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Company Announcements Office
ASX Limited

EXPLORATION UPDATE - CHALLA BASE METALS TARGETS

Following the completion of Reverse Circulation (RC) drilling at its Mt Carron and Yalanga Bore copper-zinc targets, Santa Fe Minerals Ltd **("Santa Fe", "SFM"** or **"the Company")** advises that assay results have now been received showing anomolus copper-zinc mineralisation.

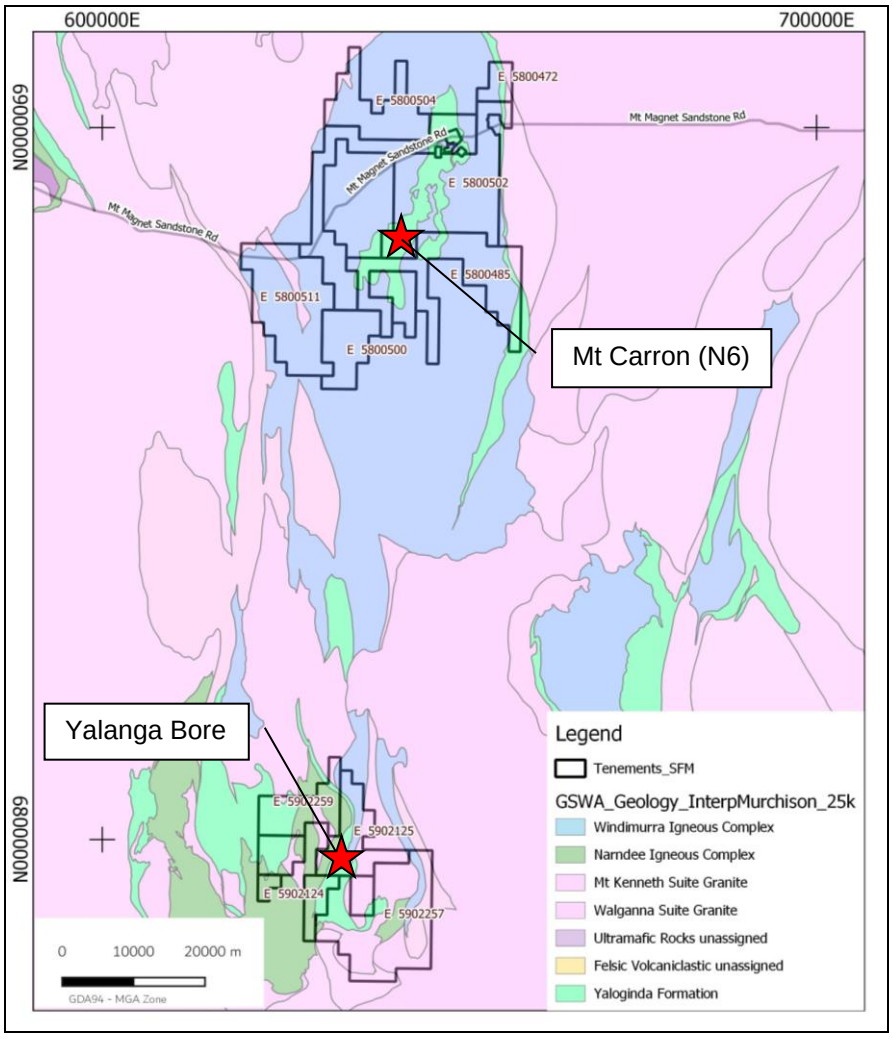

Figure 1 - Challa Project area.

Mt Carron Copper-Zinc Target (100% SFM) - Challa North

A total of 4 RC drill holes for 361m were completed at the Mt Carron copper - zinc target.

RC holes, MCRC001 to 004, were drilled to test a 500m long combined Fixed Loop Electromagnetic (FLEM) target (refer to figure 2 below).

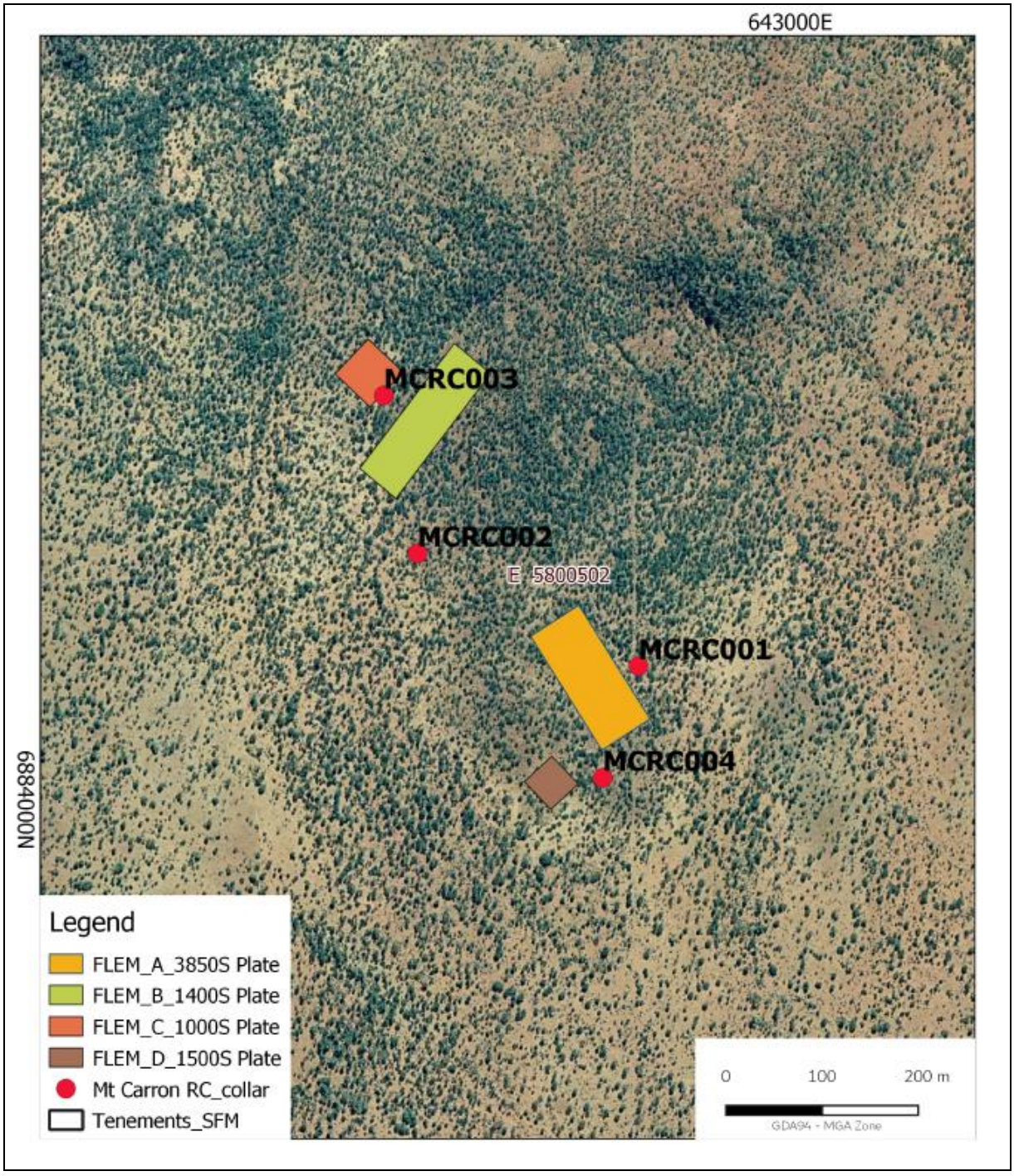

Figure 2 - Mt Carron FLEM conductor plates and SFM RC drill holes.

A Fixed Loop Electromagnetic (FLEM) survey completed over the Mt Carron (N6) target in the September 2019 quarter (refer to ASX report dated 16 September 2019) returned two strong and two moderate conductors in an area of 500m x 200m. The top of the modelled conductors range from 50-100m depth. The Mt Carron target had not previously been drilled and is located 1.4km south of the outcropping Rosemary and Ann copper zinc prospects.

MCRC001 was drilled to intersect FLEM A modelled plate at 100m depth. The drill hole intersected the approximate middle of the modelled plate with disseminated to patchy pyrite and pyrrhotite logged from 84m to 108m hosted in chert and shale above a altered felsic volcanic unit. Zinc mineralisation of 0.54% was intersected in the upper part of the sulphide zone from 84m to 96m.

MCRC002 was drilled to intersect FLEM B modelled plate at 80m depth. The hole trajectory steepened from the planned dip and was drilled under the south western side of the modelled plate position. A narrow zone of pyrite and pyrrhotite logged from 56-72m is at the approximate depth of the projected plate position considered to represent similar mineralisation to that expected within the modelled plate.

MCRC003 was drilled to intersect FLEM C modelled plate at 50m depth. Due to access issues the hole collar was moved to the south eastern edge of the plate and drilled vertically. MCRC003 intersected the edge of the modelled FLEM C plate about 25m north east of the upper edge of FLEM B plate. Disseminated to patchy pyrite and pyrrhotite was logged at the expected position from 48-64m hosted in chert and shale above an altered felsic volcanic unit.

MCRC004 was drilled to test FLEM D modelled plate at 120m down hole depth. Due to drill rig technical issues, the hole was abandoned at 45m.

Hole ID	Collar N (MGA)	Collar E (MGA)	Collar RL	Dip	Azimuth	Total Depth	Depth From (m)	Depth To (m)	Downhole Intersection (m)	Au (ppb)	Ag (ppm)	Cu (ppm)	Zn (ppm)	S (ppm)
MCRC 001	6884139	642842	480	-60	270	124	84	96	12	19	NSR	NSR	5477	26433
MCRC 002	6884256	642614	461	-50	350	110	44	48	4	87	5.5	1480	4690	6050
MCRC 002							64	68	4	NSR	NSR	NSR	1610	17500
MCRC 003	6884420	642579	455	-90	360	82	48	64	16	NSR	NSR	NSR	NSR	19275
MCRC 004	6884023	642805		-60	270	45	Hole abando-ned			NSR	NSR	NSR	NSR	NSR

Table 1 - Mt Carron RC drill hole results.

Yalanga Bore Copper-Zinc Target (100% SFM) - Challa South

Figure 3: Yalanga Bore MLEM conductor SFM RC collar positions.

A Moving Loop Electromagnetic (MLEM) survey completed at Yalanga Bore in the September 2019 quarter identified a steeply dipping conductor adjacent to historic shallow drilling with reported strongly anomalous copper and zinc (refer to ASX report dated 16 September 2019). The modelled position of the MLEM conductor would not have been tested by the previous drilling.

YBRC001 and YBRC001A were drilled to test YB MLEM C1 modelled conductor plate. YBRC001 was abandoned at 45m depth due to a drift in the hole azimuth which would result in the hole missing the target. YBRC001A was collared with a corrected azimuth and intersected

immediately below the modelled plate position. Disseminated pyrite, pyrrhotite and trace chalcopyrite was logged from 112m to 117m corresponding with the best result of 8m from 112m @ 0.24% Cu and 0.2% Zn.

Hole ID	Collar N (MGA)	Collar E (MGA)	Collar RL	Dip	Azimuth	Total Depth	Depth From (m)	Depth To (m)	Downhole Intersection (m)	Au (ppb)	Ag (ppm)	Cu (ppm)	Zn (ppm)	S (ppm)
YBRC 001A	6796841	632432	458	-60	135	149	112	120	8	15	2.5	2405	2003	40350
YBRC 001	6796841	632434	458	-60	130	28	Hole abando-ned	28		No assays				

Table 2 - Yalanga Bore RC drill hole results.

While the Company believes that Mt Carron and Yalanga Bore targets have now been sufficiently tested, the regional potential for economic VMS style mineralisation has not yet been fully explored due to extensive cover.

No immediate follow up work at Yalanga Bore and Mt Carron is planned.

The Company continues to progress early stage exploration at its current tenure, while also assessing new opportunities in the resources sector.

For investor queries, please contact:

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COMPLIANCE STATEMENT

The information in this report that relates to Exploration Results is based on information compiled by Mr. Reginald Beaton who is a Member of the Australian Institute of Geoscientists. Mr. Beaton is an employee of Santa Fe Minerals Limited and has sufficient experience which is relevant to the style of mineralisation under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Beaton consents to the inclusion in the report of the matters based on the information compiled by him, in the form and context in which it appears. The Company is not aware of any new information or data that materially affects the information included in this announcement.

JORC Code, 2012 Edition - Table 1 report template

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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Reverse circulation (RC) drilling was undertaken to provide the samples. • Samples were collected every 1m of drilling via a cyclone mounted on the drill rig. The 1m drill samples were laid out on the ground next to the rig. Composite samples were then collected over a 4m interval using an aluminum scoop. Each sample of approx. 2-3kgs is stored in a pre-numbered calico bag. • All the 4m composite samples were submitted to a laboratory to be crushed pulverized and assayed.
Drilling techniques	• *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.).*	• The drilling method was industry standard reverse circulation (RC). The drilling was completed by Precision Exploration Drilling (PXD). Drill Rig was PXD Rig #2 – Explorac 220 Reverse Circulation.
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.*	• A visual assessment of the sample recovery was completed by the supervising geologist. The sample recovery is considered adequate for this early stage of exploration. • Standard RC drilling practice was used to ensure maximum sample recoveries. • For this early stage of exploration, there is no study of the sample bias relationships available.

Criteria	JORC Code explanation	Commentary
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 relevant intersections logged.*	• RC drill chips were logged on site by a geologist sufficiently experienced in the geological terrain being explored. An industry standard logging system was used recording sample recovery, weathering, lithology, mineralisation and alteration. • The logging is qualitative in nature and each hole was logged to its completed depth. • Representative drill rock chips were washed and stored in chip trays for reference.
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 in buckets for every 1m of drilling and laid out on the ground. A 2-3kg composite 4m sample was then collected with an aluminum scoop and stored in a pre-numbered calico bag. • For this early stage exploration, the sampling technique is considered appropriate to determine the presence of mineralisation. • A field duplicate sample was collected every 20 samples and a certified standard sample was also inserted every 20 samples. • The sample size is considered sufficient to determine the presence or absence of mineralisation
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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• Samples were submitted to Bureau Veritas Minerals Pty Ltd (at 58 Sorbonne Crescent, Canning Vale WA). • Standard sample preparation. • The samples have been sorted and dried. Primary preparation has been carried out by crushing the whole sample. The samples have been split with a riffle splitter to obtain a sub-fraction which has then been pulverised in a vibrating pulveriser. • The sample(s) have been digested and refluxed with a mixture of acids including Hydrofluoric Nitric Hydrochloric and Perchloric acids. • Au determined by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry.

Criteria	JORC Code explanation	Commentary
		• Ag, As, Ba, Bi, Cd, co, Cy7, Eu, In, La, Mo, Nb, Pb, Sb, Sn, Tl, Y, Zn determined by Inductively Coupled Plasma (ICP) Mass Spectrometry. • SFM submitted duplicate and standard samples with each batch. The laboratory monitored QC via duplicates and standards.
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.*	• Bureau Veritas Minerals completed standard QAQC on the results which included repeat assays on some of the anomalous results. • No twinned holes completed. • Logging and sample were recorded on standard sample and logging sheets and then entered in the SFM digital database. • No adjustment of assays data was done.
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.*	• Hand-held GPS used to locate the drill holes collars. • The Grid system is GDA94 Z50. • The terrain is flat and topographic control was provided by government topographic maps. • Holes surveyed down-hole with Imdex Reflex EZ-Gyro.
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 applied.*	• The RC drill hole spacing is broad and is considered appropriate for the early stage nature of the drilling and large size of the target area. • The drill spacing is not sufficient to establish either grade or continuity of mineralisation. • No data compositing has been 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.*	• The RC drill holes were orientated to test close to the center of the modelled FLEM plates. • Insufficient data is available to determine if the orientation has resulted in a sample bias.

Criteria	JORC Code explanation	Commentary
Sample security	• *The measures taken to ensure sample security.*	• SFM personnel supervised the drilling and sampling and sub-contractors were engaged to transport the samples to the laboratory in Perth
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews completed.

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.*	• No national parks. No native title. • Current pastoral leases. • Challa North: E58/502, (CHALLA RESOURCES PTY LTD). • Challa South: E59/2125, (CHALLA RESOURCES PTY LTD • Tenements are in good standing and no known impediments exist.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Maximus Resources Ltd 2006 Annual Report for the period 1/7/2005 to 30/06/2006, E58/232, E58/235, E58/236, E58/237, E58/240, E58/274. Narndee Project - WAMEX report A73503. • Duval: Yalanga Bore Prospect Final Report on E59/27 10/01/1985. WAMEX open file report A15951. • CRA Exploration: 1984 Annual Report on MC 58/2448-2451, 58/2573-2599 Mt Carron Copper -zinc Prospect Kirkalocka, Western Australia. WAMEX open file report A13821.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Volcanic massive sulphide zinc-copper 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 detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• A list of all the RC drill-holes completed is provided in tables 1 and 2 as part of this announcment.

Criteria	JORC Code explanation	Commentary
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 clearly stated.*	• Aggregate results are reported using a lower cut off 1000ppm Cu and 1000ppm Zn.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly 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 (e.g. down hole length, true width not known').*	• The geometry of the mineralised zones reported with respect to the drill orientation is not known.
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.*	• Appropriate diagrams summarising key data interpretations are included in the body of this announcement.
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.*	• The interpretations expressed in this announcement are not considered to be overstated nor misleading.
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.*	• All relevant data has been included within the announcement.
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).*	• A range of techniques will be considered to progress exploration including drilling.

Criteria	JORC Code explanation	Commentary
	• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Refer to figures 1 to 3 in the body of this announcement.