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BULK FLOTATION ACHIEVES 94% GRAPHITE CONCENTRATE WITH EXCELLENT RECOVERY

- Bulk scale metallurgical tests have achieved high purity fine flake graphite suitable for purified spherical graphite (PSG) production
- 94% graphite concentrate achieved with excellent recoveries of ~93%
- Results were achieved through a conventional graphite flotation process (non-chemical, non-thermal) with potential for improvement with further optimisation test work
- Lacroma's metallurgical properties are conducive to a potential low-cost operation
- Planning progressing for purification and spheroidization test work

iTech Minerals Ltd (ASX: ITM, iTech or Company) and metallurgical consultants, METS Engineering, have achieved another significant milestone at the Lacroma Graphite Project with the production of a bulk concentrate of 3.4kg of 94% graphite concentrate and exceptional recoveries of ~93% using an industry standard flotation circuit.



Figure 1. Bulk scale flotation cell (left) with Lacroma graphite flotation concentrate (right)

"The bulk flotation test work was undertaken to determine if the small-scale bench scale processes used to create a 94% graphite concentrate could be scaled up towards industrial scales and maintain the excellent recovery rates. The bulk-scale test work has now shown that the excellent metallurgical properties at Lacroma are consistent at larger scales of operation."

Managing Director Mike Schwarz

Metallurgical results

iTech's metallurgical consultants, METS Engineering, have achieved an outstanding result of producing a 94% graphite concentrate from Lacroma graphite feedstock with excellent recoveries of 93% to produce 3.4kg of graphite concentrate. This result was achieved in bulk floatation scale tests using conventional graphite flotation processes, without the need for additional chemical or thermal purification techniques. It has been achieved using the conditions determined in the first round of bench scale optimisation test work with potential for improvement in future optimisation tests. The use of an industry standard, conventional flowsheet, with such high recoveries, is conducive for a potential low-cost graphite processing operation.

Lacroma – Targeting a low-cost graphite processing operation

This result, along with the geological characteristics of the Lacroma graphite mineralisation such as:

- Mineralisation occurs from **surface** with a shallow easterly dip, implying a low strip ratio and early delivery of product to market.
- Graphite mineralisation is **highly weathered** in a **clay dominated** host with potential for free dig in large sections of the deposit adding to the potential for low mining costs.
- The **groundwater table is over 60-80m deep** which alleviates problems with groundwater management, acid mine drainage and sulphide affecting flotation properties.

These characteristics are favourable for iTech's plan of establishing a low-cost, green graphite mining operation at Lacroma using the abundant renewable energy available in South Australia, and particularly the Eyre Peninsula, where over 2,200MW of wind and solar energy is installed and over 10,400 MW is planned along with the Hydrogen Utility (H2U) Eyre Peninsula Gateway Project which aims to include up to 1.5 GW of electrolysis capacity ([The Hydrogen Utility \(H2U\) Eyre Peninsula Gateway, DEM website \(Large-scale generation and storage\)](#)).



Figure 2. Scanning electron microscope image of the Lacroma graphite concentrate showing fine (-75 micron) particle size suitable for PSG production

Metallurgical sample information

The bulk scale metallurgical test work was undertaken on drill hole LARC23-001 over a composited interval of 69m @ 7.6% TGC and is inclusive of the highly weathered graphitic clay zone from 38m to moderately weathered graphitic schist at 107m. This result demonstrates that the Lacroma graphite mineralisation is readily recoverable to a 94% TGC concentrate, with very high recoveries (93-95%), to significant depths within the system.

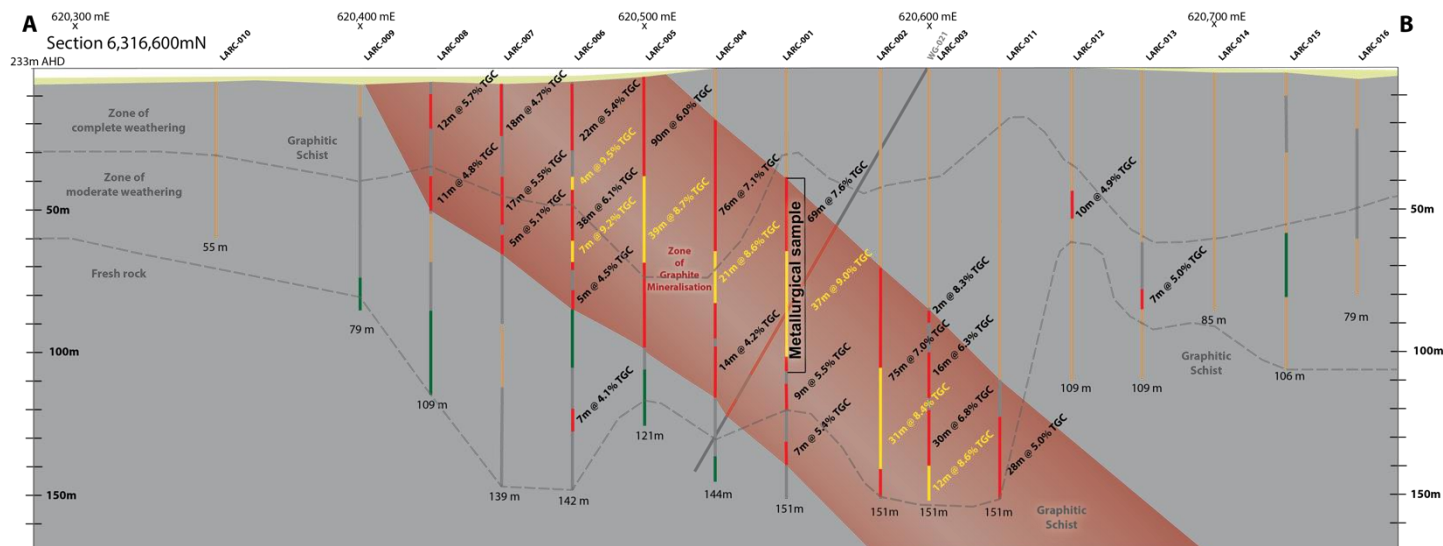


Figure 3. Section 6,316,600mN of Lacroma Central resource drilling area, looking north, showing drill holes, graphite results and the location of the metallurgical sample (see ASX announcement dated 18 March 2024 "Infill Drilling Confirms Continuous Graphite Mineralisation").

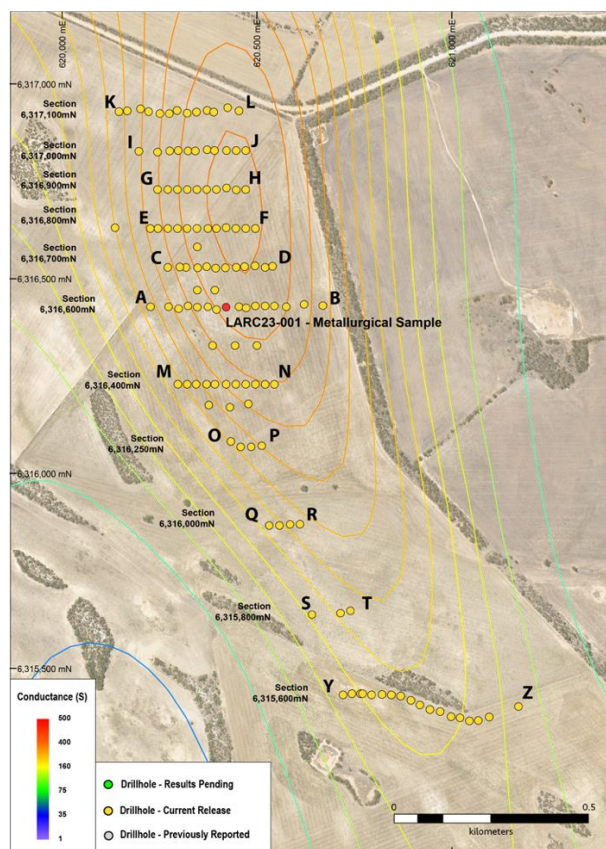


Figure 4. Drill hole collar plan of the Lacroma Central resource drilling area showing the location of the metallurgical sample.

Lacroma Graphite Deposit

The Lacroma Graphite Deposit is located approximately 20km south-west of Kimba on the central Eyre Peninsula and <20km from iTech's proposed graphite processing plant for the Campoona Graphite Project. The graphite at this location occurs within the Paleoproterozoic Hutchison Group Metasediments and is likely to have formed from organic rich stratigraphic horizons metamorphosed during regional upper greenschist to lower amphibolite facies metamorphism during the Kimban Orogeny. The Lacroma Central graphite rich horizon forms a north-south trending structure with a shallow easterly dip.

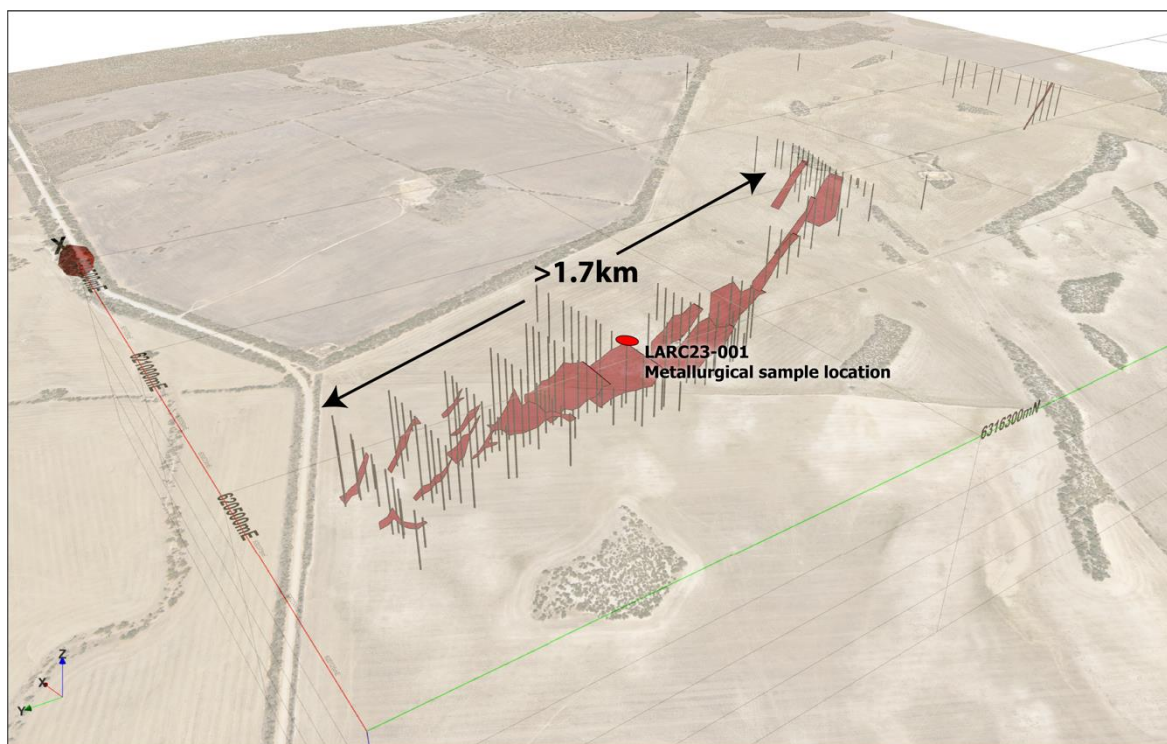


Figure 5. 3D view of Lacroma Central resource drilling area, looking south-east, showing drill holes and zones of graphite mineralisation in section (maroon colour). Note: Graphite mineralisation has been demonstrated to be continuous over 1.7km.

Next Steps

The 3.4kg of bulk flotation concentrate will now be used to undertake the next stages of spheroidization and purification test work with the aim of producing a purified spherical graphite product that meets all industry standards for battery anode material in lithium-ion batteries.

If successful, iTech will be able add substantial new graphite mineralisation to its growing inventory of resources that can produce high quality purified spherical graphite.

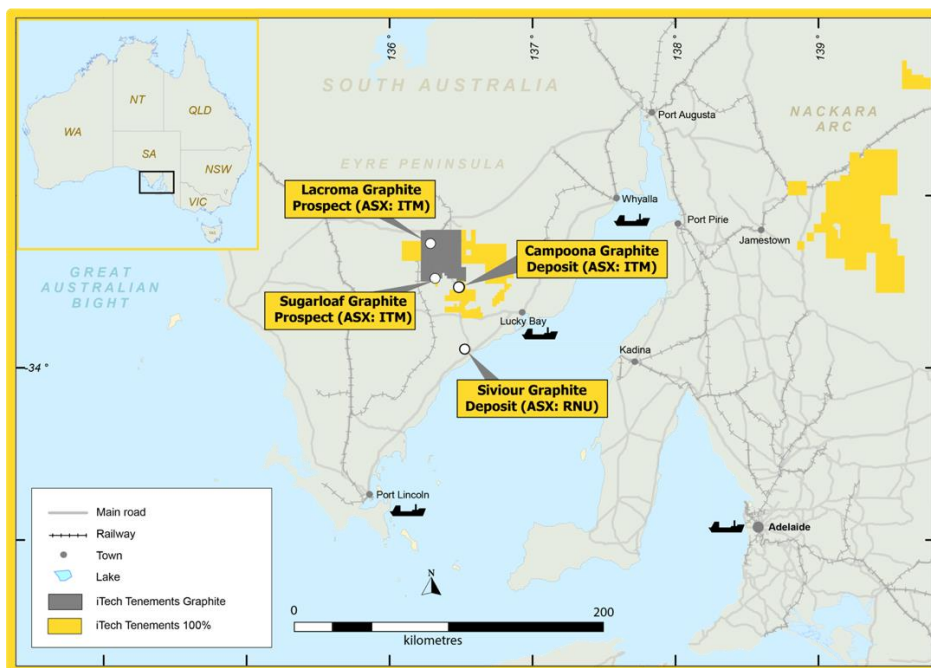


Figure 6. Location of iTech's Graphite Deposits and Prospects – Eyre Peninsula, South Australia

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ABOUT iTECH MINERALS LTD

iTech Minerals Ltd (**ASX:ITM**, **iTech** or **Company**) is an ASX listed mineral exploration company exploring for and developing battery materials and critical minerals within its 100% owned Australian projects. The Company is exploring for graphite, kaolinite-halloysite, clay hosted rare earth element (REE) mineralisation and developing the Campoona Graphite Deposit in South Australia. The Company also has extensive exploration tenure prospective for Cu-Au porphyry mineralisation, IOCG mineralisation and gold mineralisation in South Australia and the Northern Territory and tin, tungsten, and polymetallic Cobar style mineralisation in New South Wales.

GLOSSARY

AEM = Airborne Electromagnetic

EM = Electromagnetic

TGC = Total Graphitic Carbon

PSG = Purified Spherical Graphite

COMPETENT PERSON STATEMENT

The information which relates to exploration results is based on and fairly represents information and supporting documentation compiled by Michael Schwarz. Mr Schwarz has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code). Mr Schwarz is a full-time employee of iTech Minerals Ltd and is a member of the Australian Institute of Geoscientists and the Australian Institute of Mining and Metallurgy. Mr Schwarz consents to the inclusion of the information in this report in the form and context in which it appears. The Company confirms that it is not aware of any new information or data that materially affects the estimates of Mineral Resources in this release and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not changed.

The information contained in this report, relating to metallurgical results, is based on, and fairly and accurately represent the information and supporting documentation prepared by Damian Connelly. Mr Connelly is a full-time employee of METS Engineering who are a Contractor to iTech, and a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Connelly 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, Exploration Targets, Mineral Resources and Ore Reserves. Mr Connelly consents to the inclusion in the report of the matters based on the results in the form and context in which they appear.

This announcement contains results that have previously released as "Infill drilling confirms continuous graphite mineralisation" on 18 March 2023 and "Lacroma Graphite Project achieves 94% graphite concentrate" on 20 May 2024. The Company confirms that it is not aware of any new information or data that materially affects the information included in the cross-referenced announcements.

JORC 2012 EDITION - TABLE 1
Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code Explanation	Commentary
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 downhole 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 (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.	- For all RC drilling - all samples were collected through a cyclone and splitter into plastic bags and pre-numbered calico bags at 1 m intervals, which have been sent for chemical analyses. - Composite intervals were created for intervals where no visual graphite was observed. Composite samples are typically comprised of 4 single metre intervals and weigh roughly 1-2 kg for initial test work. - All samples were sent to the Intertek laboratory in Adelaide for preparation and forwarded to Perth for analyses. - All samples are crushed using LM2 mill to -4 mm and pulverised to nominal 85% passing -75 µm. - Analyses were performed on a sub sample of this pulverised sample. - Metallurgical sample – iTech Minerals supplied METS Engineering with a 2.2kg sample for each individual metre samples from 38 to 106m in drill hole LARC23-001 for a total sample size of ~150kg. Samples were taken from the iTech Minerals bag farm located on site at Lacroma. METS Engineering managed the metallurgical test work at ALS laboratories in Perth where the individual metre samples were subsampled at a rate of 0.35kg per metre and composited and homogenised to produce a 24kg representative composite.
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.).	- Lehmann Drilling used a Reverse Circulation drill rig mounted on an 8-wheel truck with support equipment. - Reverse Circulation (RC) drilling uses an 140mm face sampling hammer bit and is a form of drilling where the sample is collected at the face and returned inside the inner tube. The drill cuttings are removed by the injection of compressed air into the hole via the annular area between the inner tube and the drill rod. - The Competent Person has inspected the drilling program and considers that drilling techniques was commensurate with industry standards current at the time of drilling and is appropriate for the indication of the presence of mineralisation.

Criteria	JORC Code Explanation	Commentary
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.	• No assessment of recoveries was documented • All efforts were made to ensure the sample was representative • No relationship is believed to exist, but no work has been done to confirm this.
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.	• All samples were geologically logged to include details such as colour, grain size, structure, lithology, alteration, mineralogy and graphite content. • Collars were located using a handheld GPS, a licenced surveyor will locate all holes with DGPS. • The holes were logged in both a qualitative and quantitative fashion relative to clay content. • All drill holes are logged.
Sub-Sampling Techniques and Sample Preparation	• If core, whether cut or sawn and whether quarter, half or all cores 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 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.	• All RC samples are split using a 3 tier riffle splitter mounted under the cyclone, RC samples are drilled dry, less than 10% of the sample were returned to the surface wet. • A full profile of the bag contents was subsampled to ensure representivity via the splitter. • Composite intervals were created for intervals where graphite was not visually observed. As such the composite intervals created are typically about 4m in length. Composite samples weigh roughly 1-2 kg for initial test work. • Sample size is deemed appropriate to be representative of the grain size. • All samples were sent to Intertek laboratory in Adelaide for preparation and forwarded to Perth for graphite and multi-element analyses. • QAQC (duplicates, blanks and standards) are submitted at a frequency of 10%. • All samples are crushed using LM2 mill to -4 mm and pulverised to nominal 85% passing -75 µm. • Metallurgical sample – iTech Minerals supplied METS Engineering with a 2.2kg

Criteria	JORC Code Explanation	Commentary
		sample for each individual metre samples from 38 to 106m in drill hole LARC23-001 for a total sample size of ~150kg. METS Engineering managed the metallurgical test work at ALS laboratories in Perth where the individual metre samples were subsampled at a rate of 0.35kg per metre and composited and homogenised to produce a 24kg representative composite.
Quality of Assay Data and Laboratory Tests	- The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. - For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. - Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	- For RC and diamond drilling - Certified standards were used in the assessment of the analyses. - Analyses by Intertek Perth using their 4A/MS48 technique for multi-elements and C72/CSA for graphite. - NOTE: Four acid digestions are able to dissolve most minerals; however, although the term "near-total" is used, depending on the sample matrix, not all elements are quantitatively extracted. - Detection Limit for TGC is 0.01% - The laboratory uses their own certified standards during analyses. - QAQC (duplicates, blanks and standards) are submitted at a frequency of 10%. - Metallurgical sample – a 93.9% Total Carbon (TC) and 93.3% TTotal Graphitic Carbon (TGC) concentrate at 93.0% and 96.2% recoveries respectively. This was achieved using 7 stages of cleaner flotation with 6 stages of regrind with a short 5 minute regrind time. This was the first optimisation test undertaken with room for significant improvement to decrease the number of processing steps. All test work was undertaken at ALS laboratories in Western Australia and managed by METS Engineering. - Analysis of the metallurgical concentrate was undertaken by ALS Laboratories in Western Australia using the C-IR07 technique with a detection limit of 0.01 TGC. Total carbon is measured by induction furnace/IR. 0.1g sample.
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.	- No verification of sampling, no use of twinned holes - Data is exploratory in nature and is compiled into excel spreadsheets. - No adjustments have been made to any assay data. - Metallurgical sample – No check assays have been undertaken.

Criteria	JORC Code Explanation	Commentary
Location of Data Points	- Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. - Specification of the grid system used. - Quality and adequacy of topographic control.	- The location of drill hole collar was undertaken using a hand-held GPS which has an accuracy of +/- 5m using UTM MGA94 Zone 53. - The quality and adequacy are appropriate for this level of exploration. - No downhole surveys have been undertaken. - Drill collars are being surveyed, in batches, using DGPS after being completed.
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.	- East-west traverses are being drilled with holes at 25m centres and spaced at 1km intervals. Traverses are then infilled to 400m and then 200m intervals with adjustments made for access for the drill rig, geological parameters, vegetation and land surface. - The primary purpose of the drilling is to define the extent of graphite mineralisation defined by a 6 km NNW-SSE airborne electromagnetic anomaly. - Data spacing and distribution are sufficient to establish a degree of geological and grade continuity for future drill planning, but not for resource reporting. As drilling progresses and traverse spacings are decreased the spacing and distribution will become suitable for resource reporting. - Compositing of intervals without visual graphite mineralisation has occurred for the purpose of assaying.
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.	- Drill holes appear to have intersected the mineralised layer at 30-45 degrees. - Additional drilling on a regular pattern is required to better understand the sub-surface geology and structure. - It is unknown if any bias has been introduced a sampling bias.
Sample Security	The measures taken to ensure sample security.	- All samples have been in the custody of iTech employees or their contractors and stored on private property with no access from the public. - All residual sample material and pulps are stored securely
Audits or Reviews	The results of any audits or reviews of sampling techniques	None undertaken.

Criteria	JORC Code Explanation	Commentary
	and data.	

Section 2 Reporting of Exploration Results

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

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. - 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.	- Tenement status confirmed on SARIG. - The tenements are in good standing with no known impediments. - The drill target is on EL6634 owned by ChemX Materials (ASX: CMX) and is subject to an agreement in which iTech owns 100% of the graphite rights through its wholly owned subsidiary Pirie Resources Pty Ltd.
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	- Relevant previous exploration has been undertaken by Monax Mining Ltd, Marmota Energy Ltd, and Archer Materials Ltd - An airborne Electromagnetic Survey was commissioned by Monax Mining Ltd/Marmota Energy Ltd in 2012 and was flown by Fugro using their airborne TEMPEST System.
Geology	Deposit type, geological setting and style of mineralisation.	- The tenements are within the Gawler Craton, South Australia. - iTech is exploring for graphite, porphyry Cu-Au, epithermal Au, kaolin and halloysite and REE deposits. - The graphite at this location occurs within the Paleoproterozoic Hutchison Group Metasediments and is likely to have formed from organic rich stratigraphic horizons metamorphosed during regional upper greenschist to lower amphibolite facies metamorphism during the Kimban Orogeny. The graphite rich horizon forms a largely flat lying, shallow anticlinal structure as interpreted from drilling and detailed airborne and ground-based electromagnetics
Drillhole 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	See Appendix 1 for drill hole information.

Criteria	JORC Code Explanation	Commentary
	– Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar – Dip and azimuth of the hole – Downhole length and interception depth – Hole length • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
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. • 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 high-grade cuts were necessary. • Aggregating was made for intervals that reported over 3% TGC (Total Graphitic Carbon) using a downhole interval weighted arithmetic average. • Internal dilution was less than 3m @ 1% TGC • High-grade intervals were calculated has a cut-off grade of 7% TGC with internal dilution of nor more than 3m @ 5% TGC. • No equivalents were used.
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 downhole lengths are reported, there should be a clear statement to this effect (e.g., 'downhole length, true width not known').	• All drill intervals are down hole length, the true width is estimated to be 85% of down hole length. • All intercepts reported are down hole lengths.
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 main body of report.
Balanced Reporting	• Where comprehensive reporting of	• All other relevant data has been

Criteria	JORC Code Explanation	Commentary
	all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.	reported. - The reporting is considered to be balanced. - Where data has been excluded, it is not considered material.
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.	- The Project area has only been subjected to minimal exploration with only 4 holes drilled by Monax Mining Ltd in 2012 - All relevant exploration data has been included in this report. - Metallurgical test work was undertaken by Archer Materials (ASX: AXE) in 2015 on a 50 kg sample from drill hole WG021. This consisted of grind and flotation test work to produce a concentrate. The concentrate had a grade of >90% TGC with recoveries exceeding 83%. - The current metallurgical sample is from the approximately the same location as the test work undertaken by Monax Mining.
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, provided this information is not commercially sensitive.	- Further exploration, sampling, geochemistry, geophysics and drilling required to establish a JORC complaint resource. - Further optimisation of the metallurgical flow sheet is required to ensure the most cost-effective path is obtained with the best grade and recoveries. - Purification and spheroidization test work is required to determine if a commercial quality battery anode material can be produced from the concentrate.

Appendix 1. Metallurgical sample drill hole collars – Lacroma Central

Hole ID	Easting (m)	Northing (m)	RL (m)	Total Depth (m)	Dip (degrees)	Azimuth (degrees)
LARC23-001	620550	6316598	233	151	-90	0

Metallurgical sample drill intersections (LARC23-001) – Lacroma Central

Hole ID	From (m)	To (m)	Interval (m)	TGC (%)
LARC23_001	38	107	69	7.6
inc	65	102	37	9.0
and	111	120	9	5.5
and	132	139	7	5.4