

ASX: MRD

16 March 2016

Company Announcements Office, ASX Ltd

Mt Ridley Identifies New Massive Nickel Sulphide Potential at Target 19

Highlights

- Audio Magnetotelluric (AMT) geophysical survey highlights several new conductor targets proximal to existing diamond drilling at Target 19.
- AMT modelling in the vicinity of conductor T19C01 has revealed a deeper conductor anomaly 200-250m beneath diamond holes MRDD010, MRDD011 and MRDD012.
- The broad zones of disseminated and globular nickel and copper sulphides intersected in holes MRDD010, MRDD011 and MRDD012 are visible in AMT modelling.
- AMT conductor anomalies coincident with coarse grained sulphidic mesocumulate ultramafics.
- Most AMT conductor anomalies appear stronger than the relatively weaker signature returned from the broad disseminated sulphide zones. These new conductive features could represent potential feeder zones containing massive nickel and copper sulphides adjacent to the disseminated sulphide mineralisation. These targets have yet to be drill tested.
- These new AMT targets are in addition to existing EM conductors T19C01, T19C02 and T19C03.

New AMT Conductors Expand the Potential at Target 19

Mount Ridley Mines Ltd (ASX: **MRD**) (or “the **Company**”) is pleased to announce the results of its recently completed Audio Magnetotelluric (AMT) geophysical survey at its 100% owned Mt Ridley Project in the Albany-Fraser Range Province.

The AMT survey was planned to cover the area immediately over T19C01 and the existing mineralised diamond holes. AMT was implemented to search for conductive targets at depth beneath existing diamond drilling at T19C01 and elsewhere along strike beneath the 1,600m long supergene enrichment zone.

Preliminary results over T19C01 were extremely encouraging with the identification of a significant conductive feature at depths approaching 450m below surface beneath diamond holes MRDD010, MRDD011 and MRDD012 (See Figure 1.0).

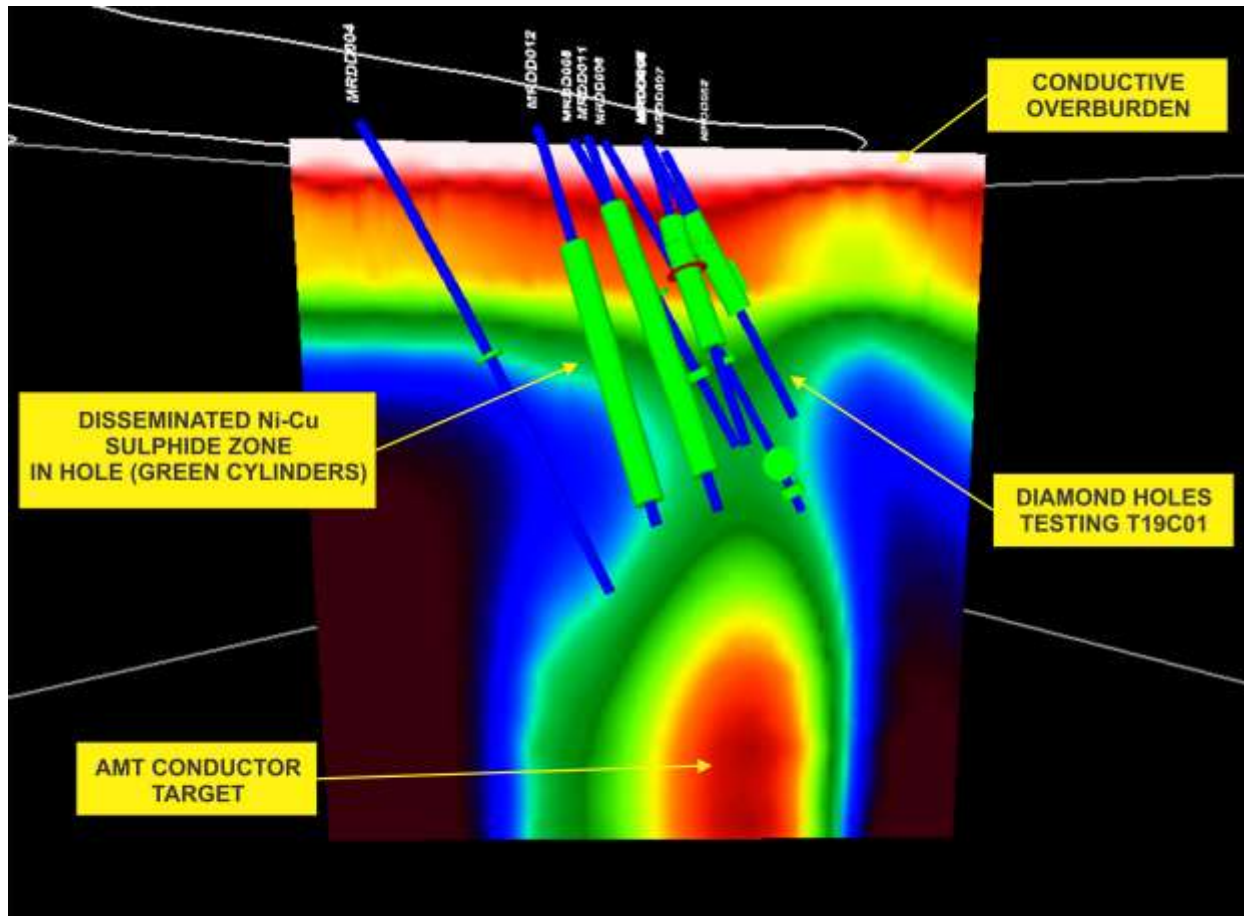


Figure 1.0 – Cross section 46300N showing existing diamond holes with disseminated Ni-Cu mineralisation zones (green cylinders) together with the modelled AMT data. Red and white colours indicate more highly conductive material while the green and blue colours indicate less conductive. Note the stronger conductor target located approximately 200-250m beneath the existing diamond drilling.

Recent downhole EM surveying of diamond holes MRDD007, MRDD008, MRDD010, MRDD011 and MRDD012 had detected a faint deep off-hole response but it was difficult to model because of the effects of the conductive transported overburden.

This deeper AMT response corroborates the downhole EM data retrieved from these holes helping to vector in on the conductor's potential location. It also couples well with the broad zones of disseminated and globular sulphides and the coarse grained sulphidic mesocumulate ultramafics. Combining all these factors makes this a high quality exploration target for massive nickel-copper sulphide mineralisation.

Due to the success of AMT at conductor T19C01, surveying was extended to the west covering the majority of the supergene enrichment zone right up to diamond hole MRDD009, a strike distance of more than 1,400m. This additional work has identified other deeper conductive features up to 350-400m beneath the supergene enrichment zone, one with a strike length in-excess of 800m. These features line up remarkably well with the overlying supergene enrichment zone especially where the values of nickel and copper are at their highest. They are also concordant with the dip of the geology and line up very well with the down dip projections of untested conductors T19C02 and T19C03, with the strongest AMT conductive feature underlying EM conductor T19C03 (See Figures 2.0 and 3.0).

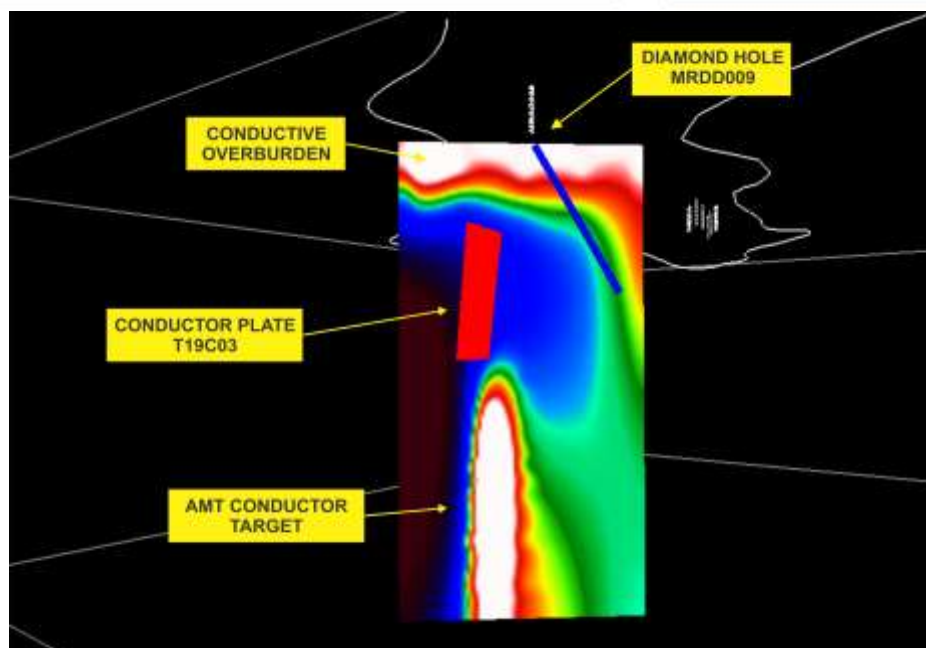


Figure 2.0 – Cross section 45100N showing AMT modelled data together with existing ground EM conductor plate T19C03. Note the strong conductive feature detected by AMT directly beneath T19C03 which could represent a steep dipping feeder zone hosting massive nickel and copper sulphides. Note also 250m deep diamond hole MRDD009, which was drilled prior to both geophysical surveys, is located well away from both these conductors.

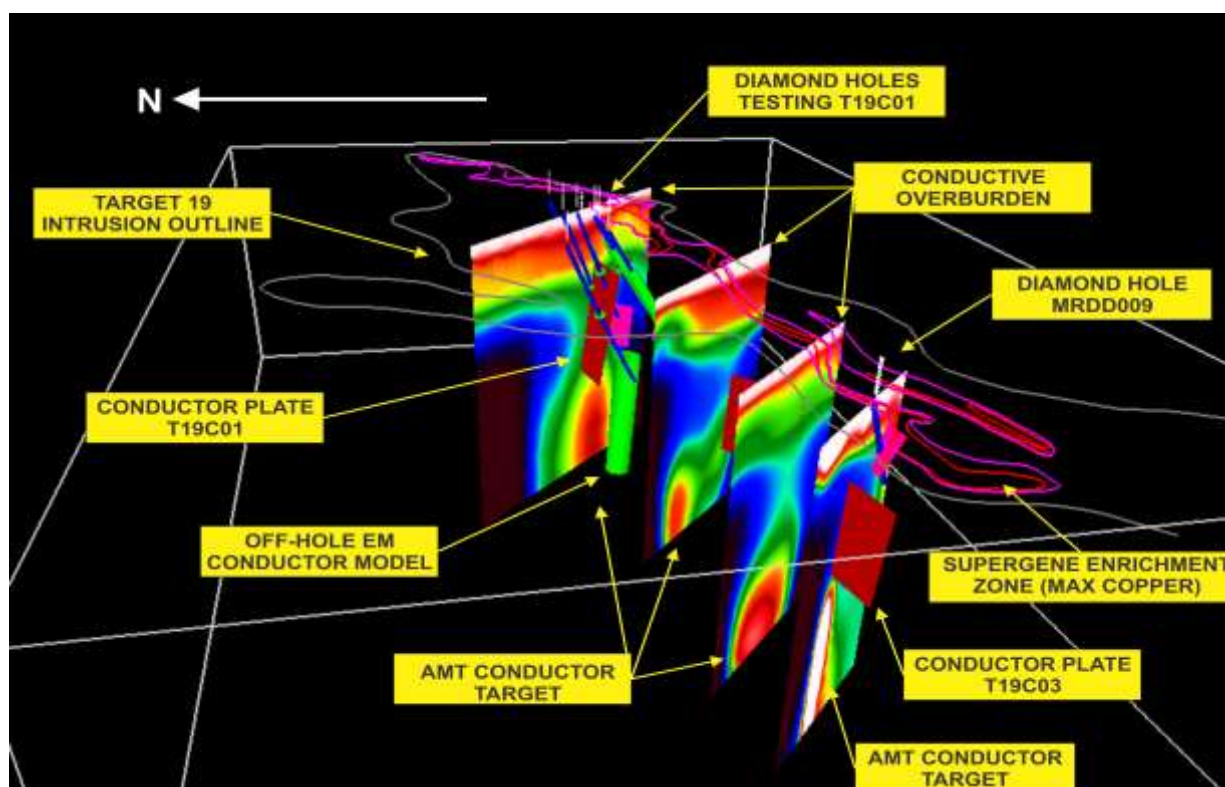


Figure 3.0 – 3D perspective view showing several AMT modelled sections together with existing diamond drilling, downhole EM off-hole conductor model, ground EM conductor plates T19C01-T19C03 and supergene enrichment zone showing contoured maximum in-hole copper values. Note the strong conductive features at depth detected by AMT 150-250m beneath T19C01 and T19C03 which could represent a steep dipping feeder zone hosting massive nickel and copper sulphides.

About Audio Magnetotellurics (AMT)

AMT surveys are described as a 'natural' or 'passive' source electromagnetic surveys that are used to investigate the conductivity structure of the subsurface, generally in the range of 100's of metres to many kilometres.

Natural source electromagnetic fields are generated by solar winds interacting with the earth's magnetic field (low frequencies < 1Hz) and distant lightning storms (high frequencies > 1 Hz). These time varying electromagnetic fields induce currents in the earth and ocean which in turn produce magnetotelluric signals, which are measured by the AMT survey equipment. The AMT surveys are effectively mapping the channelling of induced currents through structures and lithologies that are more conductive than surrounding material.

The AMT survey equipment consists of an array of magnetic and electric field sensors (see figure 4.0) that measure the AMT signal over a range of frequencies. At each station, 3 components of the magnetic field (Hx, Hy and Hz) are measured with magnetic induction coil sensors, and two horizontal components of the electric field (Ex and Ey) are measured with grounded, non-polarisable electrodes.

The data recorded at each station contains information that relates to the conductivity structure of the subsurface below the station. The data is processed and modelled along each line to generate a conductivity – depth section for the profile, which will help identify conductive and resistive features, structures, lithologies and alteration.

MT surveys can be used for

- Deep crustal architecture and regional structural mapping to 10's and 100's of kilometres depth
- Geothermal Exploration
- Basin structure studies and depth of cover studies (petroleum / mineral exploration)
- Mineral exploration (mapping stratigraphic conductors, unconformities, sulphide conductors, alteration halos)

AMT refers to audio frequency magnetotellurics, which focuses on the higher frequency bands (>1Hz) which provide conductivity information down to depths of 500m to 1km.

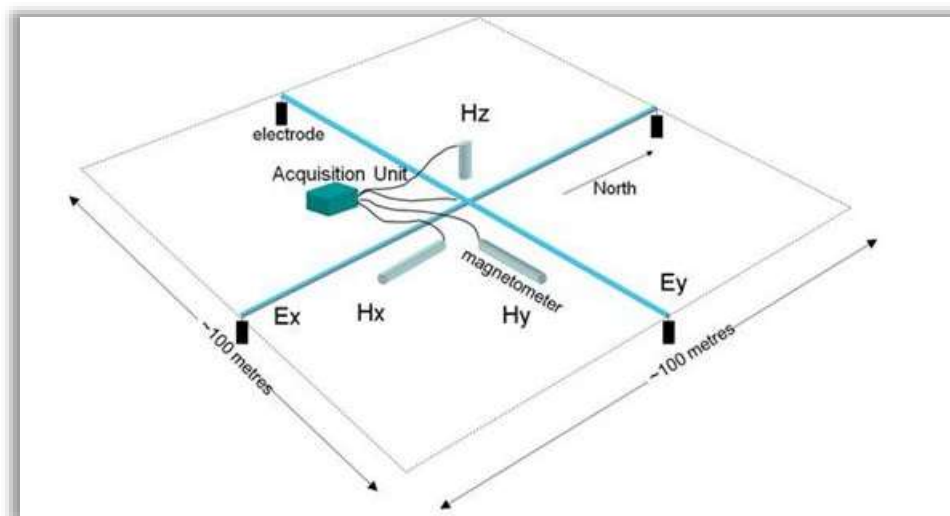


Figure 4. AMT station array, showing the Ex and Ey electric field dipoles and the Hx, Hy and Hz magnetic field coil sensors.

As these surveys do not record the lower frequency information, the reading time at each station is much shorter and therefore more suitable for high resolution surveys (an AMT reading takes 30 min to 2 hrs whereas an MT reading can take 8 hours to 2 days depending on the desired depth of investigation).

For and on behalf of the board



Mr Dean Goodwin. AIG

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Competent Person's Statement

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Dean Goodwin who is a Member of the Australian Institute of Geoscientists. Mr Goodwin is the Managing Director of the Company. Mr Goodwin 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 Goodwin 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 Fraser Range region with 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 success.

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. The Company currently has a portfolio of tenements totaling in excess of 1000sq/kms in what is fast becoming a new and exciting emerging nickel province.



Section 1 Sampling techniques and data

Criteria	JORC Code explanation	Comments re VTEM programme
Sampling technique	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.	A ground magnetotelluric survey was completed, using 200m line spacing with 100m station spacing, by Zonge Australia.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Survey QC parameters were reviewed by independent supervising geophysicists from Southern Geoscience Consultants Pty Ltd.
	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.	No drilling reported in this release
Drilling technique	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.).	No drilling reported in this release
Drill Sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	No drilling reported in this release
	Measurements taken to maximise sample recovery and ensure representative nature of the samples.	No drilling reported in this release
	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.	No drilling reported in this release

Logging	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.	No drilling reported in this release
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography.	No drilling reported in this release
	The total length and percentage of the relevant intersections logged	No drilling reported in this release
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	No drilling reported in this release
	If non-core, whether riffles, tube sampled, rotary split, etc. and whether sampled wet or dry.	No drilling reported in this release
	For all sample types, quality and appropriateness of the sample preparation technique.	No drilling reported in this release
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	No drilling reported in this release
	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.	No drilling reported in this release
	Whether sample sizes are appropriate to the grain size of the material being sampled.	No drilling reported in this release
	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	No drilling reported in this release
	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.	Not Applicable

Quality of assay data and laboratory tests	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.	No drilling reported in this release
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	No drilling reported in this release
	The use of twinned holes	No drilling reported in this release
	Documentation of primary data, data entry procedures, data verification, data storage (physically and electronic) protocols.	All primary analytical data were recorded digitally and sent in electronic format to Southern Geoscience Consultants for quality control and evaluation.
	Discuss any adjustment to assay data.	No drilling or sampling reported in this release
Location of data points	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.	Station positions were recorded with GPS system with expected accuracy of +/- 5m horizontal and +/- 10m vertical
	Specification of the grid system used.	The grid system for the Mt Ridley Project is MGA_GDA94, Zone 51
	Quality and adequacy of topographic control.	Topographic control is based on the GPS heights and radar altimeter data from an airborne magnetic and radiometric survey
Data spacing and distribution	Data spacing for reporting of Exploration Results.	No drilling or sampling reported in this release
	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.	No drilling or sampling reported in this release
	Whether sample compositing has been applied.	No drilling or sampling reported in this release



Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	No drilling or sampling reported in this release
	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.	No drilling or sampling reported in this release
Sample security	The measures taken to ensure sample security.	No drilling or sampling reported in this release
Audits or reviews	The results of and audits or reviews of sampling techniques and data.	Data review and quality control was by Southern Geoscience Consultants in Perth.
Section 2 Reporting of exploration results		
Mineral tenements and land tenure status	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.	Tenement No E63/1547. Dundas mineral field. Registered Holder-Mt Ridley Mines Ltd
	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.	The tenure is secure and in good standing at the time of writing.
Exploration done by other parties	Acknowledgement and appraisal of exploration by other parties.	Previous exploration has primarily targeted lignite
Geology	Deposit type, geological settings and style of mineralisation.	Mt Ridley Mining is exploring primarily for magmatic hosted Ni-Cu sulphide.

Drill hole information	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:	No drilling reported in this release
	<p><i>Easting and northing of the drill hole collar</i></p> <p><i>Elevation or RL (Reduced level-elevation above sea level in metres) and the drill hole collar</i></p> <p><i>Dip and azimuth of the hole</i></p> <p><i>Down hole length and interception depth</i></p> <p><i>Hole length</i></p> <p>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.</p>	No drilling reported in this release
Data aggregation methods	In reporting Exploration results, weighing averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually material and should be stated.	No drilling reported in this release
	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.	No drilling reported in this release
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No drilling reported in this release

Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	No drilling reported in this release
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	No drilling reported in this release
	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')	No drilling reported in this release
Diagrams	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 too plan view of drill hole collar locations and appropriate sectional views..	No drilling reported in this 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.	No drilling reported in this release
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 containing substances.	This announcement contains results of ground geophysical surveys as follows: <ul style="list-style-type: none"> • Magnetotelluric Survey • Phoenix MTC150 sensor coils • Phoenix MTU5A 24 bit digital receiver • Full tensor B and E field recorded • > 2 hour reading time for each station • E field dipole spacing of 100m • 2D resistivity inversions supplied by Zonge Australia
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further work will include, but is not limited to, air-core drilling and geochemical sampling of intrusive features interpreted from airborne magnetic surveys.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, providing this information is not commercially sensitive.	