



# Middle Island

RESOURCES LIMITED

## **Middle Island Resources Ltd**

ACN 142 361 608

ASX code : MDI

[www.middleisland.com.au](http://www.middleisland.com.au)

### **Capital Structure:**

122.4 million ordinary shares

22 million unlisted OOTM options

### **Cash & Investments**

\$2.2 million (as of 30 September 2021)

No debt

### **Directors & Management:**

#### **Peter Thomas**

Non-Executive Chairman

#### **Brad Marwood**

Executive Director

Bruce Stewart

Non-Executive Director

#### **Dennis Wilkins**

Company Secretary

### **Contact:**

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## Sandstone and Barkly Exploration Update

### Sandstone Gold Project

- A total of 536 Auger geochemistry holes were completed across 4 new untested targets including 3 target areas in the Sandstone permits and 1 target in the Jew Well Permit (located approximately 10km south of Sandstone plant).
- All holes have been analysed by semi-quantitative portable XRF (pXRF) for a 24 multi-element suit, and for Gold by 30g Fire Assay.
- 5 new gold prospects have been identified within the Sandstone Permits with limited to no historical drilling.
- A 2km nickel anomaly (open to northeast) has been defined in the Jew Well permit outlining a potential Ultramafic Complex.

### Barkley Super Copper-Gold Project

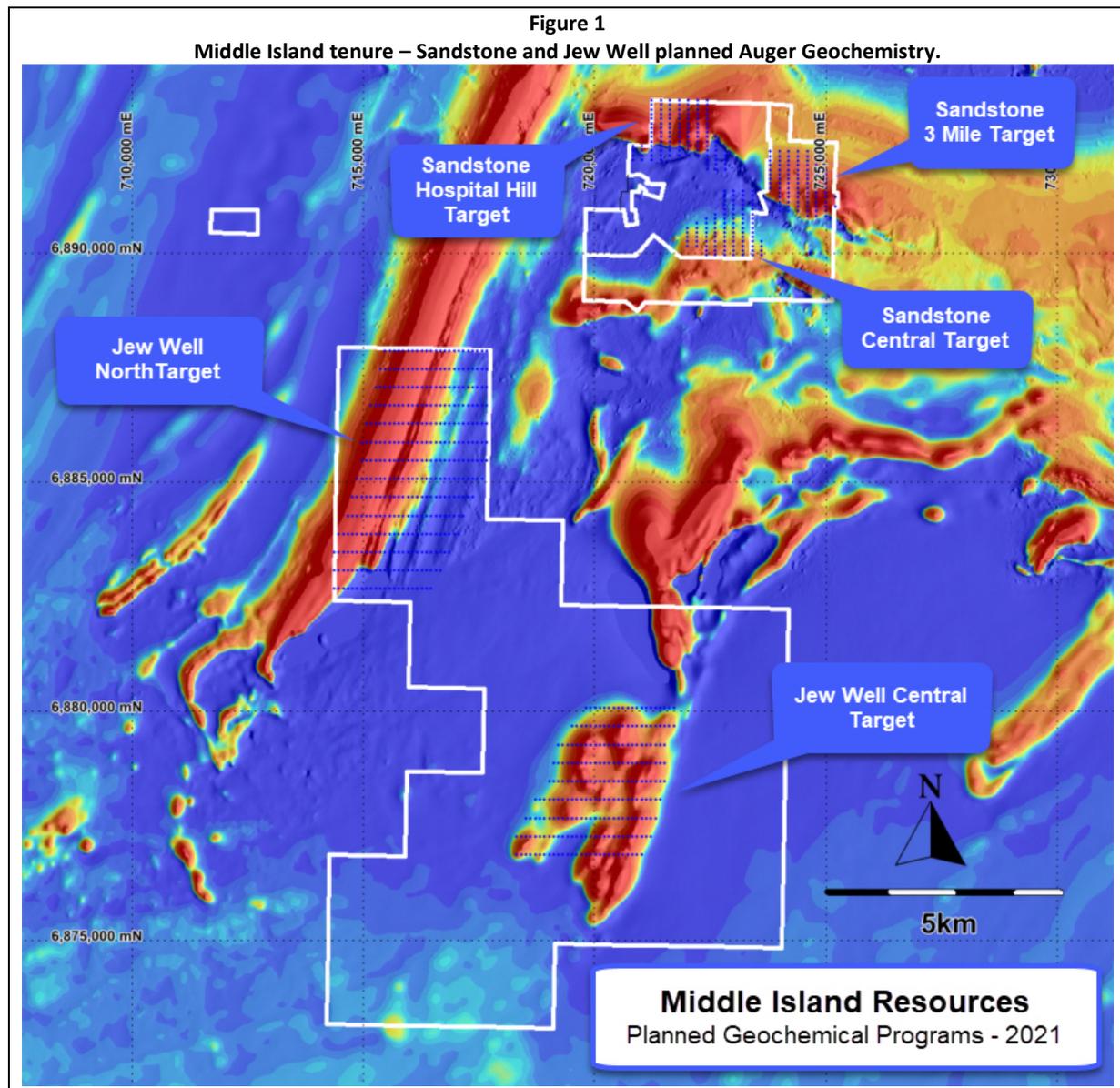
- Two new permit applications with a consent to grant application, have been approved by the Central Land Council (CLC). Middle Island has until the 31 October 2023 to negotiate a Native Title agreement. This takes the Barkley Project to a total of 5,220km<sup>2</sup>. The two new permits are contiguous with the Crosswinds Copper discovery reported by Middle Island.
- A detailed Airborne magnetic and radiometric survey has been scheduled for November / December 2021 and will be co-funded by the Northern Territory Geological Survey. This work will be followed by a detailed ground gravity survey to enable drill targeting.
- An IP survey is planned across Crosswinds Prospect. Silica associated with the copper mineralisation (malachite) on surface indicates a hydrothermal source and will potentially highlight the source at depth of the 130m of malachite located on surface. This will present a drill ready target in the coming months.



**AUGER GEOCHEMICAL DRILLING COMPLETED**

As per ASX release of 7 July 2021, the Company completed the auger drilling program across Sandstone and Jew Well permits. 4 of the initial 5 first pass programs for a total of 536 holes were completed in 3 weeks (Jew Well North target is yet to be drilled). Holes ranged from 1m to 14m in depth and targeted interface sampling below the transported cover. Sandstone holes were completed on a wide spaced 200m by 100m grid and Jew Well on a 400m by 100m grid.

The planned auger programs are shown in Figure 1 below:



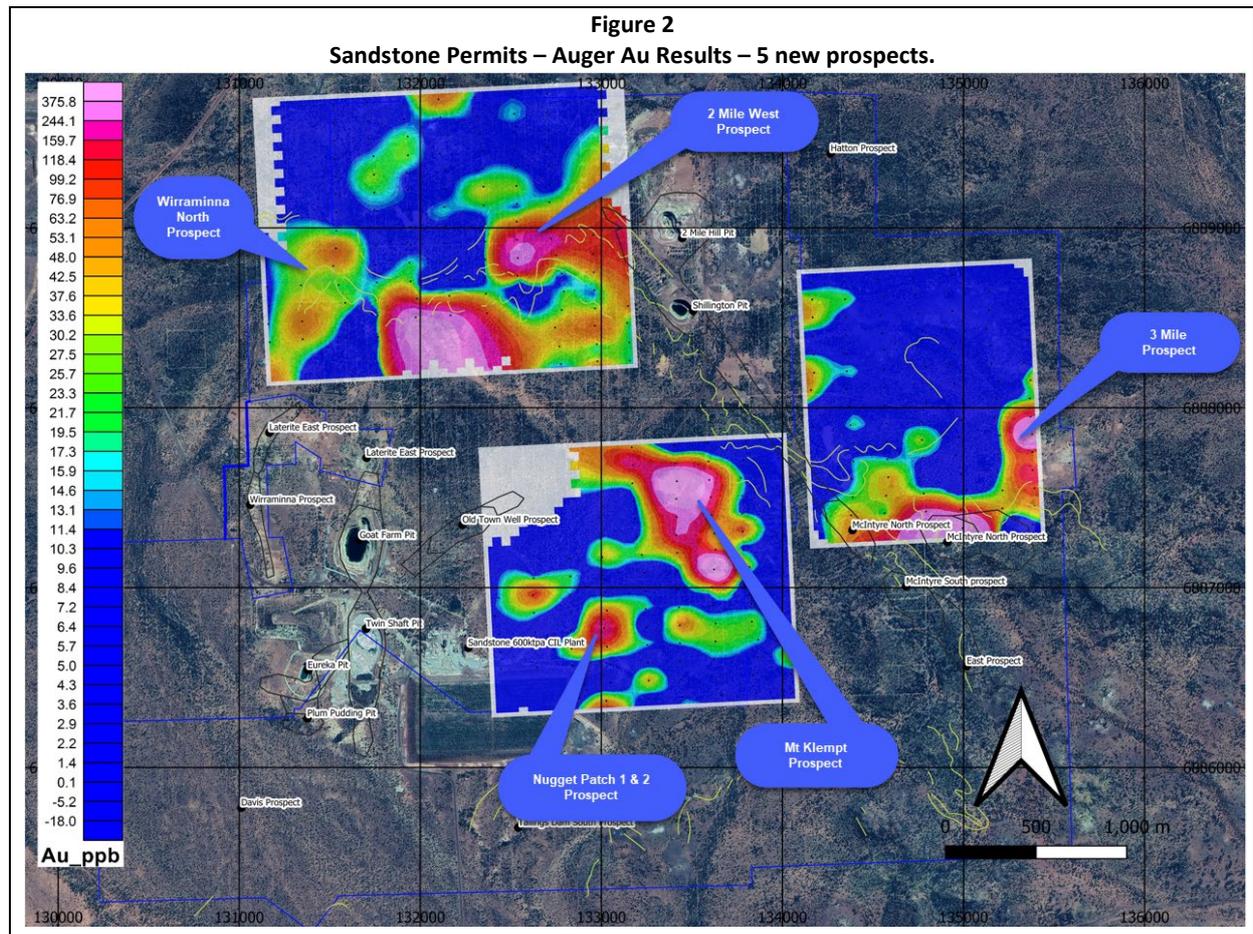


## Sandstone

Middle Island undertook a portable XRF scan using an Olympus Delta pXRF. This analytical method was undertaken on 1mm sieved samples and is semi-quantitative, but effective in highlighting base and indicator elements of significance for early-stage exploration.

In the Sandstone Permits, the pXRF analysis exercise has highlighted several Arsenic anomalies that can assist in mapping structures, with Arsenic often associated with Gold Mineralisation in the region.

Samples were also dispatched to SGS for gold analysis by 30g Fire Assay. The following image highlights 5 new prospects identified by the Auger Geochemistry.



The prospects have highlighted 5 preliminary targets that require infill Auger Geochemistry to refine the anomalies. The Auger targets are all taken >1.5m depth and considered to be high quality and uncontaminated from surface small scale prospecting activity and transported material. Targets defined are:

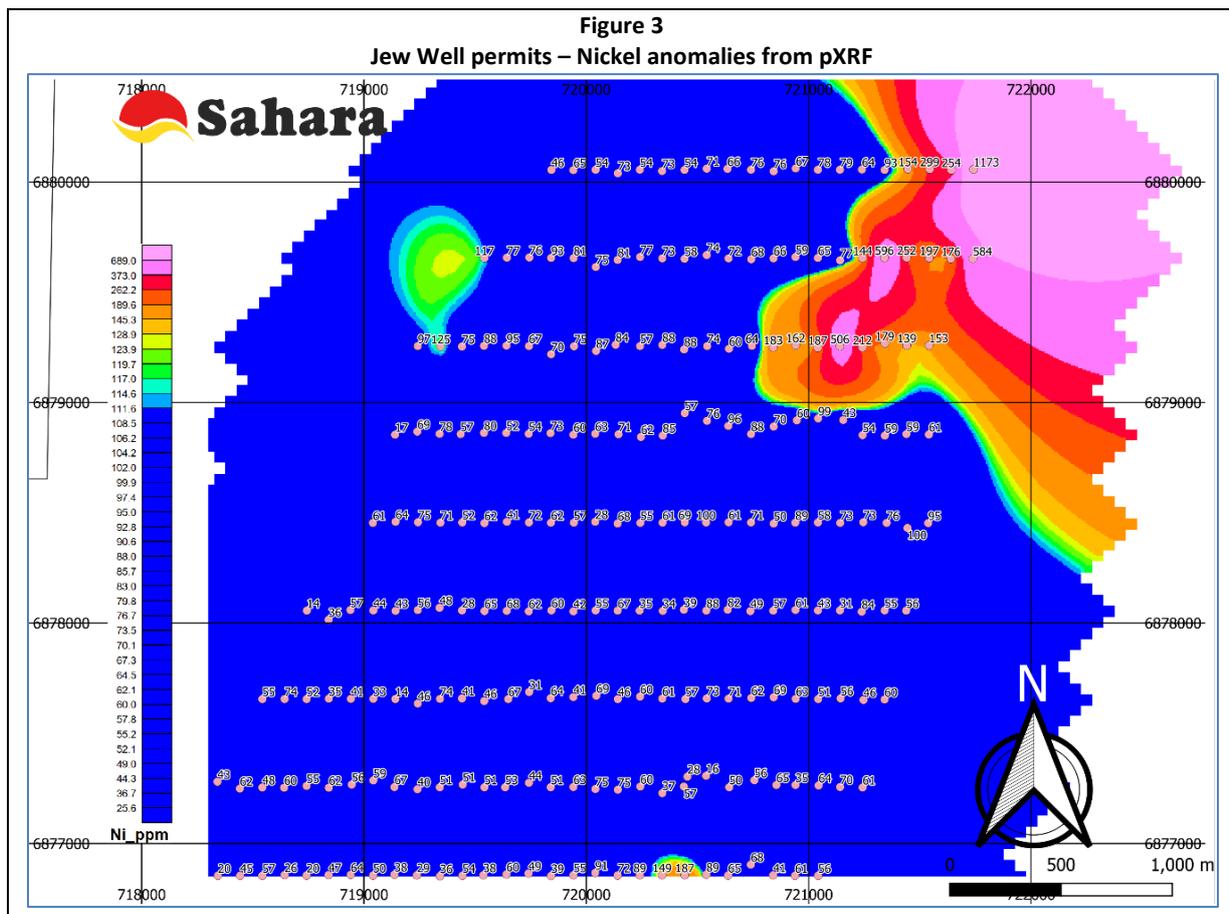
- Nugget Patch 1 & 2 which are in proximity to historical nugget patches exploited by surface prospectors with no drilling;
- Mt Kempt is a poorly tested historical target with minor drilling;
- 3 Mile is a known nugget patch with limited drilling;
- Wirraminna North is an interpreted fault offset of Wirraminna with minor shallow drilling;



- 2 Mile West is a 600m extension associated with the Banded Iron Ridge with limited drilling having been completed; and
- A 6<sup>th</sup> prospect was defined at Nungara north but is on the boundary of the historical abandoned townsite of Nungara. Additional permitting is required to access this area.

The Jew Well program undertaken across the magnetic feature from government magnetic data, has highlighted a 2km long Nickel anomaly from pXRF highlighting the potential underlying Ultramafic rocks.

Weak gold was associated with the ultramafic, but the remainder of the high magnetic target returned no significant gold and is considered to be associated with fragments of sheared BIF within granite.



Interpretation of the historical datasets and the detailed magnetics and radiometrics survey flown in 2020, is ongoing and will provide further context for the auger anomalies which will be infill sampled and prioritised for drill testing.



## **BARKLY EXPLORATION**

The Barkly Super Project has maintained momentum over the past 2 months with the finalisation of the scope of geophysical works completed the terms and conditions for undertaking the works finalised and the focus now moves to identifying an optimum weather window to secure the best results. The current planning is to commence the airborne magnetics and radiometrics survey in November or December when the contractor becomes free. All contracts have been signed for this work.

Two new permit applications with a consent to grant application, have been approved by the Central Land Council (CLC). Middle Island has until the 31 October 2023 to negotiate a Native Title agreement. This takes the Barkley Project to a total of 5,220km<sup>2</sup>. The two new permits are contiguous with the Crosswinds Copper discovery reported by Middle Island

### **RELEASE AUTHORISED BY THE MDI BOARD:**

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WEBSITE: [www.middleisland.com.au](http://www.middleisland.com.au)

### **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 Person Statement**

The reported Exploration Results were compiled by Beau Nicholls, a Member of the Australian Institute of Geoscientists. Mr. Nicholls 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 Resources and Ore Reserves'. Mr. Nicholls is a principal Consultant with Sahara Natural Resources (Sahara), and the Competent Person is independent of the Company and other than being paid fees for services in compiling this report, neither has any financial interest (direct or contingent) in MDI.

### **New Information or Data**

MDI confirms that it is not aware of any new information or data that materially affects the information included in previous market announcements and, in the case of estimates of Mineral Resources, which all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not materially changed from the original market announcement.



## Appendix 1

The following Table is provided in compliance with the JORC Code

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <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> <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 1m 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 style="list-style-type: none"> <li>Samples were taken by 4-inch open flight Auger</li> <li>Interface samples below transported soils and drainage were sampled over 1 to 1.5m intervals by Scoop sampling</li> <li>Samples were sieved to 1mm collecting the fine -1mm material into chip trays for analysis by pXRF</li> <li>2kg samples were collected by scoop for dispatch to SGS laboratory for analysis for 30g Fire Assay for gold</li> <li>Chip trays were analysed using a Delta pXRF unit, 90 second 3 tube analysis meter by meter</li> <li>Certified standards were analysed every 20 samples for accuracy and pXRF is calibrated by a standard stainless-steel unit on start-up</li> <li>pXRF is a semi-quantitative analysis and is utilised for identifying anomalies against background</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>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.).</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <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</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>nature of the samples.</i>	
Logging	<ul style="list-style-type: none"> <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> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Chips were logged for basic lithology, mineralogy and colour</li> </ul>
Sub-sampling techniques and sample preparation	<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> <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> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
	<ul style="list-style-type: none"> <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>	



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <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>	
Verification of sampling and assaying	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Sahara personnel undertook all sampling, pXRF and sample dispatch. Certified standards were included with no outliers identified</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Collars were analysed by handheld GPS to ~5m accuracy in XY.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Holes are 100m apart by 200 to 400m lines</li> </ul>
Orientation of data in relation	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>Vertical holes</li> </ul>



Criteria	JORC Code explanation	Commentary
<i>to geological structure</i>	<ul style="list-style-type: none"><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>	
<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>•</li></ul>
<i>Audits reviews</i>	<p><i>or</i></p> <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 independent audits or reviews of sampling techniques and data has been conducted.</li></ul>



## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Tenure covered by MDI release. MDI has 100% interest in tenure.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Covered in release. Greenstone , metasediments and BIF .Lode gold</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <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 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> </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>	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <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> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such</li> </ul>	<ul style="list-style-type: none"> <li>Data is semi-quantitative pXRF, relative to background levels defined</li> <li>Au results are to SGS reported 10% accuracy</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p> <ul style="list-style-type: none"> <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>Metal equivalent values are not reported.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<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 (e.g., ‘down hole length, true width not known’).</i></li> </ul>	<ul style="list-style-type: none"> <li>No results have been reported</li> </ul>
<b>Diagrams</b>	<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 table, map, photos and diagrams within the release.</li> </ul>
<b>Balanced reporting</b>	<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>	
<b>Other substantive exploration data</b>	<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>.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. 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>The Company intends to follow up infill auger</li> <li>A selection of photos, maps and a diagrammatic interpretation are included within the release.</li> </ul>