

## Maiden Aircore Drilling Identifies Gold Trends at Jundee South

### Highlights

- Two potential gold trends identified at Jundee South
- Further resampling of 4m composite samples has been undertaken with results currently awaited
- Analytical results from all composite samples and a first phase of resampling of anomalous 4m composite samples have been received
- Target MF02 resample results significantly upgraded with 7m @ 1.36g/t Au from 35m to EOH, incl 1m @ 5.22g/t Au from 39m intersected in JSA20\_058
- Potential for +700m of mineralised strike length around MF02
- Drilling at the YaN11 Target extends the historic intercept (4m @ 9.68g/t Au from 84m) in gcmSHRB36 by 320m to the north west with new gold intercepts
- Follow up RC drilling program planned at MF02 and YaN11 targets for Q2 upon completion of further resampling and geological interpretation

Avenira Limited (ASX:AEV) (**Avenira** or **the Company**) is pleased to advise it has received all composite sample results from the Company's maiden aircore drilling program at Jundee South (**the Project**) which was carried out in H2 of 2020. This program comprised 259 aircore (AC) holes for 20,147m (ASX announcement 15 December, 2020).

In addition, Avenira has commenced resampling of anomalous 4m composite intercepts at one metre sampling intervals. At this stage, the Company is still awaiting a portion of these assay results.

Resampling results received to date and for non-resampled anomalous composites are contained in Table 1.

**Avenira's Executive Chairman, Mr. Brett Clark commented,** *"Avenira intends to undertake follow-up RC drilling of the two major gold trends identified in the Aircore drilling program in H2, 2020 with planning already underway and commencement of the RC program in the Q2, 2021. We will update the market accordingly as these results become available."*



Figure 1 shows the locations of holes drilled and anomalous intersections identified, with co-ordinates provided in Appendix A and JORC Table 1 in Appendix B.

**Table 1. Mineralised Aircore Intercepts**

Hole	Target	Depth From (m)	Depth To (m)	Width (m)	Grade (g/t Au)	Comment
<b>Resampled Intervals (&gt;0.2 g/tAu)</b>						
JSA20_058	MF02	35	42	7	<b>1.36</b>	Quartz vein in felsic volcanic. The hole finished in mineralisation
including		39	40	1	<b>5.22</b>	
JSA20_125	YaN11 (gcmSHRB36)	81	84	3	0.45	Redox Front
JSA20_123		104	105	1	<b>0.78</b>	Quartz veining with relict sulphide
JSA20_129		89	90	1	0.57	Redox front
<b>Composite Intervals (&gt;0.1g/t Au)</b>						
JSA20_333	YaN11 (gcmSHRB36)	68	76	8	0.25	Intermediate porphyry
JSA20_333		96	100	4	0.30	Weathered sulphide veining in intermediate volcanic
JSA20_334		72	76	4	0.18	Foliated mafic rock
JSA20_332		32	36	4	0.14	Quartz veined weathered felsic
JSA20_223	SH04	52	56	4	0.13	Weathered Dolerite
JSA20_304	cypIWR584	60	64	4	0.10	Weathered sulphide veining in Gabbro

#### Significance of intercepts – Target MF02

The anomaly intersected in hole JSA20\_058 is associated with quartz-veined felsic volcanic rocks. The intercept of 7m @ 1.36g/t Au is open at depth and has an open potential strike length of +720 metres due to its unconfirmed orientation.

This presents an encouraging target for deeper drill testing during the RC program scheduled for Q2, 2021. Figure 2 displays chip piles from hole JSA20\_058 and Figure 3 displays the location of drilling at the MF02 target.

#### Significance of intercepts – Target YaN11 (gcmSHRB36)

Target YaN11 contains the historic intercept 4m@9.68g/t Au in hole gcmSHRB36. Aircore drilling to test for strike extensions around this anomaly intercepted several anomalies as outlined in Table 1 and displayed in Figure 4.

The most significant intersection was contained in hole JSA20\_125, which has identified potential for a 360 metre strike extension to the anomaly in gcmSHRB36, subparallel to NW striking aeromagnetic linear features.

This anomaly is associated with a redox front, a zone in the regolith profile where soil conditions change from oxidising to reducing, normally with an associated change in colour of drill spoil. This may result in a concentration of gold in these vertical positions which have been remobilised from mineralised locations



nearby due to weathering processes. As such, there may be higher grade mineralisation present adjacent to the intercept.

The geology of this area is complex, with the presence of felsic porphyries, foliated basalts and intermediate volcanics with varying degrees of quartz veining and sulphide development. This provides a high priority target for follow-up resampling (where required), geological interpretation and RC drilling.

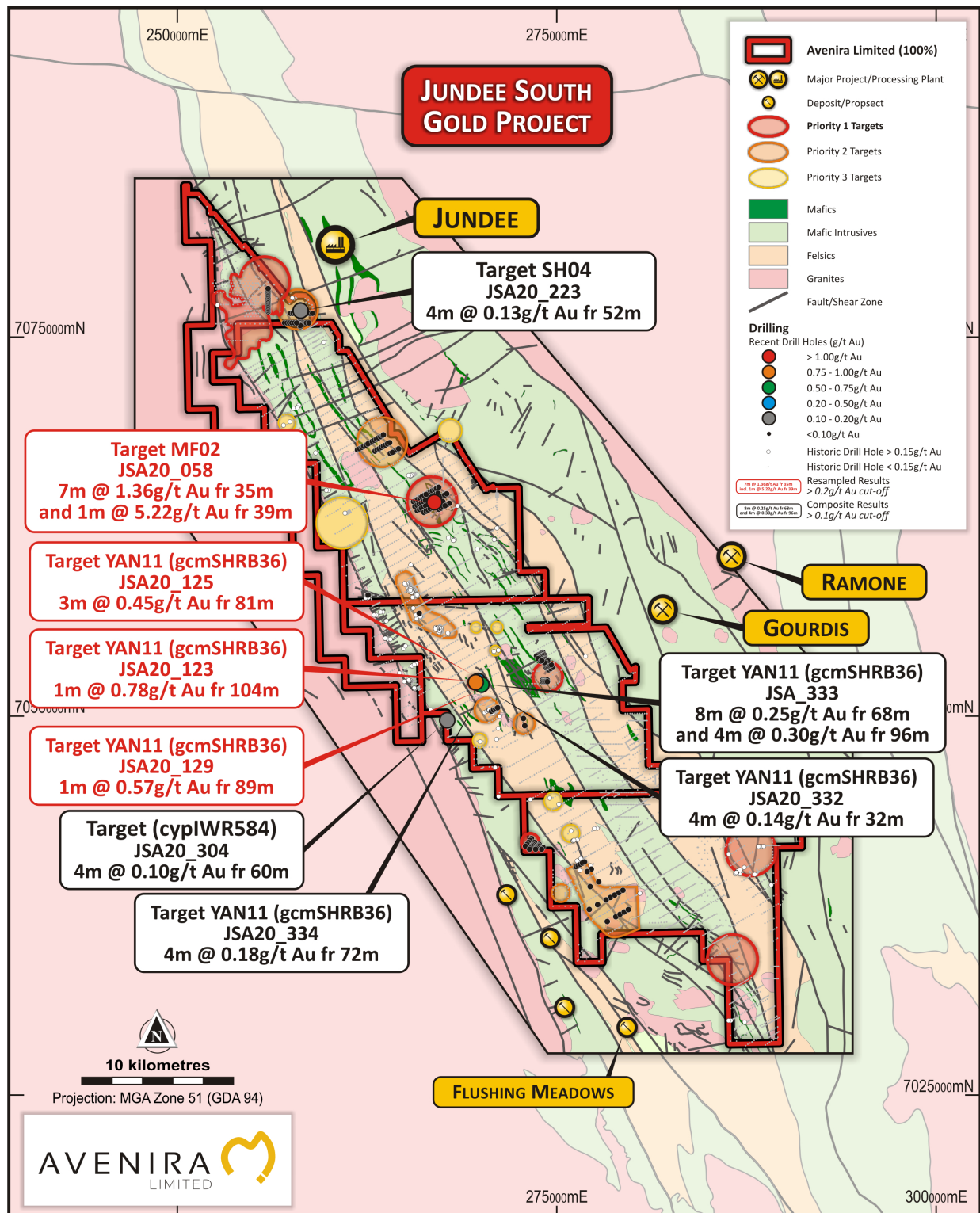


Figure 1. Location of Aircore holes drilled and anomalous analyses received



Figure 2. Mineralised zone in hole JSA20\_058 (35-42m) at Target MF02

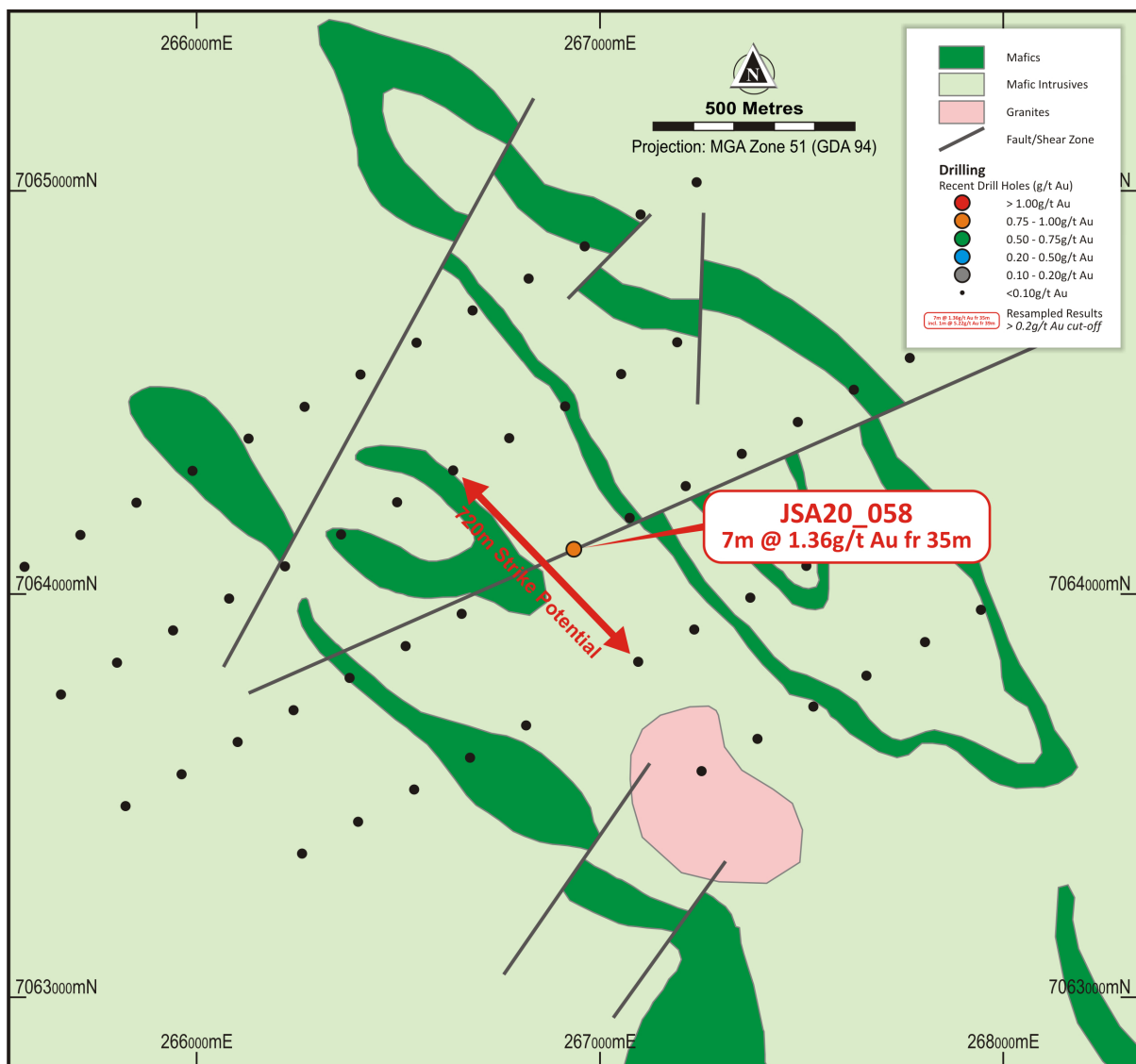


Figure 3. Location of anomaly in JSA20\_058 at the MF02 Target



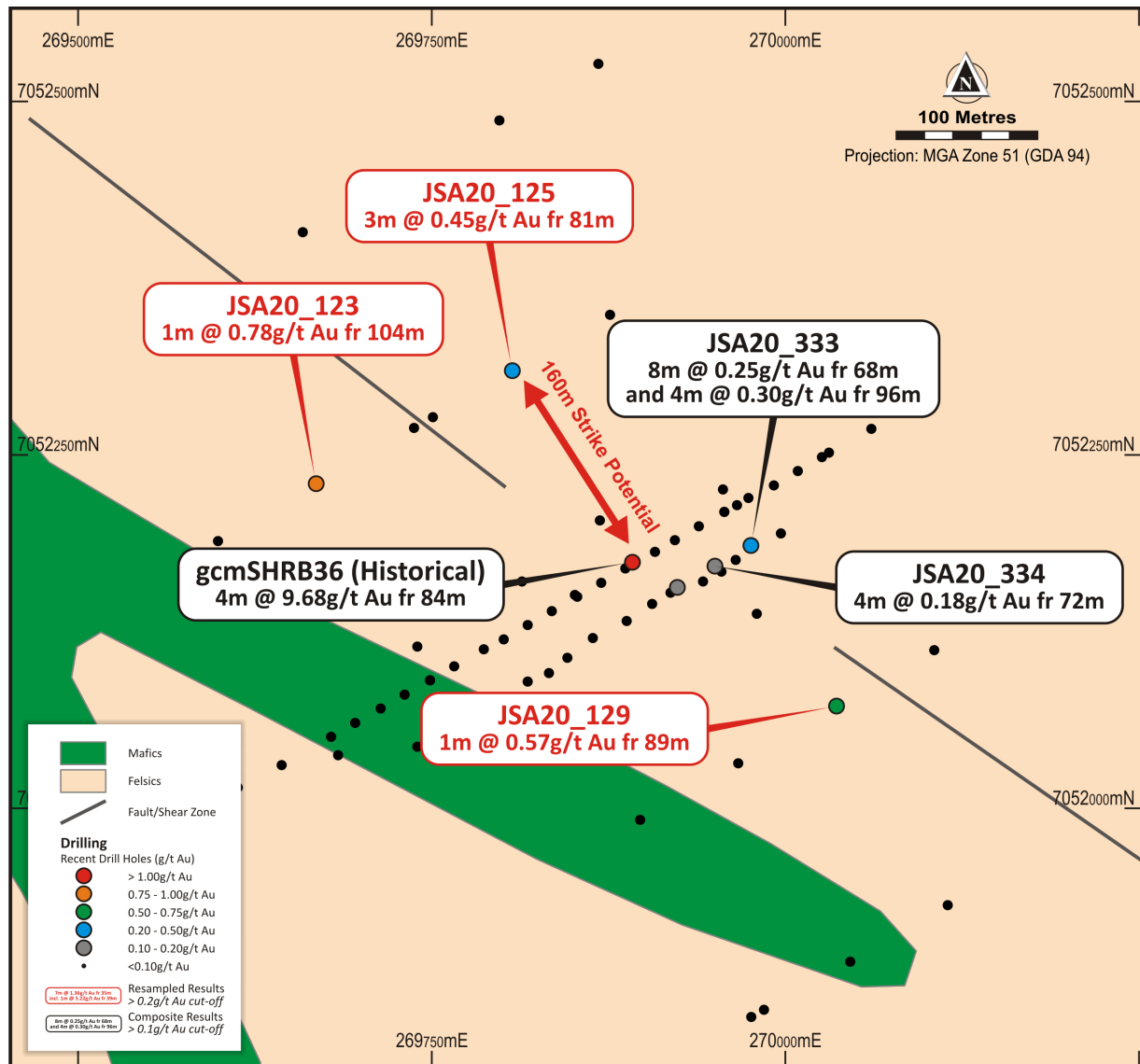


Figure 4. Location of anomalies adjacent to historical intercept gcmSHRB36 at the Target YaN11.

#### Significance of intercepts – Target SH04

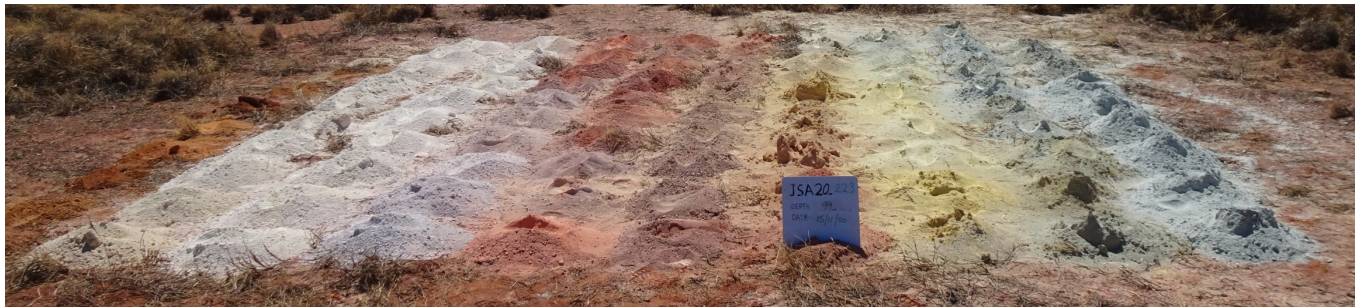
This composite anomaly is hosted in weathered dolerite, a similar rock to that hosting gold mineralisation in the adjacent Jundee Gold Mine. Felsic intrusives are also present adjacent to the intercept which may provide a source of heat and fluid associated with gold mineralisation. Drill spoil from associated hole JSA20\_223 is displayed in Figure 5.

Resampling of the intersection and geological interpretation is required for this target to confirm its similarities to the adjacent Jundee stratigraphy and suitability for follow-up drilling.

#### Significance of intercepts – Target cypIWR584

This composite anomaly is hosted in gabbro, a mafic rock which may provide a suitable locale for gold deposition. In this case the anomaly sits along a N-S trending magnetic feature and is open along strike to the NNW for up to 1,300 metres. Drill chips from the associated hole are shown in Figure 6.

This composite anomaly requires resampling and geological interpretation to assess the need for follow-up work.



**Figure 5.** Mineralised zone in hole JSA\_223 (52-56m) from Target SH04



**Figure 6.** Mineralised zone in JSA20\_304 (52-56m)

### **Ongoing Work**

Resampling of gold assays returning 0.1g/t Au or more continues.

A geological interpretation based on the data from the recent Aircore drilling has commenced and will be used to assist with planning of an RC program scheduled for next quarter, of which targets MF02 and YaN11 from this release will comprise two of the proposed targets. Results from the other targets drilled during this phase of drill testing are being assessed.

**This announcement has been authorised by the Board of Avenira Limited.**

**Brett Clark**  
**Executive Chairman**  
**+618 9264 7000**



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**Cautionary Statement:** Determination of the alteration, deformation, vein features and mineralisation discussed above is based on visual observations by suitably qualified geologists. Features by their very nature may or may not contain gold mineralisation due to the multi-phase veining, deformation and veining events present in the geological terrane being explored. Observations are based on a ~50g subsample of >2mm chips taken from approximately 6kg of material generated from each metre of drilling. These observations therefore may not be representative of the sample as a whole.

#### **Competent Persons' and Qualified Person's Statement**

The information in this document that relates to Exploration Results, geology, and data compilation is based on information compiled by Mr Stephen Harrison who is a Member of The Australian Institute of Geoscientists. Mr Harrison 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 Harrison is a part-time employee of Avenira Limited and consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

#### **Exploration Results**

The references in this announcement to Exploration Results were reported in accordance with Listing Rule 5.7 in the announcement titled *Results from Jundee South Historic Data Compilation, 27 October 2020*

The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcements noted above.





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## APPENDIX A

### DRILL HOLE COLLAR LOCATIONS

Hole_ID	Target	DRILL_E	DRILL_N	DRILL_RL	DRILL_DIP	DRILL_AZ	DRILL_DEP
JSA20_058	MF02	266943	7064131	537	-60	50	42
JSA20_123	YaN11	269693	7052234	487	-60	50	123
JSA20_125	YaN11	269809	7052287	524	-60	50	115
JSA20_129	YaN11	270033	7052065	523	-60	230	110
JSA20_223	SH04	258119	7076736	557	-60	0	99
JSA20_304	cypIWR584	267787.6	7049729	545	-60	60	69
JSA20_332	gcmSHRB36	269923	7052156	545	-60	050	103
JSA20_333	gcmSHRB36	269975	7052186	550	-60	240	114
JSA20_334	gcmSHRB36	269950	7052171	553	-90	0	91





**APPENDIX B**  
**JORC TABLE 1**

# JORC Code, 2012 Edition – Table 1 report template

## Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>• <i>Nature and quality of sampling (eg 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.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>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 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 (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples are all broken chips generated by a rotating drill bit and high -pressure air as per standard industry practice</li> <li>• Samples obtained for analysis are mostly composites of 2-3kg size. Sampling and analysis methods are discussed elsewhere.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>• <i>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).</i></li> </ul>	<ul style="list-style-type: none"> <li>• Aircore (AC) – standard 3” holes drilled with standard aircore blade and inner tube assembly to blade refusal</li> <li>• Challenge Drilling were engaged to complete drilling activities</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Notes made in geological logs and sampling sheets as to any contamination or recovery issues encountered</li> <li>• Markings on drill rig mast ensured correct intervals placed in each pile</li> <li>• No results have been received so link between recovery and grade has not been assessed</li> </ul>
Logging	<ul style="list-style-type: none"> <li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource</i></li> </ul>	<ul style="list-style-type: none"> <li>• Geological logging has been captured in a digital, interrogatable form</li> <li>• Logging mostly qualitative in nature, although degrees of alteration and</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>estimation, mining studies and metallurgical studies.</i></p> <ul style="list-style-type: none"> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<p>weathering are noted. Quantitative estimations made of sulphide and veining contents</p>
<p><i>Sub-sampling techniques and sample preparation</i></p>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were collected using a trowel from chip piles and composited over 4 metres and weighing approximately 2kg. Care taken during sampling to ensure cross section through complete interval without including underlying ground</li> <li>• Wet samples were placed in holes lined with paper to ensure minimized risk of inclusion of underlying soil in sample</li> </ul>
<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>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.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<p><u>ANALYSIS METHOD</u></p> <ul style="list-style-type: none"> <li>• Samples submitted to Jinning Pty. Ltd. in Canning Vale (Perth). The samples were numerically ordered then placed in ovens for drying. After drying they are pulverized to a nominal ~75 microns, 150-200 grams is then split off for weighing while the remainder is kept for reference checks if required. A 50 gram subsample sample is then weighed off and placed in a crucible with appropriate fluxes and is fired in a furnace. The resultant lead bead is removed and dissolved in an Regia acid digest using Hydrochloric and Nitric before being read for gold by the Atomic Absorption Spectrometer to a 0.01 ppm level of detection.</li> </ul> <p><u>QUALITY CONTROL SAMPLES</u></p> <ul style="list-style-type: none"> <li>• Blanks of barren (non-certified) quartz inserted at a rate of 1/50</li> <li>• Standards inserted at a rate of 1/25 into sequence. Standards are certified OREAS pulverized standard material</li> <li>• Duplicate samples inserted at a rate of 1/25 into sequence</li> <li>• The laboratory undertakes QC checks in the form of repeats, blanks and reanalyses. Further detail will be provided when analytical results have</li> </ul>

Criteria	JORC Code explanation	Commentary
		been received
<i>ANALYSIS METHOD</i>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Analytical results have not been received so no verification is possible at present</li> <li>Verification of logged intervals is undertaken as required for training purposes and targeting purposes</li> <li>Twin holes have not been drilled at this stage</li> <li>Primary data is captured in an Excel worksheet, which is backed up and sent to the Chief Geologist every second day</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drillholes were setout using a handheld GPS, with locations being selected based on the ability to reduce ground disturbance whilst maintaining reasonable proximity (i.e. &lt;20m) to the planned location</li> <li>Drillholes picked up using a handheld GPS</li> <li>Accuracy of setout and pickup are usually in the vicinity of +/- 5m</li> <li>Grid system used is MGA2020 Zone 51</li> <li>Topographic control used is based on GPS coordinates</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>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.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>Data spacing insufficient for reporting of a classified resource</li> <li>Hole spacings are between 80 and 160 metres</li> <li>Samples are taken as 4m downhole composites</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The spacing of the exploration work undertaken to date combined with the lack of surface expression of mineralisation means that the orientation of mineralized structures has not been adequately determined</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Composite samples taken as soon as practicable after drilling</li> <li>Raw samples and pulverized material currently retained in bulkabag at laboratory. More permanent storage facility being sourced</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>No audits at this stage</li> </ul>



## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Granted exploration licences E53/1856, E53/1859, E53/2078, E53/2079 comprise the Jundee South Project</li> <li>• All licences are in good standing</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Exploration has been undertaken previously by several companies, including – ASARCO, Dominion, Cyprus Gold, Great Central Mines, Eagle Mining, Hunter Resources, Wiluna Gold, Fortis, Aragon, Eon Metals, Chevron Exploration</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The exploration area is located in the Yandal Greenstone Belt. The belt forms part of the Norseman-Wiluna Belt within the Yilgarn Craton. Gold mineralisation is orogenic in nature with considerable dispersion from later weathering events.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>• <i>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:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• See Table 1 in release</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li>• <i>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.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No analytical results received at this stage</li> <li>• Geological logging undertaken at 1m intervals, but composited over intervals where the same geological features are observed</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>• The exact geometry of mineralisation is unknown at this level of detail, hence the true width of mineralisation is unknown</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• See relevant figures</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Analytical results are not being reported</li> <li>• Geological features related to mineralisation comprise roughly 20% of the total intervals logged thus far. These features include quartz veining, sulphides and pervasive alteration</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Exploration work has comprised surface mapping, surface sampling, drilling and various geophysical surveys</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Work planned comprises ground truthing of existing anomalies and surface sampling. Drilling of existing anomalies with Aircore or Reverse Circulation is planned</li> </ul>