

2 May 2017

Company Announcements Office, ASX Ltd

## Exploration Update

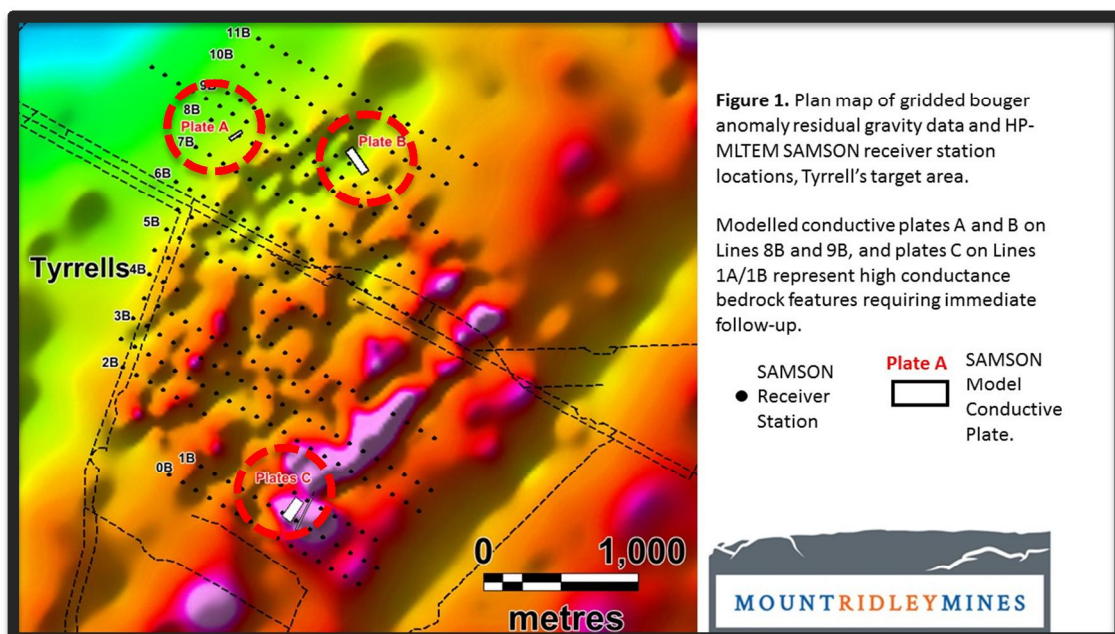
- **Drilling in progress**
- **SAMSON EM Completed at Tyrrells**
- **New EM anomaly modelled (plate C)**
- **Auger drilling completed**
- **Air core program completed**

Mount Ridley Mines Ltd (ASX: MRD) (or “the Company”) is pleased to announce an exploration update at its 100% owned Mt Ridley project in the Albany Fraser Range Province WA.

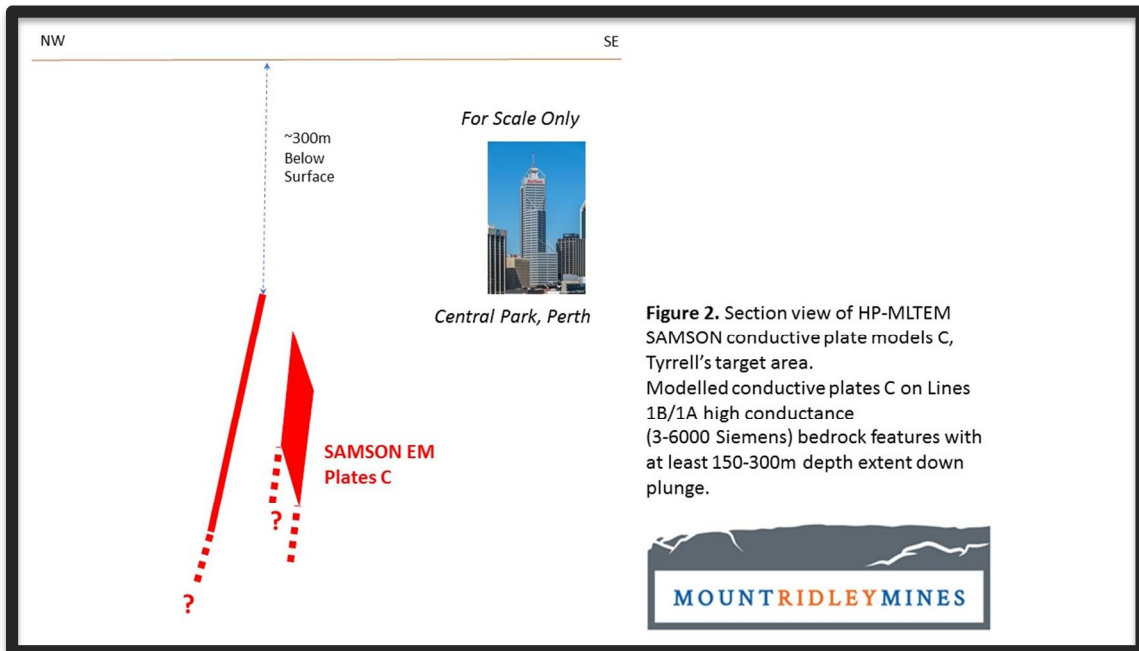
The much-anticipated drilling to test target conductive plates A & B in the Tyrrells target area has commenced (refer ASX announcements on 20<sup>th</sup> and 26<sup>th</sup> April 2017). MRDRC002 on Plate A was drilled with an RC pre collar to a depth of 186m. An HQ diamond tail will commence this week to a planned depth of 450m. Plate B is currently having an RC pre-collar drilled.

The remainder of the High Powered Moving Loop Time Domain Electromagnetics (HP MLTEM) program using the SAMSON receiver at the Tyrrells target area has now been completed.

A new area of complex conductivity anomaly has been identified on lines 0B/1B, approximately 2kms to the south east of plates A and B on lines 8B/9B. This conductive anomaly area is coincident with a combined magnetic and gravity anomaly interpreted to represent a buried mafic-ultramafic intrusive complex (Figure 1).



The modelled conductor is complex in geometry and response (Plates C – see Figure 2) and has a conductance of ~3000-6000S, strikes to the northeast and is steeply dipping to the northwest to sub-vertical, and is interpreted to lie at a depth exceeding 300m. The Company plans to drill and test the conductive anomaly on completion of the current RC/diamond drill program on Plates A and B.



Approximately 70% of The Lake target area has been covered by HP MLTEM surveys and less than 40% by Air Core (AC) drilling (39 holes for 1713m). Due to an exceptional unexpected wet summer season that kept lakes and low-lying areas flooded, The Lake target area was abandoned after numerous attempts were made to complete the planned surveys. To date the geochemistry data has provided a coincident nickel, copper and sulphur anomaly that warrants infill air core drilling and, results of the AC program pending, infill/extension HP MLTEM surveys.

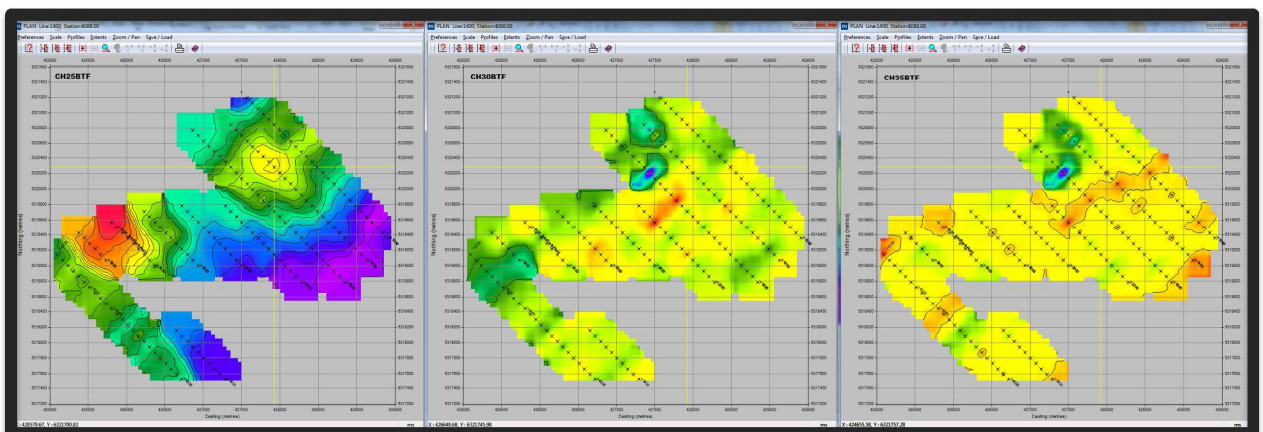
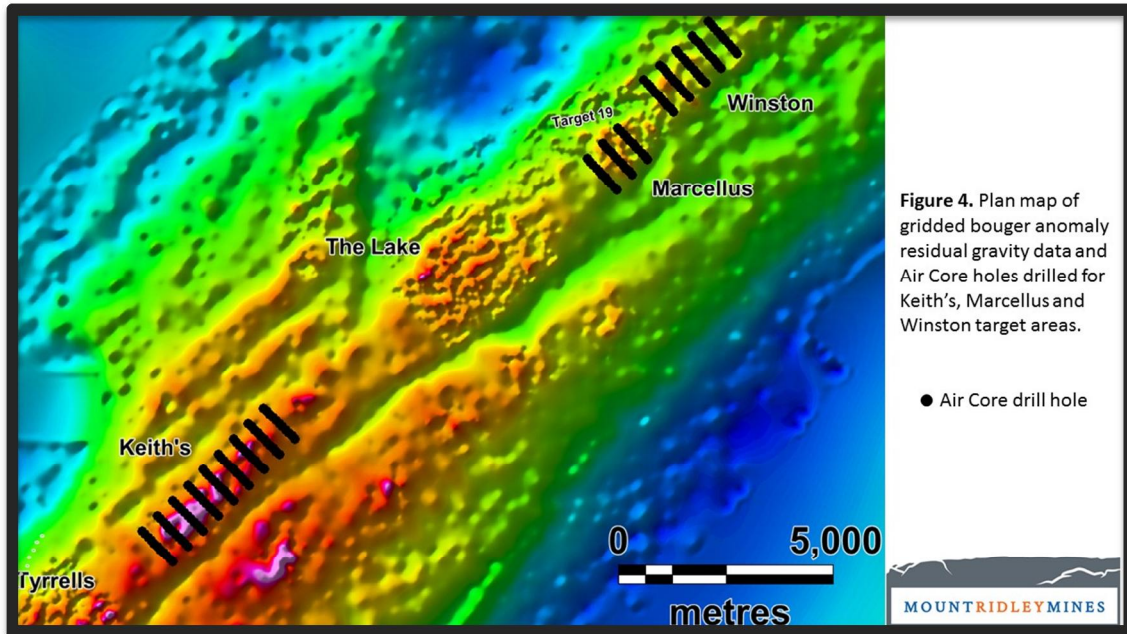


Figure 3: Gridded images of CH25, 30 & 35 BTF SAMSON HP-MLTEM data – The Lake target area

The AC drilling program has been completed at Keith's (99 holes for 2,287m), Marcellus (30 holes for 1,110m) and Winston's (55 holes for 1,701m) prospect areas (Figure 4). Samples from Keith's and Marcellus are currently in the laboratory being assayed and Winston's

samples are currently being prepared for transport to the laboratory. As soon as the results are available, data processed and modelled by the Company's geological consulting team at CSA Global will be provided to the market.



Three new additional gravity/magnetic anomaly areas have been selected for reconnaissance air core drill testing (Figure 5). This program has just been completed.

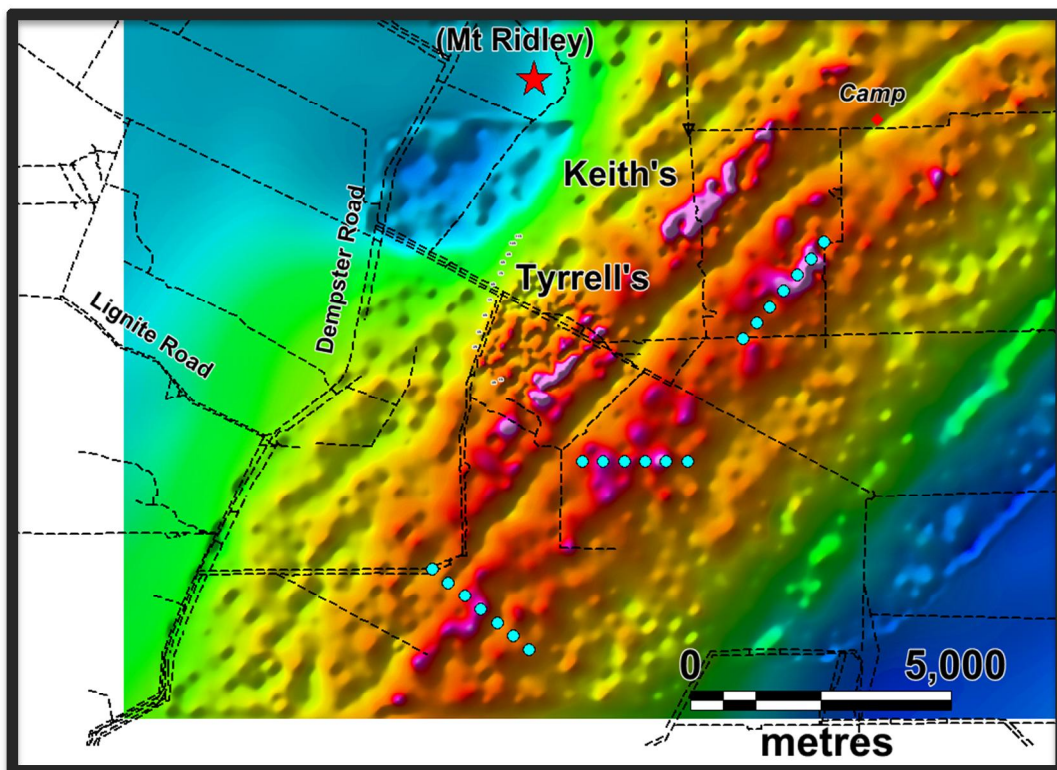


Figure 5: Gridded residual bouger anomaly map showing additional reconnaissance aircore traverses on combined magnetic and gravity targets

An auger sampling geochemistry program comprising 1,100 samples has recently been completed to the north-western section of the Company's tenement package (Figure 6). These samples are now in the process of being assayed. This program was designed to test for Broken Hill style lead, zinc and silver mineralisation. It was this specific geology/mineralisation style that brought BHP to the area in the 90's and with the assistance of CSA Global a number of favourable geological settings have been targeted that have previously had very little to no recorded exploration activities.

In parallel to the Broken Hill style exploration, samples are also being specifically tested for gold with a new in-field gold detecting technology being trialled in a collaborative program with the CSRIO.

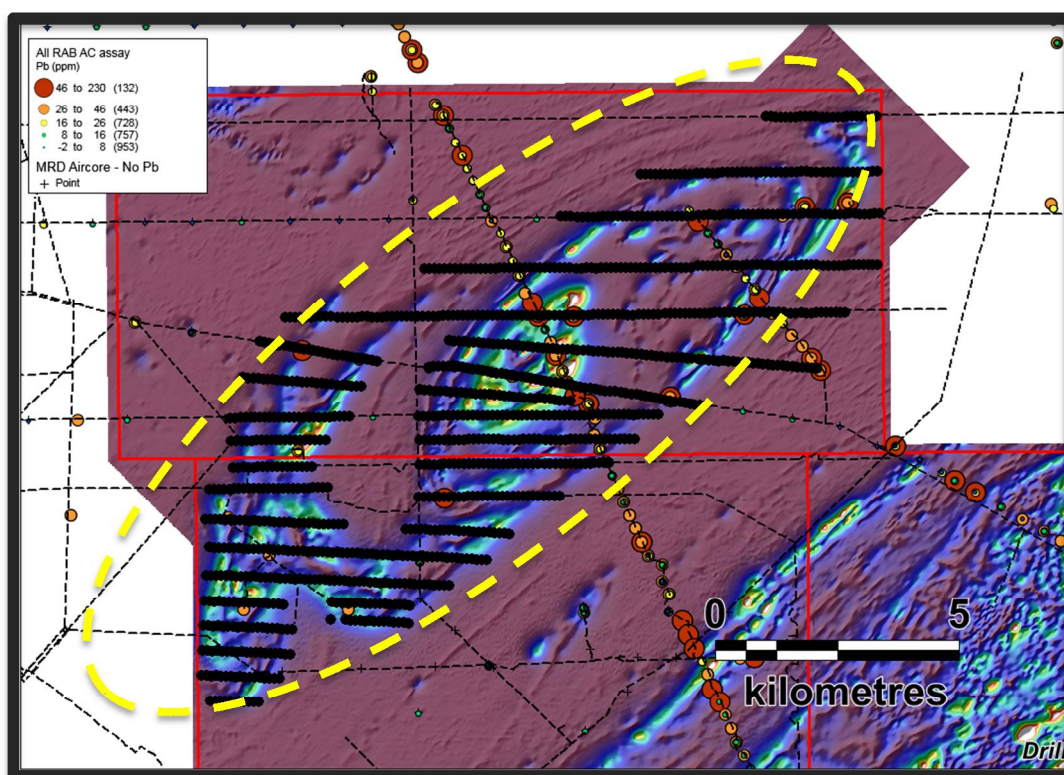


Figure 6: Reduced to pole total magnetic field gridded image of the northwest Mt Ridley tenement area showing auger geochemistry traverses targeted for Broken Hill style lead-zinc mineralisation and gold.

### Research & Development Rebate

The Company has recently lodged an application for a Research & Development (R&D) Rebate of \$1m.

For and on behalf of the board

Mr Ashley Hood  
Managing Director

**Competent Persons Statement**

*The information in this announcement that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Tony Donaghy who is a Registered Professional Geoscientist (P.Geo) with the Association of Professional Geoscientists of Ontario (APGO), a Recognised Professional Organisation. Mr Donaghy is a technical advisor to the Company. Mr Donaghy has sufficient experience which is relevant to the style 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 Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Donaghy consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

**Forward Looking Statements Disclaimer**

*This announcement contains forward-looking statements that involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.*

### About Mount Ridley Mines Ltd

Mount Ridley Mines Ltd is a Perth based Australian Exploration Company focusing primarily on projects in the Albany Fraser Range region of Western Australia, 70kms north east of a major port in Esperance. The project has the potential to host major mineral deposits in base and precious metals including nickel, copper, cobalt, silver and gold.

The Company is managed by a team of highly motivated professionals with significant expertise in mineral exploration, mining operations, finance and corporate management with a proven track record of successfully delivering value to shareholders.

Mount Ridley Mines Ltd is actively targeting nickel and copper sulphide deposits in the Albany Fraser Range Province of Western Australia, the site of Independence Groups Nova Nickel-Copper Deposit discovered by Sirius Resources NL. The Company currently has a tenement portfolio of approximately 1,000sq/kms in what is fast becoming the world's most exciting emerging nickel and copper province.



## Appendix 1 Mt Ridley Mining Limited – Mt Ridley Project – Diamond Drilling JORC CODE 2012.

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling technique</b>	<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 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. 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 3kg was pulverised to produce a 30g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li><b>No drilling results are included in this release</b></li> </ul>
<b>Drilling techniques</b>	<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><b>No drilling results are included in this release</b></li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed</li> <li>Measurements taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li><b>No drilling results are included in this release</b></li> </ul>

	<b>JORC Code explanation</b>	<b>Commentary</b>
<b>Logging</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• <b>No drilling results are included in this release</b></li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>• If non-core, whether riffles, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>• For all sample types, 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 style="list-style-type: none"> <li>• <b>No drilling results are included in this release</b></li> </ul>
<b>Quality of assay data and laboratory tests</b>	<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>	<ul style="list-style-type: none"> <li>• <b>No drilling results are included in this release</b></li> </ul>



	<b>JORC Code explanation</b>	<b>Commentary</b>
<b>Verification of sampling and assaying</b>	<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 (physically and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <b>No drilling results are included in this release</b></li> </ul>
<b>Location of data points</b>	<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 Resources 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>• <b>No drilling results are included in this release</b></li> </ul>
<b>Data spacing and distribution</b>	<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 Reserve 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>• <b>No drilling results are included in this release</b></li> </ul>
<b>Orientation of data in relation to geological structure</b>	<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>• <b>No drilling results are included in this release</b></li> </ul>

	JORC Code explanation	Commentary
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling results are included in this release</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of and audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling results are included in this release</li> </ul>

## Section2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenements 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 interest, 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>Tenement E 63 /1547. Dundas mineral field. The tenement is 100% held by Mt Ridley Mines Ltd.</li> <li>The tenure is secure and in good standing at the time of writing</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgement and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Previous exploration has primarily targeted lignite</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological settings and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Mt Ridley Mines is exploring primarily for magmatic hosted Ni-Cu sulphide.</li> </ul>
<b>Drill hole information</b>	<ul style="list-style-type: none"> <li>A summary of all information material for 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)and 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> </ul>	<ul style="list-style-type: none"> <li>No drilling results are included in this release</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <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, weighing 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 aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li><b>No assay results are reported</b></li> <li><b>No assay results are reported</b></li> <li><b>No metal equivalent values have been reported.</b></li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li><b>The geometry of any potential mineralized horizon is unknown</b></li> <li><b>No drilling results are included in this release</b></li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts would be included for any significant discovery being reported. These should include, but not be limited to plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li><b>Appropriate plans have been included in the body of the report</b></li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li><b>Not applicable at this early stage of exploration</b></li> </ul>

Criteria	JORC Code explanation	Commentary
<p><b>Other substantive exploration data</b></p>	<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 containing substances.</i></li> </ul>	<ul style="list-style-type: none"> <li><b>A detailed aeromagnetic survey was completed in October 2014 and a detailed ground gravity survey was completed in March 2017.</b></li> <li><b>The ground moving loop time domain electromagnetic (ML-TDEM) survey was targeted based on the interpretation of the magnetic and gravity datasets for intrusive features that could potentially be associated with magmatic hosted nickel sulphides. The magnetic and gravity data and interpretation have been discussed in previous ASX releases and exploration updates.</b></li> <li><b>Ground ML-TDEM surveys have been undertaken that have identified conductive features.</b></li> <li><b>The target conductors have not been intersected or confirmed by drilling and downhole EM.</b></li> <li><b>Some uncertainty exists in the interpretation of the surface EM data due to the highly conductive overburden.</b></li> <li><b>The nature of the conductive features is currently unknown and untested.</b></li> </ul>
<p><b>Further work</b></p>	<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, providing this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li><b>RC and Diamond drilling are being planned to follow-up on the ML-TDEM surveying results.</b></li> </ul>