ASX ANNOUNCEMENT

MIRAMAR RESOURCES LTD.

WHALESHARK REE RESULTS UPGRADE IOCG POTENTIAL

- **Whaleshark REE signature similar to Prominent Hill IOCG deposit**
- **Planning underway for EM surveys and further drilling in 2023**

Miramar Resources Limited (ASX:M2R, "Miramar" or "the Company") is pleased to advise that further analysis of the results from the first aircore drilling campaign at the Company's 100%-owned Whaleshark Cu-Au Project ("Whaleshark" or "the Project") has increased the potential for the presence of buried iron oxide copper gold (IOCG) mineralisation.

Comparison of results from aircore drilling at Whaleshark with published results from research carried out at the Prominent Hill IOCG deposit in South Australia indicate the potential for the rare earth element (REE) anomalism seen at Whaleshark to be related to buried IOCG mineralisation.

Whaleshark is located approximately 40km east of Onslow, in the Ashburton region of Western Australia, and is characterised by a large folded Proterozoic banded iron formation and granite complex under approximately 100m of Cretaceous Carnarvon Basin sediments.

The Company has been exploring at Whaleshark since listing in October 2020 and believes the Project has potential for IOCG mineralisation and/or gold mineralisation hosted in banded iron formation.

Miramar believes the comparisons with the Prominent Hill IOCG deposit are very encouraging.

REE signatures of known IOCG deposits

Researchers in South Australia examined the REE content of monazite grains within and above the large Prominent Hill (150Mt @ 0.9% Cu, 0.8g/t Au[1]) and Carrapateena (950Mt @ 0.57% Cu, 0.25g/t Au[2]) IOCG deposits, and the potential to use this data as an exploration vector towards buried IOCG mineralisation.

Monazite is a hard and relatively dense phosphate mineral that contains significant levels of REE's including Lanthanum (La), Cerium (Ce), Neodymium (Nd), Samarium (Sm) and Praseodymium (Pr).

IOCG deposits commonly contain anomalous REE's. At Prominent Hill and Carrapateena, the researchers showed that the REE's within the primary IOCG mineralisation mostly occur within monazite grains.

Analysis of these monazite grains within primary IOCG mineralisation at both deposits showed elevated La and Ce with correspondingly low Yttrium (Y) and Thorium (Th) contents.

Being resistant and dense, monazite grains carrying this diagnostic REE signature are also preserved in glacially derived sediments that have eroded the top of and hence overlie the primary IOCG mineralisation.

At Prominent Hill, the researchers extended the study by looking at geochemical data for the glacial sediments themselves and showed that high values for (La + Ce)/Y and/or (La + Ce)/Th in the sediments outlined anomalies above the footprint of the Prominent Hill IOCG deposit (Figures 1, 2 and 3).

The researchers concluded "…*the chemical signature of the orebody- and clast-derived monazite grains and criteria for whole rock geochemical data can be used to recognise the characteristic REE, Y and Th signature of hydrothermal monazite related to Prominent Hill mineralisation.*"

They added that "*These criteria have the potential to be used as a geochemical vectoring tool towards potential Prominent Hill-style IOCG mineralisation*". (Forbes et al 2016)

[1] Source: Oz Minerals website, as of 30 June 2021.
[2] Source: Oz Minerals website, as of 30 June 2020.

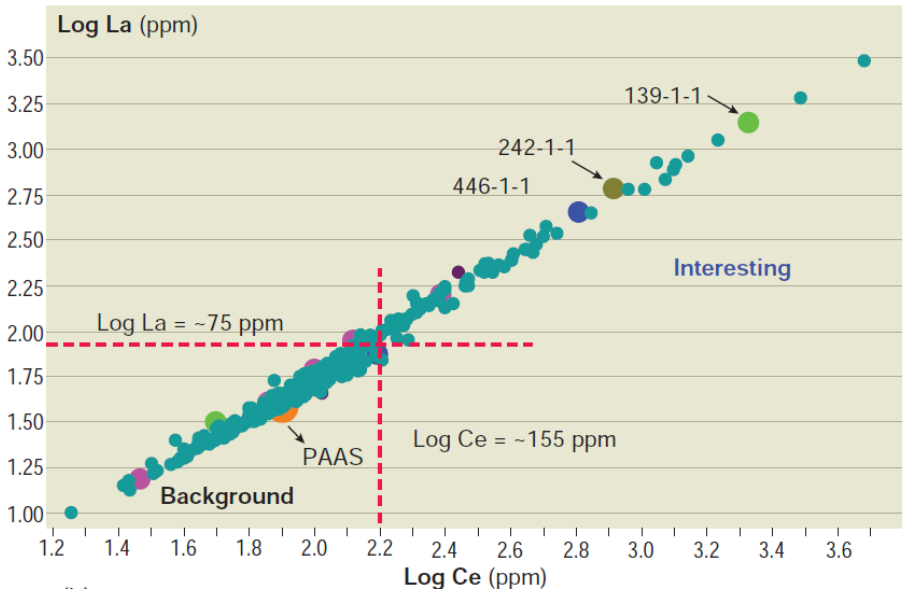

Figure 1. *Log La vs Log Ce for samples over the Prominent Hill deposit (Forbes et al 2016)*

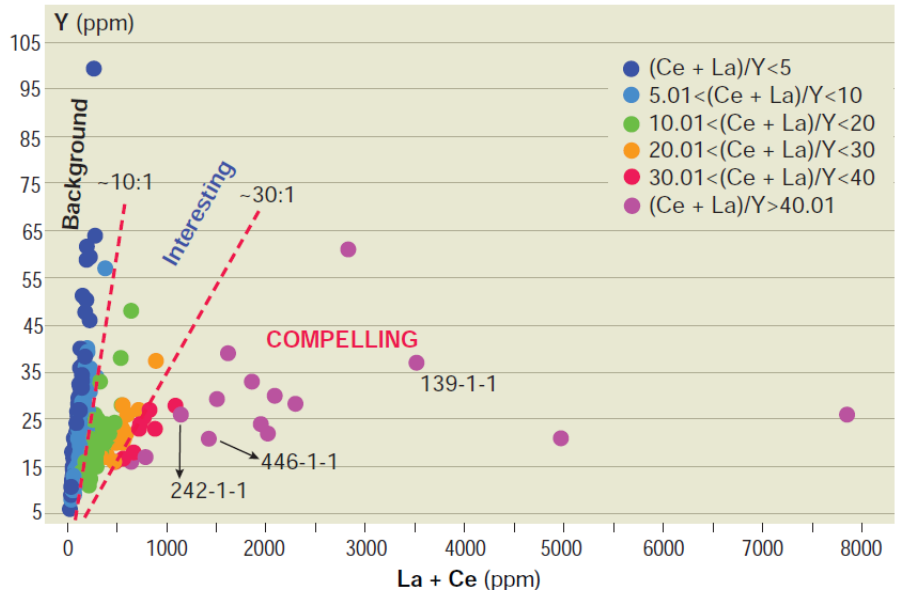

Figure 2. *(La + Ce)/Y for samples over the Prominent Hill deposit (Forbes et al 2016)*

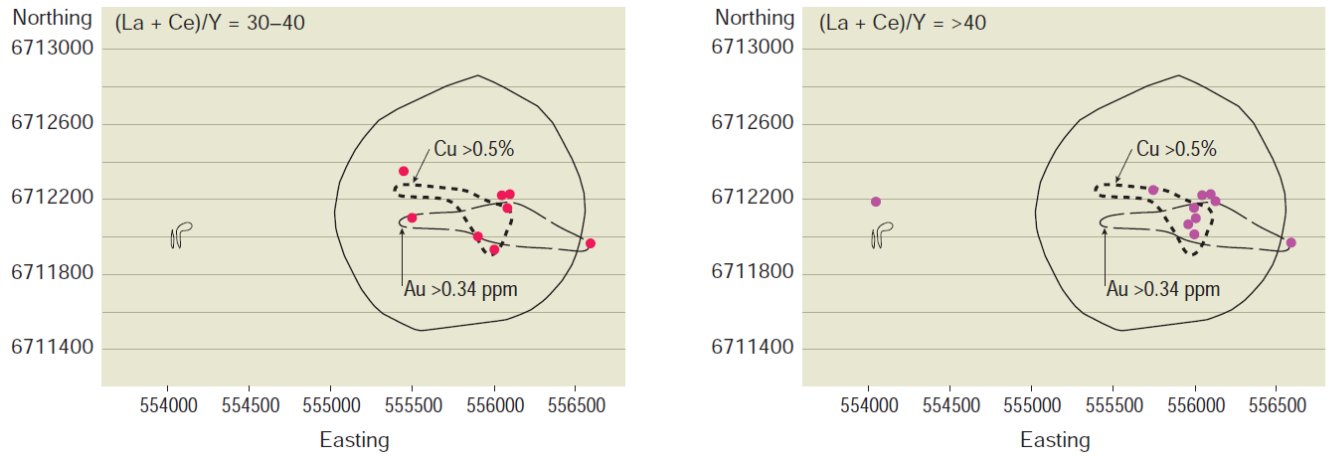

Figure 3. *Plan of "Compelling" (La + Ce)/Y samples over the Prominent Hill deposit (Forbes et al 2016).*

Whaleshark REE signature

Samples from the initial aircore drilling campaign at Whaleshark were analysed for a multi-element suite including La, Ce, Y and Th (*see ASX Release dated 7 November 2022*).

In each aircore hole, Miramar collected a 4-meter composite sample above the unconformity between the Proterozoic basement and overlying Carnarvon Basin sediments and 1-meter samples in the weathered basement rocks to the end of hole.

Using the same criteria as the Prominent Hill data, the aircore results show several "interesting" and "compelling" REE results potentially indicating proximity to a primary IOCG source (Figures 4 and 5).

Hole **WSAC055** has several samples which returned high La and Ce with corresponding low Y and Th.

The anomalous samples in **WSAC055** come from a strongly weathered and medium grained granitic unit.

This hole is located within the largest of the three MMI soil anomalies and an interpreted WNW-trending structure crosscutting the granite intrusion which has been poorly tested to date (Figure 6).

Gravity data also shows the WNW structure and an area of subtle gravity anomalism (Figure 7).

The hole is at the eastern edge of the current drill coverage and the large MMI soil anomaly has therefore not been completely drill tested at this stage.

Miramar's Executive Chairman, Mr Allan Kelly, said the Company was excited about the apparent similarities between the Whaleshark Project and world-class IOCG deposits like Ernest Henry, Carrapateena and Prominent Hill.

"The first pass interface aircore drilling at Whaleshark outlined multi-element anomalies in several elements generally associated with IOCG mineralisation, including copper and rare earths," Mr Kelly said.

"The scale, magnitude and suite of several elements seen at Whaleshark is similar to the large Ernest Henry IOCG deposit in Queensland and the comparison of the rare earth element data with Prominent Hill is equally as encouraging," he added.

"We are looking forward to getting back to Whaleshark next year and continuing to uncover the potential of this exciting project," he said.

Future work

The Company plans to conduct further work at Whaleshark in 2023 including:

- Completion of a heritage survey over all potential drill targets
- Ground EM surveys over the large MMI soil anomalies
- Bedrock diamond drilling and/or interface aircore drilling, depending on results of the EM survey

For more information on Miramar Resources Limited, please visit the company's website at www.miramarresources.com.au, follow the company on social media (*Twitter @MiramarRes and LinkedIn @Miramar Resources Ltd*) or contact:

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This announcement has been authorised for release by Mr Allan Kelly, Executive Chairman, on behalf of the Board of Miramar Resources Limited.

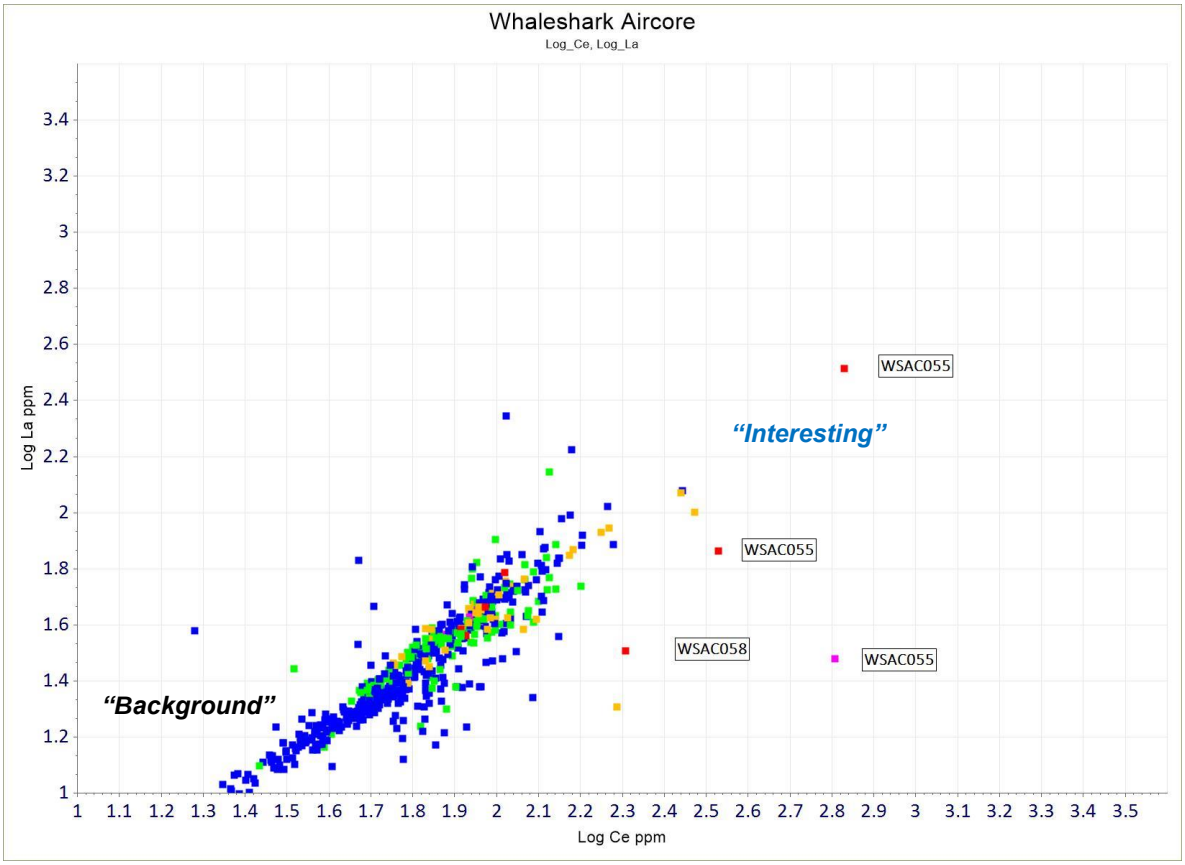


Figure 4. *Log La ppm vs Log Ce ppm from Whaleshark aircore drilling samples.*

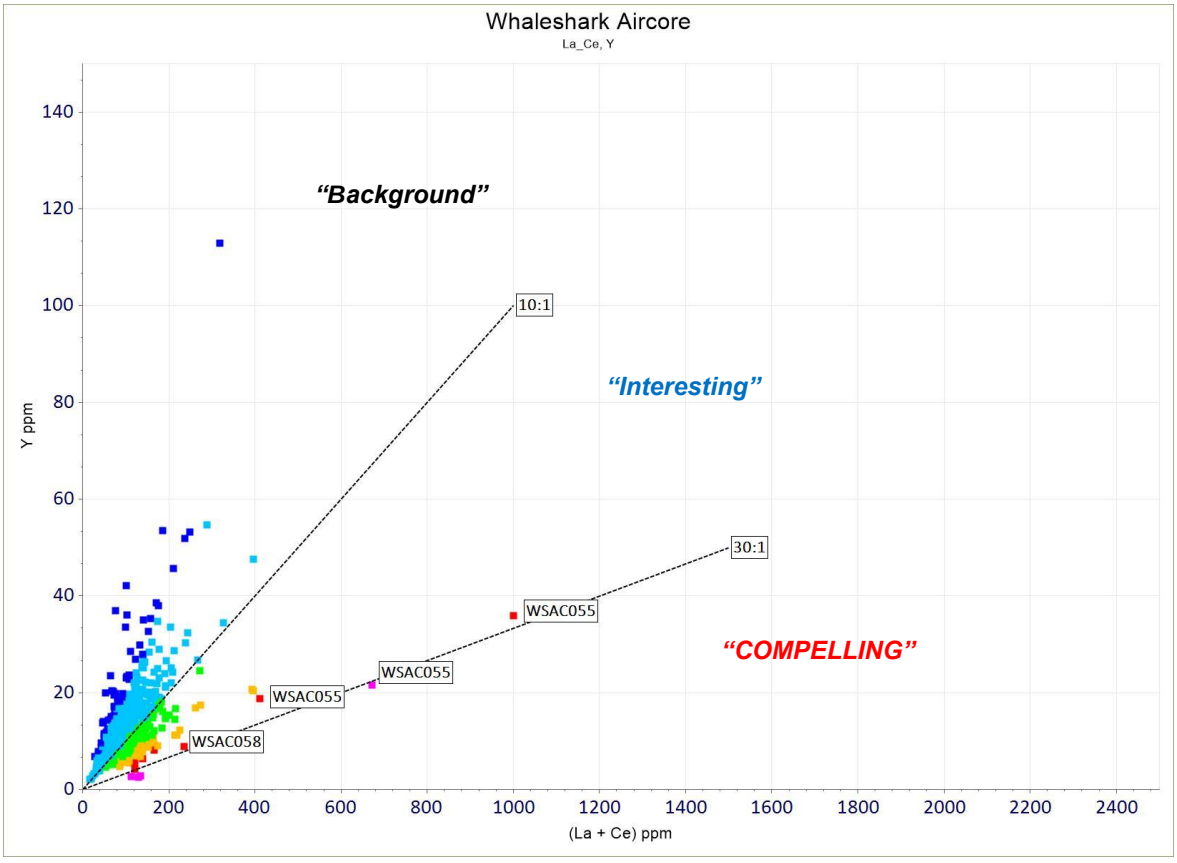


Figure 5. *(La + Ce)/Y ratios from Whaleshark aircore drilling samples.*

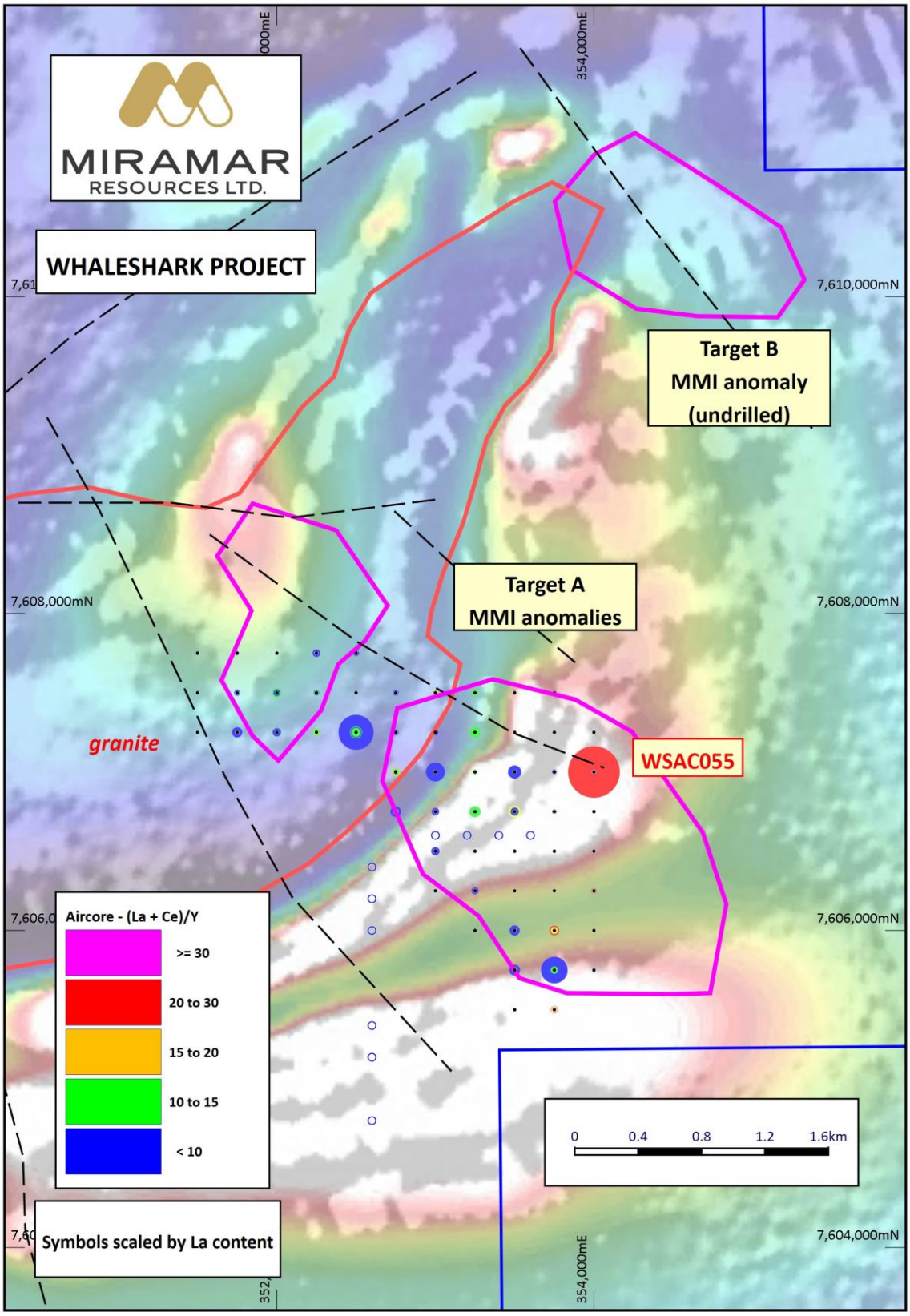


Figure 6. *Whaleshark aircore drilling results showing La content (symbol size) and (La + Ce)/Y ratio (symbol colour) over magnetic image (TMI_RTP over 2VD).*

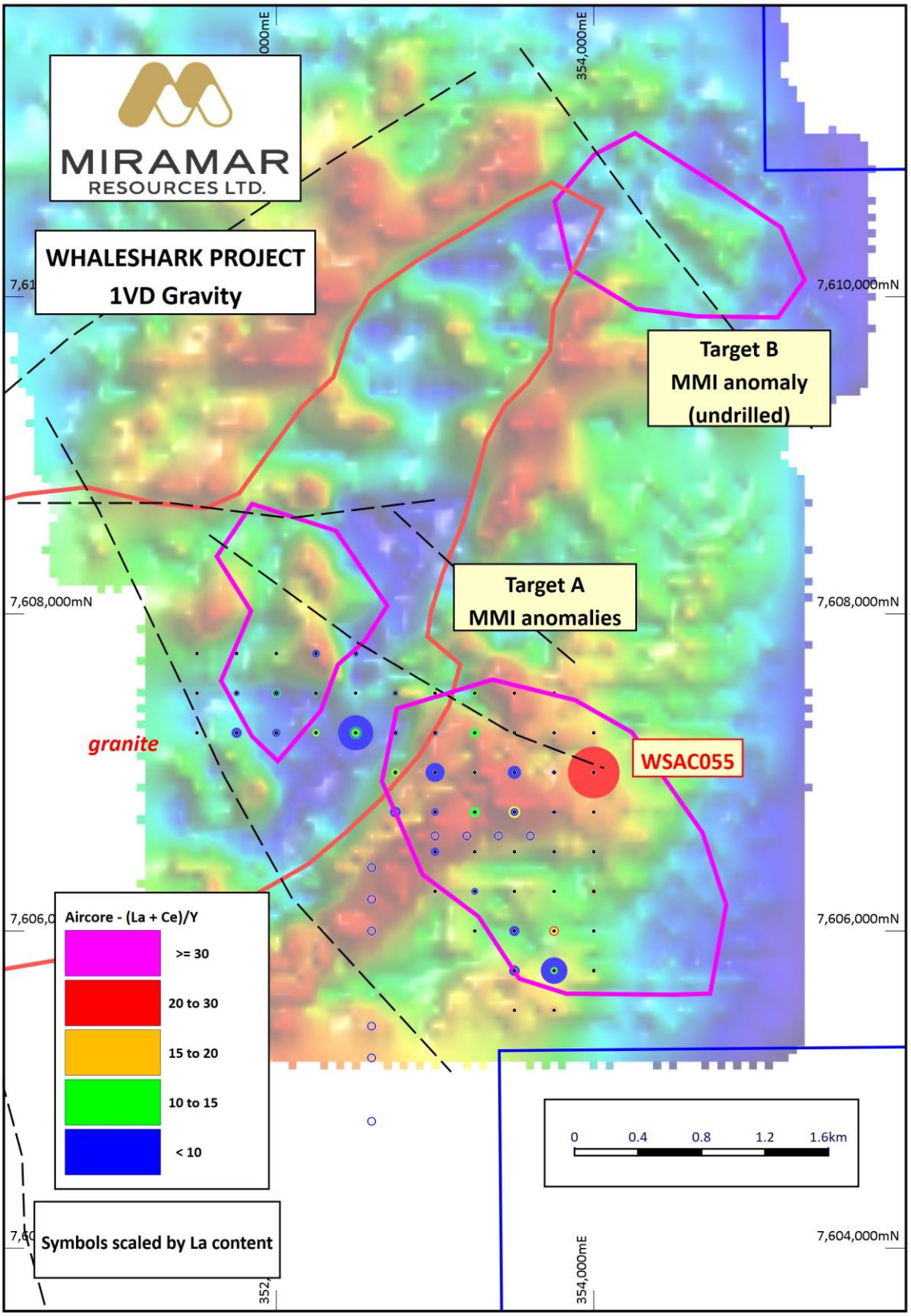


Figure 7. *Whaleshark aircore drilling results showing La content (symbol size) and (La + Ce)/Y ratio (symbol colour) over 1VD gravity image.*

References:

Forbes, CJ, Giles, D, Freeman, H, Sawyer M and Normington V 2015, "*Glacial Dispersion of hydrothermal monazite in the Prominent Hill deposit: an exploration tool.*" Journal of Geochemical Exploration 156:10-33.

Forbes, CJ, Giles, D, Freeman, H, Sawyer M and Normington V 2016, "*Using REE chemistry of glacially dispersed hydrothermal monazite to target IOCG deposits in the Gawler Craton*." MESA Journal 81.

COMPETENT PERSON STATEMENT

The information in this report that relates to Exploration Targets or Exploration Results is based on information compiled by Allan Kelly, a "Competent Person" who is a Member of The Australian Institute of Geoscientists. Mr Kelly is the Executive Chairman of Miramar Resources Ltd. He is a full-time employee of Miramar Resources Ltd and holds shares and options in the company.

Mr Kelly has sufficient experience that is relevant to the style of mineralisation and type of deposits 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 Kelly consents to the inclusion in this presentation of the matters based on his information and in the form and context in which it appears.

Information on historical exploration results for the Whaleshark Project, including JORC Table 1 and 2 information, is included in the Miramar Prospectus dated 4 September 2020.

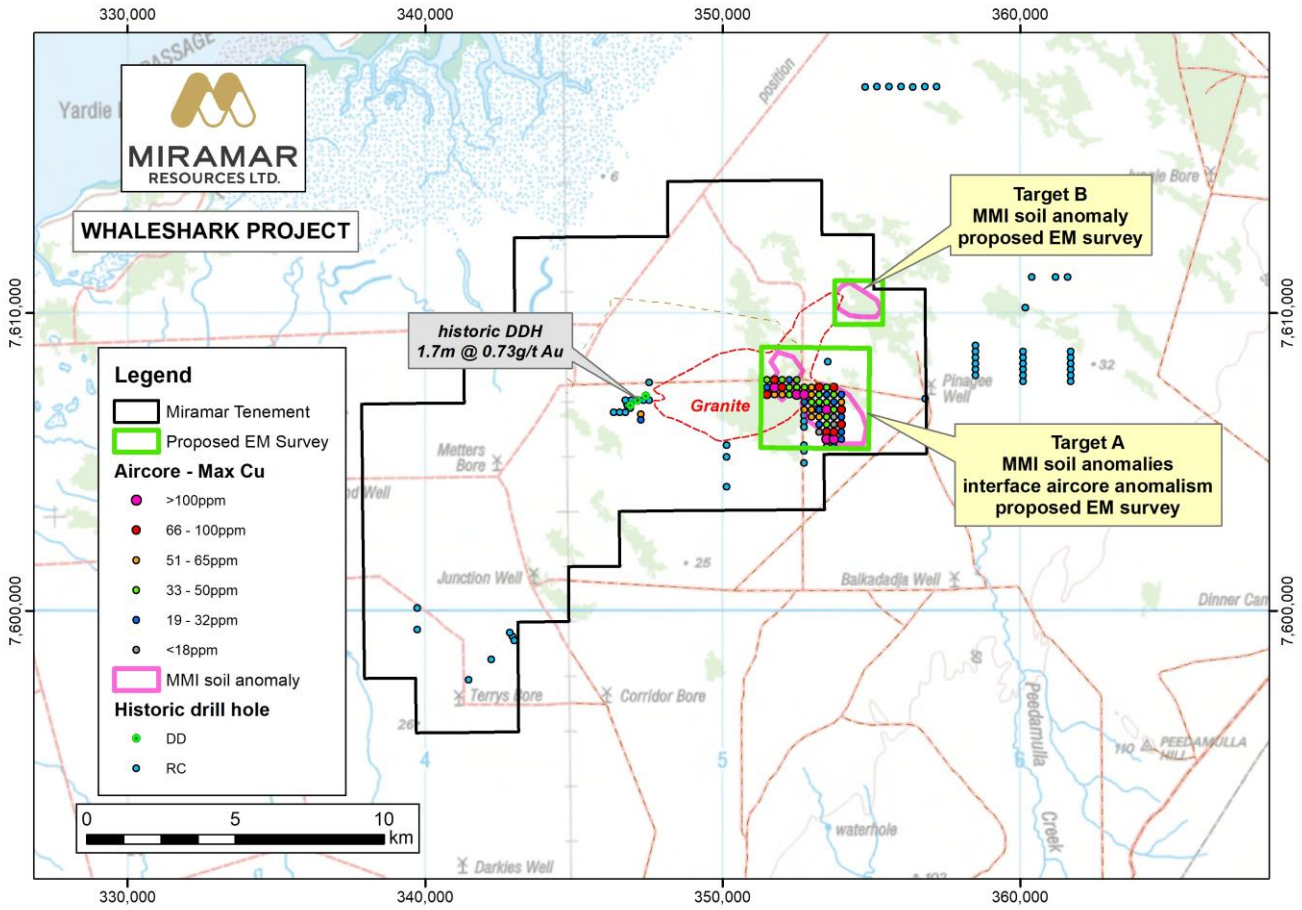
Information on recent exploration carried out by Miramar Resources Limited, including JORC Table 1 and 2 information, is included in the following ASX Announcements:

- 7 Nov 2022 - *Aircore Drilling Confirms IOCG Potential at Whaleshark*
- 18 Aug 2022 – *Drilling underway at Whaleshark Copper-Gold Project*
- 13 Dec 2021 – *Large IOCG targets outlined at Whaleshark*
- 3 Sep 221 - *Whaleshark Soil Survey Outlines Numerous Large Targets*

ABOUT THE WHALESHARK PROECT

The Whaleshark project is located 40km east of Onslow, WA, and is characterised by a large, folded BIF complex intruded by a granite and buried under approximately 100m of Carnarvon Basin sediments.

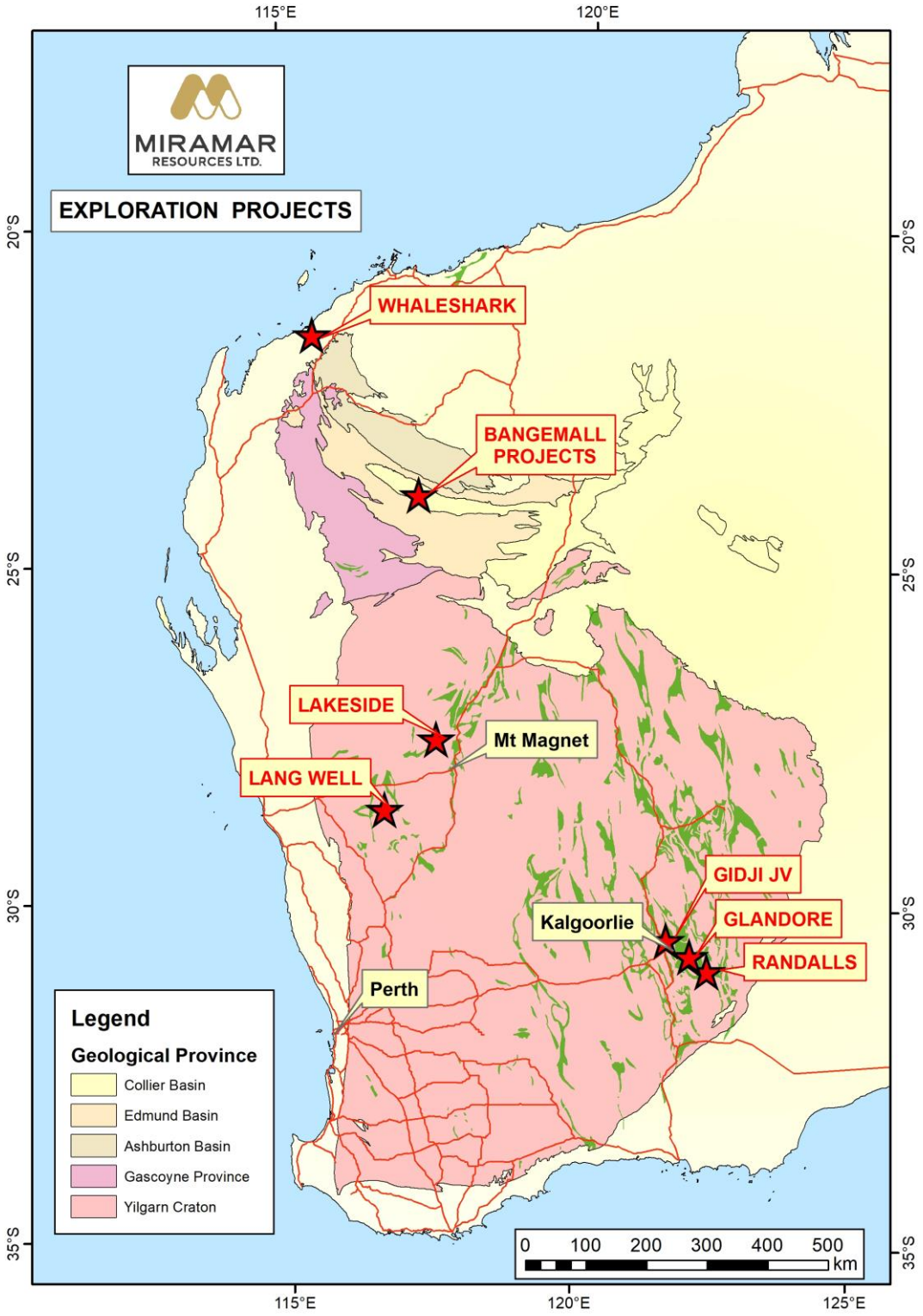
The project is located at the northwestern end of the Proterozoic Capricorn Orogen and has potential for IOCG and Proterozoic BIF-hosted gold mineralisation.



ABOUT MIRAMAR RESOURCES LIMITED

Miramar Resources Limited is an active WA-focused mineral exploration company with highly prospective exploration projects in the Eastern Goldfields, Murchison and Gascoyne regions of Western Australia.

Miramar's Board has a track record of successful discovery, development and production within Australia, Africa, and North America, and aims to create shareholder value through the acquisition, exploration and monetisation of high-quality mineral assets.



JORC 2012 Table 1 – Whaleshark Aircore Drilling

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.*	• Samples were collected from individual 1m sample piles • Sampling commences 4m above the interpreted uniformity between Cretaceous sediments and Proterozoic basement • Samples above the unconformity were combined into a 4m composite sample • Samples below the unconformity were taken as 1m samples to bottom of hole • Samples average 3kg in weight
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).*	• Aircore drilling to recognizable Proterozoic basement
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• Comments recorded for samples with low recovery
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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the*	• Samples were logged for colour, weathering, grain size, geology, alteration and mineralisation where possible

Criteria	JORC Code explanation	Commentary
	relevant intersections logged.	
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Samples were collected from individual 1m sample piles • Sampling commences 4m above the interpreted uniformity between Cretaceous sediments and Proterozoic basement • Samples above the unconformity were combined into a 4m composite sample • Samples below the unconformity were taken as 1m samples to bottom of hole • Samples average 3kg in weight
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Samples were assayed using an aqua-regia digest followed by analysis of gold and multi-elements by ICPMS with lower detection limit of 1ppb Au • QAQC samples inserted at frequency of 4 QAQC samples (i.e. standard, blank duplicate) per 100 samples
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• No verification conducted to date
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 Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Hole collar locations were recorded with a handheld GPS in MGA Zone 50 • RL was also recorded with handheld GPS but accuracy is variable
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been*	• Drill holes were completed on a 250m x 250m grid • The spacing is appropriate for the stage of exploration

Criteria	JORC Code explanation	Commentary
	applied.	
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.* • *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.*	• Drill lines were planned on a square gird covering the MMI soil anomalism • It is likely that the mineralized structures trend at a different orientation to the regional geology
Sample security	• *The measures taken to ensure sample security.*	• Samples were transported from site to Onslow by Miramar staff • Samples were then shipped to the laboratory by a road freight contractor
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits have been undertaken

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	• *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.* • *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 exploration was conducted on E08/3166 which is owned 100% by "MQ Minerals Pty Ltd", a wholly owned subsidiary of Miramar Resources Limited
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Exploration has been previously completed by other companies including WMC Resources Limited and Spectrum Minerals Limited, and included RC and diamond drilling, along with various geophysical surveys
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The target is IOCG mineralisation +/- BIF-hosted gold mineralisation

Drill hole Information	• *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:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not*
		• See Table 1 and 2 and Figures which show all drilling completed to date.

Criteria	JORC Code explanation	Commentary
	detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be stated.*	• Intervals reported over 85ppm Cu with maximum of 1 sample of internal dilution
Relationship between mineralisation widths and intercept lengths	• *These relationships are important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• No assumptions about true width or orientation of mineralisation can be made from the current programme
Diagrams	• *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.*	• See attached Tables and Figures
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.*	• All holes shown in Figure 1 • Table 2 shows collar information for all holes completed
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.*	• No other relevant data
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further aircore drilling planned, followed by geophysics and diamond drilling of basement targets