ASX Release 23rd October 2023

OUTSTANDING SHALLOW CONDUCTORS IDENTIFIED AT GRAPHITE BULL

- Advanced ground EM survey massively boosts resolution of EM targets
- All drilling to date demonstrates a direct correlation between EM anomalies and graphite mineralisation
- Numerous new targets identified for additional shallow graphite Resources
- Exploration and resource definition drill planning at 100% owned Graphite Bull Project is advanced

Buxton Resources Ltd (**ASX:BUX, 'Buxton'** or **'the Company'**) is pleased to announce the results of a Loupe Electromagnetic survey recently completed at Buxton's 100% owned Graphite Bull project.

The high-resolution, man-portable Loupe EM system is highly sensitive to conductors at 0-50 metres depth.This survey has enabled Buxton to identify and prioritise multiple near-surface new targets within and around the existing defined Inferred Resource.(Figure 1).

Buxton Resources CEO Marty Moloney commented:

"Our wholly owned Graphite Bull Project in the Gascoyne Region of WA is rapidly shaping into one of Buxton's most exciting assets.

To date we've found that electromagnetic anomalies are highly correlated with graphite mineralisation across the project. We're confident that the shallow targets identified from the recent Loupe EM survey provide us with substantial potential upside to this high-grade graphite resource located in a world class mining investment destination.

With global electrification trends supporting predicted long term global graphite demand, and indications that Graphite Bull enjoys highly favourable metallurgical qualities for anode precursor material production, we believe that this project can emerge as a company-maker for Buxton."

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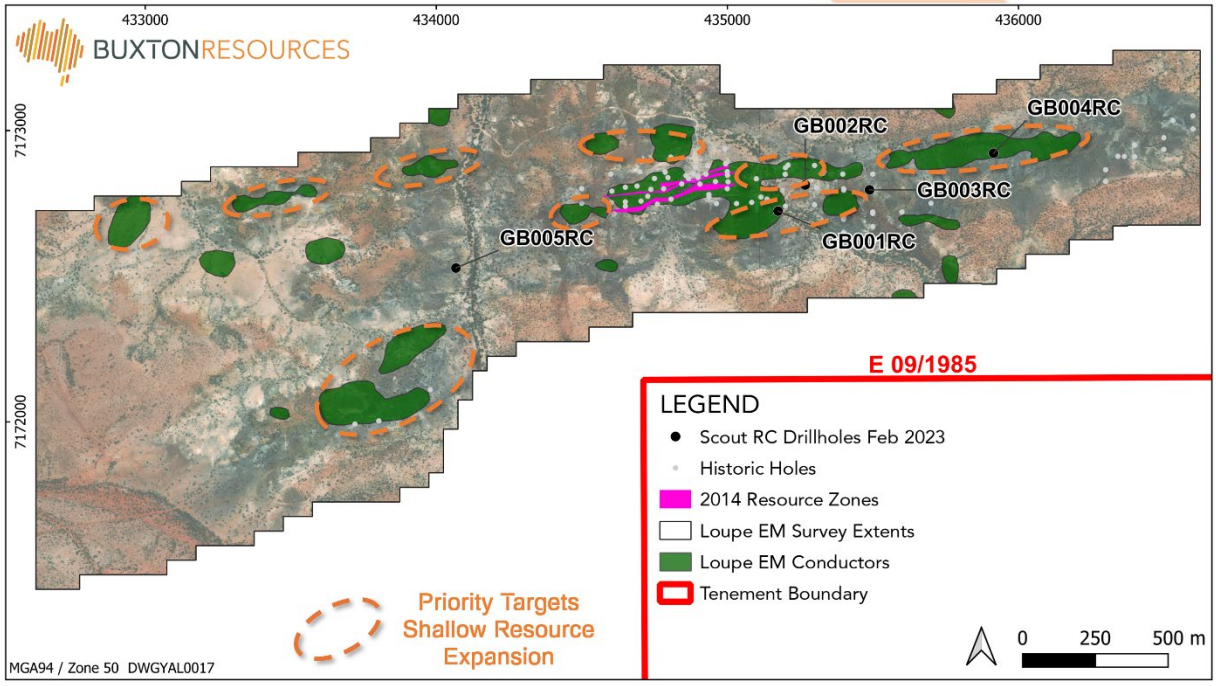

Figure 1: Map showing the outline of Loupe conductors interpreted to indicate the presence of shallow graphite mineralisation. Prioritised targets for shallow resource expansion are outlined.

Background to Ground EM surveying at Graphite Bull

Drilling to date has confirmed that graphite mineralisation is the only conductive geological material in the Graphite Bull project area, and EM anomalies are therefore highly likely to represent concentrations of graphite mineralisation.

Prior to this Loupe survey, in January 2023 Buxton undertook a high-powered ground electromagnetic (HPEM) survey at Graphite Bull (see ASX announcement 7th February 2023). That survey utilised a moderate resolution Fixed Loop EM (FLEM) configuration (100 x 100 metre stations) along the ~450m strike length of the existing resource. The FLEM results defined a very close relationship between drill-confirmed graphitic material and subsurface conductivity in the resource area.

Outside of the existing resource area, the HPEM survey was conducted using a Moving Loop EM (MLEM) configuration at 200 x 200 metre stations. The MLEM results identified graphite mineralisation over more than 2 kilometres of strike (see Figure 2). This interpretation was validated by follow-up scout RC drilling which intersected thick zones of high-grade graphite mineralisation over 2 km of strike (see ASX announcement 19th April 2023).

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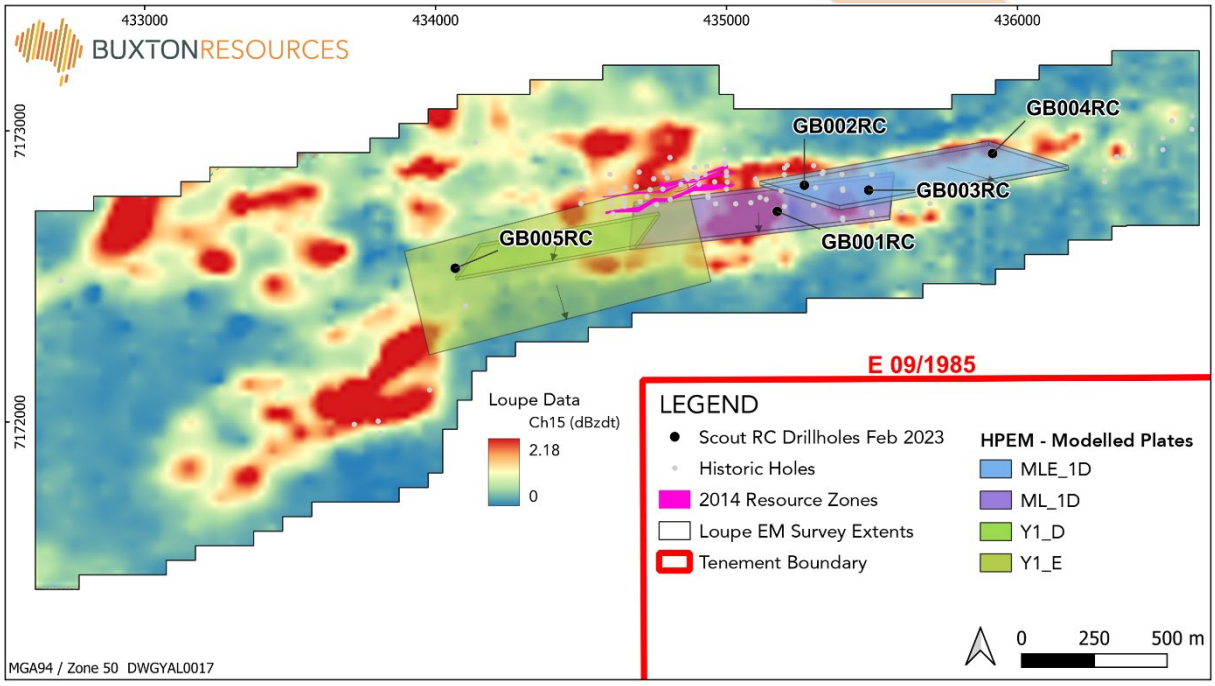

Figure 2: Loupe EM dBdzt channel 15 conductivity image with selected plates from the January 2023 High Power EM survey (arrows indicate down plunge direction). The new Loupe EM survey reveals extensive zones of shallow subsurface conductivity likely representing graphite mineralisation at depths amenable to open pit mining.

The relatively coarse resolution MLEM survey limited ability to identify graphite at shallow depths (0-100 metres). Further limiting the shallow sensitivity of the earlier MLEM survey was the massive extent of multiple conductive plates at Graphite Bull (likely to be high-grade mineralisation at depths between 100 - 1,500 metres below surface, already drill-proven to beyond 200m depth in places).

New Loupe EM Survey

Loupe is a new and highly portable mobile time domain EM system that takes advantage of a wide range of recent developments in electronics and signal processing for conductivity mapping in near-surface applications. It is designed for safe and productive operation.

The Graphite Bull Loupe survey was undertaken to substantially improve the resolution of conductivity mapping in the top 50 metres of the subsurface. The comparatively lower power of the Loupe system also reduced the overpowering influence of deeper graphite mineralisation.

The survey covered an area of approximately 4.0 km x 0.8 km for a total of 56.5 line kilometres of new EM data acquisition. The survey was conducted on 50 m spaced lines for the majority survey area with stations spaced at approximately 1 m along each line. Lines were spaced at 100 m in the far west.

Interpretation of the new Loupe EM data (Figure 1) has identified numerous conductive zones, whose relationship to the known resources & mineralisation can be classified as follows:

- Directly adjacent to the existing resource (which remains open at to the East and West end and at depth)
- In the hanging wall (South) of the existing resource as confirmed in GB001RC (33 m @ 18.7% TGC from 11 m)
- In the foot wall (North) of the of the existing resource (previously undrilled)
- Along strike from the existing resource as confirmed in GB0004RC (9 m @ 15.7 % TGC from 16 m and 32 m @ 17.7% TGC from 49 m).
- A large area in the Sorth West which was not identified by the Buxton's 2023 High Power EM (HPEM) survey.

This is an exceptional result for Buxton as it provides encouragement for significant resource increases at shallow depths amenable to open pit mining. Exploration and resource definition drill program are being planned, subject to expanded heritage clearance surveys currently scheduled for early November.

With demand for graphite for Li-ion battery anodes continuing to escalate, and as global supply tightening, Graphite Bull represents a world class graphite development opportunity. Buxton looks forward to providing shareholders with regular updates on this exciting development project.

This announcement is authorised by the Board of Buxton Resources Ltd

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About the Graphite Bull Project

The at-surface, high-grade Graphite Bull (formerly Yalbra) Project is in the Tier 1 jurisdiction of Western Australia, Gascoyne region, on granted Exploration License E09/1985. Graphite Bull was acquired by Buxton in 2012; by 2014 an airborne EM survey, several drilling programs and two resource estimates were completed. The Graphite Bull project currently has a JORC (2012) compliant Inferred Resource of 4 Mt @ 16.2 % TGC (see ASX Announcement 24th October 2014).

Due to projected growth of the global Lithium-ion battery market, and the essential part graphite will play in that – graphite is the single largest component of Li-ion batteries – Buxton recommenced work at Graphite Bull in 2022. Work since then has been focused on metallurgical testwork through to final product (Purified Spheronised Graphite), and increasing the Resource confidence and size, with very promising results to date.

Forecast battery-related demand (Benchmark Mineral Intelligence) indicates that by 2027, global graphite production needs to double; by 2040, eight times current production will be required to supply the world's lithium-ion battery anode market. Graphite Bull is therefore a very attractive project, being a high-grade deposit located in a Tier 1 mining jurisdiction, with outstanding Resource growth potential.

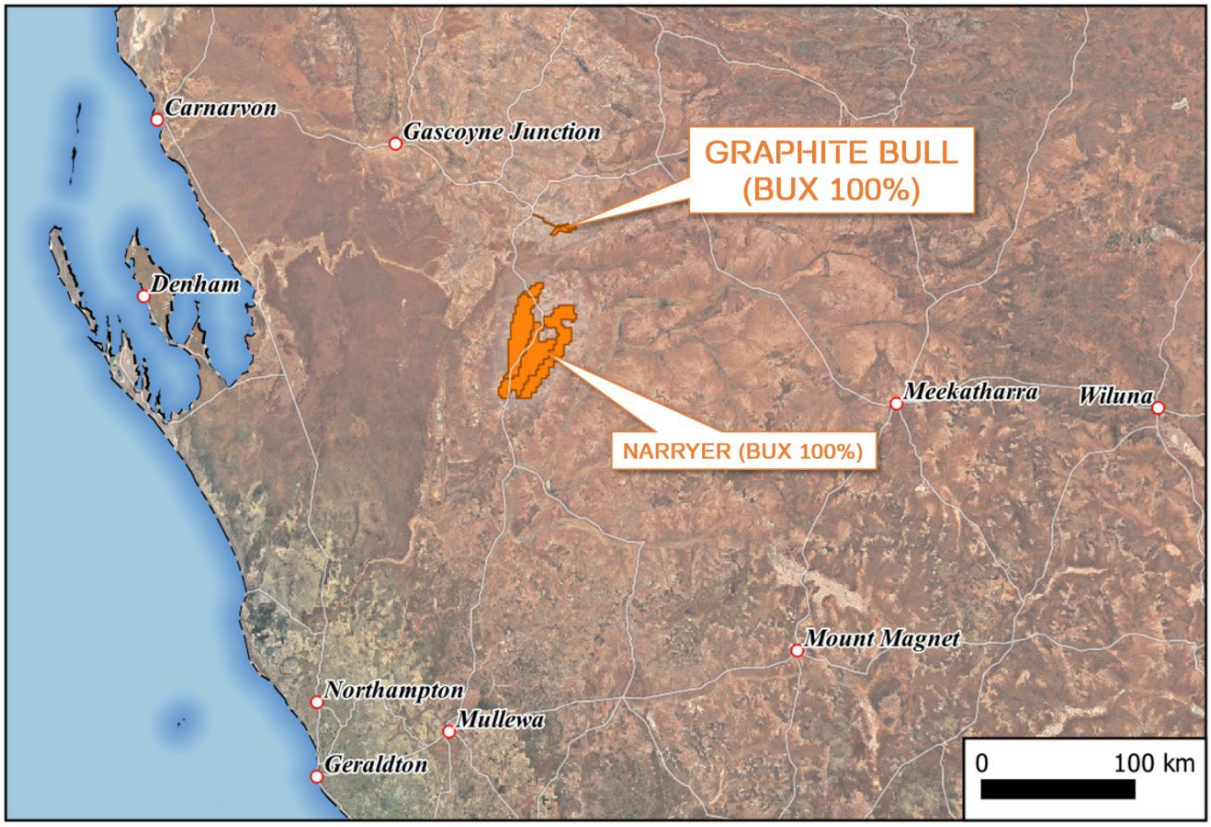

Figure 3: Graphite Bull Project Location Map

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Competent Persons

The information in this report that relates to Exploration Results is based on information compiled by Mr Martin Moloney, Member of the Australian Institute of Geoscientists and Society of Economic Geologist. Mr Moloney is a full-time employee of Buxton Resources Ltd. Mr Moloney have sufficient experience which is relevant to the activity being undertaken to qualify as a "Competent Person" as defined in the 2012 edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Moloney consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.

The information presented herein that relates to Exploration Results from analysis of the Ground Electromagnetic survey results is based on information compiled and reviewed by the Russell Mortimer, a Competent Person who is a Member of The Australian Institute of Geoscientists and fairly represents this information. Mr Mortimer has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Mortimer is an independent Consultant Geophysicist at Southern Geoscience Consultants Pty Ltd and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Previously Reported Results

There is information in this announcement relating to exploration results previously announced on:

1. 24th October 2014 – Buxton significantly expands Graphite Resource At Yalbra
2. 7th February 2023 – Graphite Bull Exploration Update (Ground EM results)
3. 19th April 2023 – Graphite Bull Drilling Assays

Validity of Referenced Results

Buxton confirms that it is not aware of any new information or data that materially affects the information from previous ASX announcements which has been referenced in this announcement.

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JORC Table: Section 1 – Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
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.*	The Loupe EM technique is applicable for graphite exploration due to high electrical conductivity, the survey was undertaken by Southern Geoscience. Data deliverables included processed 3-component (x,y,z) Loupe TEM data with coordinates, in array-based ASCII format. System settings are recorded in header files. Processing steps applied were as follows: 1. Parallax correction. Measurement locations were moved approximately 5.75 m from the GPS antenna position to the transmitter (Tx) – receiver (Rx) midpoint. A constant layback dragging method was used to compute line direction and midpoint position. 2. Standing still points were removed. 3. Line merging and renaming. 4. Data filtering: To attenuate random noise and improve the signal-to-noise ratio, a non-linear filter (short wavelet rejection) was applied to the data.
	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 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 (e.g. submarine nodules) may warrant disclosure of detailed information.	
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).*	Not applicable, the release does not relate to new drilling results.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Not applicable, the release does not relate to new drilling results.
	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.	
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.*	Not applicable, the release does not relate to the collection of new qualitative observations or quantitative measurements of physical sample material.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	
	The total length and percentage of the relevant intersections logged.	
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Not applicable, the release does not relate to new sampling results.
	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 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.	

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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.*	Not applicable, the release does not relate to new assay results
	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.	Used a Loupe EM system, a portable and movile time domain EM system (TEM) that utilises a transmitter and receiver units housed within backpacks with a small horizontal loop from the back of the transmitter unit. The loupe receiver comprises three component coil sensor with 100 khz bandwidth. Positioning is by a built in RPK GPS and real time processing is carried out during the survey to check on errant or anomalous results to assure quality control. The units are tethered by cable and person carrying the transmitter walks approximately 20m ahead of the person with the receiver. The data collected is semi continuous along lines and lines were spaced 100m apart for the first kilometre of the program and then reduced to 50m apart for the following 3kms.
	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.	Operators noted any activity that could affect readings. Southern Geoscience undertook internal QA analysis of the survey data as it was being collected. Areas of concern were re-surveyed such that accuracy and precision were adequate for the intended purpose.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Not applicable, the release does not include the reporting of intersections.
	The use of twinned holes.	Not applicable, the release does not relate to new drilling results.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Data entry was carried out continuously and digitally by on board processing from the receiver unit.
	Discuss any adjustment to assay data.	No editing has been done to Contractor-supplied data.
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.*	The survey was controlled using RTK GPS, with sub-metre accuracy. This accuracy is deemed adequate for the required purpose.
	Specification of the grid system used.	Data locations are supplied in GDA94 / MGA Zone 50.
	Quality and adequacy of topographic control.	Not applicable.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Readings were collected continuously along the lines, which were orientated North-South, approximately normal to the geological strike. Line spacing was 100m over 1 km in the far West of the survey area, and 50m for the remaining 3 km.
	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.	
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	The EM lines were orientated perpendicular to the strike of graphite mineralisation at 100m and 50m line spacing, which is considered adequate for shear hosted graphite mineralisation.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	
Sample security	*The measures taken to ensure sample security.*	Data collected in the field was sent electronically to the company's service provider and checked for quality and accuracy. Local company representatives were on site to check on the work
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Southern Geoscience undertook internal QA analysis of the survey data as it was being collected.

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JORC Table: Section 2 – Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
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.*	BUX have a 100% interest in exploration license E09/1985. A 0.75% Gross Revenue Royalty was granted under a Tenement Sale Agreement dated 31 March 2016, between Montezuma Mining Company Ltd ("Montezuma") and Buxton Resources Limited. This royalty is currently held by Electric Royalties Ltd (TSXV:ELEC & OTCQB:ELECF).
	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 tenement is in good standing with DMIRS and there are no known impediments for exploration on this tenement.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Numerous exploration parties have held portions of the area covered by BUX tenure previously. The only substantive historical exploration for graphite was undertaken by CEC in 1974 – see WAMEX report A6556. No other parties were involved in the exploration program that generated data that was used in this release.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Graphite Bull Project area lies within the Errabiddy Shear Zone, situated at the contact between the Glenburgh Terrane of the Gascoyne Province and the Narryer Terrane of the Yilgarn Carton, on the southwestern margin of the Capricorn Orogen. The known graphitic mineralisation occurs as lenses in graphitic paragneiss assigned to the Quartpot Pelite. This unit has been interpreted to have been deposited between 2000 Ma and 1985 Ma in a fore-arc setting to the Dalgaringa continental margin arc (part of the Glenburgh Terrain), and subsequently deformed between 1965–1950 Ma during the Glenburgh Orogeny within the Errabiddy Shear Zone which represents the suture between the colliding Pilbara–Glenburgh and Yilgarn Cratons. All units at Graphite Bull show evidence for metamorphism in the amphibolite to granulite facies, with the production of voluminous leucosomes and leucogranites within the pelitic lithologies
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:*	Not applicable, the release does not relate to new drilling results.
	o *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*	
	o *dip and azimuth of the hole*	
	o *down hole length and interception depth*	
	o *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.	

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Data aggregation methods	*In reporting Exploration Results, weighting 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.*	Not applicable, the release does not relate to new drilling results.
	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.	
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	Not applicable, the release does not relate to new drilling 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 (eg 'down hole length, true width not known').	
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	See text and figures in body of release.
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 announcement does not relate to drilling or assay data.
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 contaminating substances.*	All exploration data which may be meaningful and material to the interpretation of EM data has been presented on the Figures.
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).*	See text and figures in body of release.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	See figures in body of release.

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