

Graphite Test Work Underway

- **Representative samples from three excavated trenches at the Kambale Graphite Project, Ghana, have arrived in Perth for test work**
- **Phase 1 test work will focus on flotation concentrate production and characterisation to identify possible commercialisation options**
- **Subject to test work results, Castle is planning:**
 - **diamond drilling to collect samples from deeper fresher material for Phase 2 test work**
 - **Infill drilling to confirm the existing Inferred Mineral Resource (14.4Mt at 7.2% graphitic carbon for 1.03Mt contained graphite - JORC 2004 - Refer ASX release 24 July 2012)⁽¹⁾**
 - **Step-out drilling to extend the deposit's presently drill confirmed 2.0km strike**

Castle Managing Director, Stephen Stone said ***“It’s been a challenge to have the three samples of Kambale graphite collected and transported to Perth so we are really pleased that they are now here and that test work has commenced. Given the very positive outlook for the graphite market driven by its growing usage in traditional markets and the now burgeoning electricity storage and EV related markets, we are understandably very keen to determine asap if we can produce a commercially acceptable product.”***

Castle Minerals Limited (ASX: CDT) (“Castle” or the “Company”) advises that test work has commenced on three samples of graphitic material excavated from three trenches at its Kambale Graphite Project located in Ghana’s Upper West region (“Kambale Project”)(Photo 1. Figure 1. Table 1).

This phase 1 test work will be undertaken by Perth based Metallurgy Pty Ltd under the supervision of Independent Metallurgical Operations Pty Ltd and is expected to be completed in early July.

Subject to positive results, additional studies will be undertaken to develop a preliminary process flowsheet, to enable benchmarking of the Kambale Project against other developed and undeveloped deposits and to identify specific market opportunities for any concentrates that can be produced.

This work would be further complemented by core drilling to obtain samples of deeper unweathered material for additional test work and by RC and core drilling to infill and extend the existing Mineral Resource⁽¹⁾. Additional RC and aircore drilling will be undertaken to extend the strike of the deposit which presently remains open ended, especially to the south.

Castle’s appraisal of the Kambale Project is consistent with improved market prices for graphite concentrates and a positive longer term outlook for the commodity. These are underpinned by graphite’s use in the manufacture of lithium-ion batteries which are being increasingly used in electric vehicles, consumer electronics and other electricity storage applications.

Photo 1: Castle geologists bag samples from one of the three excavated trenches



Kambale Project Background

Geology and Mineral Resource

Graphitic mineralisation at Kambale is hosted within Lower Proterozoic Birimian (~2.2Ma) meta-sediments within the Wa-Lawra greenstone belt. The mineralisation is hosted within north-east trending, sub-parallel zones of strongly sheared meta-sediments, steeply dipping to the north west.

Historical drilling has confirmed that the Kambale deposit extends for at least 2km and to a depth of 110m, with mapping and geophysics indicating there is an excellent opportunity to extend the deposit's strike. To date, drilling at Kambale has defined two sub-parallel zones hosting graphitic of mineralisation which can be up to 50m wide.

An Inferred Mineral Resource of 14.4Mt at 7.2%C (graphitic carbon) for 1.03Mt contained graphite, including 6.0Mt @ 8.6%C for 0.52Mt contained graphite (JORC 2004)⁽¹⁾ has been estimated over a 1.25km section of the deposit (refer ASX release 24 July 2012).

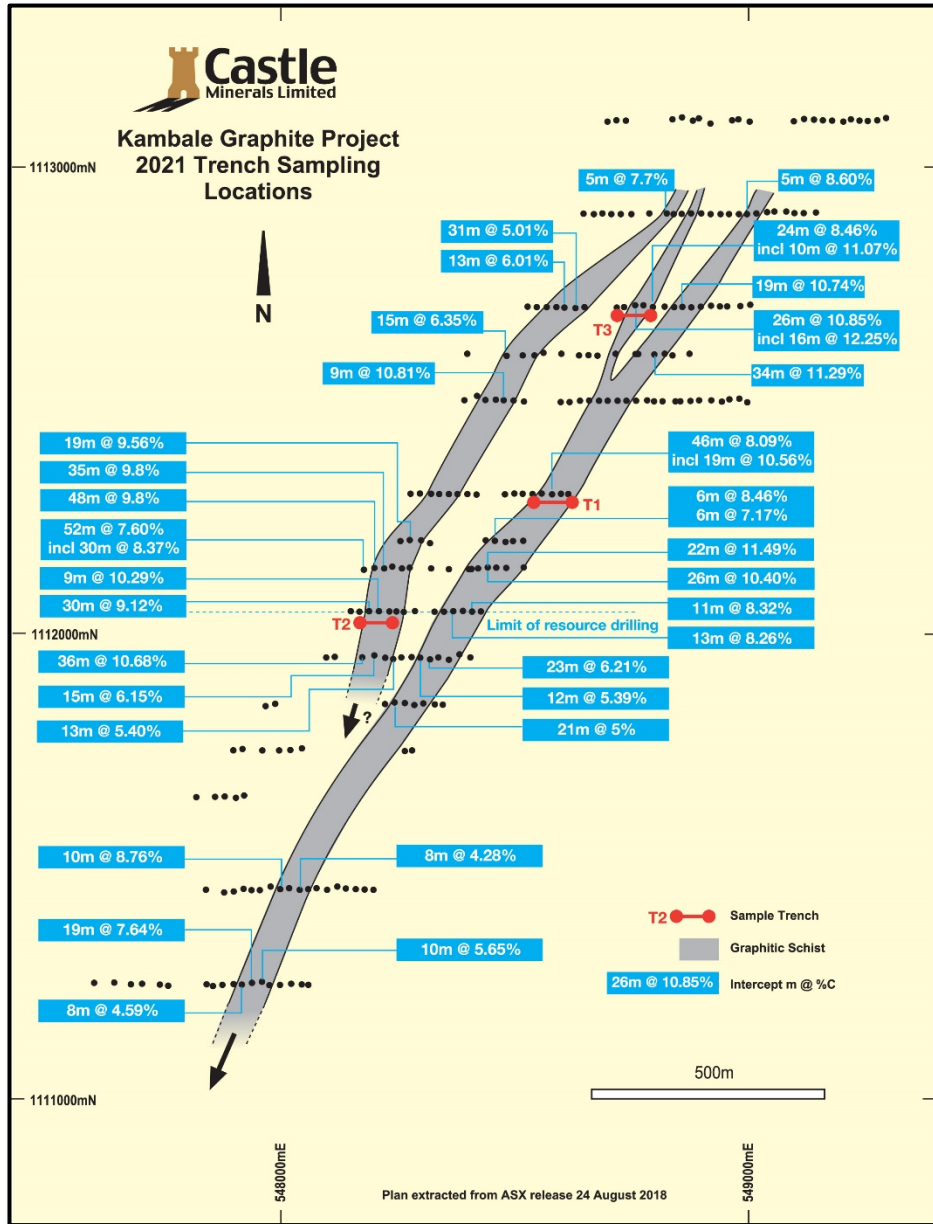
Metallurgy

Preliminary and very limited metallurgical test work in 2012, using a small quantity of RC drill chip samples of oxide and fresh material collected from several drill holes, indicated that it should be possible to produce and then upgrade a graphite concentrate (refer ASX release 3 September 2012).

Recent sample collection

Three trenches were mechanically excavated to a depth of 4m within weathered graphitic schists at sites selected on the basis of previous drilling. Five samples of approximately 10kg each were collected from each trench, placed and sealed in an airtight drum and transported to Accra. Each sample bag was then scoop sampled and the extracted material combined and homogenised to provide a single representative sample of that particular trench weighing approximately 10kg. This was repeated for the two other trenches. The three samples were then placed in a single sealed airtight drum and transported by airfreight to Perth. Some 140kg of trench samples remain in Accra and are available for additional test work if required.

Figure 1: Sample trench locations, historical drilling and surface projection of graphitic schist



Infrastructure and logistics

The Kambale Project is located close to the Upper West regional capital of Wa which is 400km north by good sealed roads of a major rail head at Kumasi. It is then approximately 240km by rail to the international port of Tema, 30km west of the capital Accra, which provides direct access to global export markets (Figure 2). An alternative Port of Sekondi-Takoradi is located approximately 230km west of Accra.

Ghana is an established and safe mining jurisdiction with a well-trained and very capable industry workforce. It has a strong mining services and supply sector and the national and local infrastructure is generally excellent with grid power, water and commercial air services available locally at Wa.

Licencing

The Kambale Project is located within a 137km² prospecting licence (PL10/47) granted to Carlie Mining Limited, a 100% owned Ghana registered subsidiary of Castle. The Government of Ghana has the right to acquire a 10% free carried interest in all mineral licenses in Ghana and is entitled to a 5% Gross Royalty on production.

Graphite price and market

Graphite’s unique physical and chemical properties make it a major component of many established industrial products and increasingly so in developing technologies. Whilst the markets for its traditional uses continue to grow, so to are the rapidly emerging markets for its use in lithium-ion batteries used in electric vehicles, consumer electronics and other electricity storage applications, aircraft wings, nuclear reactors, wind and solar power generation and semi-conductors. It has been declared a strategic mineral / critical raw material by both the European Union and the United States.

The graphite price is governed by a complex interaction of supply and demand factors with the overall medium to long term outlook for its price appearing to be positive according to a majority of informed commentators.

This positive outlook for graphite demand is a key driver for Castle deciding to reappraise the Kambale Project and to determine if it could underpin a commercially sustainable operation.



For further information on graphite and its market outlook readers are directed to independent commentaries on the graphite market that are available on various digital information platforms.

Table 1: Kambale Deposit Inferred Mineral Resource Estimate (5%C cut-off grade) (JORC 2004) (Refer ASX release 24 July 2012)⁽¹⁾

Type	Tonnes (Mt)	Graphitic Carbon (%)	Contained Carbon (t)
Oxide Material	3.4	7.1	243,000
Fresh Material	11.0	7.2	793,000
Total	14.5	7.2	1,036,000

NB: Errors may occur due to rounding

(1) *The Mineral Resource estimate was made in July 2012 and complied with recommendations in the Australasian Code for Reporting of Mineral Resources and Ore Reserves (2004) by the Joint Ore Reserves Committee (JORC). Castle is not aware of any new information or data that materially affects the information included in the JORC 2004 Mineral Resource estimate and that all material assumptions and technical parameters underpinning the Mineral Resource estimate continue to apply.*

The resource estimate released in July 2012 did not include any assumptions about mining, mining dilution, metallurgy or processing methods. No bulk density measurements were undertaken.

The Mineral Resource estimate is not compliant with Australian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves - 2012 edition. No additional technical work has been done since the Mineral Resource estimate was made. There is insufficient information available for the resource to be re-estimated to be compliant with the Australian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves - 2012 edition. It is possible that following additional technical work, and should a Competent Person be able to undertake a re-estimation of the Mineral Resource to comply with JORC Code 2012, that the Mineral Resource may materially change and/or reduce. Substantial work is required in order to bring the resource into compliance with JORC Code 2012. A timeline and budget for this work has not been established. Several factors not limited to geology, metallurgy, environment, heritage, licencing and permitting, commodity price and market conditions will singularly, or in combination, impact on decisions to undertake and complete this work.

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

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PREVIOUSLY REPORTED INFORMATION

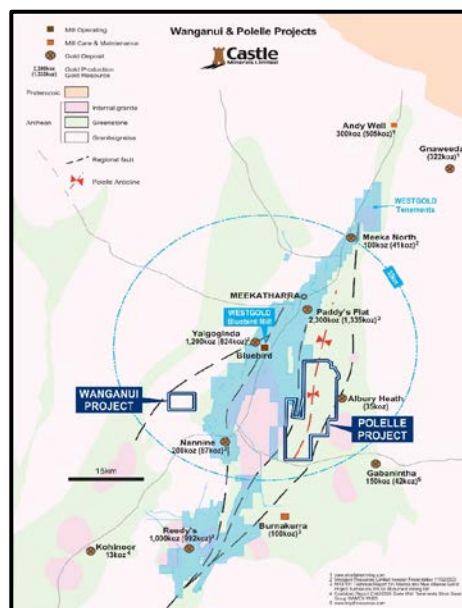
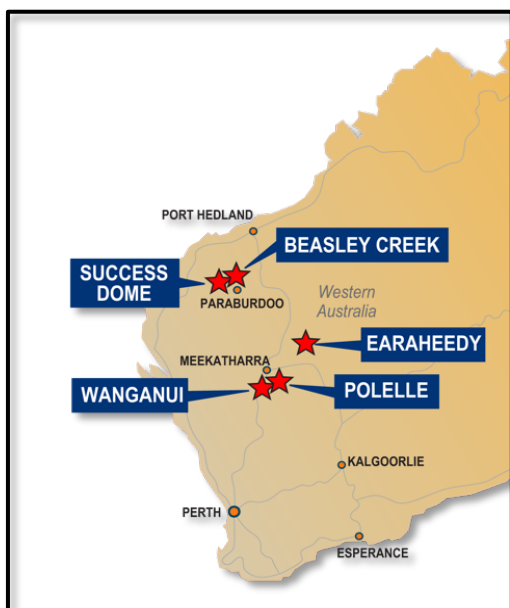
The Company has made several disclosures to ASX specifically concerning the Kambale Graphite Project as listed below (Table 2). The Mineral Resource estimate was made in July 2012 and was at the time compliant with Australian Code for Reporting of Mineral Resources and Ore Reserves (2004) by the Joint Ore Reserves Committee (JORC). The reader is referred to these reports and contained disclosures to obtain more information on the status of the Kambale Graphite Project as it was at the time of those disclosures (www.castleminerals.com).

Table 2: Previous releases to ASX related to Kambale Graphite Project

Date	ASX Release Headlines
15.03.21	Castle to Reappraise Kambale Graphite Project, Ghana
17.09.12	Drilling doubles strike length of Kambale Graphite deposit
03.09.12	Metallurgical test work confirms commercial potential of Kambale graphite deposit
24.08.12	High-grade graphite intercepts extend Kambale deposit
24.07.12	Maiden resource confirms Kambale as one of the World’s largest graphite deposits
21.03.12	Wide zones of graphite intersected on Wa project
06.07.12	Large high-grade graphite deposit confirmed at Kambale

About Castle Minerals Limited

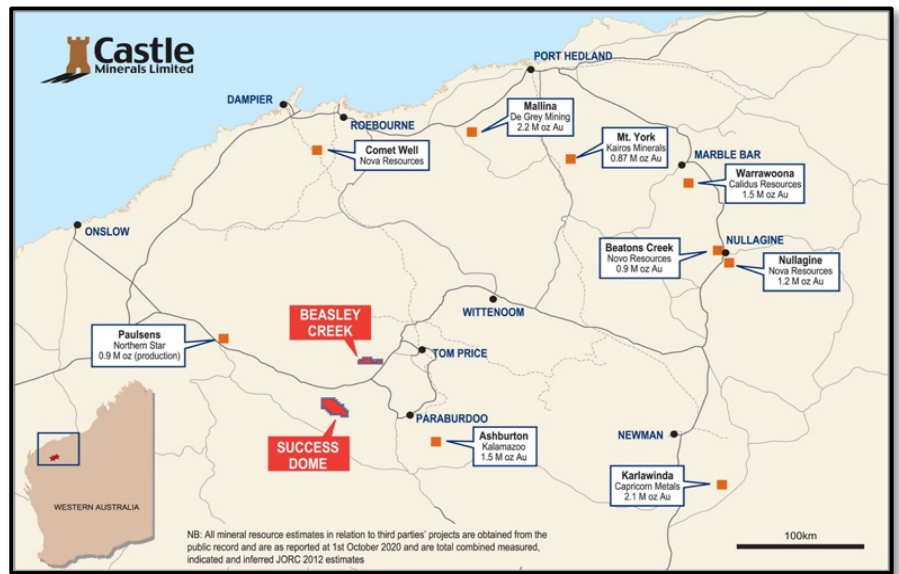
Castle Minerals is an Australian Securities Exchange (ASX: CDT) listed and Perth, Western Australia headquartered company with interests in several projects in Western Australia and Ghana that are prospective for gold, base metals, graphite and other minerals.



The **Polelle** project (E51/1843, 162.5km²), 25km south of Meekatharra and 7km southeast of the operating Bluebird Mine, hosts a mainly obscured and minimally explored greenstone belt. The belt is comprised of a combination of prospective lithological units and major structural features including the Albury Heath shear which hosts the Albury Heath deposit (Inferred Resource of 528,000t at 2.09g/t Au for 35,479oz Au) immediately adjacent to the east boundary of Castle’s licence. Aeromagnetics have indicated that the southwest trending Albury Heath shear is traceable onto the Polelle project area for some 7.5km.

At the **Wanganui** project (E51/1703, 18.4km²), 33km south-west of the active Meekatharra mining centre and 15km south-west of the operating Bluebird gold mine, the opportunity is to test for down-plunge and along strike extensions to the existing Main Lode North and South deposits, as well as for other similar targets. The Main Lode mineralisation, which can be intermittently traced for at least 1km, is one of at least four structurally related mineralised zones.

The **Beasley Creek** project lies on the northern flanks of the Rocklea Dome in the southern Pilbara. The strategy is to define structurally controlled gold targets within the various Archean sequences. These lie immediately above and below the 16km east-west striking conglomerate horizons which had been the initial focus of exploration by Castle. The sheared granite - greenstone contact and the “Paulsen Gold Mine” type setting within the gabbro/dolerite units that intrude the Hardy Sandstone in the northern part of the project area, are of particular interest.



The **Success Dome** project is a recent application for an exploration licence 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. More locally, Success Dome lies immediately adjacent to the southern margin of the Hamersley Basin and 40km southwest of Castle’s Beasley Creek gold project. Major thrust faults and sub-parallel shear zones highlighted in the regional magnetic and gravity data, combined with additional detailed geophysics data from previous explorers, brought this available area to Castle’s attention.

The **Earaheedy** project comprises applications for five exploration licence encompassing terrane prospective for base and precious metals in the Earraheedy and Yerrida basins base metals provinces. The project comprises the **Withnell** and the **Terra Rosa** sub-projects. The Withnell application is adjacent to the recent Chinook-Magazine zinc-lead discovery of Rumble Resources Ltd (ASX: RTR). The four Terra Rosa applications are immediately east of the Thaduna copper deposit.



In **Ghana, West Africa**, Castle has a substantial and contiguous tenure position in the country's Upper West region. Ghana has a long history of gold exploration and mining with several world-class gold mining operations owned by Tier 1 mining companies. Castle's Ghana licence holdings encompass large tracts of highly prospective Birimian geological terrane, the host to many of West Africa's and Ghana's multi-million-ounce gold mines. Several licences are adjacent to the pre-development stage Wa Gold Project (Azumah Resources Limited). Castle retains a **4% net smelter precious metal royalty** over the Julie West licence, a key component of Wa Gold project. The Ghana project area is also host to the **Kambale graphite** project.

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 programmes 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 results.