

ASX Release

Aircore drilling defines third large gold zone at Hemi

The new **CROW** zone is a NE trending gold in bedrock anomaly 1km long and 300m wide, north of and parallel to Aquila and Brolga within the Hemi discovery area.

Significant aircore intersections (>1 g/t) include:

4m @ 6.9g/t Au from 52m in BWAC476 4m @ 3.7g/t Au from 52m in BWAC480 1m @ 4.7g/t Au from 77m in BWAC 438* 3m @ 1.1g/t Au from 32m in BWAC463* 4m @ 1.1g/t Au from 44m in BWAC464* (*Hole finished in mineralisation)

- An initial section, comprising 6 RC holes, has been drilled to test Crow and adjacent area to Aquila. Results remain pending.
- Encouraging bedrock mineralisation has been intersected in HERC043 including:

+72m @ 0.3g/t Au from 42m in HERC043* including
4m @ 0.7g/t Au from 42m, 4m @ 1.2g/t Au from 70m, 4m @ 0.5g/t Au from 80m and
6m @ 0.8g/t Au from 106m
(*Hole finished in mineralisation)

Potential for new bedrock gold mineralisation similar to Aquila and Brolga confirmed.

Exploration Manager, Phil Tornatora, commented:

"Crow is an exciting new large and untested gold anomaly, which has the dimensions and a similar order of magnitude of aircore gold results as initially seen at Brolga. Like Brolga, the aircore drilling has only tested the shallow weathered portion of the bedrock.

The first RC drill section comprising 6 holes has been completed, encountering variable sulphide mineralisation in each hole. HERC043 has returned encouraging gold mineralisation. We expect results of the next 5 holes to be available towards the end of April."



De Grey Mining Limited (ASX: DEG, "De Grey", "Company") is pleased to provide this update covering further reconnaissance aircore drilling and initial RC drilling within the Hemi Discovery area, located within 60km of Port Hedland, Western Australia.

This release covers the latest aircore drilling and the first of six (6) RC holes north of Aquila, defining the large and untested Crow Zone, as of 15 April 2020. The full gold intercepts (>2gm *m) discussed in this report are listed in Table 1.

NEW "CROW" ZONE

At Hemi, the widespaced aircore drilling completed to date has defined three large gold in bedrock zones (Figure 1). The Aquila and Brolga Zones have been confirmed to host strong gold-sulphide mineralisation with deeper RC and diamond drilling. This drilling has been completed on a nominal 80m x 80m basis.

The additional aircore drilling mostly to the north of Aquila has returned further encouraging gold results. The new Crow Zone is highlighted by the maximum bedrock gold value in each aircore hole. The gold mineralisation is defined by drill sections 160m to 320m apart with holes spaced from 40m to 160m apart along lines. The gold mineralisation remains open to the SW and NE and at depth.

At Crow, the current overall dimensions are approximately 1000m x 300m as defined by the maximum gold in bedrock in aircore drilling using lower +0.1g/t gold contour and peaks at 6.9g/t. The scale of the Crow Zone is similar to the Brolga and Aquila zones. The aircore drilling has also extended the known extents of the northern intrusion (Figure 2).

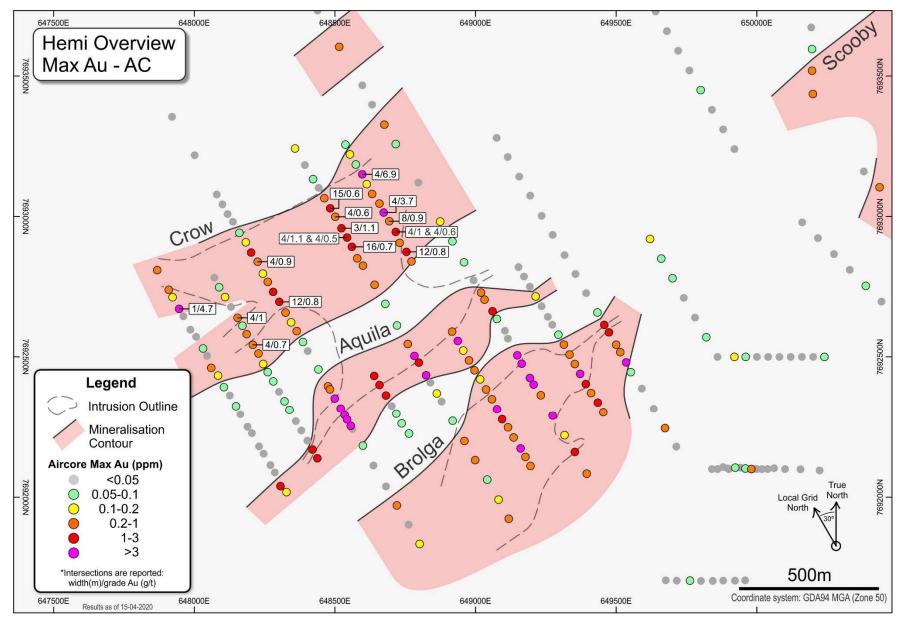
Similar to the aircore drilling previously reported at Brolga, the aircore drilling penetration at Crow was rapidly slowed as the harder bedrock was encountered. In general, the aircore only tested from below the barren transported material from approximately 28m downhole to generally 50-60m downhole depth.

Significant new aircore results (>5gm*m) include:

12m @ 0.8g/t Au from 40m in BWAC453 15m @ 0.6g/t Au from 28m in BWAC461 16m @ 0.7g/t Au from 16m in BWAC465 4m @ 6.9g/t Au from 52m in BWAC476 4m @ 3.7g/t Au from 52m in BWAC480 8m @ 0.9g/t Au from 32m in BWAC481 12m @ 0.8g/t Au from 36m in BWAC484



Figure 1 Major aircore anomalies at Hemi, showing recent results





RC DRILLING

To date, 6 RC holes (HERC043-HERC048) have been completed, testing from Aquila and across a portion of the Crow anomaly on section 30,320E (Figure 2). This RC drilling has intersected variable sulphide mineralisation below the weathered material in all 6 holes.

Results for HERC043 have been received and provide encouraging bedrock gold mineralisation in a broad interval of +72m (downhole and using lower 0.3g/t cutoff) and finished in mineralisation. Results for the remaining 5 RC holes remain pending and are expected to be finalised and reported towards the end of the month.

+72m @ 0.3g/t Au from 42m in HERC043* including
4m @ 0.7g/t Au from 42m
4m @ 1.2g/t Au from 70m
4m @ 0.5g/t Au from 80m
6m @ 0.8g/t Au* from 106m
(*Hole finished in mineralisation)

REGIONAL PROSPECTIVITY

The Hemi deposits lie in a NE-SW trending structural and intrusive corridor some 20km long and up to 10km wide (Figure 3). Within this highly prospective corridor four other known intrusions are currently defined, namely Scooby, Antwerp, Alectroenas and Shaggy. Of these four targets, three show strong gold mineralisation in early stage drilling. At Alectroenas, no drilling has been undertaken to date. Further drilling is required to test these four promising areas. The detailed information De Grey is learning from the Hemi deposits is expected to be highly beneficial and aid targeting of these new areas.

To improve our geological understanding of this large prospective area and sharpen our focus on these areas a detailed aeromagnetic survey is planned in the current quarter, with timing subject to contractor availability and COVID 19 considerations.

ONGOING OPERATIONS

RC and diamond core drilling is currently ongoing with 3 rigs at Brolga and Aquila aiming to define the extent of the gold mineralisation on a nominal 80m spaced sections and 80 spaced holes on section. Resource estimation is planned thereafter based on this drilling.

Further RC drilling is planned to test bedrock mineralisation within the new Crow anomaly. This drilling will aim to initially continue on broad 160m spaced sections in parallel to resource extension drilling at Brolga and Aquila.

A metallurgical work program has commenced at Brolga and Aquila. This program will include sampling to better define oxide, transition and fresh domains at both deposits plus a suite of comminution, CIL leach test work, sulphide flotation and oxidation assessment to provide overall recovery and potential processing flowsheet requirements. This work is underway and is anticipated to take approximately 3 months and will be carried out in consultation with GR Engineering Services and ALS Metallurgy.

The Company expects to provide a drilling update including further results from the Aquila and Brolga zones next week.



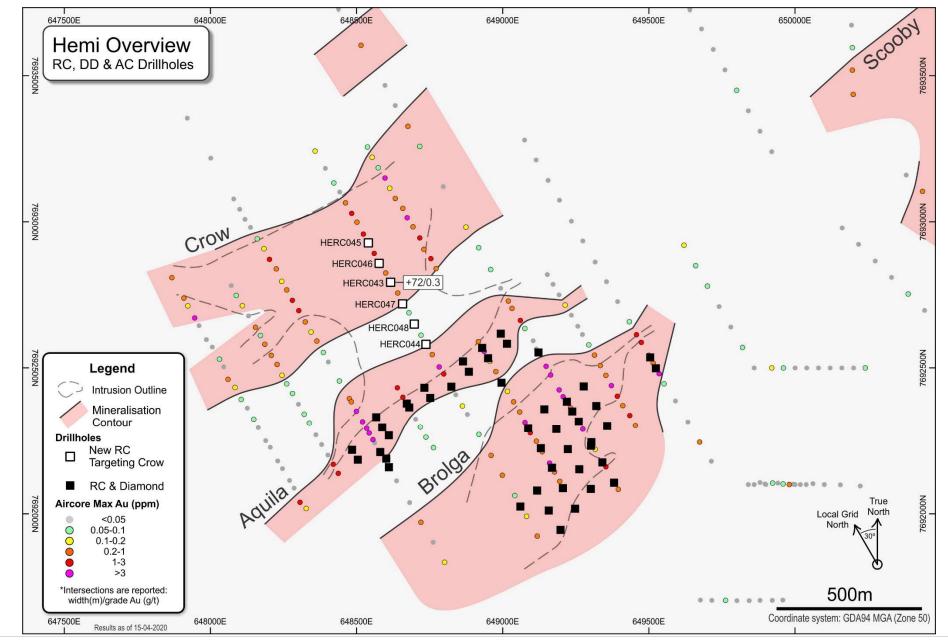
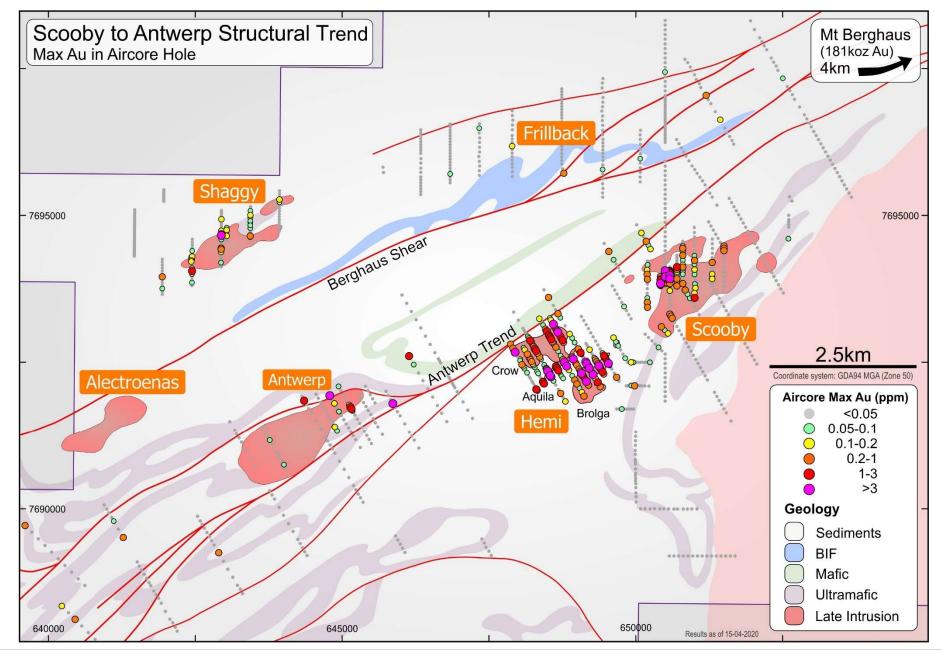


Figure 2 Major aircore anomalies showing interpreted intrusion, RC and DD drill collar locations and results of HERC043



Figure 3 Regional intrusion targets near Hemi, showing maximum gold in hole.





Hemi Background

Hemi is a new discovery under 30m of transported cover, with the first aircore drill results reported on 17 December 2019 and a flow of further encouraging high grade results subsequently reported since February 2020. Two zones of strong, broad sulphide rich with broad gold mineralisation have been defined in the Aquila and Brolga Zones. A third new zone Crow has now been defined and requires RC drill testing.

The gold zones represent a major new discovery for De Grey and potentially a new and exciting new style of mineralisation in the Pilbara region. The scale, grade and overall dimensions of the mineralisation defined to date is larger than all the other gold deposits De Grey has defined within the project area. Hemi has substantial potential to increase De Grey's current 2.2Moz of shallow gold resources.

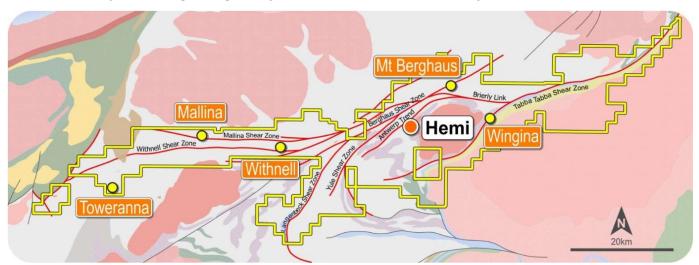
The Aquila Zone represents a 30-50m wide gold zone over approximately 800m strike down to 180m below surface. Mineralisation remains open with ongoing drilling continuing.

The Brolga Zone is a substantially wider sulphide rich alteration zone, up to +300m wide and is currently defined by RC and diamond drilling over +560m of strike. Mineralisation remains open in most directions and particularly to the south west and down dip with ongoing drilling continuing.

The Crow zone has been defined immediately north of Aquila where numerous widespaced aircore holes have encountered anomalous gold in the weathered horizon. Further potential remains for additional discoveries within this prospective corridor.

The gold mineralisation is intimately associated with strong and extensive sulphide alteration, comprising of pyrite and arsenopyrite, hosted in a stockwork within felsic to mafic phases of the intrusion. The genetic link to the host intrusion is significant as the three interpreted large intrusions at Hemi that show elevated gold in every aircore hole within the intrusions. This style of mineralisation is considered new to the Pilbara region.

Mallina Gold Project showing main gold deposits and the new Hemi Discovery.





This ASX report is authorised for release by the De Grey Board.

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Competent Person Statements

The information in this report that relates to exploration results is based on, and fairly represents information and supporting documentation prepared by Mr. Philip Tornatora, a Competent Person who is a member of The Australasian Institute of Mining and Metallurgy. Mr. Tornatora is an employee of De Grey Mining Limited. Mr. Tornatora 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 Resource and Ore Reserves". Mr. Tornatora consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Previously Released ASX Material References

The information in this report that relates to Hemi Prospect and the general Berghaus West area that has been previously released includes;

Resources:

- Pilbara Gold Project increases gold resources by >20% to over 1.2Moz, 28 September 2017;
- 2018 Total Gold Mineral Resource increases to 1.4Moz, 3 October 2018;
- 2019 Total Gold Mineral Resource 21% increase to 1.7Moz, 16 July 2019;
- 2020 Mallina Gold Project Resource update, 2 April 2020.

Exploration:

- Multiple new targets increase exploration potential, 2 July 2019;
- New Gold Discoveries at Hemi and Antwerp, 17 December 2019;
- Hemi confirms potential for major discovery, 6 February 2020;
- Further impressive thick and high grade gold at Hemi, 11 February 2020;
- Major extension of sulphide mineralisation at Hemi, 26 February 2020;
- RC drilling confirms large scale gold system at Hemi, 5 March 2020;
- Continuing extensive sulphide mineralisation intersected at Hemi, 10 March 2020;
- Hemi continues to grow, 17 March 2020;
- Major Gold Extensions defined at BROLGA, 25 March 2020.
- Brolga continues to grow, 9 April 2020



Hole ID	Zone	Depth From (m)	Depth To (m)	Downhole Width (m)	Au (g/t)	Collar East (GDA94)	Collar North (GDA94)	Collar RL (GDA94)	Dip (degrees)	Azimuth (GDA94)	Hole depth (m)
BWAC438	North	77.0	78.0	1.0	4.7	647946	7692671	67	-60	330	78
BWAC446	North	60.0	64.0	4.0	0.7	648208	7692543	68	-60	330	94
BWAC451	North	48.0	52.0	4.0	0.9	648225	7692839	67	-60	330	68
BWAC453	North	40.0	52.0	12.0	0.8	648302	7692696	67	-60	330	53
BWAC461	North	28.0	43.0	15.0	0.6	648483	7693029	67	-60	330	46
BWAC462	North	28.0	32.0	4.0	0.6	648501	7692999	67	-60	330	40
BWAC463	North	32.0	35.0	3.0	1.1	648523	7692958	67	-60	330	35
BWAC464	North	28.0	32.0	4.0	0.5	648543	7692925	67	-60	330	48
BWAC464	North	44.0	48.0	4.0	1.1	648543	7692925	67	-60	330	48
BWAC465	North	16.0	32.0	16.0	0.7	648560	7692892	67	-60	330	33
BWAC471	North	80.0	84.0	4.0	1.0	648154	7692639	67	-60	330	90
BWAC476	North	52.0	56.0	4.0	6.9	648597	7693150	67	-60	330	81
BWAC480	North	52.0	56.0	4.0	3.7	648673	7693014	67	-60	330	77
BWAC481	North	32.0	40.0	8.0	0.9	648693	7692983	67	-60	330	76
BWAC482	North	36.0	40.0	4.0	0.6	648716	7692945	67	-60	330	71
BWAC482	North	64.0	68.0	4.0	1.0	648716	7692945	67	-60	330	71
BWAC484	North	36.0	48.0	12.0	0.8	648754	7692874	67	-60	330	72
HERC043	North	42.0	46.0	4.0	0.7	648616	7692793	67	-56	329	114
HERC043	North	70.0	74.0	4.0	1.2	648616	7692793	67	-56	329	114
HERC043	North	80.0	84.0	4.0	0.5	648616	7692793	67	-56	329	114
HERC043	North	106.0	112.0	6.0	0.8	648616	7692793	67	-56	329	114

Table 1Significant new Drill Intersections (>2 gram x m Au)

Note: All aircore sample results are based on 4m composite sampling. RC sample results are based 1m sampling



JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g 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. 	 manner Core samples were collected with a diamond rig drilling mainly NQ2 diameter core. After logging and photographing, NQ2 drill core was cut in half, with
Drilling techniques Drill sample	 Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.). Method of recording and assessing core and chip 	 Reverse Circulation(RC) holes were drilled with a 5 1/2-inch bit and face sampling hammer. Aircore holes were drilled with an 83mm diameter blade bit.
recovery	 sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the 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. 	 checked by the Company geological team during the mark up and logging process. RC and aircore samples were visually assessed for recovery. Samples are considered representative with generally good recovery. Deeper RC and aircore holes encountered water, with some intervals having less than optimal recovery and possible contamination. No sample bias is observed.
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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	 The entire hole has been geologically logged and core was photographed by Company geologists, with systematic sampling undertaken based on rock type and alteration observed RC and diamond sample results are appropriate for use in a resource estimation, except where sample recovery is poor. The aircore results provide a good indication of mineralisation but are not used in resource estimation.



Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all subsampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 NQ2 diameter core. After logging and photographing, NQ2 drill core was cut in half, with one half sent to the laboratory for assay and the other half retained. Holes were sampled over mineralised intervals to geological boundaries on a nominal 1m basis. RC sampling was carried out by a cone splitter on the rig cyclone and drill cuttings were sampled on a 1m basis in bedrock and 4m composite basis in cover. Aircore samples were collected by spear from 1m sample piles and composited over 4m intervals. Samples for selected holes were collected on a 1m basis by spear from 1m sample piles.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 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. 	 The samples were submitted to a commercial independent laboratory in Perth, Australia. For diamond core and RC samples Au was analysed by a 50g charge Fire assay fusion technique with an AAS finish and multi-elements by ICPAES and ICPMS Aircore samples were analysed for Au using 25g aqua regia extraction with ICPMS finish and multi-elements by ICPAES and ICPMS using aqua regia digestion The techniques are considered quantitative in nature.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 Sample results have been merged by the company's database consultants. Results have been uploaded into the company database, checked and verified.
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. Specification of the grid system used. Quality and adequacy of topographic control. 	accuracy of +/-10cm.
Data spacing and distribution Orientation of	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. Whether the orientation of sampling achieves 	 geological control and continuity of mineralisation. Data spacing and distribution of RC drilling is not yet sufficient to provide support for the results to be used in a resource estimate. Sample compositing has not been applied except in reporting of drill intercepts, as described in this Table
data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	strike of mineralisation where known and therefore the sampling is



Criteria	JORC Code explanation	Commentary
	 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. 	structures and as such true widths are less than downhole widths. This is allowed for when geological interpretations are completed.
Sample security	• The measures taken to ensure sample security.	• Samples were collected by company personnel and delivered direct to the laboratory via a transport contractor.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	 No audits have been completed. Review of QAQC data has been carried out by database consultants and company geologists.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure 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. 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. 	which is a 100% subsidiary of De Grey Mining Ltd.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The tenement has had some previous surface geochemical sampling and wide spaced aircore and RAB drilling by De Grey Mining. Limited previous RC drilling was carried out at the Scooby Prospect. Airborne aeromagnetics/radiometrics has been flown previously.
Geology	• Deposit type, geological setting and style of mineralisation.	• The mineralisation style is not well understood to date but is thought to be hydrothermally emplaced gold mineralisation within structures and intrusions. Host rocks comprise igneous rocks intruding Mallina Basin metasediments. Style is similar to some other Western Australian gold deposits.
Drill hole Information	 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: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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. 	Drill hole location and directional information provide in the report.
Data aggregation 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. 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. 	 an internal dilution of 4m maximum. Higher grade intervals included in the above intercepts are reported at a 3g/t Au lower cut with an internal dilution of 2m maximum. Intercepts are length weighted averaged.



Criteria	JORC Code explanation	Commentary
	• The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between mineralisation widths and intercept lengths	 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 nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	the strike of mineralisation.
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.	 Plans and sections are provided in the report.
Balanced 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.	are provided in this report.
Other substantive exploration 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.	 Drilling is currently widely spaced and further details will be reported in future releases when data is available.
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). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Follow up aircore drilling will be undertaken to test for strike extensions to mineralisation. Programs of follow up RC and diamond drilling aimed at extending resources at depth and laterally are underway.