

AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT

14 February 2019

**AC DRILLING COMPLETED - MOUNT RIDLEY PROJECT  
ALBANY FRASER OROGENY**

- Albany Fraser new nickel – copper targets tested
- 3 out of 4 targets confirmed as favourable mafic/ultramafic lithologies
- High Powered Geophysics being planned over 3 target areas.

**Mount Ridley Mines Limited** (ASX: **MRD**) (“Mount Ridley”, “the Company”) is pleased to announce an exploration activities update at its 100% owned Mt Ridley Project, located 70km north east of Esperance (Western Australia) in the Albany Fraser Range Province WA.

Four discrete magnetic geophysical features have been tested by air core drilling comprising 28 holes and 937 meters at an average hole depth of 33.45m. The magnetic features were chosen as having similar geophysical signatures to the intrusive rocks that host the Nova-Bollinger mine. End of hole rock chips over three of the four targets tested identified coarse-grained varitextured gabbro-norite and olivine-bearing peridotite, similar to intrusive lithologies known to host magmatic nickel-copper sulphides already identified elsewhere on the Mt Ridley project.



**Figure 1.** Chip trays from Lines 1 & 5 with coarse-grained varitextured gabbro-norite and olivine-bearing peridotite lithologies in end of hole samples.

There are a number of geophysical magnetic and gravity features identified on the project that are yet to be tested beneath cover with previous exploration confirming the potential for magmatic nickel-copper sulphides. This latest round of AC drilling is encouraging for the identification of Nova-Bollinger style magmatic nickel-copper mineralisation.

The Company has submitted end of hole samples to ALS laboratory for whole-rock multi-element assay. Should the geochemical results be favorable, the Company will commence high powered moving loop electromagnetic (HP MLTEM) surveying as soon as practical to target any potential magmatic sulphide accumulations. In addition, other untested discrete geophysical targets will be AC drill tested for additional potential mafic-ultramafic intrusive lithologies.

The Company intends to provide further updates on the results of the recently completed drill program as they become available.

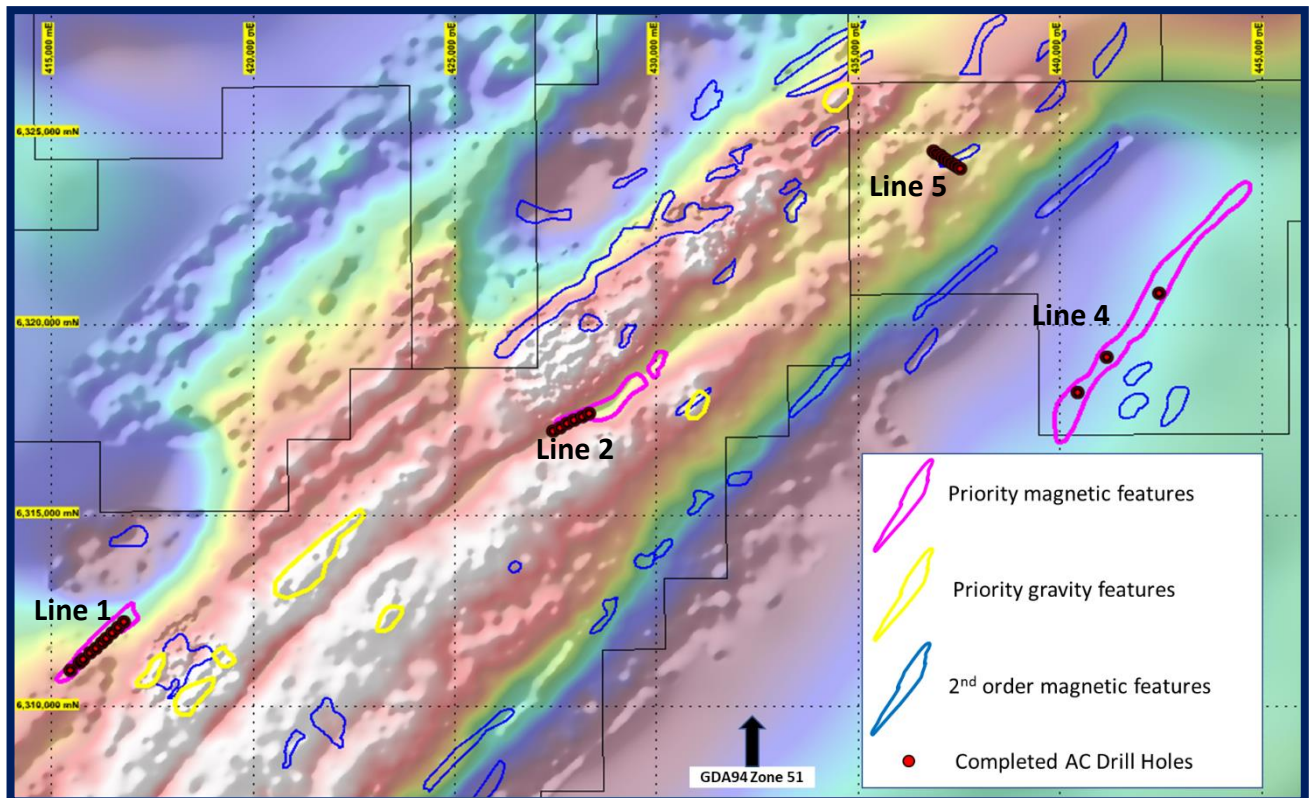


Figure 2. AC Drilling completed on Bouguer anomaly gravity data.

For and behalf of the board.

Mr Ashley Hood  
Director

Visit [www.mtridleymines.com.au](http://www.mtridleymines.com.au) for additional information including past announcements.

#### **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.*

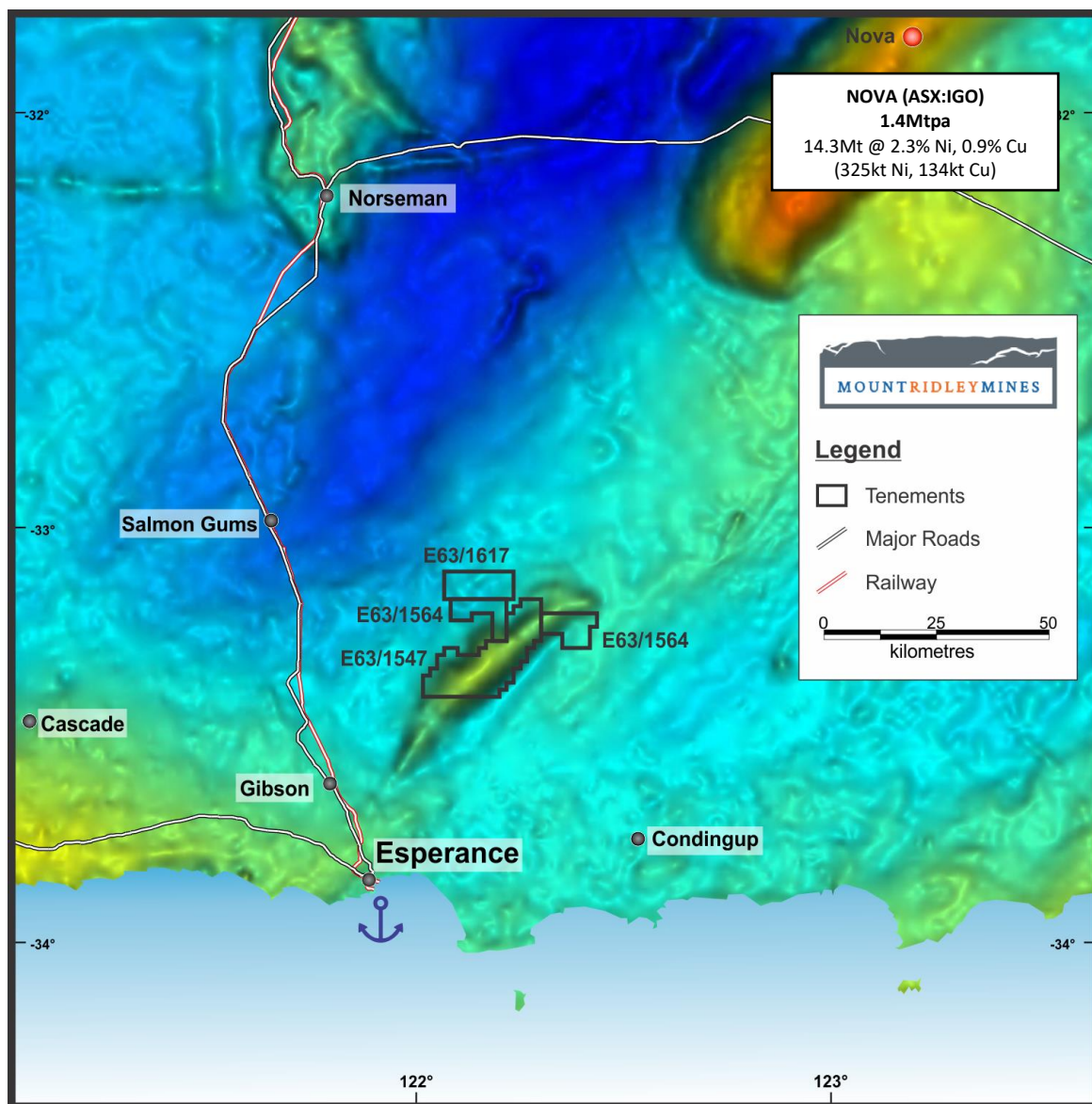
#### **About Mount Ridley Mines Ltd**

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/copper sulphide and gold deposits in the Albany Fraser Range and Yilgarn Craton 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 614 sq/kms or 61,396 Ha in what is one of the world's most exciting emerging nickel and copper provinces.





## Appendix 1 Mt Ridley Mining Limited – Mt Ridley Project – Auger Sampling JORC CODE 2012.

### Section1 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>Vehicle mounted air core drill samples collected at 4m composite intervals down hole and 1m sample at end of hole.</li> <li>Sample size of samples varied from 1kg – 2kg in weight.</li> <li>A geochemical standard was inserted approximately every 100 samples to help ensure laboratory assay accuracy. In addition, a duplicate sample was taken and analysed at approximately every 25<sup>th</sup> and 75th sample site to compare local variation in the sample sites.</li> <li>GPS coordinates of collar locations were captured using a handheld GPS with ±4m accuracy.</li> <li>Samples were submitted to ALS laboratories in Kalgoorile, Western Australia for multielement analyses</li> <li>No assay results are reported</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>Vehicle mounted aircore drilled vertical to basement refusal. The hammer was used to ensure enough sample of bedrock material at the end of hole.</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>Samples were logged in the field by a geologist.</li> <li>Samples were bagged direct from the drill via a cyclone and riffle splitter for shipment to the laboratory.</li> <li>Laboratory sample processing will be carried out using standard industry procedures.</li> </ul>

	JORC Code explanation	Commentary
<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>Samples were logged in the field by a geologist</li> <li>Logging is qualitative as the fine grained nature of the material precludes quantitative detail.</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>Samples were bagged direct from the drill via a cyclone and riffle splitter for shipment to the laboratory.</li> <li>Samples were taken dry</li> <li>Field duplicates were taken every 25<sup>th</sup> and 75<sup>th</sup> sample out of 100</li> <li>Approximately 1-2kg of material was taken for each sample.</li> <li>Sample sizes and preparation techniques employed are considered to be appropriate for the generation of early stage exploration results.</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>No assay results are reported</li> </ul>

	JORC Code explanation	Commentary
<b>Verification of sampling and assaying</b>	<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 (physically and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>The sampling techniques were reviewed in the field by the Managing Director.</li> <li>Logs and sample details were entered into an excel based digital database.</li> <li>No assay data is reported</li> </ul>
<b>Location of data points</b>	<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 Resources 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>GPS coordinates of sample locations were captured using a handheld GPS with +/- 4m accuracy.</li> </ul>
<b>Data spacing and distribution</b>	<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 Reserve 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>Sample locations were collected and reported using the GDA94_MGAz51 grid system.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<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> <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>	<ul style="list-style-type: none"> <li>Drill holes were drilled on a nominal 100m spacing along reconnaissance traverse lines.</li> <li>Drilling traverses were conducted along the magnetic structures interpreted to represent bedrock orientation beneath cover to try and determine the nature of the lithologies that formed the target anomaly.</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>All samples were submitted to the laboratory as soon as the program was completed</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 assay data is reported</li> </ul>

## Section 2 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 and 1564. Dundas mineral field. The tenements are 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 and base metals but has been dormant for several decades</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 and base metals/gold in the Albany-Fraser Orogen of Western Australia.</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>The results of the drilling did not intersect any mineralisation considered to be material.</li> <li>The results of the geological logging suggest mafic-ultramafic lithologies underlay 3 out of the 4 targets tested. Assay results are pending.</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>No assay results are reported</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>The geometry of any potential mineralized horizon is unknown</li> <li>No drilling assay or mineralisation results are included in this release</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>Appropriate plans have been included in the body of the report</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>Not applicable at this early stage of exploration</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Other similar geophysical targets in the project area have been shown to host magmatic nickel-copper sulphides hosted in mafic-ultramafic rocks. These results are detailed in MRD ASX releases to date on the project.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <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, providing this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Follow-up ground electromagnetic surveys, pending on assay results..</li> </ul>

#### Aircore drilling collar coordinate details

Hole ID	Easting	Northing	Azimuth	Dip	EOH Depth
MRAC834	0427452E	6317247N	0	-90	29
MRAC835	0427618E	6317336N	0	-90	28
MRAC836	0427790E	6317456N	0	-90	14
MRAC837	0427966E	6317529N	0	-90	37
MRAC838	0428154E	6317623N	0	-90	39
MRAC839	0428328E	6317725N	0	-90	22
MRAC840	0415478E	6310983N	0	-90	33
MRAC841	0415697E	6311204N	0	-90	33
MRAC842	0415802E	6311286N	0	-90	33
MRAC843	0415972E	6311445N	0	-90	38
MRAC844	0416104E	6311574N	0	-90	21
MRAC845	0416250E	6311709N	0	-90	43
MRAC846	0416384E	6311844N	0	-90	32
MRAC847	0416529E	6311979N	0	-90	19
MRAC848	0416669E	6312117N	0	-90	31
MRAC849	0416817E	6312264N	0	-90	40
MRAC850	0442472E	6320856N	0	-90	32
MRAC851	0441172E	6319192N	0	-90	45
MRAC852	0440443E	6318254N	0	-90	42
MRAC853	0436876E	6324566N	0	-90	48
MRAC854	0436949E	6324514N	0	-90	41
MRAC855	0437039E	6324455N	0	-90	25
MRAC856	0437119E	6324406N	0	-90	45
MRAC857	0437193E	6324350N	0	-90	22

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<b>MRAC858</b>	<b>0437287E</b>	<b>6324296N</b>	<b>0</b>	<b>-90</b>	<b>29</b>
<b>MRAC859</b>	0437376E	6324235N	0	-90	44
<b>MRAC860</b>	437462E	6324178N	0	-90	35
<b>MRAC861</b>	0437535E	6324132N	0	-90	37