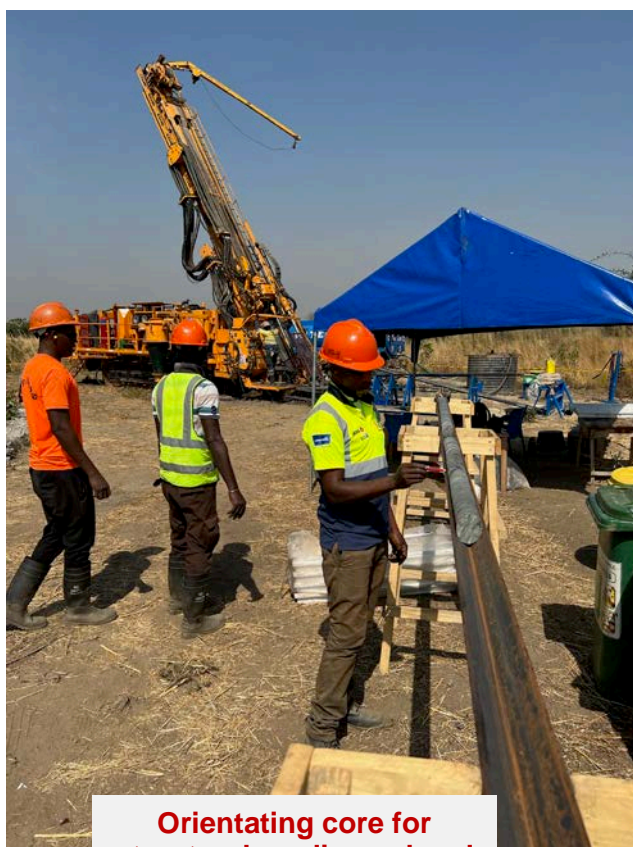


## Kambale Graphite Project Diamond Core Drilling Completed Infill RC Drilling Commenced

- 4-hole, 365m diamond drilling program to obtain core samples for Phase 2 metallurgical test work is completed.
- ~300kg of samples to be transported to Perth.
- Test work expected to commence in coming weeks.
- 31-hole, 2,460m RC follow-on infill drilling program commenced.
- Designed to better define higher grade zones and facilitate a maiden JORC 2012 Mineral Resource estimate around end-Q1 2023.

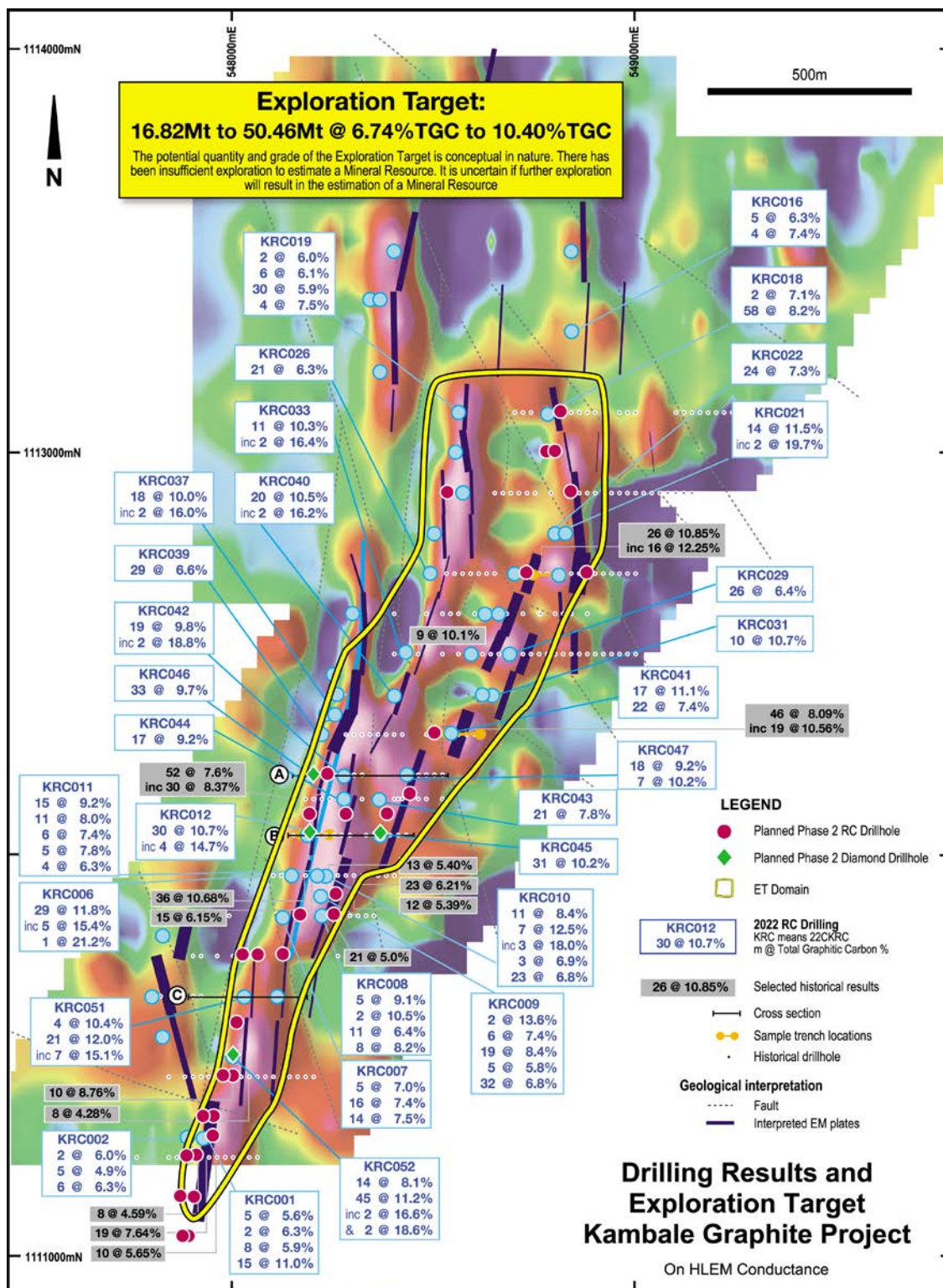


**Orientating core for structural readings ahead of logging**



**Bagged core ready to be placed in drums for transport to Accra and then to Perth**

**Fig 1: Plan showing historical and recent drill results, Exploration Target estimate outline and locations of Phase 2 diamond core holes (now completed) and recently commenced follow-on planned 31-RC drill holes.**



**(1)Cautionary Statement**

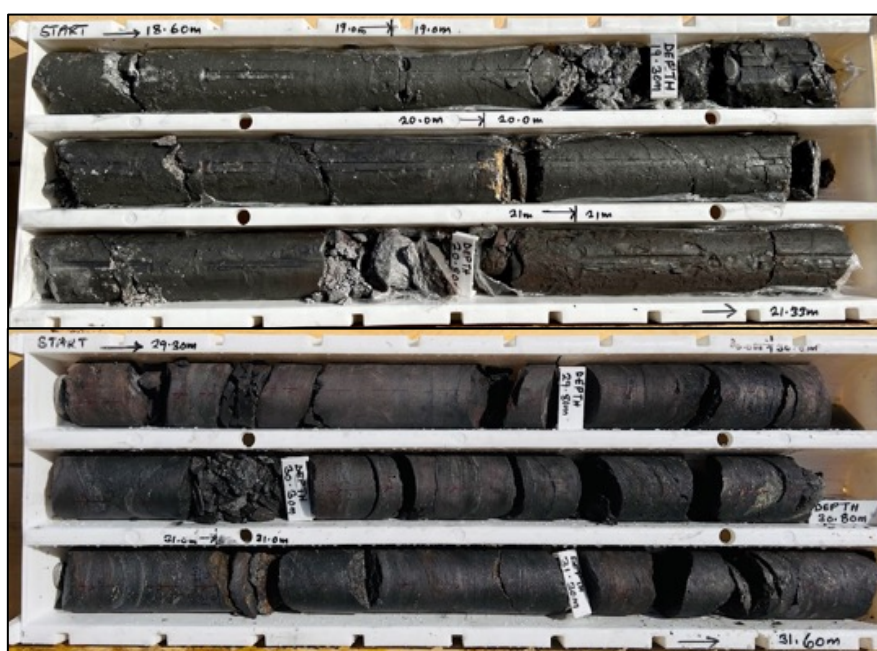
The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code. The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource. It is uncertain if further exploration will result in the estimation of a Mineral Resource.

Castle Managing Director, Stephen Stone commented **“The diamond drilling program to obtain samples for Phase 2 test work has gone really well with all credit to our amazing Ghana team who have not missed a beat with the immediate commencement of a 31-hole RC drilling program that should finish around end-Dec 2022.**

**“We continue to fast-track our evaluation of the Kambale Graphite Project where late last month we announced an independently estimated Exploration Target of 16.82 to 50.46 million tonnes at a grade range between 6.74% and 10.40%TGC indicating that the Kambale Graphite project has a possible scale and grade to warrant progression to the next phase of assessment.**

**The Phase 2 test work will assess if a commercial grade concentrate can be produced which would then be evaluated for possible use in the manufacture of electric vehicle battery anodes.**

**The follow-on infill RC drilling program will primarily focus on defining recently confirmed multiple higher grade graphitic zones and will also facilitate a maiden JORC 2012 Mineral Resource which remains on schedule for delivery around end-Q1 2023.”**



**Core trays from drill hole 22CKDD001 (18.6m to 21.3m and 29.3m to 36.1m) showing intercepts of graphitic schist (The core has not been fully logged or assayed yet).**

Junior explorer and project incubator, Castle Minerals Limited (ASX: CDT) (“Castle” or the “Company”), advises that a 4-hole, 365m diamond core drilling program to obtain samples for Phase 2 test work has been completed and a 31-hole RC drilling program just commenced at the Kambale graphite project, Ghana (“Kambale” or “Project”)(Figs 1 and 2).

Some 300kg of core has been collected, bagged, placed in drums and will shortly be on its way to Perth where test work will be undertaken at the Independent Metallurgical Operations Ltd laboratory.

Phase 2 test work will comprise a series of beneficiation, flotation and grinding cycles on composited core aimed at producing a quantity of as near-to commercial grade fine flake graphite concentrate as possible. This concentrate will then be assessed by another specialist metallurgical laboratory for its ability to be upgraded and processed (micronised, purified, spheronised and coated) into a battery-grade fine flake concentrate for possible application in electric vehicle battery anode manufacture.

Phase 1 test work was conducted on near-surface, trench excavated material where weathering of the graphite and gangue material will have impacted the mineralogy and subsequent bench-scale concentration process. Whilst this ‘orientation’ test work went relatively well (refer ASX release 21 September 2021), the weathering profile is observed to extend to a depth of 30-40m below surface. Therefore, the samples used are only partially representative of the deposit which has been drill confirmed to over 100m depth and is likely to go even deeper.

The diamond drill core has been obtained from four locations providing a broader representation of the graphitic schist material and its variability, especially below the weathering profile.

A development Scoping Study will be considered once the Phase 2 test work, Mineral Resource estimate and other related studies are available.

### Exploration target estimate

Castle recently announced an independently estimated Exploration Target of 16.82 million tonnes to 50.46 million tonnes at a grade between 6.74%TGC and 10.40%TGC (Total Graphitic Carbon)(refer ASX release 28 November 2022).

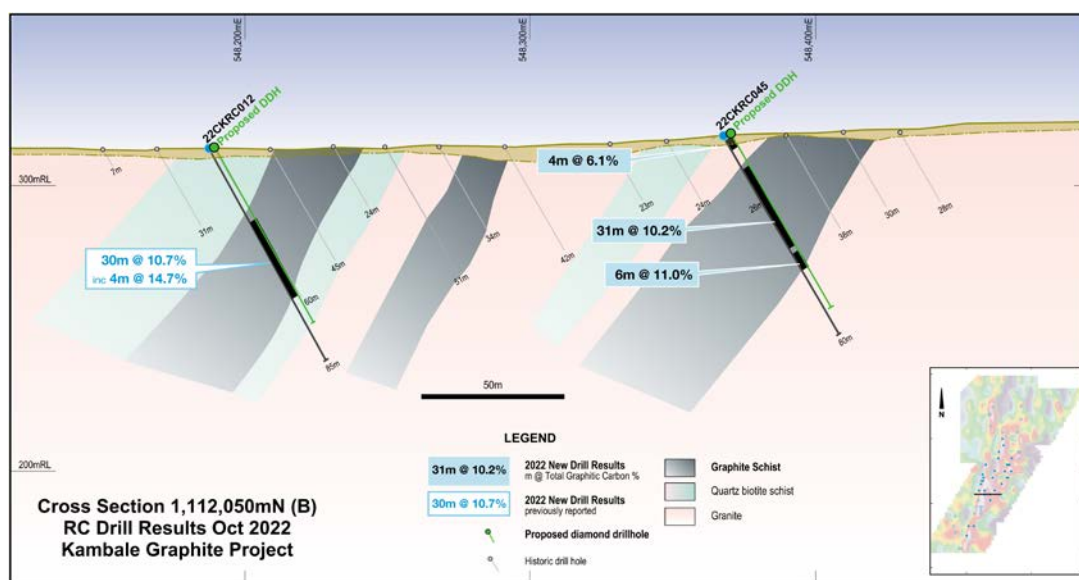
The estimate was limited to a vertical depth of 100m below surface and highlights that Kambale may have the scale, grade and other attributes to justify its continuing evaluation as a possible producer initially of a commercially acceptable fine flake graphite concentrate.

A series of sub-parallel lodes over a 2.7km north-south strike and within an up to 500m-wide corridor has been outlined at Kambale with mineralisation remaining open to the north, south and also to depth.

### RC Drilling commenced

A follow-on 31-hole, 2,460m RC drilling program has now commenced to increase drill density, especially within the higher grade graphitic zones. Combined, with information from the diamond core program such as rock density measurements, these two programs will facilitate a Mineral Resource estimate planned to be delivered around end-Q1 2023, subject to a number of factors including assay turnaround times.

**Fig 2: Section C: 1,111,650mN showing two of the four completed diamond core holes**



### PROJECT BACKGROUND

The Kambale graphite deposit was identified in the 1960s by Russian geologists prospecting for manganese. They undertook a program of trenching and drilled 25 holes to a maximum depth of 25m. A subsequent report noted “two main zones of graphitic schists averaging around 10% to 15% graphite within which there were higher grade zones and that the graphite is the flaky variety with fine crystals (usually less than 0.25mm).” (Report on the Geology and Minerals of the South Western Part of the Wa Field Sheet, Pobedash, I.D. 1991).

The mineralisation consists of north-east trending, sub-parallel zones of graphitic schists found within the Lower Proterozoic Birimian (~2.2Ma) Wa-Lawra Greenstone belt. The schists generally trend north-easterly and dip between 50° and 75° to the north west. They are hosted mainly in granodiorite to the north and biotite and quartz mica schists in the south.

The genesis of the flake graphite in Kambale is believed to be associated with high-grade metamorphism (amphibolite-granulite facies) where metamorphic derived CO<sub>2</sub> rich hydrothermal fluids have infilled shear related dilational zones and formed the graphite during the extreme metamorphic event.

Castle has reviewed this historical work and a wide-spaced, regional-scale electromagnetic survey dataset inherited from previous licence holder, Newmont Limited. This outlined a roughly elongate, north-south orientated, ~10km-long region considered prospective for graphitic schist horizons which may host multiple lenses of graphite mineralisation, similar to what is already outlined from drilling and trenching at Kambale. These lenses or horizons can vary in length and be up to 50m wide, creating substantial deposits of graphite.

Encouraged by firm graphite prices in 2012, Castle undertook three consecutive phases of drilling comprising RAB (251 holes, 5,621m), aircore (89 holes, 2,808m) and reverse circulation (3 holes, 303m). Mapping noted occasional outcrops of manganese and graphitic schist as well as graphite in termite mounds.

In 2012 Castle undertook a very limited program of bench-scale test work on RC chips which was not an ideal sample. The work returned mixed results. Thereafter, little work was undertaken until the more recent improvement in graphite prices prompted a re-evaluation of the Project in early 2021.

In September 2021 Castle reported that preliminary test work on sub-optimal, trench excavated near-surface, weathered graphitic schists yielded very encouraging fine flake graphite concentrate grades of up to 96.4% and recoveries of 88% using a conventional multiple grind and flotation concentration flowsheet. Three excavated and composited samples provided for the test work graded 12.56%, 16.09% and 17.16% total carbon.

In March 2022, a ground electromagnetic (HLEM) survey demonstrated a strong correlation between drill confirmed graphite mineralisation and zones of high conductivity. Several high conductivity zones extending well outside of the existing Inferred Resource boundary were highlighted indicating the possibility of extensions of the known graphitic schists into sparsely or undrilled areas.

In July 2022 Castle completed and subsequently reported in November 2022 the results of a 52-hole, 5,353m RC drill program which, amongst other positive developments, confirmed multiple, subparallel graphitic schist zones to extend for at least 2.5km north-south and a strong correlation between interpreted conductor plates and mineralisation.

In November 2023 Castle reported an independently estimated Exploration Target of 16.82 million tonnes to 50.46 million tonnes at a grade between 6.74%TGC and 10.40%TGC (Total Graphitic Carbon)(refer ASX release 28 November 2022). The estimate was limited to a vertical depth of 100m below surface.

## **Logistics**

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.

The Wa region has an excellent infrastructure comprising a commercial airport with daily flights, reliable grid power supplied from the Bui hydroelectric dam, river (Black Volta River) and artesian water and many other services. The landscape is generally flat to rolling savannah vegetation with seasonal rains followed by a dry season (Harmattan).

Ghana is an established, safe and political stable mining jurisdiction. It has a well-trained and very capable minerals industry workforce. Its mining services and supply sectors are well established.

## **ESG**

Castle management has spent over 14 years successfully operating in Ghana and in particular its Upper West region. The Company's management 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, maintaining the highest environmental operating 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.

### 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, 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 un-substitutional use in the fast-growing electric vehicle and stationary power storage sectors. Hence, prices for fine flake graphite concentrates have shown a steady upward trend in the past year which several commodity forecasters say appears likely to continue for some time to come

The reader is directed to numerous recent publications, conference proceedings, specialist commodity research houses and corporate websites of companies engaged in graphite exploration and/or production for informed commentary and analysis of the graphite business and markets.

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

#### Stephen Stone

Managing Director

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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
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

Headline	Date
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
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 encompasses terrane prospective for base and precious metals in the Earahedy and Yerrida basins base metals provinces. The project comprises the **Withnell**, **Terra Rossa** and **Tableland** sub-projects. The Withnell licence is adjacent to the evolving 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 lies on the northern flanks of the Rocklea Dome in the southern Pilbara where orogenic-style, structurally controlled gold targets within the various Archean sequences are being targeted. Unexpected lithium anomalism is also being followed-up.

The **Success Dome** project lies in the Ashburton structural corridor and is located midway between the Paulsen's and Ashburton gold deposits. It 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.

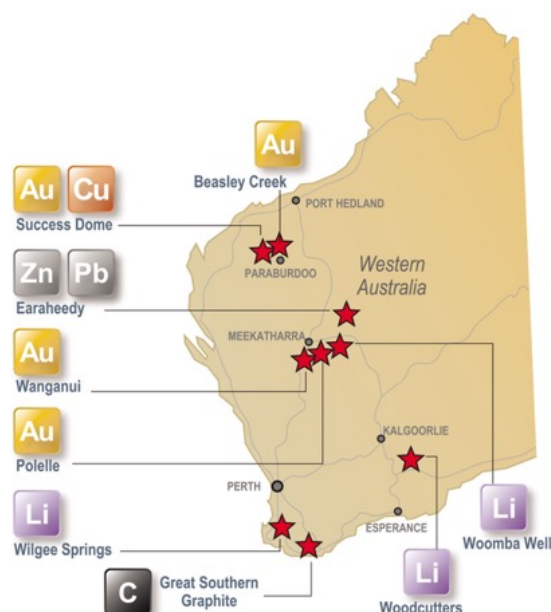
The **Wanganui** project, 15km south-west of the operating Bluebird gold mine, presents an opportunity to test for down-plunge and along strike extensions to the existing Main Lode North and South deposits and similar targets.

The **Wilgee Springs** project, along strike from and within the same metamorphic belt as the world-class Greenbushes lithium mine 25km to the south, provides an opportunity to explore for spodumene bearing pegmatites beneath a lateritic cover that has previously hampered exploration.

The **Woodcutters** project, is prospective for lithium bearing pegmatites, 25km southeast of the Bald Hill lithium mine and 25km northwest of the Buldania lithium deposit.

The **Woomba Well** project will be evaluated for lithium bearing pegmatites.

The **Great Southern Graphite** project comprises two 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 also lies on the Ghana tenure. Drilling and test work to date have indicated that it is a sizable open-ended deposit with several favourable attributes to warrant its advance.

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 Statement

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.

The scientific and technical information in this Report that relates to the Exploration Target estimate is based on information compiled by Mr Michael Cantey, a Competent Person who is a member of the Australian Institute of Geoscientists (MAIG #4643). Mr Cantey is employed as a Principal Consultant at Sahara Natural Resources which provides consultancy services to Castle Minerals Limited. Mr Cantey has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Cantey consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

### Exploration Target

The information contain in this announcement in respect to the Exploration Target is extracted from Castle's ASX release dated 28 November 2022 titled 'Independent Exploration Target Estimate Highlights Kambale as a Large-Scale Graphite Deposit' which is available to view at [www.castleminerals.com/announcements](http://www.castleminerals.com/announcements) ("original market announcement"). Castle confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

