind time. • The results of these individual tests were collated into a number of open circuit tests to determine the number of flotation and regrind steps required to achieve the concentrate grade target of +95%TGC. • The flowsheet developed in the open circuit tests was used as the basis for the closed loop circuit tests in which recovery, final reagent and equipment residence times were optimised. • A number of closed loop tests were conducted to finalise the flowsheet and the associated conditions resulting in a concentrate product with a grade of +95%TGC and recoveries of >85%. A 9 hole RC and diamond core drilling programme (in 2017) and various geophysical surveys and metallurgical test work (on samples collected from the 2017 drilling programme) have been undertaken in respect of the Burke Tenement, which have been (where material and relevant) disclosed in ASX market announcements released by LEL and Strike Resources Limited (ASX:SRK) (**Strike**), the former parent company of LEL (and LEL subsidiaries) – LEL was spun out of Strike into a new ASX listing in May 2021. The Company conducted an infill drilling programme at the Burke Tenement in December 2022/January 2023, comprising a total of 29 Reverse Circulation (**RC**) holes (totalling ~2,600m) and 7 diamond core (metallurgical and geotechnical) holes (totalling ~700m), the details of which have been (where material and relevant) disclosed in ASX market announcements released by LEL – refer, in particular, the Company's ASX Announcements dated 22 February 2023 entitled "Update – Infill Drilling Results at Burke Graphite Deposit" and 16 February 2023 entitled "Significant High Grade Graphite Intercepts Continue at Burke Graphite Deposit". The results from the 2022/2023 drilling programme on the Burke Tenement was used to increase the size of and upgrade the Mineral Resource Estimate on the Burke Tenement - refer the Company's ASX Announcement dated 5 April 2023 entitled "Burke Graphite Mineral Resource Upgrade Delivers Significant Increases in Size and Confidence".
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, providing this information is not commercially sensitive.*	A review of the data from the (December 2022/January 2023) RC and diamond core drilling programme will be undertaken to increase the geological understanding of the graphite deposit on the Burke Tenement. The Company may seek to upgrade the current JORC Inferred and Indicated Mineral Resource on the Burke Tenement to a higher standard JORC Measured Mineral Resource and or Probable Ore Reserve category. The diamond core has also provided representative graphite samples for the current metallurgical testwork (being undertaken by the Beijing General Institute of Mining and Metallurgy (BGRIMM) in China) and planned Purified Spherical Graphite (PSG) and anode testwork and development programme (with other specialist consultants). The recent upgrade in the resource classification and the current/on-going metallurgical and planned PSG optimisation testwork will also support a Pre-Feasibility

Criteria	Explanation	Comments
		Study, which has recently commenced to identify the requirements, operational outcomes and commercial parameters for a vertically integrated PSG (a battery anode precursor material) manufacturing facility in Queensland utilising graphite from the Burke Tenement as feedstock.

Table 1 - Drillhole Collar Location, Azimuth and Depth for Diamond Holes BGDD002 to BGDD008

Hole ID	Easting	Northing	Elevation	Inclination	Azimuth(Grid)	Final Depth
	GDA94-MGA Zone 54		AHD	Degrees	Degrees	Metres
BGDDH02	417871.4	7830978.2	140.80	90	250	111
BGDDH03	417905.3	7831020.4	139.33	90	307	127
BGDDH04	417877.4	7831125.5	142.87	90	310	100
BGDDH05	417880.7	7831173.5	143.25	90	290	100
BGDDH06	417902.5	7831228.6	142.32	90	287	81
BGDDH07	417964.3	7831315.5	144.77	70	270	115
BGDDH08	417891.5	7830928.5	140.42	90	324	81

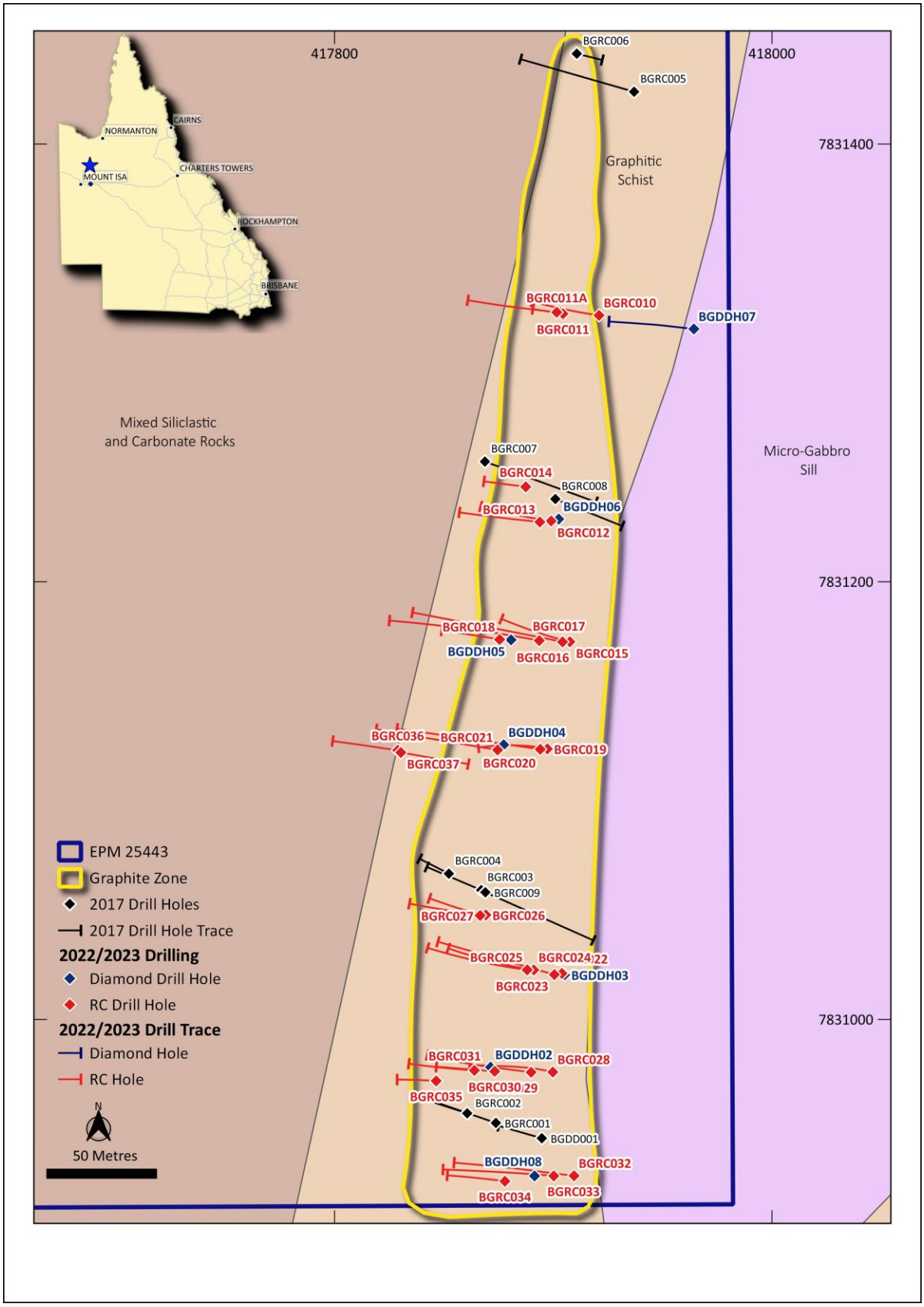

Figure 1: Location of RC (BGRC) and Diamond (BGDD) Drillholes (Undertaken During December 2022/January 2023 Drilling Campaign) on Burke Tenement