

## Activities Report - March 2021 Quarter

### Highlights

- Reported up to 4.91g/t Au from rock chip sampling at the **Polelle** project and the completion of an extensive wide-spaced auger soil sampling campaign. A further programme of infill soil sampling has been completed to define drill targets for a planned Q2/Q3 RC drilling programme. Soil sampling assays are pending.
- Completed a 2,323 line-km high-resolution aeromagnetic survey at the **Beasley Creek** project where the primary target is Archean, structurally-controlled, orogenic-style gold mineralisation with base metals also a possibility. Structural interpretation to define prospect-scale targets underway.
- Successfully applied for co-funding of drilling at **Beasley Creek** under the Geological Survey of Western Australia's Exploration Incentive Scheme.
- Reprocessed and commenced interpretation of regional aeromagnetic data covering the **Success Dome** exploration licence application. This is being interpreted to provide structural information to guide an initial phase of mapping and reconnaissance sampling once the licence is granted.
- Applied for (post 31 March) five exploration licences in the **Earaheedy Basin** including the **Withnell** licence, an area immediately north and partially along strike of the recent and impressive Chinook-Magazine zinc-lead discovery of Rumble Resources Ltd (ASX: RTR).
- Commenced in **Ghana**, a reassessment of the technical and commercial attributes of the **Kambale graphite** project consistent with the strong long-term graphite price outlook. Bulk samples have been excavated and are in Accra awaiting transport to Perth where test work will commence.
- Continues to generate and assess new project opportunities and to review for application prospective open ground in Western Australia.
- Working capital at 31 March 2021 was **\$2.23 Million**

### WESTERN AUSTRALIA

#### Polelle

- High-grade rock-chip results of up to 4.9g/t Au reinforced the results of the initial auger sampling campaign (refer ASX releases 12 January 2021 and 24 February 2021)(Fig 1).
- An 852 sample infill soils campaign was also completed to finesse several broad zones of anomalism generated by an initial phase of auger sampling. Assays are awaited with frustratingly long laboratory sample turnaround times impeding planning of a maiden drill programme.

- Polelle continues to tick many geological boxes especially given its excellent structurally prepared backdrop for the formation of orogenic gold deposits as confirmed by Castle’s high-resolution magnetic programme. It is also located immediately to the east of the prolific Meekatharra gold mining district but due to a general lack of outcrop and near-surface gold depletion, hasn’t received as much attention as its more well-established neighbours.

### Wanganui

- At the Wanganui project (E51/1703, 18.4km<sup>2</sup>), 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.
- Castle will consider drilling extensions to plunging mineralised structures it has identified at Main Lode South which work may take place after proposed RC drilling was completed at the Polelle project.

### Beasley Creek

- A 2,323 line-kilometre high-resolution aeromagnetic survey was commenced and completed during the Quarter. Data has been processed by the survey contractor and imagery produced by Castle’s geophysicist. This is now being interpreted to identify likely mineralised structures at the prospect scale. Once completed, this will enable Castle to more tightly focus mapping and sampling ahead of core and RC drilling planned in Q3.
- Anomalous gold at several locations where Castle has undertaken bulk stream sediment sampling, the presence of quartz veining proximal to these, observations of remnant sulphide textures and malachite staining in some veins plus the recovery of small gold nuggets in the same localities, all combined reinforces the need to progress this increasingly interesting project.
- The enhanced structural information provided by the geophysical data will allow all of this to be placed in a well-defined structural context.
- Subsequent to Quarter-end, Castle was informed that it had successfully applied for \$99,375 co-funding of drilling under the Geological Survey of Western Australia’s Exploration Incentive Scheme.

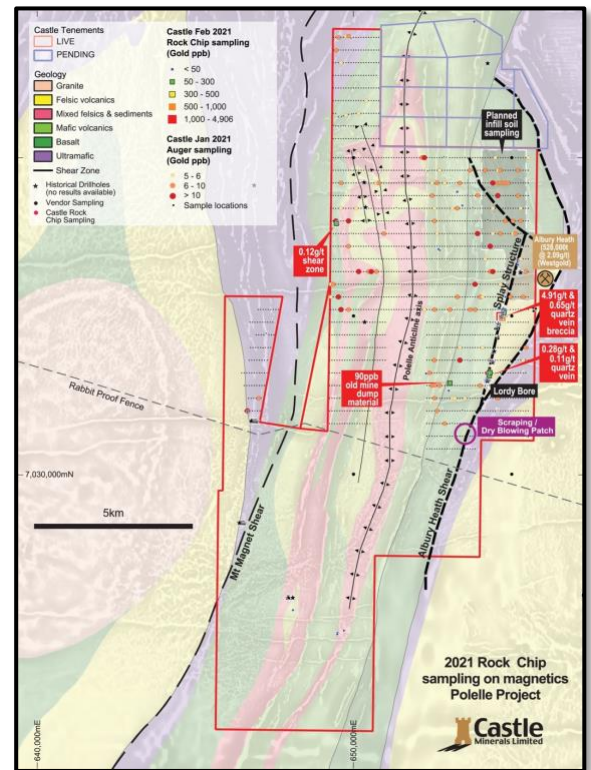
### Success Dome

- Regional aeromagnetic data covering the Success Dome application in the Ashburton region of Western Australia has been reprocessed. It is now being interpreted to provide structural information to guide an initial phase of mapping and reconnaissance sampling exploration that will take place as soon as the 70-block, 220km<sup>2</sup> licence is granted.

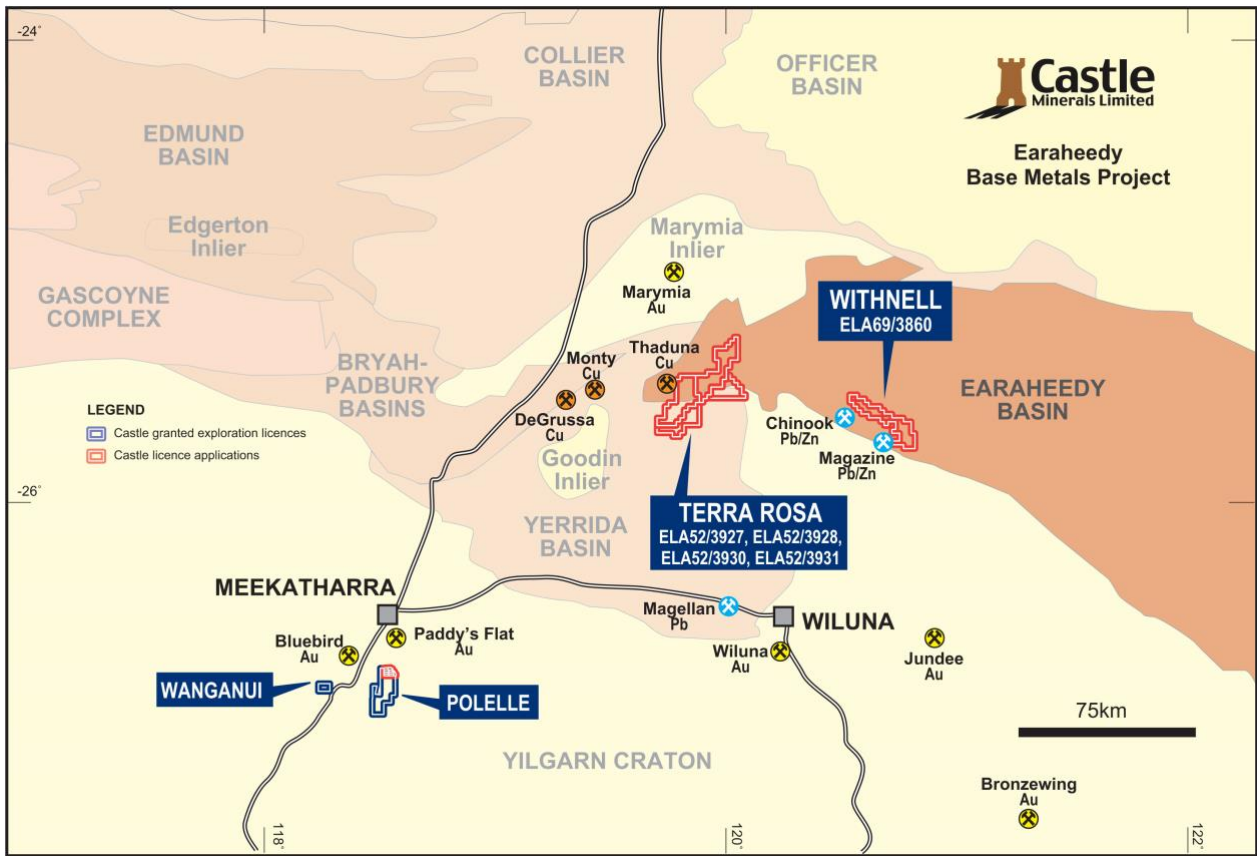
### Earaheedy Basin

- Castle has applied (post 31 March 2021) for five exploration licences in the Earahedy Basin which abuts the north-eastern margins of the Archaean Yilgarn block. The areas are broadly 40km and 100km east of the De Grussa copper mine and ~120km north of Wiluna (Figs 2 and 3).
- The five applications have been grouped into the “Terra Rosa” and the “Withnell” sub-projects. The applications are consistent with Castle’s strategy of positioning itself at low-cost in regions prospective for base and precious metals and which have generally not received much recent attention or the benefit of the latest available exploration tools.

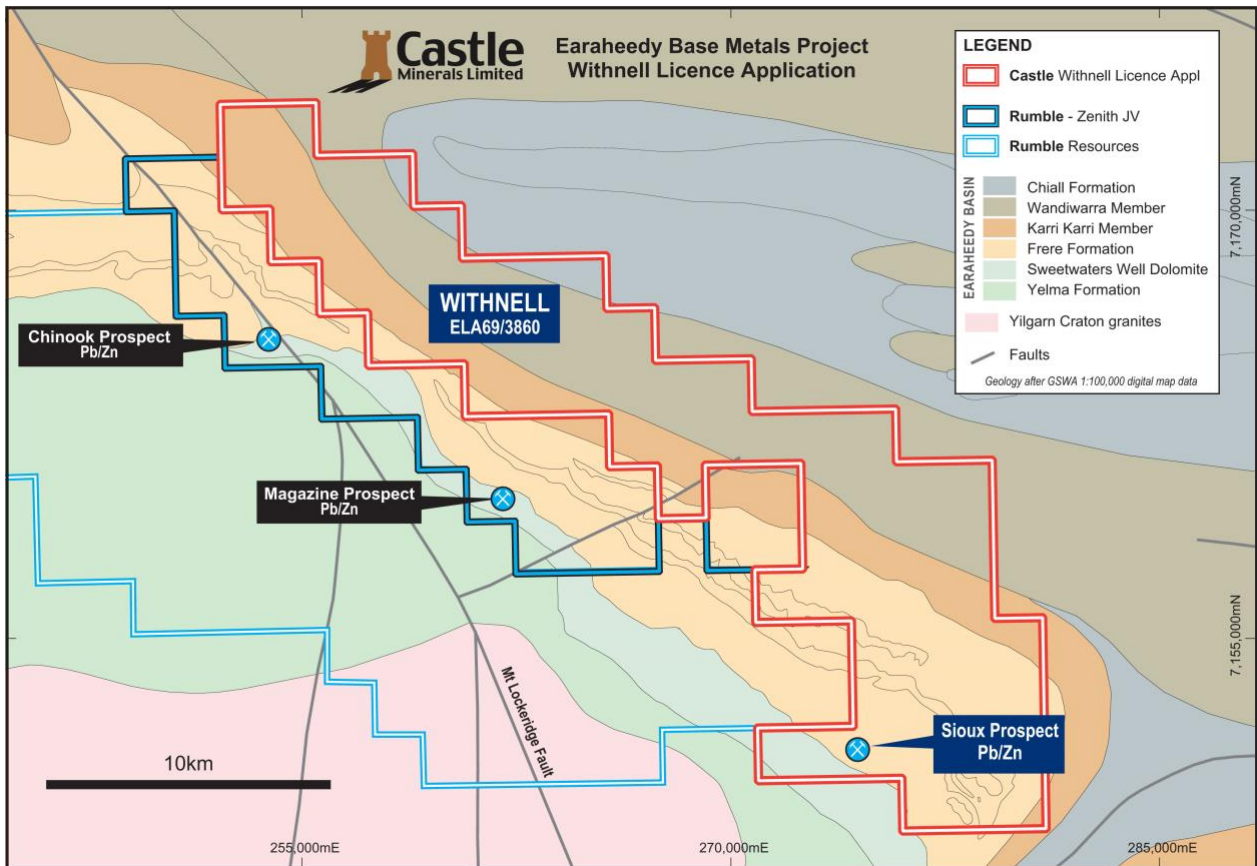
Figure 1: Polelle rock chip sampling



**Figure 2: Earraheedy Project - Exploration licence application areas**



**Figure 3: Earraheedy Project – Withnell exploration licence application**



- The Withnell application area is immediately north of and, in part, appears to be along strike from the recent Chinook – Magazine zinc-lead discovery (Refer Rumble Resources Limited ASX:RTR releases 8 April 2021 and 19 April 2021).
- An initial appraisal of historical reports and 1:100,000 scale GSWA mapping covering the Withnell application area indicates that the west extremity and southern portion of the licence most likely encompass the Frere Iron Formation and its unconformable contact with the underlying, prospective Sweetwaters Well member of the Yelma Formation.
- Importantly, much of the historical exploration in the region occurred in the 1990's with a number of prospects delineated within the Sweetwater Well and overlying Frere Formation. The Withnell application was made on the basis that one such prospect, the Sioux prospect, appears to occur within the Withnell licence area. The exact location and nature of the Sioux prospect has yet to be verified in the field.
- The four contiguous Terra Rosa applications are grouped immediately to the east of the Thaduna copper deposit.
- Castle has commenced the collation and critical review of publicly available historical data and is also evaluating work being undertaken by other companies presently active in the region as a prelude to determining the prospectivity of its licence areas and the logical way to progress each.
- NB: All five licence applications are at an early stage of the grant process and there is no certainty that the applications will be granted.

## **GHANA**

### **Kambale graphite**

- The Kambale graphite project in northern Ghana is a sleeper asset within Carlie Mining Limited (100% owned Ghanaian registered subsidiary of Castle) which now warrants a reappraisal consistent with improved market prices for graphite concentrates and a positive longer term outlook for the commodity. These are underpinned by its use in the manufacture of lithium-ion batteries which are being increasingly used in electric vehicles, consumer electronics and other electricity storage applications.
- Drilling, a maiden Mineral Resource estimation and preliminary metallurgical test work in 2012 were encouraging enough that Castle has committed to a programme of test work to place the Company in a position to make an informed decision as to how best it can take Kambale forward.
- Bulk samples have been excavated and are now in Accra awaiting transport to Perth. Once in Perth, planned test work will produce flotation concentrates for flowsheet design, concentrate characterisation, market positioning and project benchmarking studies to enable identification of possible commercial options.

### **Carlie Mining Limited**

- Castle is assessing various options to advance and/or monetise its Ghana project interests.

## **NEW OPPORTUNITIES**

- Castle continues to generate and assess mainly Western Australia gold opportunities for possible acquisition.

## **CORPORATE AND FINANCIAL**

- Maintained, as at 31 March 2021, a consolidated cash position of **\$2.23 million**.

- Expended during the Quarter \$190,000 on exploration and evaluation costs. Further details of the exploration and evaluation activity during the March Quarter is set out in the accompanying Appendix 5B report.
- Made cash payments of \$104,000 to related parties and their associates. These payments relate to the existing remuneration agreements for the Executive and Non-Executive Directors.

## NEXT QUARTER

Castle’s plans for the June 2021 Quarter include:

- Reporting of assay results from the **Polelle** infill soil sampling programme, field checking of anomalies and drill programme marking out ahead of the commencement of RC drilling to test priority targets;
- Integration and interpretation of data generated by the high-resolution aeromagnetic survey at **Beasley Creek** with existing regional mapping, rock chip and bulk stream sediment sampling to define areas for detailed mapping, soil and rock chip sampling to commence mid-May;
- Reconnaissance soil sampling, mapping and initial target definition at **Success Dome**;
- Collection and review of publicly available information concerning the five **Earaheedy Basin** exploration licence application areas;
- Shipping to Perth and commencement of test work on **Kambale** bulk graphite samples; and
- Generation, appraisal and progress of new acquisition opportunities.

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

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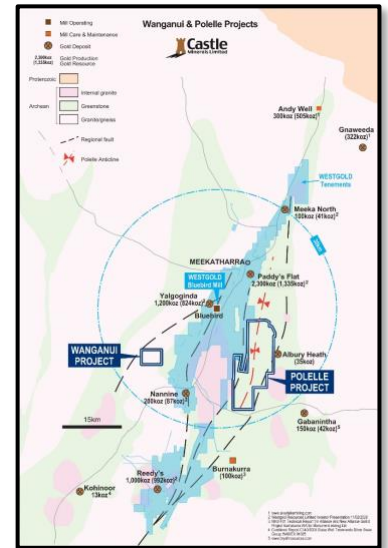


## About Castle Minerals Limited

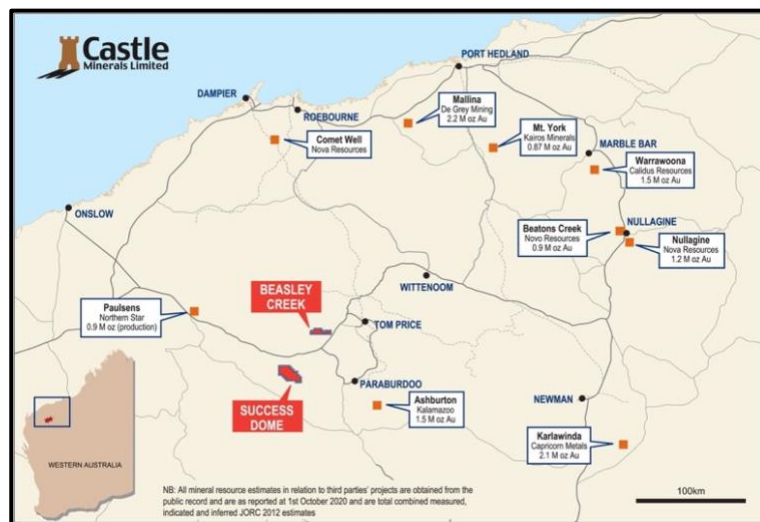
Castle Minerals is an Australian Securities Exchange (ASX: CDT) listed and Perth, Western Australia headquartered company with interests in several projects in Western Australia and Ghana that are prospective for gold, base metals, graphite and other minerals.

The **Polelle** project (E51/1843, 162.5km<sup>2</sup>), 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, 18.4km<sup>2</sup>), 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. The project area is also host to the **Kambale graphite** project.

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

### PREVIOUSLY REPORTED INFORMATION

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
Additional Earahedy Exploration Licence Applications	28 April 2021
Earahedy Basin Licence Applications	19 April 2021
Aeromagnetic Survey Commences at Beasley Creek	29 March 2021
Castle to Reappraise Kambale Graphite Project, Ghana	15 March 2021
Interim Financial Report for the Half Year Ended 31 December 2020	10 March 2021
Up to 4.91g/t Au from rock chip sampling at Polelle	24 February 2021

## SCHEDULE OF CASTLE MINERAL LICENCES (as at date of this report)

Tenement and Name		Interest at beginning of Quarter	Acquired / Disposed (during the Quarter)	Interest at end of Quarter
<b>WESTERN AUSTRALIA</b>				
<b>Meekatharra Projects</b>				
E51/1703	Wanganui	100%	n/a	100%
E51/1843	Polelle	100%	n/a	100%
PLA 51/3190–98	Polelle	0%	Application	Application
<b>Pilbara Projects</b>				
E47/3490	Beasley Creek	80%	n/a	80%
ELA 08/3257	Success	0%	Application	Application
<b>Earaheedy Basin Project</b>				
ELA 69/3860	Withnell	0%	Application	Application
ELA 52/3927	Terra Rosa	0%	Application	Application
ELA 52/3930	Terra Rosa East	0%	Application	Application
ELA 52/3931	Terra Rosa South	0%	Application	Application
ELA 52/3928	Marymia	0%	Application	Application
<b>GHANA (Carlie Mining Limited) <sup>(1)</sup></b>				
<b>Graphite Project</b>				
PL 10/47	Kambale	100%	n/a	100%
<b>Gold Projects</b>				
RLA	Chache	Application	n/a	Application
RLA	Jewoyeli	Application	n/a	Application
RLA	Takariyili	Application	n/a	Application
RLA	Tuole	Application	n/a	Application
RL 10/23	Jang	100%	n/a	100%
RL 10/13	Wa	100%	n/a	100%
PL 10/26	Degbiwu <sup>(2)</sup>	100%	n/a	100%
PL 10/23	Bulenga	100%	n/a	100%
PL 10/25	Charingu	100%	n/a	100%
PLA	Kandia	Application	n/a	Application
PL 10/24	Baayiri	100%	n/a	100%
RL 8/27	Gbinyiri <sup>(2)</sup>	100%	n/a	100%
RL 8/28	Gurungu	100%	n/a	100%
RL 8/31	Jumo	100%	n/a	100%
RL 8/30	Chasia	100%	n/a	100%
RL 8/29	Perisi	100%	n/a	100%
RLA	Funsi	Application	n/a	Application

(1) 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. All licences are held in 100% owned Ghana based subsidiaries, Carlie Mining Limited. Where required, Castle has lodged applications for extension of the licences and in those cases may be awaiting renewal or extension of the licences.

(2) Carlie Mining Limited has entered into a farm-out arrangement with private Ghana company, Iguana Resources Limited, who may earn up to an 80% interest in the Degbiwu and Gbinyiri licences located in Ghana's Upper West region by spending a total of US\$11.7 million in three stages over five years (ASX release 14 August 2019).