# Mt. Roe Conglomerates Confirmed in Addition to Expected Hardey Conglomerates at Coolyia Creek

- Orientation visit confirms Project ticks many of the boxes for the discovery of 'Witwatersrand-style' conglomerate hosted gold mineralisation.
- 10km strike of outcropping to near-surface, shallow-dipping Mt.
   Roe and Hardey conglomerates.
- Extensive prospector scrapings, detecting holes and a small nugget recovered proximal to and downslope of unconformity contacts at base of Fortescue Group.
- In-situ visible gold in major bedrock quartz vein immediately underlying Mt. Roe conglomerate with associated quartz scree and nugget patch.

"Confirmation of Mt. Roe conglomerates as well as the expected Hardey conglomerates over a more widespread area than envisaged, the high-level of prospector activity, the general geological setting and presence of a primary gold source reinforce the prospectivity for the discovery of Witwatersrand-style conglomerate-hosted gold mineralisation at the Coolyia Creek Project" said Castle Managing Director, Stephen Stone.

"We expect to mobilise very shortly field crews to Coolyia Creek and the recently acquired Beasley Creek projects to undertake more detailed mapping, rock-chip, stream sediment and soil sampling"

Castle Minerals Limited (ASX:CDT) advises that an orientation visit to the recently acquired Coolyia Creek conglomerate gold project, 40km west of Marble Bar, East Pilbara region of Western Australia Project has confirmed widespread presence of both Mt Roe and Hardey conglomerate horizons (Refer ASX release 11 October 2017)(Figures 1 and 2).

This is consistent with Castle's exploration objectives at Coolyia Creek which is the discovery of conglomerate-hosted nugget and fine gold mineralisation located at the geologically unconformable contacts between the underlying old Archaean 'basement' and Mt. Roe Basalt, and similarly between the Mt. Roe and Hardey formations. These prospective contact zones total approximately 10km at the Project and are analogous settings to gold mineralisation at the Purdy's Reward project near Karratha, and the Beaton's Creek deposit near Nullagine respectively.

Whilst Hardey Formation conglomerate was expected from mapping by the Geological Survey of Western Australia (GSWA) at Coolyia Creek and was the primary driver for its acquisition, the presence of Mt Roe conglomerates is an added bonus.



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# Capital Structure:

Quoted Shares: 209M 3c Options: 6M

#### Board:

Michael Atkins Chairman

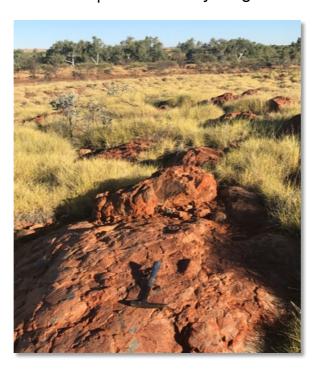
Stephen Stone Managing Director

lan Hobson Non-Executive Director & Company Secretary



The overall conglomerate exposure is reasonably limited due to the relatively flat-lying nature of the Fortescue stratigraphy, extensive colluvium and scree cover (often of the weathered conglomerates themselves), some modern alluvium and occasional dense vegetation.

Where exposure does occur, the conglomerates are well developed and typical of those expected from the GSWA descriptions (Photo A).



Photos A: Exposure of Hardey Conglomerate

The prospective Mt. Roe Basalt / older Archaean unconformity contact skylights in the central part of ELA 45/4965 where a thin sequence of upper Mt. Roe sandstone and basalts have been mapped. These units dip gently eastwards under younger Hardey and Kylena Formations. On the far eastern side of the tenement the oldest unit of the Mt. Roe Basalt outcrops.

# Extensive prospector excavations

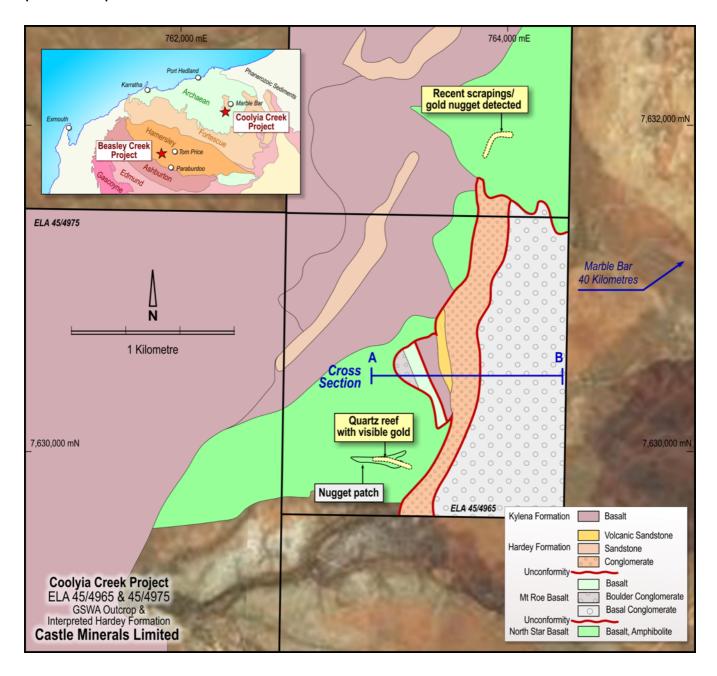
In the northern part of ELA 45/4975 unknown prospectors, using a wheeled digger, have extensively excavated down to bedrock a north-north-east trending seasonal creek. The upper headwaters of the creek drain the GSWA mapped unconformable contact between the Fortescue Group rocks (of which the Mt Roe and Hardey Formations are the lower most stratigraphic components) and the underlying Archaean.

Numerous metal detector 'nugget' holes over several hundred metres and a small flat 'cornflake' gold nugget, found by Castle metal detecting during the site visit, are encouraging factors especially given that no evidence of a source of primary bedrock gold from quartz veining in the Archaean bedrock was present (Photos B and C).

Generally, the flat-lying to gently east-dipping nature of the Mt Roe and Hardey Formations in what is interpreted as a shallow paleo-depression or sub-basin is considered positive for exploration, prospectivity and scale should any discovery be made.



Figure 1: Map summarising outcrop and inferred trace of Mt Roe and Hardey conglomerate facies, area of recent prospector scrapings (where nugget retrieved) and quartz veining with nugget patch (after GSWA)



# Visible bedrock gold in quartz vein and nugget patch

A well-developed, massive, quartz vein outcrops for at least 200m in the central east of the licence area. It is accompanied by narrower sub-veins and appears to have been intruded sub-parallel into the Archaean basement dolerite (Warrawoona Group – North Star 'Basalt') stratigraphy immediately below the prospective Fortescue Group stratigraphy and was the driver for the Project's Vendors to apply for ELA 45/4965.

An exposure of the vein by the Vendors revealed visible gold and can be assumed to be the source of a productive metal detector nugget patch. Several small nuggets recovered by the Vendors vary in appearance and are more than likely related to the quartz vein.



Veining was observed elsewhere in the project area. Whilst not the primary focus of exploration by Castle, given the size and extent of the vein and apparent gold endowment, it is a very viable exploration target in its own right and could have provided at least one source of gold in the overlying conglomerates.

Figure 2: Schematic cross-section across main central area at Coolyia Creek (refer Figure 1) illustrating interpreted stratigraphy, outcropping and inferred trace of basal conglomerates and unconformities, and other key features (not to scale)

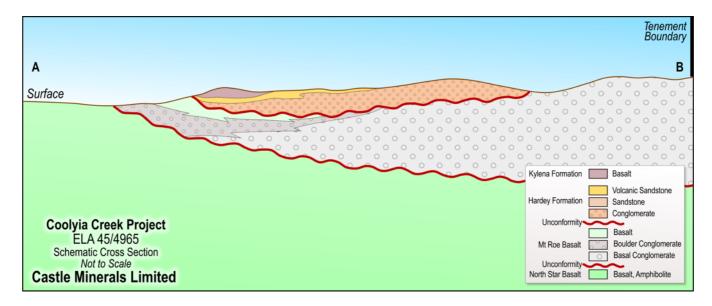


Photo B: Vendor / Prospector digging exposing 200m strike east-west quartz vein with visible gold



Photo C: Vendor nuggets retrieved in vicinity of quartz veining



# Next stage

This reported orientation site visit by Castle's geologists was carried out over two days during which several traverses were made across the prospective stratigraphy. Several rock chip, stream sediment and soil samples were collected to provide background information for planning of more detailed mapping, not least to determine the effectiveness of stream sampling in the area (results not yet available).



Castle is currently planning to send a crew to site to carry out a more comprehensive and systematic evaluation of the area which has received little to no formal exploration for gold. This work will be combined with acquisition and interpretation of remote sensing data.

## Stephen Stone

Managing Director <a href="mailto:stone@castleminerals.com">stone@castleminerals.com</a> 0418804564

#### **About Castle Minerals Limited**

Castle Minerals is listed on the Australian Stock Exchange (ASX: CDT) and headquartered in Perth, Western Australia. In addition to its interest in the Coolyia Creek and Beasley Creek Witwatersrand-style conglomerate hosted gold projects in the Pilbara region of Western Australia, it has a large contiguous tenure position in the Upper West region of Ghana, West Africa, a country with a long history of gold exploration and mining. Its Ghana licence holdings encompass large tracts of highly prospective Birimian geological terrane, the host to many of West Africa's multi-million ounce gold projects. All of Castle's ground in Western Australia and Ghana is at a relatively early stage of exploration and offers considerable opportunity for discoveries of gold and other minerals.

### **Cautionary Statement**

The Coolyia Creek and Beasley Creek Projects are considered to be of very early stage, grass roots exploration status. No Competent Person has done sufficient work in accordance with JORC Code 2012 to conclusively determine if gold is present in conglomerates on the licences applied for or to estimate in what quantities but in each case the general integrity of mapping by the GSWA has been confirmed. It is possible that following further evaluation and/or exploration work that the confidence in the information used to identify and acquire interests in the areas of interest in the Pilbara may be reduced when reported under JORC Code 2012. No work other than a desk-top review or low-impact reconnaissance mapping and sampling can be undertaken at either Project until the licences are granted which amongst other things requires the consent of the Minister, or an Officer of the department acting with the authority of the Minister, and is also subject to the statutory Native Title notification and negotiation period.

#### **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 a 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.



# 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 as currently expected. 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 successfully be 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.

JORC Code, 2012 Edition – Table 1 Section 1: Sampling Techniques and Data

| Criteria               | JORC Code explanation  | Certified Person Commentary  |
|------------------------|--|--|
| Sampling<br>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.   | Rock chipping on sub cropping quartz veining identified visual gold  A prospector accompanying the trip using a metal detector found a small flake of gold in a recently scraped area  The prospector also presented some of the nuggets he had previously detected on the area of the tenement and identified recovery loactions. |
|                        | Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.  | The vein, in-situ visible gold location and niugget field were located using a handheld GPS.   |
|                        | Aspects of the determination of mineralisation that are Material to the Public Report.   | Two day orientation site visit provided limited field time. No systematic exploration was undertaken.  |
|                        | In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg 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. | N/A  |
| Drilling<br>techniques | Drill type (eg core, reverse circulation, openhole 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).   | N/A  |
| Drill sample recovery  | Method of recording and assessing core and chip sample recoveries and results assessed.  | N/A  |
|                        | Measures taken to maximise sample recovery and ensure representative nature of the   | N/A  |



|   | samples.   |  |
|---|--|--|
|   | Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.   | N/A  |
| 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.                                | Geological description and photographic records of the quartz vein and retrieved nugget were recorded. No attempt to define a resource is contemplated using this information. |
|   | Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.   | N/A  |
|   | The total length and percentage of the relevant intersections logged.  | N/A  |
| Sub-sampling<br>techniques<br>and sample<br>preparation | If core, whether cut or sawn and whether quarter, half or all core taken.  | N/A  |
|   | If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.  | N/A  |
|   | For all sample types, the nature, quality and appropriateness of the sample preparation technique.   | N/A  |
|   | Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.  | N/A  |
|   | Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results for field duplicate/second-half sampling.  | N/A  |
|   | Whether sample sizes are appropriate to the grain size of the material being sampled.  | N/A  |
| Quality of<br>assay data<br>and<br>laboratory<br>tests  | The nature, quality and appropriateness of<br>the assaying and laboratory procedures used<br>and whether the technique is considered<br>partial or total.  | N/A  |
|   | For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. | N/A  |
|   | 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.                 | N/A  |
| Verification of sampling and assaying                   | The verification of significant intersections by either independent or alternative company personnel.  | N/A  |
|   | The use of twinned holes.  | N/A  |



|   | Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.  | N/A                  |
|---|---|----------------------|
|   | Discuss any adjustment to assay data.   | N/A                  |
| 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.   | N/A                  |
|   | Specification of the grid system used.  | GDA 94 Zone 50 datum |
|   | Quality and adequacy of topographic control.  | N/A                  |
| Data spacing<br>and<br>distribution                                 | Data spacing for reporting of Exploration<br>Results.   | N/A                  |
|   | Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. | N/A                  |
|   | Whether sample compositing has been applied.  | N./A                 |
| Orientation of<br>data in<br>relation to<br>geological<br>structure | Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.  | N/A                  |
|   | 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.                    | N/A                  |
| Sample<br>security  | The measures taken to ensure sample security.   | N/A                  |
| Audits or reviews   | The results of any audits or reviews of sampling techniques and data.   | N/A                  |

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# Section 2: Reporting of Exploration Results

| Criteria   | JORC Code explanation   | Certified Person Commentary   |
|--|---|---|
| Mineral<br>tenement and<br>land tenure<br>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.          | All work reported was completed on ELA45/4965 and ELA 45 /4975. Both licenses are still under application. Castle Minerals Ltd has acquired an 80% interest in both licenses under the terms released to the ASX on the 11 <sup>th</sup> October 2017.  As the tenements have not been granted the sampling was undertaken under a miners right |
|  | The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.  | The tenement is still in the application stage. No impediments to grant have been identified.   |
| Exploration<br>done by other<br>parties          | Acknowledgment and appraisal of exploration by other parties.   | The project area has been subject to sporadic exploration over many years. To date no on ground work has been identified.   |
|  |   | The vendors of E45/4965 have prospected the area over several field seasons and have collected gold nuggets.  |
| Geology  | Deposit type, geological setting and style of mineralisation.   | Castle is primarily exploring the project for conglomerate hosted gold mineralisation situated on the unconformity surfaces within the Fortescue Group. As a secondary target gold mineralisation associated with quartz veining within sheared amphibolite within the old Archaean basement is also being tested.                              |
|  | 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:   | N/A   |
| Drill hole<br>Information                        | <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> |   |
|  | 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.                                       | N/A   |
| Data<br>aggregation<br>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   | No assay results are released with this report.   |
|  | Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure   | N/A   |



| Relationship<br>between<br>mineralisation   | used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.  The assumptions used for any reporting of metal equivalent values should be clearly stated.  These relationships are particularly important in the reporting of Exploration Results.  If the geometry of the mineralisation with respect to the drill hole angle is known, its | N/A N/A  |
|---|--|--|
| widths and<br>intercept<br>lengths          | 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').  | N/A  |
| 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.  | Refer figures in this announcement.  |
| Balanced<br>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.  |  |
| Other<br>substantive<br>exploration<br>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.                | No other material exploration data to report at this time.   |
| 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).   | The company has a batch of stream sediment and rock chip samples collected for orientation and planning purposes. These are being analysed. No results are available. Further work planned includes detailed systematic geological mapping, rock chip sampling, nugget detecting and stream sediment sampling. |
|   | Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.  | See figures in this announcement.  |