

# Visible Gold in 21 Bulk Stream Sediment Concentrates at Beasley Creek



- Gold panned from 21 of 39 bulk samples of stream sediments draining Hardey and Mt Roe conglomerates at Beasley Creek
- Sampling indicates the majority of the 16km Beasley unconformity is anomalous in gold
- Prospector scrape area identified at Beasley West extends area of interest
- Preliminary work on Archean gold targets returns encouraging results

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Castle Managing Director, Stephen Stone said ***“This latest programme at Beasley Creek continues to reinforce its credentials as a legitimate target for the discovery of paleo-placer style gold mineralisation.*”**

***“The return of anomalous gold in all bulk samples, collected from seasonal streams draining and immediately below the Mt Roe and Hardey conglomerate horizons, is extremely encouraging.*”**

***“Preliminary work undertaken on gold targets in the Archean basement units has also been equally encouraging.*”**

***“Exploration by Castle and other explorers in and around the Rocklea Dome, and the southern part of the Fortescue Basin in general, is demonstrating that it is a highly prospective province for several styles of mineralisation with Castle planning to advance all bona fide targets as warranted.”***

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Castle Minerals Limited (“Castle” or “the Company”) (ASX: CDT) advises that a second stream sediment sampling programme completed at its Beasley Creek Gold Project (“Project”) has recovered fine-grained gold in panned concentrates from 21 of the 39, 15kg sediment samples collected from streams draining mapped conglomerate horizons (Figs. 1 and 2. Table 1)(Appendix).

The gold grains recovered from the panning ranged from small flecks to fine particles. Assays for the bulk samples returned multiple, anomalous results along the conglomerate horizon, peaking at 52.2ppb Au.

The programme was designed to infill around previous sampling at Beasley West and to extend coverage over the remaining areas of the targeted 16km unconformity within Castle’s licence.

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Non-Executive Director  
and  
Company Secretary

These conglomerate horizons are considered to be the most likely hosts for the widely sought after paleo-placer gold mineralisation in the Pilbara region (*refer ASX releases 16th April, 21st February, 29th January, 5th June 2018 and 20th December, 23rd November, 13th November 2017*).

The Beasley Creek Project is located in the southern part of the Fortescue Basin on the northern end of the Rocklea Dome, an area that has in recent months become the focus of exploration attention from several companies seeking both conglomerate-style and Archean gold mineralisation.

These other explorers include Novo Resources Corporation (TSX.V: NVO), which has extensive landholding under application on the eastern and southern part of the dome, and Strategic Elements Ltd (ASX: SOR) which is actively exploring the area on the western side of the Rocklea Dome for conglomerate and shear-hosted vein gold mineralisation. It recently reported the recovery of gold nuggets and high-grade gold in vein quartz within mafic units within the Hardey Formation.

### **Beasley West**

A maximum value of 52ppb Au (BS5620) was returned from the Beasley West Prospect with other results including 25.7ppb Au (BS5651) and 14.3ppb Au (BS5621). These are all well above local background values.

The samples were collected from seasonal stream sediment adjacent to a sample from a 12-sample June 2018 programme that returned 166ppb, and from where several flakes of gold were recovered by metal detecting.

There is also evidence in the area of prospectors scraping along the unconformity contact for approximately 200m (*Photo:1*). The area has been very disturbed, but small pockets of conglomerate close to the interpreted contact can still be identified.

### **Beasley Far West**

The current programme also sampled for the first time the Beasley Far West area. All four stream samples panned there obtained visible gold.

### **Beasley Central**

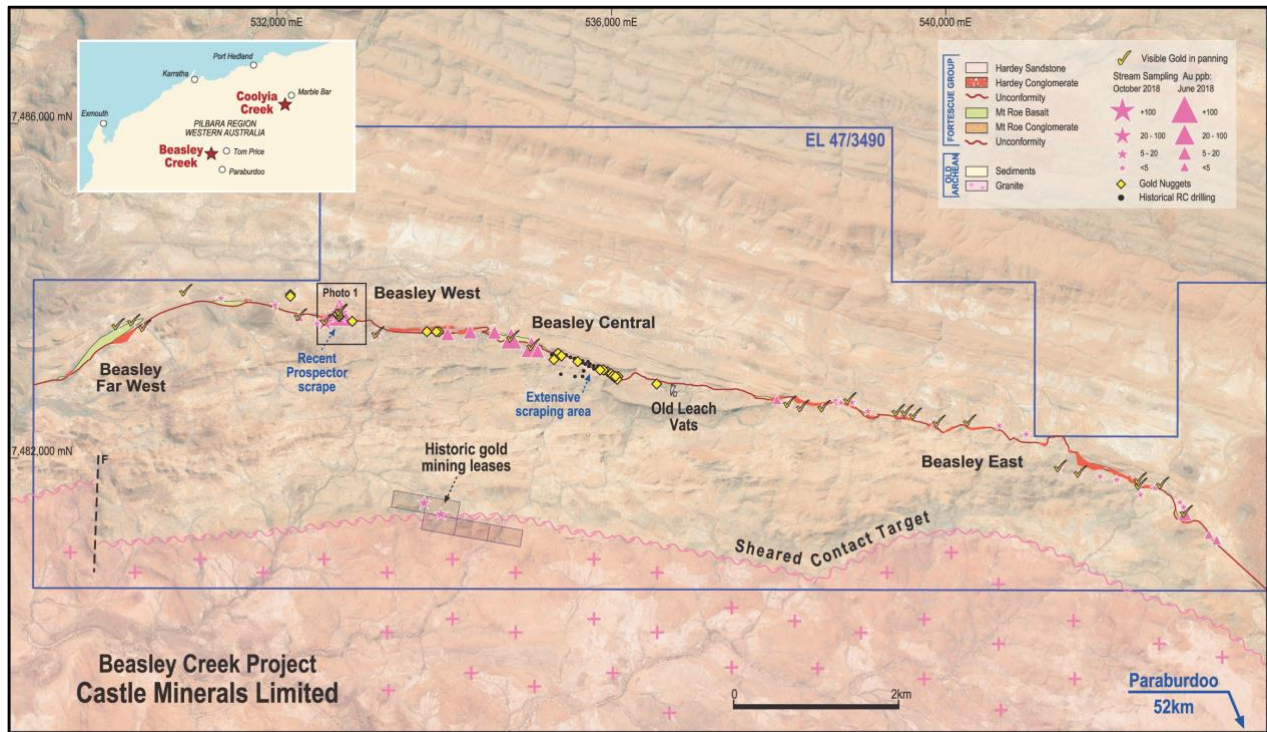
No sampling was undertaken this time at Beasley Central where historical alluvial and eluvial gold mining of material overlying Hardey conglomerate is evident. Drilling by previous licence holders has returned a \*4m intercept grading 11.4g/t Au (RRC15) in rocks straddling the unconformity contact (*refer ASX release dated 20th December 2017 and included Table 1, Appendix 1 and 2*).

Preliminary sampling and metal detecting at Beasley Central undertaken in 2017 by Castle recovered 62 small gold nuggets proximal to the prospective Mt Roe and Hardey conglomerates that sit above much of the unconformity surface.

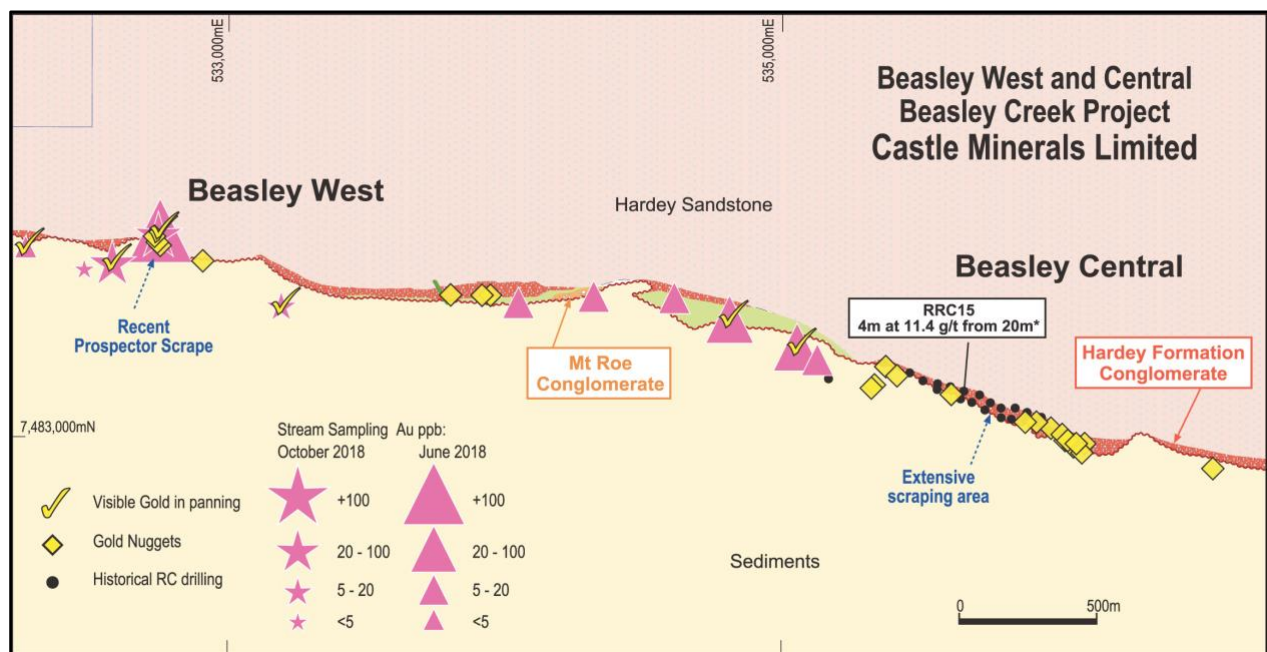
**Comment**

The work completed by Castle to date at Beasley Creek indicates that free gold is present along almost the entire length of the unconformity surface. Beasley Central remains a priority target, and the scrape area located at Beasley West provides a new gold target along the unconformity contact that requires priority testing.

**Figure 1: Beasley Creek: Targets, geology and sampling**



**Figure 2: Beasley Creek: Targets, geology and sampling (Enlargement)**



**Archean Gold Targets**

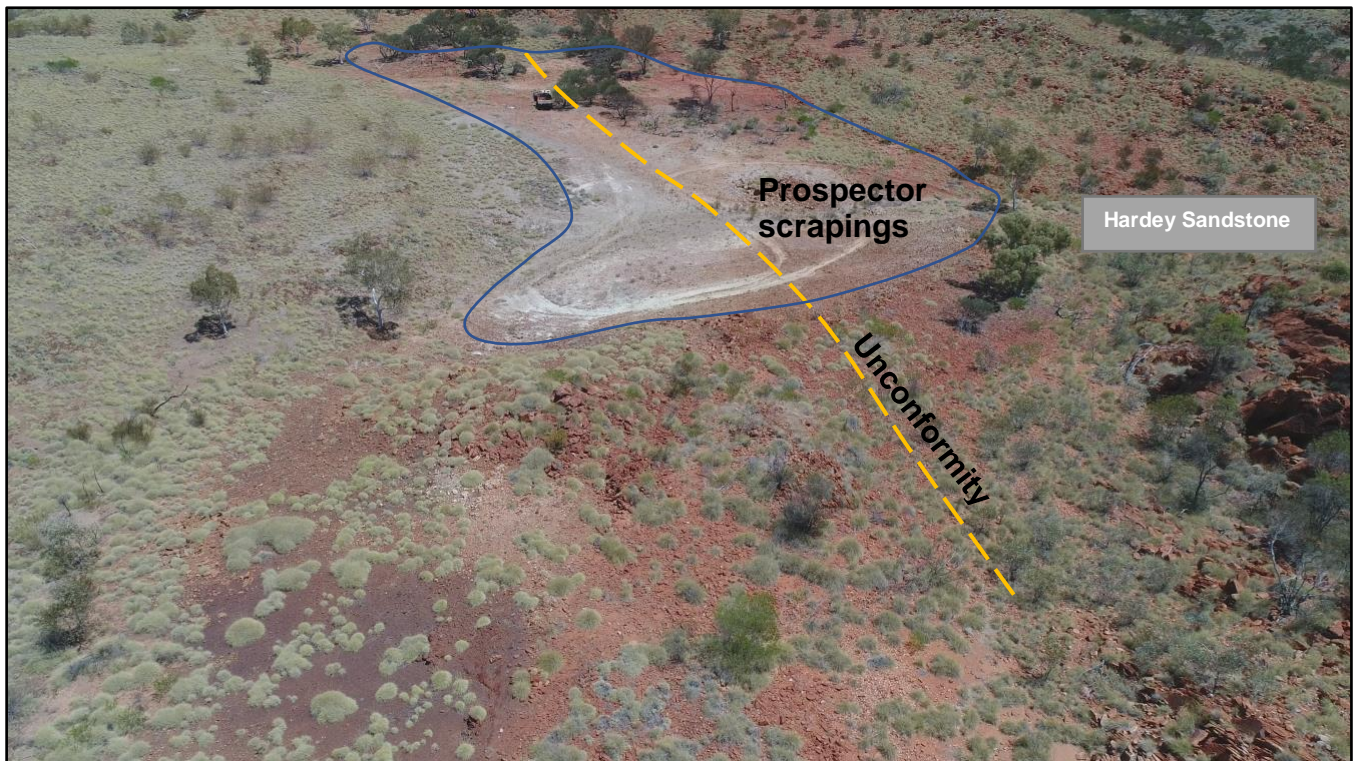
Castle has also extended its exploration programme to test for gold mineralisation within the older Archean Rocklea Inlier sequence within the Project licence area.

DMIRS records show a group of five historical Gold Mining Leases (GMLs) over the sheared contact between Rocklea Inlier schists and younger granites. During Castle’s most recent programme, two bulk stream sediment samples were collected from streams draining the area of the old GMLs. These returned anomalous values of 9.87ppb Au (BS5649) and 6.11ppb Au (BS5650).

**Next Stage**

The next stage of exploration at Beasley Creek will be a systematic sampling programme along the entire 16km unconformity contact hosted within the licence as well as investigation of the Archean gold targets.

**Photo 1: Beasley West: Prospector Scrapes on Unconformity (Looking West)**



**Sampling regime**

All samples were processed using Castle’s field portable super-concentrator followed by panning of the concentrate to identify visual gold.

Sample splits (2kg) from the 15kg stream sediment samples were submitted to a laboratory for bottle roll cyanide extractable gold analysis.

Routine rock chip sampling also undertaken during the programme returned minimal gold values. It is recognised that given the expected nuggetty nature of the mineralisation being sought and having reviewed the work of other companies in the region, this is not considered to be an effective exploration tool and that considerably larger bulk hard rock samples are required.

*NB: The results of the super-concentrator sluicing, and panning operation are qualitative in nature and do not provide a reliable analytical result. These serve only to provide a preliminary indication of the presence or absence of visible gold in the field and to enable geologists to vector towards the primary source of gold.*

*\*The historical drilling results referred to above were obtained by previous explorers. Information pertaining to the drilling, sampling and assaying techniques has been extracted from reports lodged in 1998 with Geological Survey of Western Australia (GSWA). Castle personnel have located and verified in the field the collar positions of the referred to holes.*

**Table 1: Location and assay results of stream samples collected at Beasley Creek**

Sample ID	Easting	Northing	Visible Au Present	Au ppb Bottle Roll
BC5613	530083	7483572	Y	1.04
BC5614	530269	7483618	Y	1.03
BC5615	530401	7483549	Y	0.90
BC5616	530891	7483976	Y	1.23
BC5617	531331	7483910	N	1.91
BC5618	531978	7483830	N	3.43
BC5619	532476	7483604	N	2.02
BC5620	532577	7483628	Y	52.2
BC5621	533186	7483471	Y	14.3
BC5622	538113	7482640	Y	2.47
BC5623	538271	7482591	Y	1.99
BC5624	538526	7482590	Y	2.50
BC5625	538683	7482684	N	1.08
BC5626	538745	7482656	N	1.02
BC5627	538836	7482680	Y	1.6
BC5628	538878	7482659	N	0.66
BC5629	539067	7482554	N	1.24
BC5630	539416	7482537	Y	1.99
BC5631	539521	7482535	Y	1.06
BC5632	539619	7482496	Y	1.89
BC5633	539861	7482415	N	1.39
BC5634	540268	7482416	Y	1.72
BC5635	539898	7482409	Y	1.55
BC5636	540640	7482381	N	0.94
BC5637	540960	7482279	N	0.78
BC5638	541351	7481871	Y	1.15
BC5639	541591	7481807	Y	0.77
BC5640	541844	7481773	N	1.29
BC5641	542044	7481736	N	1.91
BC5642	542312	7481659	Y	0.92
BC5643	542307	7481721	Y	0.88
BC5644	542330	7481557	N	1.41
BC5645	542501	7481635	N	0.84
BC5646	542575	7481668	Y	0.97
BC5647	542798	7481465	N	2.08
BC5648	542843	7481407	N	0.72

BC5649	533959	7481326	N	6.11
BC5650	533759	7481460	N	9.87
BC5651	532743	7483731	Y	25.7

## Stephen Stone

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## 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 possible '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 mines. All of Castle's ground in Western Australia and Ghana, whilst at a relatively early stage of exploration, presents a number of compelling targets that offer considerable opportunities for discoveries.

## Cautionary Statement

The Beasley Creek Project is considered to be of 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 actually consistently present in conglomerates on the licences or to estimate in what quantities it occurs. In each case the general integrity of mapping by the GSWA has been confirmed and has then been refined by mapping by Castle's geologists. 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.

## 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 an Executive 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
<b>Sampling techniques</b>	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.	Stream sediment samples were collected from streams draining areas downstream from prospective conglomerate beds.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Stream sediment samples were collected from the base of the stream bed by digging. Sample material was sieved to - 2mm to remove coarser material. Approximately 15kg of sieved material was collected at each trap site for processing.
	Aspects of the determination of mineralisation that are Material to the Public Report.	The stream sediment sample technique collects material from a large area drained by the creek. The technique is used widely in the exploration industry as a first pass tool to access areas for anomalous metal concentrations that can be tracked up stream to their source
	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 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 stream sediment sample collection method is industry standard. The samples were processed using a portable wet sluice to produce a concentrate. This concentrate was panned off to reveal recovered gold. The company employed field personnel with experience operating similar equipment in order to ensure accurate results were obtained.  A subsample of the bulk stream sediment sample was collected for laboratory analysis.
<b>Drilling techniques</b>	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).	No drilling undertaken
<b>Drill sample recovery</b>	Method of recording and assessing core and chip sample recoveries and results assessed.	No drilling undertaken
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Not applicable
	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.	Not applicable
<b>Logging</b>	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.	Not applicable
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Not applicable
	The total length and percentage of the relevant intersections logged.	Not applicable
<b>Sub-sampling techniques and sample preparation</b>	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	The subsample from the bulk stream sediment sample was collected by PVC tube sampling through the sieved and homogenized bulk sample.

	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	<p>The entire bulk sample was processed through the field concentrator and panned off. The concentration and panning was undertaken by field personnel familiar with the equipment or similar equipment.</p> <p>Between each sample the concentrator and pan dish was thoroughly cleaned</p> <p>The entire subsample was bottle roll leached in a solution of cyanide to dissolve any gold in the sample. The liquor was analysed for gold by atomic absorption technique (AAS)</p>
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	No specific quality control measures were adopted for the subsampling of the bulk stream sediment samples. The process was undertaken by experienced personnel in the field.
	Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results for field duplicate/second-half sampling.	No field duplicates were collected.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Due to the coarse nature of the gold, sample size is important to obtain a representative sample of the material to be tested. No work has been undertaken on the appropriate sample size however 15kg samples are being collected by other companies undertaking similar exploration in the area.
<b>Quality of assay data and laboratory tests</b>	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	The current sampling program utilized a two stage process. The presence or absence of visual gold was determine using the field concentrator and panning technique. Cyanide leachable gold was determined using the bottle roll technique. Both techniques are considered suitable for the style of mineralisation being explored. Both techniques are considered partial
	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.	No geophysical surveys undertaken
	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.	No external duplicates or blanks were submitted. Standard internal laboratory checks were in place.
<b>Verification of sampling and assaying</b>	The verification of significant intersections by either independent or alternative company personnel.	Due to the early stage of exploration and the type of work completed to date, no independent verification or assaying has been undertaken.
	The use of twinned holes.	No applicable
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Not applicable
	Discuss any adjustment to assay data.	No applicable
<b>Location of data points</b>	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 sample locations were recorded from a hand-held GPS. Accuracy is approximately +/- 2m, and locations compared with recent color aerial photography
	Specification of the grid system used.	GDA94 zone 50 projection
	Quality and adequacy of topographic control.	The combination of aerial photography and GPS readings are considered sufficiently accurate for the stage of exploration.
	Data spacing for reporting of Exploration Results.	The sample spacing is non-systematic and is dictated by the surface topography.



<b>Data spacing and distribution</b>	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.	The samples are of a reconnaissance nature and are spaced sufficiently across the target to provide a first pass indication of the potential of the target area.
	Whether sample compositing has been applied.	By nature, stream sediment samples are considered composite samples.
<b>Orientation of data in relation to geological structure</b>	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The stream sediment sampling program was concentrated in areas that were draining areas downslope from mapped conglomerate units.  The deposit style being explored for is not well understood. Further detailed work will be required before determining the optimum orientation of samples
	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.	Not applicable
<b>Sample security</b>	The measures taken to ensure sample security.	<p>Samples were collected by contract senior field assistant. Samples were placed in labeled plastic bags and held securely by the field crew.</p> <p>The bulk concentrate samples were transported off site and processed by the field crew</p> <p>Samples sent to the laboratory were packaged securely and sealed in bulk bags and transported by a reputable freight company to the laboratory.</p> <p>The concentration and panning was undertaken by field personnel familiar with the equipment or similar equipment.</p>
<b>Audits or reviews</b>	The results of any audits or reviews of sampling techniques and data.	No audits have been completed as yet.

## Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Certified Person Commentary
<b>Mineral tenement and land tenure status</b>	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.	<p>Details of the tenement are: E47/3490</p> <p>Castle Minerals has acquired a 80% interest in the tenement from the current registered holder – refer ASX announcement 21/2/2018 “Beasley Creek Prospectivity Enhanced”</p> <p>Current registered holder is free carried to decision to mine and hold alluvial prospecting rights</p>
	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 title has been granted, and is in good standing with the Department of Mines Industry Regulation and Safety
<b>Exploration done by other parties</b>	Acknowledgment and appraisal of exploration by other parties.	<b>Beasley Creek</b> Previous exploration for gold, nickel, PGE, and iron ore has been undertaken on the tenement. In addition, scraping and treatment of alluvial material overlying the Beasley Central Prospect conglomerate has been completed. RC drilling on the Beasley Central conglomerate has also been undertaken. Former holders of the tenement have released results of the drilling on the ASX.
<b>Geology</b>	Deposit type, geological setting and style of mineralisation.	The mineralisation targeted by the company is paleo – placer style conglomerate hosted gold.

		<p>Within the Pilbara this style of mineralisation is currently not well understood.</p> <p>Mineralisation appears to be particular gold that accumulates on the unconformity surfaces within sedimentary sequences within the Mount Roe Basalt or Hardey Formation. Controls on the concentration of gold on the unconformity surfaces are poorly understood at the current time. There are a number of historical and recent gold occurrences of this style of mineralisation recorded in the Pilbara, and recent exploration by a number of third parties in the area is on going</p>
<b>Drill hole Information</b>	<p>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:</p> <ul style="list-style-type: none"> <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>	<p>At Beasley Creek RC drilling has been previously undertaken on the Beasley Central Prospect. The results of the drilling have been previously reported to the ASX.</p>
	<p>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.</p>	<p>The current program explored areas of the Beasley Creek Project not tested by the earlier exploration work</p>
<b>Data aggregation methods</b>	<p>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</p>	<p>The results released in this report relate to the discovery of alluvial gold.</p> <p>No weighting or averaging techniques have been applied</p>
	<p>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.</p>	<p>Not applicable</p>
	<p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p>Not applicable</p>
<b>Relationship between mineralisation widths and intercept lengths</b>	<p>These relationships are particularly important in the reporting of Exploration Results.</p>	<p>No mineralisation widths have been measured or implied.</p>
	<p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p>	<p>Not applicable</p>
	<p>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').</p>	<p>Not applicable</p>
<b>Diagrams</b>	<p>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.</p>	<p>Geological maps and photographs are presented in the body of the report</p>

<b>Balanced reporting</b>	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.	All results of the gold panning and geochemical analysis have been reported
<b>Other substantive exploration data</b>	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.	Geological descriptions of key rock units are provided in the report
<b>Further work</b>	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further bulk stream sediment sampling will be required on the project prior to identifying areas suitable for a larger bedrock bulk sampling programme.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Refer to diagram in body of the report