**ANNOUNCEMENT**
**ASX:CDT**

**12 April 2023**

# Castle's Kambale Project Exceeds 1.4Mt Contained Graphite

## 15.6Mt @ 9.0%TGC Inferred and Indicated Mineral Resource

## Extends From Surface To Over 120m

## Considerable Scope To Upgrade In Next Drilling Program

## Underpins Continuing Fast-Track Approach

## Highlights

- **Maiden JORC Code (2012) Mineral Resource Estimate ("MRE"):**

| Classification | Tonnes (kt) | Contained TGC (kt) | TGC (%) |
|---|---|---|---|
| Indicated | 5,979 | 542 | 9.1% |
| Inferred | 9,632 | 863 | 9.0% |
| **Total** | **15,611** | **1,405** | **9.0%** |

*5% TGC Cut-Off. TGC = Total Graphitic Carbon*

- **Next infill drill program will be designed to capture material quantity of presently unclassified mineralisation.**
- **Mineralisation below ~100m from surface (200m RL) also excluded from MRE and several modelled graphitic zones not yet closed-off.**
- **Reconnaissance mapping campaign underway and EM geophysical survey being planned to identify additional graphite occurrences within 149km$^2$ licence.**
- **Metallurgical test work progressing well and has advanced to bulk concentrate production phase.**
- **Existing "green" hydro-generated power grid line close to site, plentiful water, excellent roads and commercial airport nearby.**
- **Castle management team has 14-years continuous and successful engagement in Ghana and its Upper West region.**
- **Kambale well positioned to participate in forecast imminent demand increase and expected world-wide supply chain disruptions of Battery Anode Material ("BAM").**
- **Company well-funded to continue fast-track evaluation.**

Castle Managing Director, Stephen Stone commented ***"We are very pleased to deliver for the fast-emerging Kambale Graphite Project a robust and relatively high-grade maiden JORC Code (2012) Mineral Resource Estimate of 15.6 million tonnes grading 9.0% TGC containing 1.41 million tonnes of graphite.***

***Over one third is in the Indicated category and the next round of drilling will be designed to increase this and to capture a material amount of mineralisation that could not be classified for inclusion this time around. We have also launched a campaign to locate possible new graphite occurrences within our broader 149km$^2$ licence area.***

***Phase 2 test work is progressing well and has now advanced to the production of a bulk concentrate that will then be assessed for its suitability to produce high-value Battery Anode Material.***

***The Project is blessed with excellent infrastructure, not least being an existing largely "green" hydro-electric power grid line almost to site which means a considerable capital cost saving down the track.***

***Ghana has a well-established world-class mining industry and a long track record of supporting new developments. Importantly, Castle management and its Ghana technical team have successfully operated in-country and locally for some 14 years.***

***The maiden MRE establishes a solid platform to take Kambale forward in an environment where there is a major disconnect between the relatively fast construction times of the numerous giga-factories now being constructed or planned and the much longer lead times to find, evaluate, finance and commission the many new graphite mines required to supply these facilities."***

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## Next Steps

1. Complete Phase 2 test work to produce a commercial grade bulk concentrate;
2. Provide the bulk concentrate sample to specialist consultants for evaluation of its capability to produce high-value Battery Anode Material ("BAM");
3. Establish a preliminary process flow sheet design;
4. Undertake infill and extensional drilling to increase the maiden MRE;
5. Commence a development scoping study;
6. Elevate ESG processes and independent benchmarking;
7. Extract a bulk representative 'variability' sample for confirmatory test work to PFS status; and
8. Continue to evaluate the broader licence area for additional graphitic schist occurrences.

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Castle Minerals Limited (ASX: CDT) ("Castle" or the "Company") advises that a maiden JORC Code (2012) Mineral Resource Estimate ("MRE") of 15.6Mt at 9.0% TGC containing 1.41Mt of graphite has been provided by independent consultants for its flagship Kambale Graphite Project, Ghana ("Project") which is owned 100%[1] by Ghanaian subsidiary, Kambale Graphite limited (Table 1)(Figs 1 to 5)(Appendix 1 - Table 1).

[1] *Subject to Ghanaian laws. Please refer to Ghana Licencing under Statements below*

**Table 1: Summary JORC Code (2012) Mineral Resource Estimate (5% TGC cut-Off):**

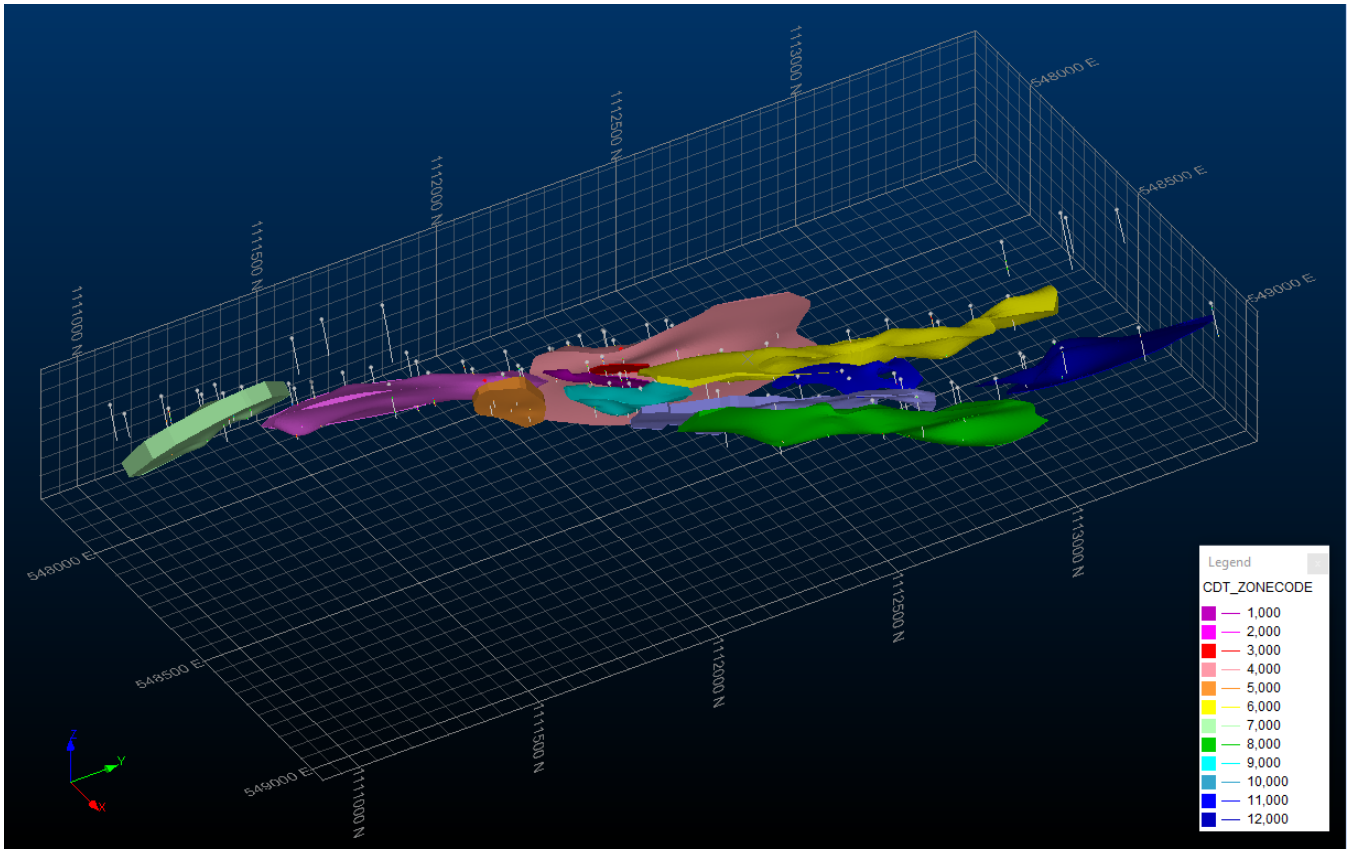
| Classification | Tonnes (kt) | Contained TGC (kt) | TGC (%) |
|---|---|---|---|
| Indicated | 5,979 | 542 | 9.1% |
| Inferred | 9,632 | 863 | 9.0% |
| **Total** | **15,611** | **1,405** | **9.0%** |

The MRE comprises 6.0Mt at 9.1% TGC in the Indicated (39%) and 9.6Mt at 9.0% TGC in the Inferred (61%) JORC Code (2012) classifications respectively.

It is hosted by twelve, sub-parallel, steep to moderately dipping schist zones extending over 2.3km north-south within a corridor up to 0.5km wide. These zones were delineated during several phases of trenching and combined 386-hole, 16,018m RAB, Aircore, RC and diamond core drilling campaigns.

Mineralisation commences at or close to surface and extends to at least 120m below surface. The MRE excluded any mineralisation below the 200mRL, or approximately 100m below the topographic surface.

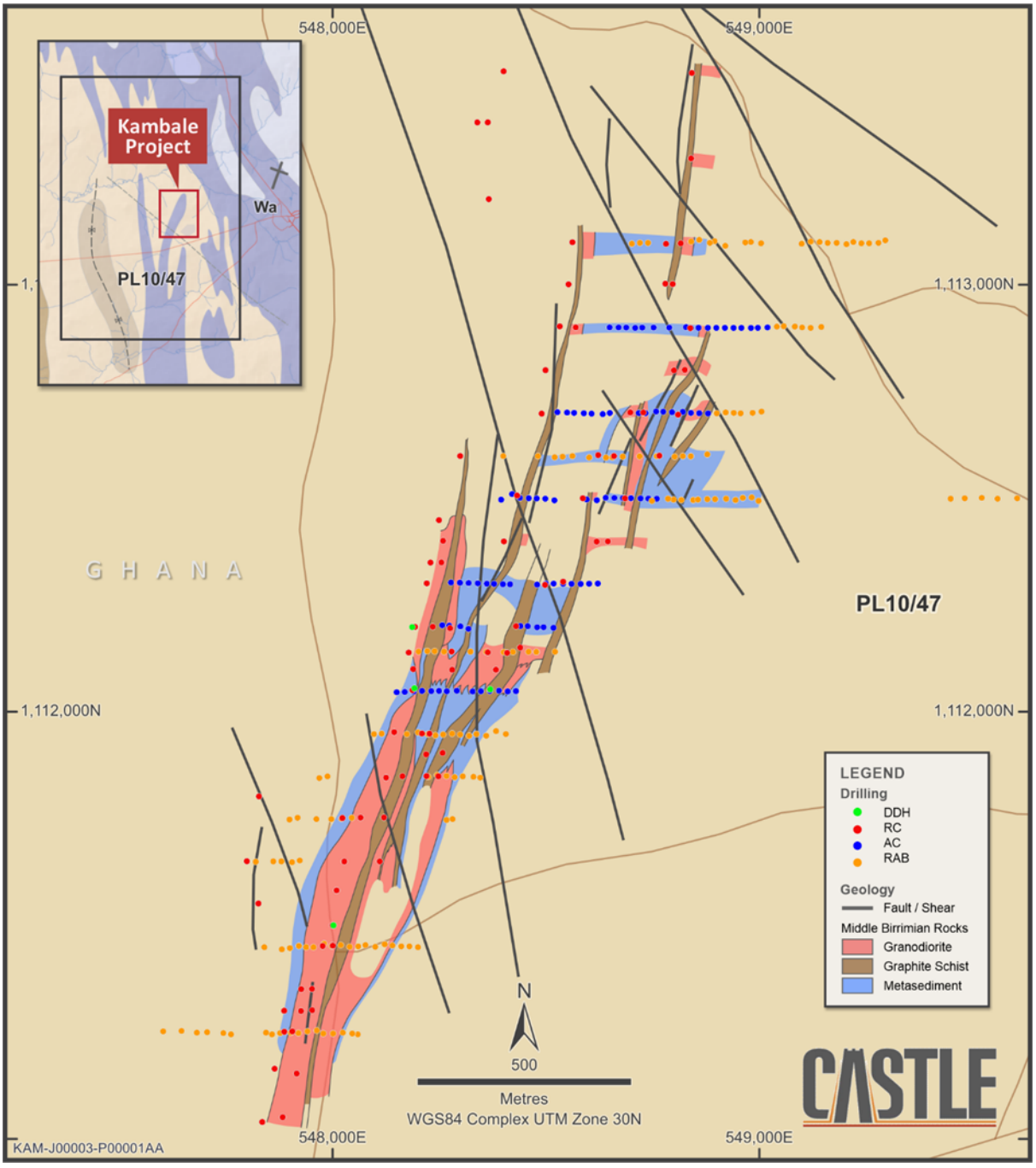
**Fig 1: Oblique view looking northwest showing the twelve Kambale graphitic schist domains used to compile the MRE.**




There is little variation in grade between mineralisation contained in the oxide and transitional weathered zones and unweathered, fresh material. These account for 4%, 21% and 75% of the contained graphite respectively.

The grade - tonnage curve for the combined Inferred and Indicated mineralisation is shown in Fig 5 below.

**Fig 2: Plan of simplified geology including the graphitic schist lens and drill hole locations. The inset shows the location of the area of MRE within the broader Kambale licence PL10/47 and the Project's proximity to the Upper West regional capital of Wa, local roads and commercial airport.**




A material proportion of mineralisation intersected by drilling did not qualify for inclusion in the MRE as the drilling density in these areas is presently insufficient. Infill drilling these zones presents an excellent opportunity, subject to results, to increase the overall MRE and the quantity of Indicated Resource material.

The MRE was undertaken by independent consultants, Palaris Australia Pty Ltd, the Australian office of the international Palaris mining consultancy.

**Fig 3: 'Plan View of Classification' extracted from the Palaris MRE Pg64 which noted that *" Large areas exist which have been unclassified which should only require a few drillholes to upgrade due to the linear drill patterns in some domains. Many of those require drilling below 200m RL to confirm depth extent."***

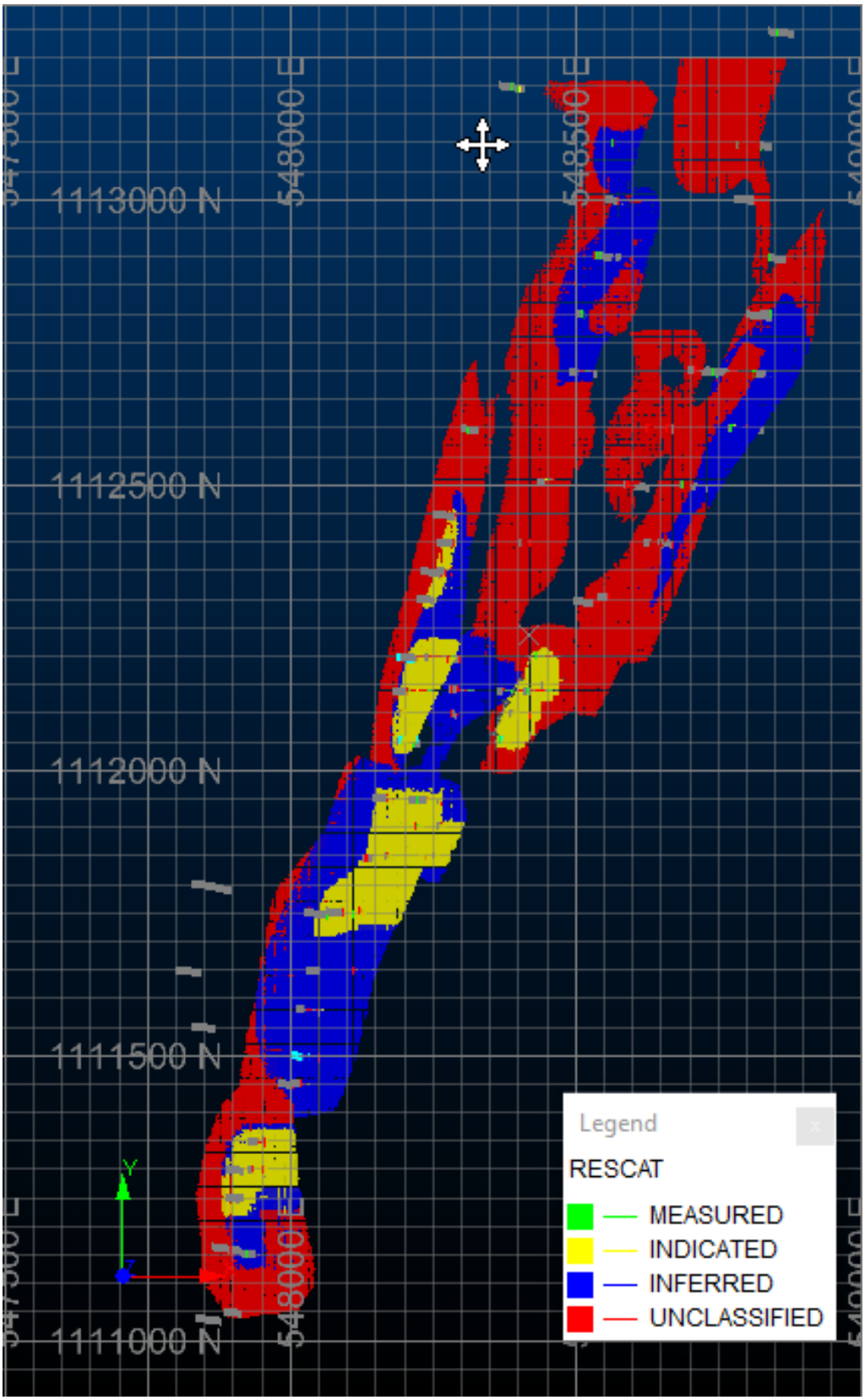


**Fig 4a: Cross Section N1,112,400 from the MRE Report showing multiple lens of graphitic schist and estimated block grades *(Note 200mRL, or 100m below topographic surface, cut-off below which any mineralisation has not been included in the MRE).***

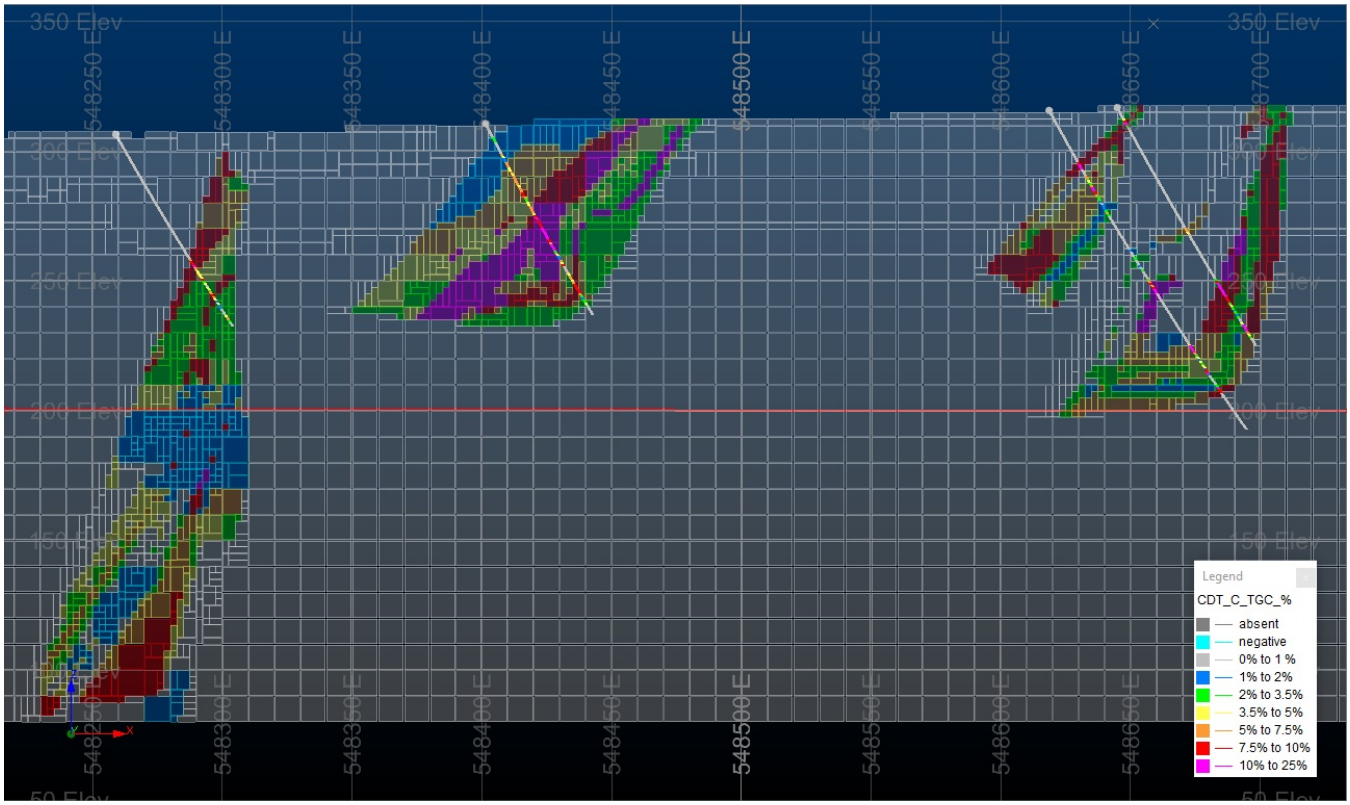
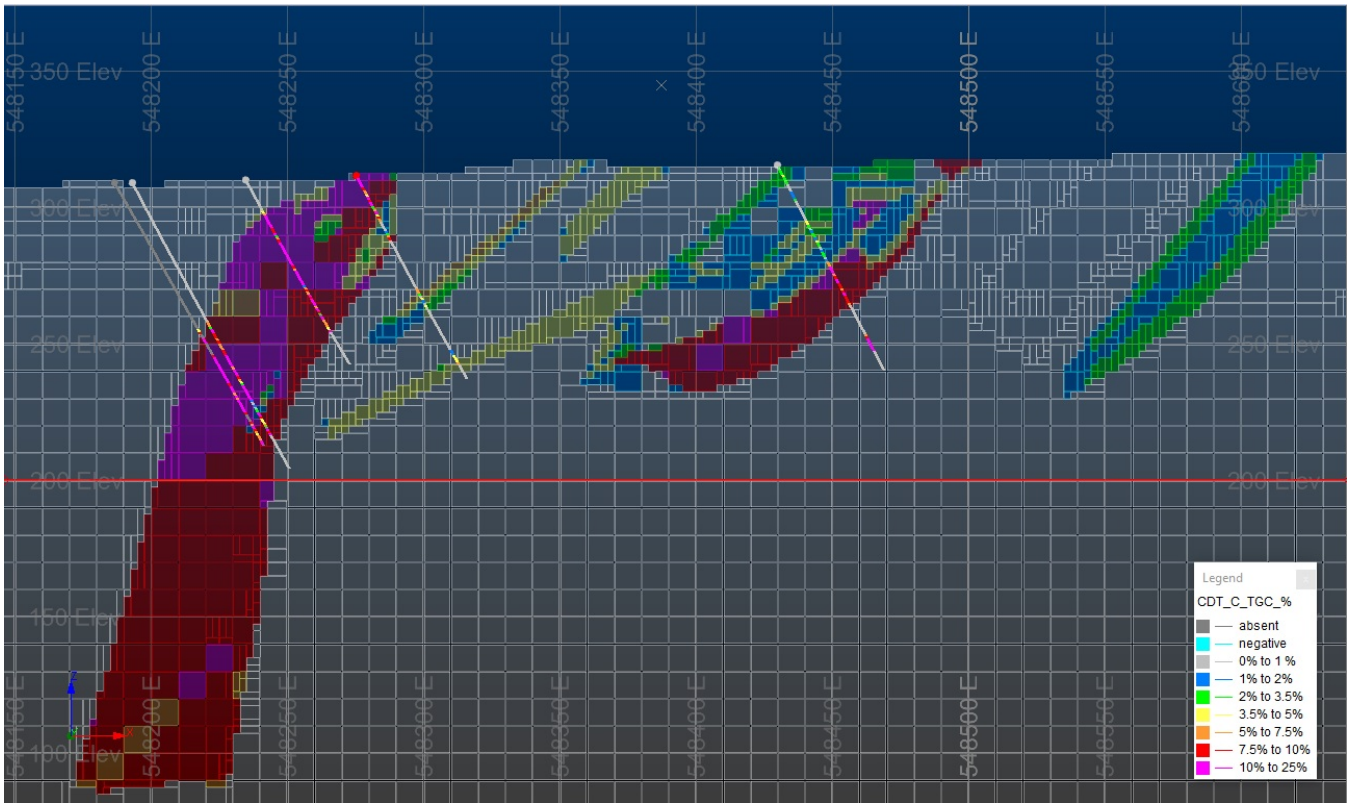



**Fig 4b: Cross Section N1,112,200 from the MRE Report showing multiple lens of graphitic schist and estimated block grades *(Note 200mRL, or 100m below topographic surface, cut-off below which any mineralisation has not been included in the MRE).***



### New targets generation

Kambale lies within a region where historical mapping and geophysical surveys have implied the possibility of additional graphite occurrences outside of the area of the MRE. Step-out reconnaissance mapping and a planned electromagnetic survey ("EM") will aim to delineate new targets for drill testing. A previous ground EM survey successfully generated several below-surface conducting plate targets that RC drilling subsequently demonstrated have a good correlation with mineralisation.

### Test work

Phase-2 test work on diamond core samples from representative areas of the deposit is progressing well in Perth. It has now moved from the bench-scale batch testing phase to the production of a bulk fine-flake graphite concentrate. This concentrate will then be evaluated for its application in the production of a high-specification, high-value Battery Anode Material ("BAM") and other specialist graphite products.

BAM is the basis for the manufacture of anodes used in EV and stationary power storage battery units. To produce BAM, mine site bulk concentrates are generally micronised, spheronised, purified and then a special coating applied.

Graphite comprises some 30% of the material in an EV or storage battery and at present cannot be substituted other than with synthetically produced graphite. This is more costly and has an orders of magnitude $CO^2$ greater emissions signature.

At present BAM is almost exclusively produced and sourced from China. Forecasts of surging demand to supply numerous new giga-factories being constructed or planned worldwide are driving strategies by non-China end-users to secure reliable, quality, geostrategic sources of graphite concentrate, pre-cursor intermediary products or full specification BAM.

### Scoping study

Subject to the success of test work and other criteria, it is intended that a Scoping Study will commence in Q2 2023 that will provide a high-level assessment of the merits of a mining and processing operation at Kambale along with an outline program and budget to achieve that, if warranted.

## ADDITIONAL INFORMATION

### Logistics and infrastructure

The Project is located 6km west of the Upper West region capital of Wa which is 400km north, via good sealed roads, of Kumasi. From Kumasi it is approximately 240km south east by rail or road to the international port of Tema, 30km west of the capital Accra, which provides direct access to global export markets. An alternative international port at Sekondi - Takoradi is located approximately 230km west of Accra. A major highway and freight route from Ghana to Burkina Faso passes through Wa.

The Wa region has an excellent infrastructure comprising a commercial airport with daily flights, grid power fed partly by the 400MW Bui hydroelectric dam on the Black Volta River, plenty of water including from the Black Volta River where it passes close to Wa and many other important services.

### Tenure

The Kambale Graphite Project is located on Prospecting Licence 10/47 held by Castle's wholly-owned Ghanaian subsidiary, Kambale Graphite Limited[1].

### Ghana

Ghana has a well-established mining industry including several Tier-1 mining operations owned and run my multinational resource companies. It is now Africa's largest and the World's sixth largest gold producer and accordingly has a well-trained and very skilled workforce supported by an excellent mining services and supply sector.

Ghana is a safe and politically stable jurisdiction based on the Westminster Government system and has a workable Mining Act and fiscal regime.

## ESG and Social licence

Castle management has spent over 14 years successfully operating in Ghana and in particular its Upper West region. The Company has established an excellent reputation for its pro-active commitment to community engagement, local employment and training, the promotion of youth and women's development initiatives, maintaining the highest environmental operating and rehabilitation standards and overall operating ethically and sustainably whilst carefully managing community expectations.

Prior to embarking on any specific exploration program the Company's Ghanaian team conducts comprehensive discussions with all stakeholders to fully inform them as to the Company's activities and to identify sites of cultural, religious, social and economic sensitivity and to appropriately mitigate any matters of concern. Compensation for access and any disruptions caused is provided at a minimum as per Ghana Mining Act guidelines. All site disturbances are rehabilitated immediately after use and in close consultation with landowners.

Castle is evaluating options for the establishment and independent monitoring and auditing of its ESG activities.

## Graphite market

The graphite market is diverse across industrial, metallurgical, chemical and specialised areas with each sector requiring graphite concentrates with specific qualities. Deposit type, size and geometry, flake size, flake shape, grade, impurities, capital and operating costs, ability to be refined, proximity to specific markets, supply logistics, jurisdiction, fiscal regime and many other factors all combine to determine the commercial viability of a particular deposit.

The current medium to long term outlook for the broader graphite concentrates market is one of escalating demand and a looming supply deficit driven in particular by its use in the fast-growing EV battery and stationary power storage sectors. At present, there is no viable substitute for graphite in anodes.

There is an increasing proportion of natural graphite, over high $CO_2$ signature synthetic graphite, being used in BAM manufacture which also requires a fine flake graphite as the primary raw material. Hence, prices for fine flake graphite concentrates are understood to have firmed in the past year although there is no transparent pricing system or spot market.

The reader is directed to numerous recent publications, conference proceedings, market research papers and corporate websites of companies engaged in graphite exploration, project development or production for informed commentary and analysis of the graphite market.

## Outlook

The MRE has confirmed Kambale as a robust, relatively high-grade deposit with good grade continuity and considerable scope for the MRE to be increased. Initial metallurgical test work has been encouraging and Phase 2 test work is progressing well. Jurisdiction and infrastructure are excellent and management has 14-years continuity of successful operation in the immediate Project area.

This provides a very solid platform upon which to continue to fast-track the Project to determine its ability to participate in the forecast surging demand for fine-flake graphite and BAM manufacture.

Kambale is still at a relatively early stage of evaluation which, subject to continuing success, provides a good opportunity for value to be added as it is progressed along a well-defined development path.

## A summary of the Mineral Resource Estimate and Reporting Procedures is provided as per ASX Listing Rule 5.8.1 and the 2012 JORC Reporting Guidelines.

A summary of the material information used to estimate the Mineral Resource is detailed below. For more detail please refer to Table 1, Sections 1 to 3 below set out in the Appendix.

### *Geology and geological interpretation*

The Kambale Graphite Project is situated in the Birimian Supergroup and is within a shear zone cutting through metamorphosed volcanic, pyroclastic and sedimentary rocks of the Upper Suite of the Lower

Birimian Series and granitoids of the Cape Coast Complex which intrude the metasedimentary sequence. Metamorphic grade of the metasediments in the Project area is amphibolite facies.

Graphite schist is thought to have originated from high-grade metamorphism of carbonaceous shales of the Middle Suite that were metamorphosed due to the intrusion of the granitoid. Metamorphism formed $CO_2$ rich fluids that were mobilised along syntectonic shear zones where graphite formed.

A total of twelve volumes were created to accurately delineate zones of graphitic schist, taking into consideration lithology logging and total graphitic carbon (TGC) grades. Drillholes were manually coded using a discreet domain code, with inputs from site-based paper interpretations, core photography and a small set of structural measurements. Broad domain wireframes were constructed on the coded drillholes using an implicit vein modelling approach.

### *Drilling techniques and hole spacing*

The Mineral Resource Estimate (MRE) is based on data collected from reverse circulation (RC) drilling and diamond drill core (DD). RC drilling completed in 2012 included 3 holes, with an additional 82 RC holes and 4 diamond holes completed in 2022. Sampling methods employed were considered standard industry practice and supervised by qualified personnel. RC drilling produced 1m interval samples, while DD drilling was sampled to lithological contacts. RC drillholes were drilled on 50m sections north-south, while spacing along sections ranges from 50m to 200m east-west.

### *Sampling and sub-sampling technique*

Drill core was cut into quarters and sent for assaying. RC samples were split using a 3-tier sample splitter with a 2 to 3kg sub-sample collected, and the remainder kept as a bulk sample. Moisture contents of the samples were also logged.

Quality Control and Quality Assurance procedures were implemented including duplicate samples, blanks, and Certified Reference Material (CRM). Samples from the 2012 RC drilling were sent to SGS Laboratories in Johannesburg for analysis, while samples from the 2022 RC and DD drilling were sent to Intertek Laboratories in Ghana for preparation before being air freighted to Intertek Perth for analysis. Samples were prepared by drying, crushing, and pulverising to a nominal 85% passing <75 microns.

### *Sampling analysis method*

For the 2012 RC drilling, SGS Laboratories determined Total Graphitic Carbon (TGC) using method CSAO5V, which speciates contained carbon into elemental, organic, and carbonate forms. For the 2022 drill programs, Intertek Laboratories analysed TGC, Carbon (TC), and Sulphur (S) using induction furnace and Infrared spectrometry. TGC was calculated by driving off other forms of carbon and analysed using Infrared Spectrometry laboratory sample code C73/CSA. Holes 22CKRC53-82 did not have TC analysis as previous analysis showed a lack of carbonate and organic carbon in the fresh rock. No umpire laboratory checks were undertaken.

### *Modelling cut-off grades*

To refine the zones of mineralisation within the broad graphitic schist zones, a categorical indicator approach was used, where modelling cut-offs were defined, and a binary field was created based on the grades above or below the cut-offs. These cut-offs were selected by reviewing log-probability plots of 1m composites and noting inflections. A short-range estimate of these indicators was run using dynamic anisotropy of the broader domains. Categorical indicators were run for individual and combined cut-offs.

This resulted in a block model with a probability type field where blocks close to 1 were highly likely to contain higher-grade mineralisation. A probability threshold of 0.5 was selected as this best fits the perceived volumes modelled. Wireframes were produced for low and high-grade material based on this threshold.

### *Estimation methodology*

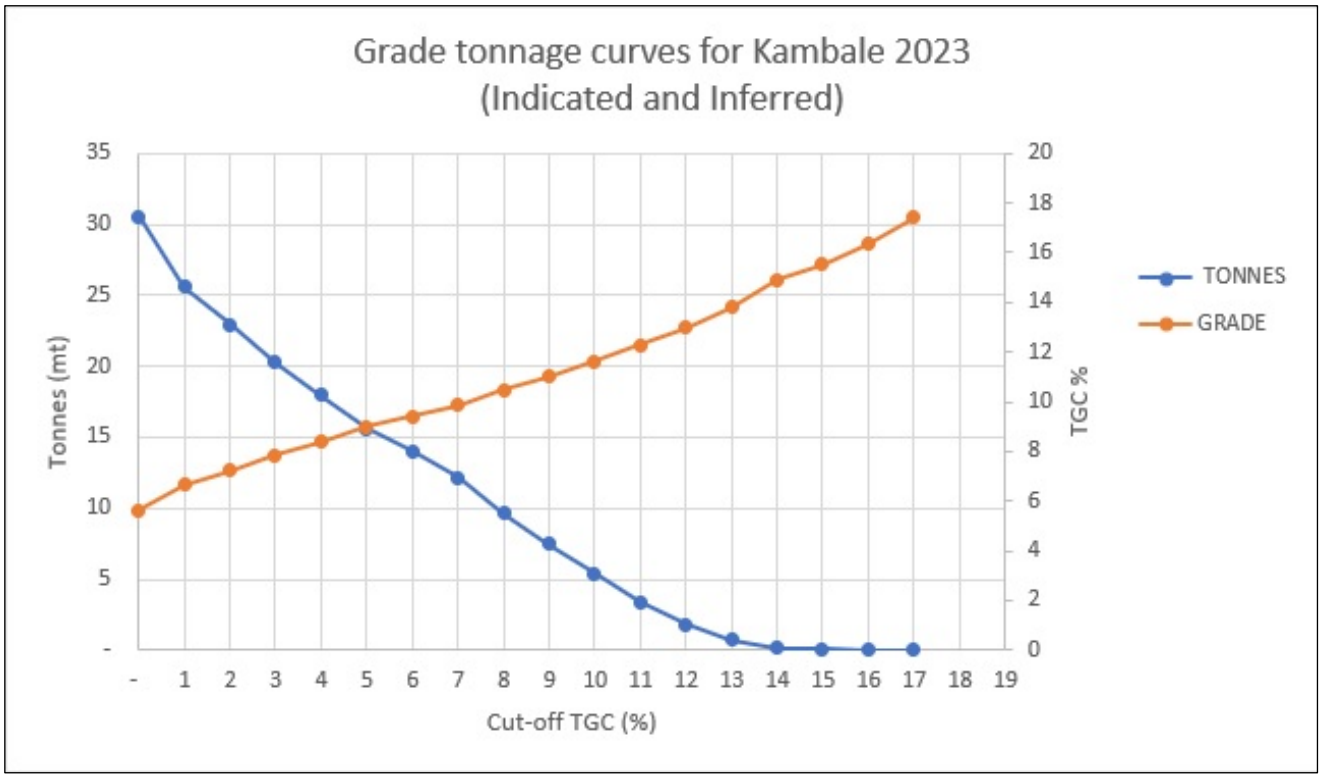
The 1m composites obtained from indicator modelling were retained for use in estimation using data only from RC and diamond drillholes. A block model was constructed with parent cells of 10mE x 10mN x 10mRL, but sub-celled to 2.5m to fit with the wireframes.

Variogram structures and ranges were assigned to each domain based on a standardised generic variogram derived from the two most populous domains, with dynamic anisotropy used to adjust the orientation locally. The search neighbourhood and number of samples per drillhole per estimate were specified, with ordinary kriging used as the preferred method for TGC and S, in addition to inverse distance squared ($ID^2$) as a check.

### *Classification criteria*

The MRE has been classified with a combination of Indicated and Inferred material, reported in accordance with the JORC Code (2012). Classification is based on various factors, including geological and grade continuity and confidence, drill-spacing and estimation quality. Material below 200m RL (approximately 100m below surface) and outside the graphitic shear zones is unclassified.

**Fig: 5: Grade - tonnage curves for combined Inferred and Indicated mineralisation.**




Indicated classification uses 50m x 50m drill spacing, with up to 50m x 100m spacing in high-confidence areas, while Inferred classification uses up to 100m x 100m spacing. The model was coded with the classification field based on individual strings created in plan and section. Some areas require only a few additional drillholes to upgrade them due to linear drill patterns in some domains.

### *Mining and metallurgical parameters*

No mining and metallurgical parameters have been assumed.

In 2022, a bulk sample of oxidized graphite ore was sent to Independent Metallurgical Operations Pty Ltd (IMO) in Perth for testing to assess the flake content and graphite grade of the final concentrate. Sample 1 and Sample 2 were subjected to flotation test work and concentrate characterization. Sample 2 achieved a saleable concentrate at 96.4% total carbon (TC), while Sample 1 achieved a TC concentrate grade of 93.4%. IMO concluded that the latter concentrate could still be sold but at a lower price based on market feedback.

Samples were taken from the 2022 diamond drilling and are, at the time of writing, being assessed by metallurgical consultants.

### *Resource reporting*

The review of peers confirms that a reasonable resource cut-off for the Africa region is 5% TGC. Classification was applied only to material above RL 200, which is just over 100m below the surface, and all material down to 200m RL was reported. Indicated and Inferred blocks above 5% TGC were analysed in 3D to ensure they meet the criteria of reasonable prospect of economic extraction under the JORC 2012 code.

Authorised for release to ASX by the Board of Castle Minerals Limited:

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## PREVIOUSLY REPORTED INFORMATION RELATING TO THIS RELEASE

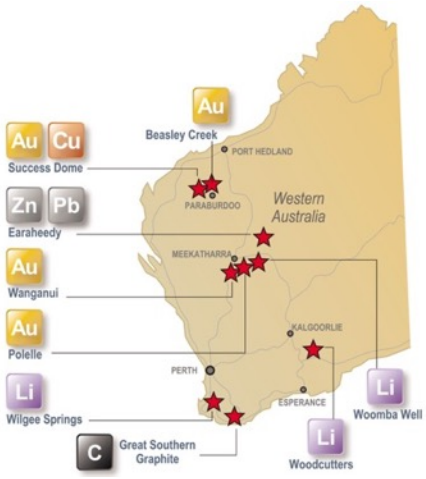
Additional details, where applicable, can be found in the releases referenced in this Report and/or in the following releases lodged by the Company with the ASX:

| Headline | Date |
|---|---|
| Excellent High-Grade Continuity Confirmed at Kambale Graphite Project | 13 March 2023 |
| Kambale Graphite Project RC Drilling Completed | 4 January 2023 |
| Kambale Graphite Diamond Core Drilling Completed (Amended) | 23 December 2022 |
| Kambale Graphite Diamond Core Drilling Completed | 20 December 2022 |
| Independent Exploration Target Estimate Highlights Kambale as a Large-Scale Graphite Deposit | 28 November 2022 |
| Kambale Core Drilling Underway | 10 November 2022 |
| Kambale Graphite Deposit Extended | 3 November 2022 |
| Encouraging Kambale Graphite project Interim Drill Results | 29 September 2022 |
| Kambale Graphite RC Drilling Program Completed | 24 August 2022 |
| More Graphite Zones at Kambale | 11 July 2022 |
| Drilling Campaign Launched at Kambale Graphite Project | 14 June 2022 |
| Kambale Graphite EM Survey Increases Size Expectations | 31 March 2022 |
| EM Survey Commences at Kambale Graphite Project Ghana | 14 March 2022 |
| Encouraging Graphite Test Work Results | 21 September 2021 |
| Kambale Graphite Test Work Update | 5 August 2021 |
| Graphite Test Work Underway | 3 June 2021 |
| Castle to Reappraise Kambale Graphite Project, Ghana | 15 March 2021 |
| Drilling Doubles Strike length of Kambale Graphite Deposit | 17 September 2012 |
| Metallurgy Test Work Confirms Commercial Potential of Kambale Graphite Deposit | 3 September 2012 |
| High Grade Graphite intercepts Extend Kambale Deposit | 24 August 2012 |
| Maiden Resource Confirms Kambale as One of World's Largest Graphite Deposits | 24 July 2012 |

| Headline | Date |
|---|---|
| Large High Grade Deposit Confirmed at Kambale | 6 July 2012 |
| Extensive Zones of High Grade Graphite Intersected | 9 May 2012 |

## About Castle Minerals Limited

Castle Minerals Limited is an Australian Securities Exchange (ASX: CDT) listed and Perth, Western Australia headquartered company with interests in several projects in Western Australia and Ghana that are prospective for battery metals (lithium and graphite), base metals and gold.




The **Earaheedy Basin** project comprises the **Withnell, Terra Rossa** and **Tableland** sub-projects with the Withnell licence strategically located adjacent to the evolving World-Class Chinook-Magazine zinc-lead project of Rumble Resources Ltd (ASX: RTR) and north of the Strickland Metals Limited (ASX: STK) Iroquois prospect. The Terra Rossa licences are east of the Thaduna copper deposit.

The **Beasley Creek** project is prospective for gold and lithium and lies on the northern flanks of the Rocklea Dome in the southern Pilbara.

The **Success Dome** project lies in the Ashburton structural corridor midway between the Paulsen's and Ashburton gold deposits and is prospective for gold and base metals.

The **Polelle** project, 7km southeast of the operating Bluebird gold mine near Meekatharra, hosts a mainly obscured and minimally explored greenstone belt prospective for gold and possibly base metals whilst its partner , **Wanganui** project, is prospective for down-plunge high-grade gold shoots.


The **Wilgee Springs** project, along strike from and within the same metamorphic belt as the world-class Greenbushes lithium mine 25km to the south, is prospective for spodumene bearing pegmatites as is the **Woodcutters** project, 25km southeast of the Bald Hill lithium mine and 25km northwest of the Buldania lithium deposit. The **Woomba Well** project will also be evaluated for lithium bearing pegmatites.

The **Great Southern Graphite** project comprises granted licences encompassing the historical **Kendenup** graphite workings and the adjacent **Martagallup** graphite occurrences and one application covering a graphite occurrence at **Mt. Barrow.**

In **Ghana, West Africa**, Castle's substantial and contiguous tenure position in the country's Upper West region encompasses large tracts of highly prospective Birimian geological terrane, the host to many of West Africa's and Ghana's multi-million-ounce gold mines. The emerging **Kambale** graphite project lies within the Ghana tenure.

Castle retains a **4% net smelter precious metal royalty** over the Julie West licence, a key component of Azumah Resources Limited's Wa Gold Project, Upper West region, Ghana.

## STATEMENTS

### Cautionary Statement

All of Castle's projects in Australia are considered to be of grass roots or of relatively early-stage exploration status. There has been insufficient exploration to define a Mineral Resource. No Competent Person has done sufficient work in accordance with JORC Code 2012 to conclusively determine or to estimate in what quantities gold or other minerals are present. It is possible that following further evaluation and/or exploration work that the confidence in the information used to identify areas of interest may be reduced when reported under JORC Code (2012).

### Forward Looking Statement

Statements regarding Castle's plans, forecasts and projections with respect to its mineral properties and programs are forward-looking statements. There can be no assurance that Castle's plans for development of its mineral properties will proceed. There can be no assurance that Castle will be able to confirm the presence of Mineral Resources or Ore Reserves, that any mineralisation will prove to be economic or that a mine will be successfully developed on any of Castle's mineral properties. The performance of Castle may be influenced by a number of factors which are outside the control of the Company, its Directors, staff or contractors.

### Competent Persons Statements

The scientific and technical information in this Report that relates to the geology of the deposits and exploration results is based on information compiled by Mr Stephen Stone, who is Managing Director of Castle Minerals Limited. Mr Stone is a Member of the Australian Institute of Mining and Metallurgy and 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'. Mr Stone is the Qualified Person overseeing Castle's exploration projects and has reviewed and approved the disclosure of all scientific or technical information contained in this announcement that relates to the geology of the deposits and exploration.

Information in this report that relates to geological interpretation, exploration activities, graphite mineralisation, Mineral Resources and results was reviewed by Dr Allan John Parker who is a Member of the Australian Institute of Geoscientists. Dr Parker is an employee of Palaris Australia Pty Ltd which provides geological consultancy services to Castle. Dr. Parker is also Director of Geosurveys Australia Pty Ltd, a non-Executive Director of Centrex Limited and was formerly Managing Director of Lincoln Minerals Limited. Dr Parker has sufficient experience relevant to the styles of mineralisation and to the activities which are being presented to qualify as a Competent Person as defined by the JORC code, 2012. Dr Parker consents to the release of the information compiled in this announcement in the form and context in which it appears.

### Ghana Licencing

The Government of Ghana has the right to acquire a 10% free carried interest in all licences and is entitled to a 5% Gross Royalty on production.

The Kambale Graphite Project is held by Castle's 100% owned Ghana based subsidiary, Kambale Graphite Limited. All invoiced statutory amounts for the issue of the Kambale Prospecting Licence following its conversion from a Retention Licence have been paid to and receipted by Ghana MINCOM, with the final licence contract provided by MINCOM and executed by Kambale Graphite Limited now awaiting Ministerial counter-signing.

## Kambale Graphite Mineral Resource Estimation 2023
## *Appendix: JORC Code 2012 Edition – Table 1*
## *Section 1: Sampling Techniques and Data*

(Criteria in this section apply to all succeeding sections)

| Criteria | JORC Code explanation | Certified Person 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 down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.<br>• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.<br>• Aspects of the determination of mineralisation that are Material to the Public Report.<br>• In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. | The mineral resource estimate was based on data collected from reverse circulation (RC) drilling and diamond drill core (DD). All the holes were drilled by Castle Minerals Limited, the first program of 3 RC holes was completed in 2012 in conjunction with several RAB and air core reconnaissance programs. In 2022 a further 82 RC holes and 4 diamond holes were completed.<br><br>Sampling for analysis used in the resource estimation was restricted to zones of graphite schist and 2 to 4m intervals either side of the zone. Other rock lithologies were not analysed for graphite.<br><br>The sampling for the RC drilling was completed in uniform 1m intervals down the hole and for the diamond drilling the samples were predominately 1m intervals or to geological boundaries and were generally not less than 0.6m and not greater than 1.4m. The sampling methods employed are considered to be standard industry practice and were supervised by qualified and experienced geological personnel employed by Castle Minerals.<br><br>Reverse circulation drilling produced samples that were collected at 1m intervals using a riffle splitter to produce an approximate 3kg sample which is considered representative of the full drilled metre. Surplus sample material was collected in the bulk sample bag for latter reference.<br><br>DD was predominately HQ diameter. The diamond holes were primarily drilled for metallurgical samples and twinned existing RC holes. The core was sawed in half with one half bagged in metre intervals for metallurgical test work. The remaining half was quarter cored with one quarter bagged in metre intervals identical to the samples collected for metallurgy. This produced approximately 2kg of material which is considered representative of the interval drilled, and the remainder kept for reference. |
| **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, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). | The drilling completed in the 2022 program utilised a Sandvik DE820 multipurpose track mounted rig supplied by Geodrill (Ghana) Limited. The drill rig was equipped with an onboard compressor with an auxiliary booster which was used as required to maintain sample quality The drilling was completed with a 110mm face sampling hammer.<br><br>DD holes were drilled from surface and were collared in PQ and once stable ground was intersected below the zone of weathering the drilling reverted to HQ diameter core. |

| Criteria | JORC Code explanation | Certified Person Commentary |
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| **Drill sample recovery** | • Method of recording and assessing core and chip sample recoveries and results assessed.<br>• Measures taken to maximise sample recovery and ensure representative nature of the samples.<br>• 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. | RC drill sample recoveries were considered good with the majority of the samples remaining dry.<br><br>Recoveries for the DD holes were recorded for each core run. The average core recovery over the four holes was 98% which is considered excellent.<br><br>For the RC drilling the cyclone and sample hose were regularly purged and cleaned during drill operations in order to reduce/limit contamination.<br><br>For DD holes the core runs were generally of 3m lengths where possible but were shortened to ensure good recoveries when necessary.<br><br>There does not appear to be a relationship between sample recovery and grade. |
| **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.<br>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.<br>• The total length and percentage of the relevant intersections logged. | Geological logging of the drill chips and drill core was completed by a qualified geologist using a company standard logging code. The logging included descriptions for colour, lithology, mineralogy, structure, grain size, alteration, alteration intensity and weathering characteristics.<br><br>RC logging is considered to be semi qualitative, given the nature of the rock chip fragments. DD drilling is considered to be qualitive.<br><br>Chip trays were collected for each RC hole and photographed. Whole dill core was also photographed. |
| **Sub-sampling techniques and sample preparation** | • If core, whether cut or sawn and whether quarter, half or all core taken.<br>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.<br>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.<br>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.<br>• Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results for field duplicate/second-half sampling.<br>• Whether sample sizes are appropriate to the grain size of the material being sampled. | Drill core was cut into quarters of which one quarter was sent for assaying. The RC samples were run through a 3-way sample splitter with a 2 - 3kg sub-sample collected and sent for assay with the remainder placed in the bulk sample bag for reference. The moisture content of the sample was logged for dry, moist, and wet samples.<br><br>Quality Control and Quality Assurance procedures implemented to check sampling and assay precision included duplicate samples using the same subsampling method, blanks and Certified Reference Material which were inserted in the sample stream on site at a rate of approximately 1 in 25 samples. In addition, internal laboratory checks including repeats, blanks and CRM standards were completed by the contract laboratory.<br><br>Samples from the RC drilling completed in 2012 were sent to SGS Laboratories in Johannesburg South Africa for analysis. Samples were prepared by drying, crushing, and pulverising to a nominal 85% passing <75 microns.<br><br>Samples from the RC and DD drilling completed in 2022 were sent to Intertek Laboratories in Ghana for sample preparation before being air freighted to Intertek Perth for analysis. Samples were prepared by drying, crushing, and pulverising to a nominal 85% passing <75 microns. |
| **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.<br>• For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the | For the 2012 RC drilling SGS Laboratories Total Graphitic Carbon (TGC), was determined by method CSAO5V using a resistance/IR furnace to determine total carbon and speciates contained carbon into elemental, organic and carbonate forms. Speciation is performed by removing carbonate carbon by acid leach, |

| Criteria | JORC Code explanation | Certified Person Commentary |
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| | analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.<br>• 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. | and organic carbon by calcining the sample to 400ºC. The remaining carbon is reported as elemental carbon.<br>For the 2022 drill programs Intertek Laboratories analysis of Total Graphitic Carbon (TGC), Carbon (TC) and Sulphur (S). TC was not analysed for holes 22CKRC53-82 as previous analysis had shown an almost perfect correlation between TGC and TC indicating a lack of carbonate and organic carbon in the fresh rock.<br>TC and S analysis was performed in an induction furnace and analysed by Infrared spectrometry, laboratory code CSA.<br>TGC is calculated by driving off other forms of carbon. The sample is dissolved in HCl to remove $CO_3$, the remaining residue is collected in filter paper and dried in an oven at 420°C to remove organic carbon. The dried sample contains only carbon bearing material which was analysed by Infrared Spectrometry Laboratory sample code C73/CSA for TGC.<br>No umpire laboratory checks were undertaken. |
| **Verification of sampling and assaying** | • The verification of significant intersections by either independent or alternative company personnel.<br>• The use of twinned holes.<br>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.<br>• Discuss any adjustment to assay data. | No independent or alternative company has been engaged to verify the results.<br>Four diamond holes which were drilled to collect metallurgical samples twinned existing RC holes where the TGC results were known. No significant discrepancies between the RC and diamond hole lithologies or assays were identified.<br>Data on collar position, sampling intervals and drill hole lithology were recorded in the field on a standard Microsoft Office Excel worksheet. The data was updated to a cloud server for security. The field data was sent to the Company's contract database manager who collated and validated the data into a relational database maintained by the contractor.<br>No adjustment has been made to assay 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 location of drill collars was recorded by handheld GPS on completion of the hole by the rig geologist. At the conclusion of the drill program the locations of all drill collars were recorded by an independent survey contractor using a DGPS recorder.<br>For the RC holes drilled in 2012, downhole surveys were recorded every 30m down hole by a REFLEX survey tool provided by the drill contractor.<br>For the RC and DD holes drilled in 2022 downhole surveys were completed with an Ezitrack survey tool supplied by the drill contractor. |
| **Location of data points Data spacing and distribution** | • Specification of the grid system used. | Data locations are supplied in WGS84 datum, UTM Zone 30N projection. |
| | • Quality and adequacy of topographic control. | A Drone LIDAR survey over the entire Kambale Prospect was completed by a licensed surveyor. |
| | • Data spacing for reporting of Exploration Results.<br>• 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 | Throughout the deposit, drilling has been completed on E-W drill lines spaced 50m apart and along drill lines between 100m and 200m apart which is approximately perpendicular to the strike of the mineralisation. Along the lines holes have targeted specific graphitic shears identified by an HLEM survey to intersect the shear zones between 40m and 100m below surface. |

| Criteria | JORC Code explanation | Certified Person Commentary |
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| | estimation procedure(s) and classifications applied.<br>• Whether sample compositing has been applied. | Because of the continuity of lithology and TGC assays, the spacing and distribution of the drilling is considered sufficient locally for Indicated and, more generally, Inferred Mineral Resource estimation purposes down to 200m RL. |
| **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.<br>• 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. | Ground HLEM survey undertaken by the Company in 2022 defined a series of conductor plates across the Kambale area. Drilling has shown that many of these conductor plates define strongly deformed/sheared graphitic schist. Drilling has been completed approximately perpendicular to the strike of these plates in order to obtain a representative sample across the horizon.<br>Local outcrops of graphitic schist, historic trenching and oriented drill core from one DDH confirm a regional NNE-SSW to N-S strike orientation of the schists steeply dipping to the WNW. |
| **Sample security** | • The measures taken to ensure sample security. | No information is available for sample security measures taken for the 2012 drilling program.<br>Samples for assay from the 2022 programs, were removed daily from the field and stored at the Company's field house at Wa. Samples were aggregated in bulk containers and picked up from the Wa facility by Intertek personnel and transported to the Intertek sample preparation facility at Tarkwa Ghana. After sample preparation was completed, Intertek organised for a commercial freight company to pick up the pulp samples and deliver them to the Intertek Laboratory facility in Maddington Western Australia.<br>No discrepancies in sample numbers, or lost samples have been recorded. |
| **Audits or reviews** | • The results of any audits or reviews of sampling techniques and data. | For the first phase of the 2022 RC drill program (22CKRC001-052) the company engaged a consultant geologist from Sahara Natural Resources Pty Ltd domiciled in Ghana to undertake a site technical review of the Company's geological logging and drill hole sampling practices during the drill program. In addition, the consultant inspected the sample preparation facilities at Intertek's preparation laboratory in Ghana. The consultant concluded the geological and sampling practices were being undertaken to acceptable industry standards.<br>During the course of this Mineral Resource estimation, drill sites, trenches and drill core were inspected by the consultants by way of a video walk through with Castle's on-site geologist. No issues were noted with hole locations. |

## *Section 2: Reporting of Exploration Results*

| Criteria | JORC Code explanation | Certified Person Commentary |
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| **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. | Work was completed on Prospecting Licence PL10/47 which is held 100% by Kambale Graphite Limited (KGL) a Ghanaian registered company owned by Castle Minerals Limited. The PL covers an area of 149km$^2$ (745 Blocks) and was issued by MINCOM the agency authorised by the Government of Ghana to administer the countries Mining Act. The PL is a conversion of a Retention Licence. The licence contract has been |

| Criteria | JORC Code explanation | Certified Person Commentary |
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| | | issued by MINCOM and executed by KGL and is awaiting execution by the Minister who administers the country's Mining Act. Annual Licence Fees have been paid for the period to September 2023.<br><br>The Government of Ghana has the right to acquire a 10% free carried interest in all licenses and is entitled to a 5% gross profit royalty on mineral production. There are no other encumbrances on the title.<br><br>The prospect is on traditional lands on the outskirts of the provincial city of Wa. Much of the prospect area is under cultivation by market gardens. Prior to undertaking works the Company negotiates suitable compensation arrangements with traditional owners and farmers for any disturbances created by the Company. |
| | • The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area. | The tenement is in good standing with MINCOM, the Ghanaian ministry that administers mining tenure. |
| **Exploration done by other parties** | • Acknowledgment and appraisal of exploration by other parties. | Graphite mineralisation on the tenement was initially discovered by geologists in the 1960's exploring for manganese. Work was restricted to trenching. In 2012, Castle Minerals completed programs of air core and RC drilling specifically testing the graphite occurrences on the tenement and completed preliminary metallurgical test work on the mineralised samples. An Initial Inferred Mineral Resource was released on the 24/07/2012 based on 54 air core and 3 RC drill holes.<br><br>Due to increased interest in graphite Castle recommenced exploration on the project in 2021. A program of trenching and bulk sampling was completed, and detailed metallurgical test work completed, the results of which were announced on the 05/08/2021.<br><br>Castle completed a HLEM ground geophysical survey in 2022. An initial RC program of 52 drill holes was completed in July 2022 targeting conductor plates identified by the HLEM survey.<br><br>Based on the interpretation of the HLEM and RC drill results the 2012 Inferred resource was considered inaccurate and an Exploration Target for the Kambale Deposit was calculated based on historical drilling and the 2022 drill results.<br><br>A further program of 4 DD and 30 RC hole was completed in December 2022.<br><br>Core from the diamond program is currently undergoing metallurgical test work. |
| **Geology** | • Deposit type, geological setting and style of mineralisation. | Graphite mineralisation at Kambale is hosted within metamorphosed Paleoproterozoic supercrustal and intrusive rocks of the Birrimian Supergroup (ca 2195-2135Ma) within the Wa-Lawra greenstone belt. The licence area is underlain by metamorphosed volcanic, pyroclastic and sedimentary rocks of the Upper Suite of the Lower Birrimian Series. Granitoids of the Cape Coast Complex have intruded the metasedimentary sequence and close to the contact the metamorphic grade is amphibolite facies dropping to upper greenschist away from the contact. Mineralisation is hosted within NNE-SSW to N-S trending, sub-parallel zones of strongly sheared meta-sediments and granitoids, steeply dipping to the WNW. |

| Criteria | JORC Code explanation | Certified Person Commentary |
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| | | The precursor rocks to the graphite schist are believed to be carbonaceous shales of the Middle Suite that have been metamorphosed due to the intrusion of the granitoids. Metamorphism formed $CO_2$ rich fluids that were mobilised along syntectonic shear zones where graphite formed. |
| **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:<br>• easting and northing of the drill hole collar.elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar.<br>• dip and azimuth of the hole.<br>• down hole length and interception depth.<br>• hole length.<br>• 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. | All drill collar information has been previously released, including holes that did not intersect graphite mineralisation. |
| **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.<br>• 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.<br>• The assumptions used for any reporting of metal equivalent values should be clearly stated. | No new exploration results have been reported in this release.<br>Data aggregation methods used in the Mineral Resource calculation are outlined in section 3.<br>No metal equivalent values are reported. |
| **Relationship between mineralisation widths and intercept lengths** | • These relationships are particularly important in the reporting of Exploration Results.<br>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.<br>• 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'). | Drill intersections included in this report have been reported as downhole intervals in previously released reports to the ASX. No adjustment for true width per the wireframe modelling process has been undertaken. |
| **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. | Appropriate maps, geological and Mineral Resource models and interpreted cross sections are provided in the body of the report. |
| **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. | Mineral Resources are being reported in this announcement. No new exploration data is being reported in this release. |

| Criteria | JORC Code explanation | Certified Person Commentary |
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| **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. | Castle has not done sufficient metallurgical test work on the graphite ores to determine what material can be economically exploited. Factors including flake size, gangue inclusions in the ores and other physical properties not measured by TGC assays have a significant bearing on economic value of graphite. |
| **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).<br>• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. | Castle has in progress a program of metallurgical test work of drill core samples collected from the 2022 drill program. The results of this work will be released to ASX when the results are received.<br>Once results of the metallurgical test work are known further infill and extensional RC and DD drilling will be undertaken to test the extents of and improve confidence in the Mineral Resources.<br>Mapping and geophysical surveys will be undertaken to determine the presence of additional zones of graphitic schist on the broader licence area.<br>A high-level scoping study will be undertaken using available technical, economic and other pertinent information. |

## *Section 3: Estimation and Reporting of Mineral Resources*

| Criteria | JORC Code explanation | Certified Person Commentary |
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| **Database integrity** | • Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.<br>• Data validation procedures used. | Data used in the Mineral Resources was largely collected in the field by Castle personnel. These data are sent to an external database consultant Terrasearch Pty Ltd, (Terrasearch) who upload them to a MS Access Database. Returned assay data are sent directly to Terrasearch. These were checked and loaded to the database. Relevant tables from the database were exported as Excel format for import to Datamine Studio RM, where they underwent another series of checks.<br>Checks included assessment of duplicate data, missing data, overlapping intervals, blanks, Certified Reference Material and data out of range. |
| **Site visits** | • Comment on any site visits undertaken by the Competent Person and the outcome of those visits.<br>• If no site visits have been undertaken indicate why this is the case. | The Competent Person (CP) did not visit site.<br>The previous work of an Exploration Target included two visits by that CP and reported no issues. At the time of modelling no work was being done at site. Several in depth video calls were done by the CP, management and personnel onsite, including a core yard tour and a site walk around. This enabled drill core to be visually inspected and the orientations of hole collars and trenches to be verified.<br>Consequently, the CP did not believe that a site visit would add value to what was already presented. |
| **Geological interpretation** | • Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.<br>• Nature of the data used and of any assumptions made. | Confidence in the geological interpretation is high.<br>HLEM survey work in early 2022 identified a series of reflective plates which underpinned the drilling design. |

| Criteria | JORC Code explanation | Certified Person Commentary |
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| | • The effect, if any, of alternative interpretations on Mineral Resource estimation.<br>• The use of geology in guiding and controlling Mineral Resource estimation.<br>• The factors affecting continuity both of grade and geology. | 4 diamond holes were drilled, twinning recent RC holes and supported the proposed model.<br><br>All the lithological logging for the 2022 drilling was completed by a single person. This resulted in a high level of consistency.<br><br>The site-based team were tasked with completing a set of paper-based sectional and plan geological interpretations. Separately the corporate team created a plan version of the interpretation. These all aligned to each other.<br><br>The broad geological domains created by this Mineral Resource estimation outline areas of graphite schist and are based on lithological logging and TGC grades. Selected intervals were coded with discrete zone codes and a vein type implicit approach used to create the wireframes. No defined cut-off was used for the TGC definition of geological domains, just elevated levels above background. Logged colour was used as a reference as well as the paper interpretations and a small set of structural measurements.<br><br>TGC 81 mineralisation is constrained to these graphitic schist zones.<br><br>Weathering surfaces were created based on the geological logging of oxide, transitional and fresh rock. |
| **Dimensions** | • The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. | The known mineralisation strikes for nearly 2.5km NNE-SSW along-strike. The mineralized zone incorporating the various geological graphite schist domains is 200m wide in the south and 400m wide at its thickest. The wireframes are projected 280m below the surface however are only classified and reported to about 100m below ground surface as this is the extent of the drilling.<br><br>The individual domains range in thickness from around 5m to 50m. |
| **Estimation and modelling techniques** | • The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.<br>• The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.<br>• The assumptions made regarding recovery of by-products.<br>• Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).<br>• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.<br>• Any assumptions behind modelling of selective mining units.<br>• Any assumptions about correlation between variables. | All parts of the modelling process were prepared using Datamine Studio RM (V1.13). Snowden Supervisor was used for Geostatistical analysis.<br><br>1m composites were created due to most samples being RC and the 1m sample protocol used. Diamond drillholes were compared for length and supported the 1m decision. Only RC and diamond drilling were used for the estimation stage.<br><br>Within the geological domains of graphitic schist, a set of categorical indicators were created to define areas of high, medium, and low grade TGC. Indicator cutoffs were defined by inflections noted on log probability plots and varied from zone to zone. However, all ranged ca. 3% TGC for the low medium boundary and ca. 5% TGC for the medium high boundary. A combined cutoff was also applied to all domains, but the difference was not material therefore the individual cut-offs were retained.<br><br>Individual estimation domains were reviewed for outliers. Six of the low-grade domains required capping due to the categorical indicator process omitting these samples, and these caps ranged from 2% TGC to 8.5% TGC. None of the medium and high-grade domains required capping. This capping process is not expected to have any material negative effect on the Mineral Resources. |

| Criteria | JORC Code explanation | Certified Person Commentary |
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| | • Description of how the geological interpretation was used to control the resource estimates.<br>• Discussion of basis for using or not using grade cutting or capping.<br>• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. | Variography was only successful on two of the estimation domains. Using these a generic variogram shape and structure was defined.<br><br>Kriging Neighborhood Analysis (KNA) was reviewed for these two domains and suggested the best block dimensions would be 10mE x 10mN x 10mRL. This is inconstant with the long held belief of blocks being half the drill spacing (50m in this case). However, review of the blocks in 3D confirmed that 10m would be a good fit for the irregular drill spacing and oblique shape of the domains. Blocks were sub-celled to 2.5m in each direction for close wireframe fitting, but estimation was into the parent cell.<br><br>The selected estimation technique was Ordinary Kriging (OK). The generic variograms were used for those domains without a variogram, with each orientation being adapted to the individual wireframe. Added to that, Dynamic Anisotropy (DA) was used to guide the search. Inverse Distance Squared ($ID^2$) was also used as a comparison.<br><br>A three-pass method was used where a minimum of seven samples, with a maximum of 3 samples per hole, was required to initiate an estimation. This forces the estimate to use at least three drillholes. The second pass involved a 50% increase in search size, while the third pass increased the search size by another 50% but also reduced the number of required samples to 4, only requiring 2 drillholes. Any further unestimated blocks were assigned the mean declustered composite values.<br><br>Total graphitic carbon (TGC%) and sulphur (S%) were estimated.<br><br>The model was validated by review of global and local means (including swath plots) as well as a documented visual review. Any anomalies were reviewed and assessed and where necessary corrected.<br><br>No byproduct other than Sulphur was modelled.<br><br>No selective mining unites have been assumed. |
| **Moisture** | • Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. | Tonnage is based on a dry basis. |
| **Cut-off parameters** | • The basis of the adopted cut-off grade(s) or quality parameters applied. | A reporting cutoff of 5% TGC was used to report Mineral Resources. At the time of reporting no economic assessment has been conducted for the deposit.<br><br>A review of peers in Africa and Australia indicates that 5% TGC would be a reasonable cutoff to use for graphite Mineral Resources. |
| **Mining factors or assumptions** | • Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should | It is assumed that the deposit will be mined as an Open pit only. |

| Criteria | JORC Code explanation | Certified Person Commentary |
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| | be reported with an explanation of the basis of the mining assumptions made. | |
| **Metallurgical factors or assumptions** | • The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made. | No metallurgical assumption has been made.<br>In 2022 three trench samples were sent to Independent Metallurgical Operations Ltd (IMO) in Perth to characterise flake content and graphite grade of final concentrates produced. Two samples underwent flotation test work and concentrate characterisation. Sample 2 achieved a saleable concentrate at 96.4% total carbon (TC), while Sample 1 achieved a TC concentrate grade of 93.4%.<br>Samples derived from the 2022 diamond drilling are currently, at the time of writing, being assessed for suitability of the material for use in batteries and other advanced applications. |
| **Environmental factors or assumptions** | • Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. | No environmental assumptions have been made. The deposit lies in an area of community subsistence farming. Relationships with local communities are well maintained. |
| **Bulk density** | • Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.<br>• The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.<br>• Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. | Density was calculated using a wet immersion method. Only four diamond drillholes have been drilled and a very limited amount density measurements undertaken (22). All measurements were taken from either transitional or fresh rock, with no samples from the oxide levels. The density assigned to the oxide is assumed.<br>Density is assigned on weathering zone and broad lithology:<br>Density values of 1.8t/$m^3$, 1.96t/$m^3$ and 2.46t/$m^3$ have been used for oxide, transitional and fresh rock respectively within the graphitic shear zones.<br>Density values of 2t/$m^3$, were used for the oxide zone in the host rock and 2.7t/$m^3$ for the transitional and fresh host rock. |
| **Classification** | • The basis for the classification of the Mineral Resources into varying confidence categories.<br>• Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity, and distribution of the data).<br>• Whether the result appropriately reflects the Competent Person's view of the deposit. | Classification of the Mineral Resource is based on geological confidence, quality and quantity of sample data, and quality of estimation data which are in turn a function of drill density and orientation.<br>Mineral Resources are classified as Indicated and Inferred.<br>Indicated Mineral Resources is defined as material falling within areas defined by a drill spacing of 50m x 50m up to 50m to 100m. These are dependent on material being surrounded by data, quality of estimate and are often supported by grade seen in Aircore drilling (which is not used in the estimate). |

| Criteria | JORC Code explanation | Certified Person Commentary |
|---|---|---|
| | | Inferred Mineral Resources is defined by material falling within areas defined by a drill spacing up to 100m x 100m and are dependent on material being surrounded by data, quality of estimate and are often supported by grade seen in Aircore drilling (which is not used in the estimate).<br><br>All available data was assessed and used to inform the CP's confidence in the data, interpretation and estimation.<br><br>The current classification appropriately reflects the CP's view of the Mineral Resources. |
| **Audits or reviews** | • The results of any audits or reviews of Mineral Resource estimates. | An internal peer review process was undertaken as part of normal Palaris protocols.<br><br>An inverse distance squared estimate was run concurrently with the OK estimate and compared. Results were very similar, and variances not considered material.<br><br>No other review or auditing has taken place for this update. |
| **Discussion of relative accuracy/ confidence** | • Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.<br>• The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.<br>• These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. | Calculated accuracy in the Mineral Resource estimate is not explicitly stated.<br><br>The relative confidence level in the Mineral Resource estimate is reflected in the assigned Mineral Resource classifications including Indicated and Inferred Resources. The Indicated Mineral Resources could be used for future technical and economic evaluation, for example the estimation of Ore Reserves.<br><br>No production data exists for the deposit. |