



Middle Island Resources Limited ACN 142 361 608

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**Capital Structure:** 698 million ordinary shares 38,300,000 unlisted options

Cash & Liquid Assets \$2.4m (as at 30 June 2018)

## Directors & Management: Peter Thomas Non-Executive Chairman Rick Yeates Managing Director Beau Nicholls Non-Executive Director

Dennis Wilkins Company Secretary

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# ASX Release – 6 August 2018

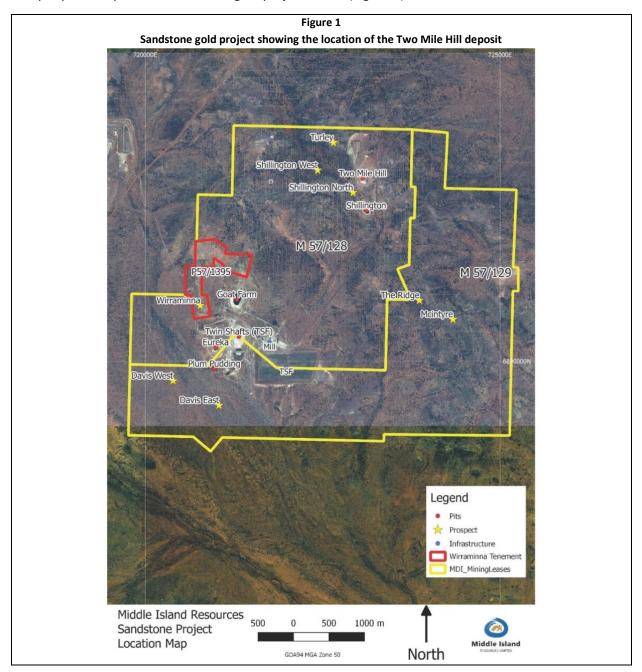
# High grade gold in first hole of new drilling at Two Mile Hill deposit

- 8m at 14.5g/t Au, including 2m at 54.0g/t Au intersected in banded iron formation (BIF) in diamond drilling at the Two Mile Hill gold deposit within the Sandstone gold project, WA.
- This new discovery, in hole MSDD262, is the first significant intercept of this mineralised style hosted by brecciated BIF and one of a limited number of intercepts encountered to date within the more sparsely drilled Middle BIF.
- Higher gold grades associated with this style of mineralisation provide significant upside to the considerably more substantial, but lower grade, adjacent tonalite-hosted mineralisation.
- The distribution of higher grade BIF intercepts encountered to date suggests the mineralisation comprises a semi-continuous annulus, developed immediately peripheral to the tonalite contact, within both the Upper and Middle BIF units, with the Lower BIF yet to be drilled.
- MSDD262 is the first diamond hole of the recently completed programme to be assayed, with results from the remaining holes pending.



#### SANDSTONE GOLD PROJECT (WA)

Aspiring gold developer, Middle Island Resources Limited (**Middle Island**, **MDI** or **the Company**) is pleased to advise that complete assay results have been received for the first diamond hole of the recently completed, Stage 1, resource definition drilling programme at the Two Mile Hill deposit within the Company's wholly-owned Sandstone gold project in WA (Figure 1).



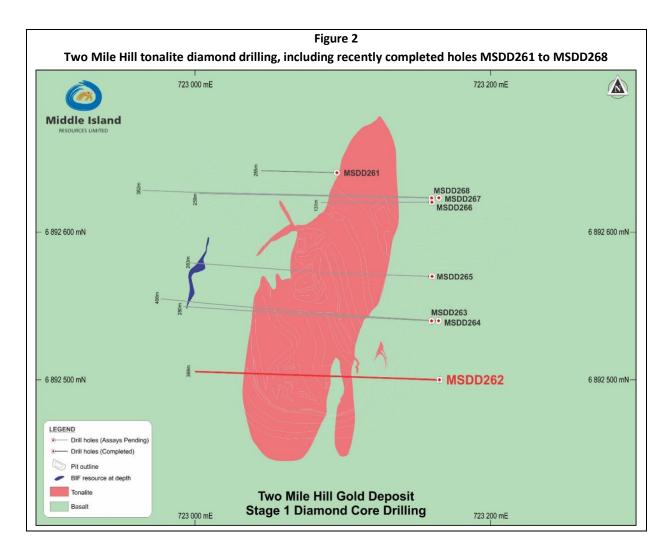
The Two Mile Hill tonalite deeps deposit comprises a ubiquitously gold mineralised, tonalite (granite) plug or stock, which at surface measures 250m in length, 80-90m width and extends to at least 700m depth. The deposit is located 4km north of the Company's 600,000tpa Sandstone gold processing plant via an existing haul road. The deposit currently comprises an Exploration Target of 24Mt to 34Mt at 1.1g/t to 1.4g/t Au (0.9M-1.5Moz of gold - refer ASX Release 29 November 2017) situated between 140m and 700m vertical depth, below which it remains open.



The potential quantity and grade of an Exploration Target is conceptual in nature, as there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

The recently completed programme comprised in-fill, RC pre-collared, NQ diamond drilling (MSDD262-268) focussed on the upper half of the Two Mile Hill tonalite deeps deposit, between 140m and 420m vertical depth (Table 1 and Figure 2). The latter holes were primarily designed to infill the existing drilling within the tonalite, in the process optimising the number of intersections on the adjacent banded iron formation (BIF) units, intruded by the tonalite, which are known to host high grade, pyrite replacement-style gold mineralisation.

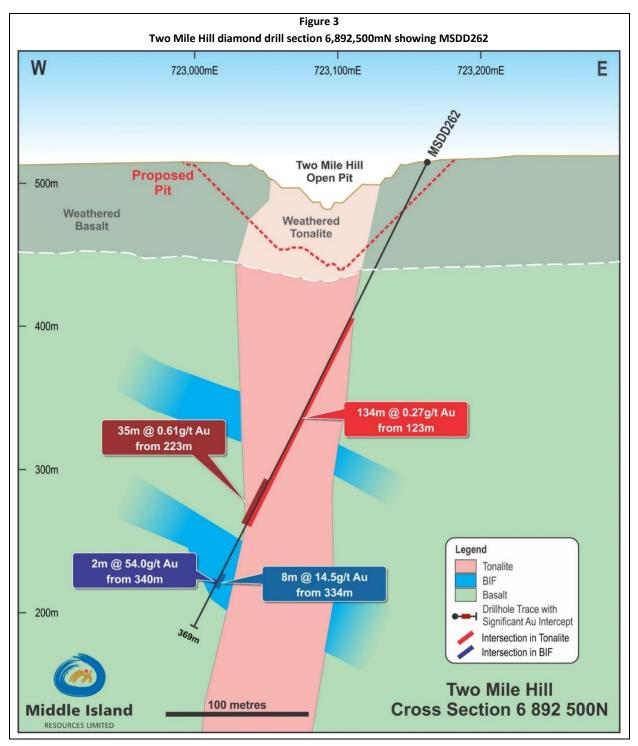
Table 1								
	Diamond Drill Hole Location and Orientation							
Hole ID	Deposit	Easting	Northing	mRL	Grid	Depth	Dip	Azimuth
MSDD262	Two Mile Hill	723165	6892500	520	MGA94_50	369.24	-64.0	273.0



Seven drill holes (MSDD262-MSDD268), comprising 988.00m of reverse circulation percussion (RC) precollars and 1,121.2m of NQ2 diamond core tails, for a total of 2,109.2m, were completed at the Two Mile Hill tonalite deeps deposit during July 2018. Due to a high, seasonal volume of samples in the laboratory, complete assay results have only been received for MSDD262.



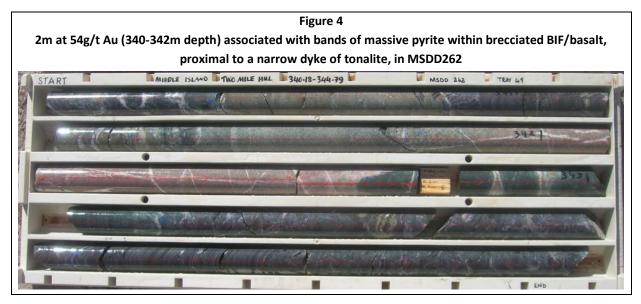
MSDD262, located towards the southern extremity of the known tonalite, comprises a reverse circulation percussion (RC) pre-collar drilled to 118.0m, followed by an NQ2 diamond core tail to 369.24m depth. The main tonalite body was encountered from 194.29m to 257.50m down-hole depth, with the enveloping basalts including multiple, narrow tonalite apophyses proximal to both contacts. On the western side of the tonalite, MSDD262 intersected BIF and brecciated BIF (BIF/basalt) from 291.14m to 346.97m depth, before finishing in basalt at 369.24m (Figure 3).

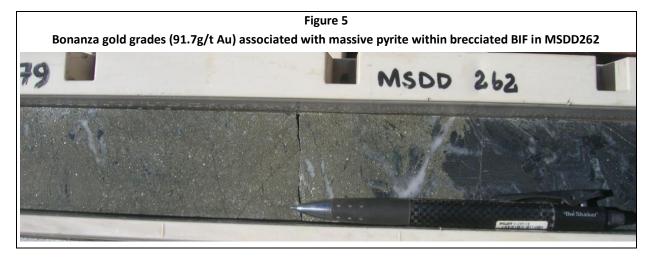




Broad, low grade gold intercepts within the main tonalite included **35m at 0.61g/t Au** from 223m depth. To reflect the proposed bulk mining approach, this weighted average interval of tonalite mineralisation was calculated using a lower cut-off grade 0.1g/t Au, a maximum of 5m of continuous internal dilution and a minimum final intercept grade of 0.5g/t Au.

Of more immediate significance in MSDD262, drilling encountered a true width interval of **8m at 14.5g/t Au** from 334m depth, **including 2m at 54.0g/t Au** from 340m depth within brecciated BIF (Figure 4 & Figure 5). To reflect a more selective proposed mining approach in the BIF units, this weighted average intercept is calculated using a lower cut-off grade of 4g/t Au, a maximum 5m interval of continuous internal dilution and a minimum final intercept grade of 4g/t Au.





As with BIF-hosted gold mineralisation peripheral to the tonalite elsewhere at Two Mile Hill, higher grades are associated with massive to semi-massive pyrite replacement of magnetite within the BIF. In this instance the host comprises moderately brecciated BIF, with both BIF and basalt clasts being well-annealed by a predominantly siliceous matrix. Brecciation of the BIF units and basalts appears to be largely confined to the southwest quadrant of the tonalite contact. This is the first occasion that significant gold mineralisation has been identified within brecciated elements of the stacked BIF units.



While the MSDD262 intercept represents a new mineralised BIF position, multiple similar, high grade intercepts have been encountered peripheral to the tonalite at Two Mile Hill. Whilst the majority are hosted by the Upper BIF unit, this intercept is presently modelled within the lesser drilled, Middle BIF unit. A further, much deeper, BIF unit (Lower BIF) is modelled from down-hole geophysics, however this lower unit remains untested by drilling to date.

Within the broader intervals reported above, weighted average intervals of more significant mineralisation in MSDD262 are provided in Table 2 below.

Table 2 Significant Diamond Drilling Results – MSDD262						
Depth From (m) Depth To (m) Interval (m) Grade (g/t Au)						
40.00	44.00	4.00	1.27			
72.00	76.00	4.00	1.61			
134.00	135.00	1.00	1.32			
188.00	189.00	1.00	0.74			
198.00	201.00	3.00	0.90			
204.00	205.00	1.00	0.64			
215.00	216.00	1.00	0.75			
227.00	237.00	10.00	1.26			
246.00	252.00	6.00	0.90			
267.00	275.00	8.00	0.59			
279.00	285.00	6.00	1.25			
291.00	295.00	4.00	1.46			
298.00	302.00	4.00	3.28			
315.00	321.00	6.00	0.66			
340.00	344.00	4.00	27.2			
368.00	369.24	1.24	2.09			

Intervals were calculated with a lower cut-off grade of 0.3g/t Au and with no high grade upper cut, a maximum of 2m of continuous included dilution and a minimum grade of 0.5g/t Au for the final intercept.

### Middle Island Managing Director, Mr Rick Yeates:

"Although only a secondary objective of the resource definition drilling, it is extremely pleasing to identify such a strong, higher grade, gold intercept of BIF-hosted mineralisation in the very first hole of the programme."

"The distribution of higher grade BIF intercepts encountered to date suggests they comprise a semicontinuous annulus of mineralisation, developed immediately peripheral to the tonalite contact. It is also extremely encouraging to identify a further example of this style of mineralisation within the Middle BIF unit, as the majority of previous intercepts have been in the, more extensively drilled, Upper BIF unit."

"The higher grades associated with this style of mineralisation provide significant upside to the considerably more substantial, but lower grade, adjacent tonalite-hosted mineralisation."

"We look forward to reporting the remaining results for the drilling programme in the very near future, once assay results have been received and compiled."



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#### **Forward Looking Statements**

Statements contained in this release, particularly those regarding possible or assumed future performance, costs, dividends, production levels or rates, prices, resources, reserves or potential growth of Middle Island, industry growth or other trend projections are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors.

#### **Competent Persons' Statement**

Information in this report relates to exploration results based on information compiled by Mr Rick Yeates. Mr Yeates is a Member of the Australasian Institute of Mining and Metallurgy and a fulltime employee of Middle Island Resources Limited. Mr Yeates has sufficient experience, which is relevant to the nature of work and style of mineralisation under consideration, 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 Yeates consents to the inclusion in the release of the statements, based on his information, in the form and context in which they appear.

## Appendix 1

# The following Table and Sections are provided to ensure compliance with the JORC Code **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<ul> <li>Drill cuttings from reverse circulation drilling were sampled as 4m composites produced by riffle splitting four contiguous 1m samples, individual 1m samples were taken over intervals which visually appeared mineralised. Diamond drill core was sampled at 1m intervals and comprised half NQ2 core.</li> <li>Sample recovery was excellent throughout. Core was re-aligned prior to splitting and the right-hand side half core section was consistently sampled.</li> </ul>
	<ul> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>RC drill cuttings of 1-2kg was sent to the laboratory to be crushed (-10mm) and pulverised to produce a 300g pulp, then split to a 50g charge for fire assay analysis. The half diamond core 2-5kg was sent to the laboratory to be crushed (-10mm) and pulverised to produce a 300g pulp, then split to a 50g charge for fire assay analysis.</li> </ul>
Drilling techniques	• 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.).	<ul> <li>MSDD262 was RC pre-collared with a 130mm face-sampling hammer from 0- 118m, and an NQ2 (50.6mm core diameter) diamond tail from 118-369.24m.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	<ul> <li>Diamond core recovery data was measured for each drill run/interval and captured in a digital logging software package. The data has been reviewed and the core recovery was effectively 100% throughout.</li> <li>The water table was encountered at a 40 – 60m down-hole depth but Middle Island had no issues with the water table effecting the samples.</li> </ul>
	• 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.	<ul> <li>No relationship between sample recovery and grade has been established.</li> </ul>

Criteria	JORC Code explanation	Commentary
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>The RC chips and diamond core were logged for lithology, weathering, structure, mineralogy, mineralisation, alteration, colour, RQD and geotechnical parameters. Logging was carried out according to Middle Island Resources internal protocols at the time of drilling.</li> <li>RC chips were logged at 1m intervals. Diamond core was logged continuously to record all relevant features, regardless of length. Core was also photographed wet and dry within each core tray.</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>MSDD262 core was cut in half by diamond saw, the right hand half of the core was consistently sampled, the left hand half was retained in the core trays for reference purposes.</li> <li>Half core samples were bagged in 1m intervals.</li> <li>RC chips were riffle split to produce 4m composite samples. Intervals which visually appeared mineralised were riffle split from single metre samples.</li> <li>All samples were collected and taken to the Intertek lab in Maddington, W.A for sample preparation and analysis.</li> <li>The samples were dried and crushed to -10mm before being split and then a 300g subsample pulverized to 95% passing 75 microns. This fraction was then split again to a 50g sample charge for fire assay. The Intertek laboratories are internationally certified.</li> <li>Middle Island's diamond core routine sample procedure was to consistently cut the core along the orientation line and collect the same side of the cut core for analysis. A second core split was collected off the primary jaw crusher at a frequency of 1:20 samples to provide a field duplicate sample.</li> <li>Sample size and assay charge size are considered appropriate for the style of mineralisation.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Middle Island Resources adopted a 50g fire assay method with an ICP-OES finish. This technique is considered suitable for gold mineralisation associated with sulphides.</li> <li>No other measurement tool/instrument was used to derive assays, however a gyroscopic instrument was used to monitor deviation within the diamond holes.</li> <li>Middle Island included laboratory duplicates, field duplicates and certified standards routinely in the assay train at a 1:9 frequency, and a quartz wash was used after each sample pulverised.</li> </ul>

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Sampling was undertaken by experienced geologists from Middle Island Resources who confirmed the intersections as prospective for gold mineralisation.</li> <li>No twinned holes or umpire assaying were used as part of this programme.</li> <li>Sampling data were imported and validated using a GBIS database software system by an experienced database consultancy.</li> <li>Assay data were not adjusted.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Surface collar coordinates were surveyed via GPS. Given magnetism inherent in the host rock, a high quality downhole gyro was used to determine the dip and azimuth of the drill holes at 10m intervals.</li> <li>MGA94 Zone 50.</li> <li>The topographic surface was calculated from previous mine survey pickups.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>RC samples are reported at 4m and 1m composited sample/assay intervals. Core samples are reported at 1m composited sample/assay intervals.</li> <li>The data spacing is adequate to provide continuity of grade for exploration drilling and resource estimation purposes.</li> <li>4m sample compositing was adopted for sampling of RC chips in MSDD262 pre-collar where the interval visually appeared to be unmineralised.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	• MSDD262 was drilled perpendicular to the long axis of the tonalite body and inclined to the west in order to orthogonally intercept the dominant sub-horizontal mineralised sheeted quartz vein sets within the tonalite and the adjacent BIF units. As such the reported mineralised intercepts in each case are effectively true widths.
Sample security	• The measures taken to ensure sample security.	• All samples were held at the Middle Island exploration camp in the custody of Middle Island employees prior to collection by the courier for transport to the laboratory in Perth.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>Field data collected was logged and validated in a custom field logging tool.</li> <li>The database was again validated and audited by recognised external database consultants, Expedio.</li> </ul>

## 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	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The sampled RC chips and diamond core are derived from Mining Lease M57/128, which is 100% owned by Sandstone Operations Pty Ltd, a wholly-owned subsidiary of Middle Island Resources Limited.</li> <li>As of 5/12/2016, Sandstone Operations Pty Ltd was the sole owner of the project, including Mining Lease M57/128.</li> </ul>
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Previous exploration was undertaken and reported by Herald Resources Limited and Troy Resources Limited during their respective tenure of the Sandstone gold project.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	• Two Mile Hill is an epigenetic Archaean gold deposit hosted by 'greenstones' of greenschist regional metamorphic facies. Gold is associated sub-horizontal sheeted quartz vein sets within a late stage, near vertical tonalite plug that intrudes the local stratigraphy of shallowly NE dipping mafic volcanics and BIF units. Gold mineralisation is also associated with selective pyrite replacement of magnetite bands within the adjacent BIF units and occasional quartz veins or lodes within the enveloping basalts.
Drill hole Information	<ul> <li>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: <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> </li> <li>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.</li> </ul>	See tables, sections and plans within the release.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>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.</li> </ul>	<ul> <li>To reflect the proposed bulk mining philosophy, broader weighted average intervals of mineralised tonalite were derived using a lower cut-off grade 0.1g/t Au, no high grade upper cut, a maximum of 5m of continuous internal dilution and a minimum grade of 0.5 g/t Au for the final intercept.</li> <li>To reflect the proposed more selective mining philosophy, weighted average intervals of mineralised BIF were derived using a lower cut-off grade 4g/t Au, no high grade upper cut, a maximum of 5m of continuous</li> </ul>
	• 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.	<ul> <li>internal dilution and a minimum grade of 4g/t Au for the final intercept.</li> <li>High grade weighted average intervals of mineralisation that were included within broader intervals of mineralisation were calculated with a lower cut-off grade of 0.3g/t Au, no high grade upper cut, a maximum of 2m of continuous included dilution and a minimum grade of 0.5g/t Au for the final intercept.</li> <li>All intervals were calculated using the grade compositing function of Mianania.</li> </ul>
	• The assumptions used for any reporting of metal equivalent values should be clearly stated.	<ul><li>Micromine.</li><li>Not applicable.</li></ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>MSDD262 was drilled perpendicular to the long axis of the tonalite body and inclined to the west in order to orthogonally intercept the dominant sub-horizontal mineralised sheeted quartz vein sets within the tonalite and the adjacent BIF units. As such the reported mineralised intercepts in each case are effectively true widths.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	Refer plan and section within the release.
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.	Not applicable.
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.	<ul> <li>Reported within the release as appropriate and relevant.</li> </ul>

Criteria	JORC Code explanation	Commentary
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Stated within the release as appropriate and relevant, with the majority of assay results from this program still pending.</li> <li>Not applicable at this time.</li> </ul>