

# ASX Announcement

26 May 2021



**Great Western**  
EXPLORATION

## Drilling at Copper Ridge Project to Commence

### Highlights

- RC Drilling will commence at Copper Ridge on or around 31 May 2021
- Drilling will test both the Copperhead and Taipan copper-gold targets
- The copper-gold targets, Copperhead and Taipan, are within a mineralised zone including a number of Cu-Au + Mo anomalies over some 4.7km strike length (east – west) and 1.5km width (north – south)
- The targets sit within a structurally complex area at the southern end of the Proterozoic Yerrida Basin
- Copperhead and Taipan are interpreted to be proximal to the intersection of two regional structures providing an ideal setting for focussing mineralised fluids

Great Western Exploration Limited (ASX: GTE) (“Great Western” or “the Company”) is pleased to provide an update on its forthcoming drilling programme at Copper Ridge (100% Great Western).

Managing Director Tom Ridges commented: “Both Copperhead and Taipan are very prospective, large scale copper-gold targets. Great Western is looking forward to commencing the drilling programme to test these two targets on or around 31 May 2021, and we look forward to updating the market on the progress of the drill programme in due course.”



GREAT WESTERN EXPLORATION LIMITED (ASX:GTE)

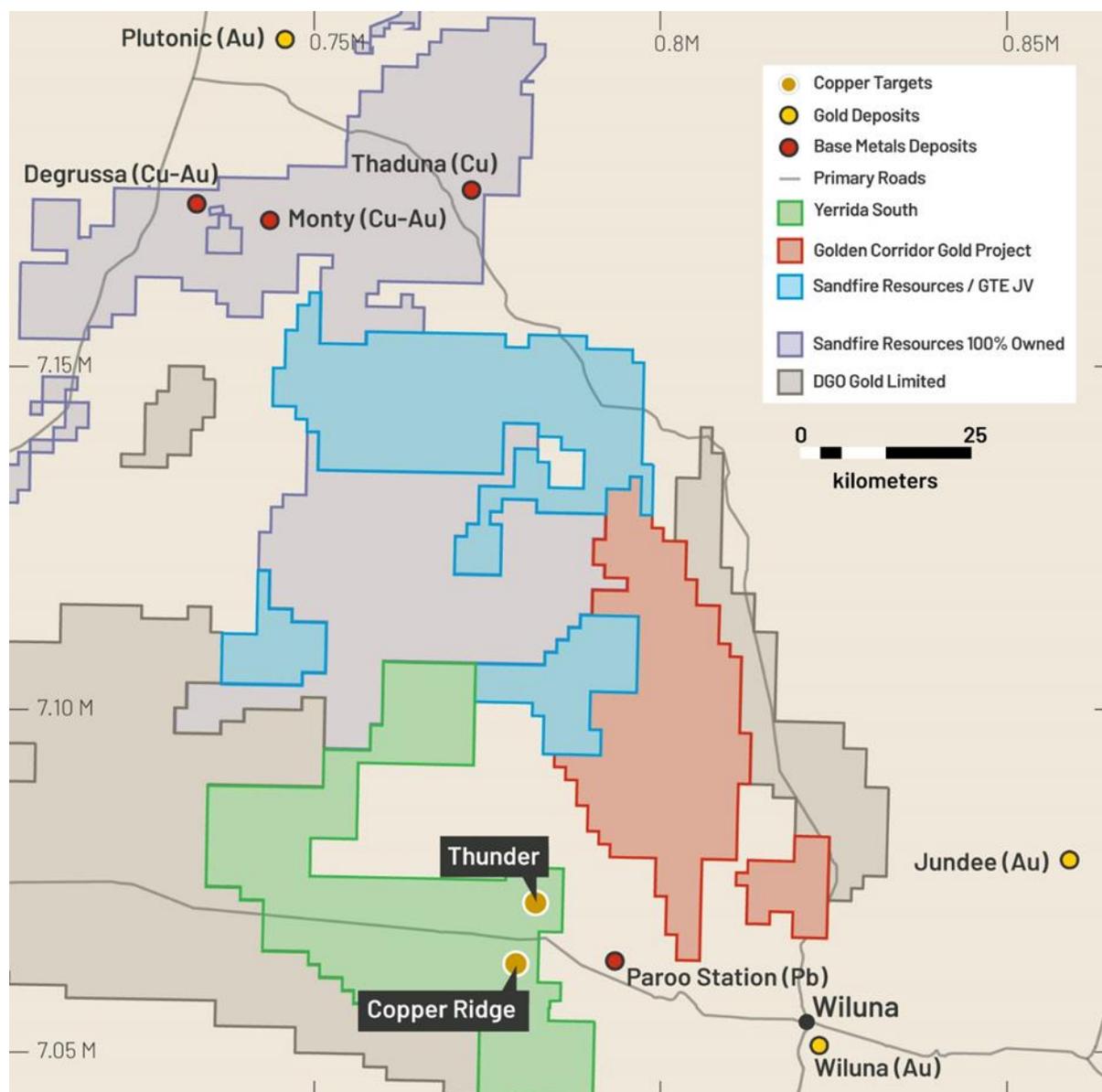
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# Copper Ridge Project (100% Great Western)

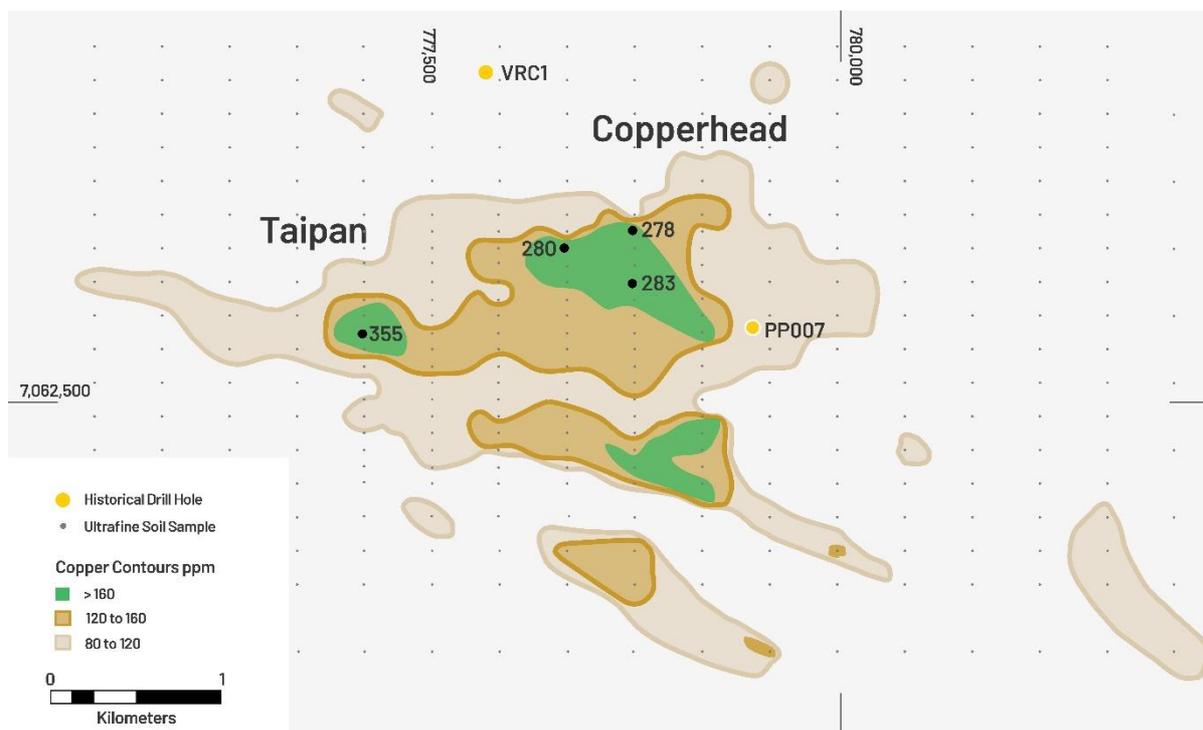


*Figure 1. Location of the Copper Ridge copper-gold Project*

## Copperhead and Taipan

Infill and extensional Ultrafine+ soil sampling at the Copper Ridge area has recently better defined the Copperhead and Taipan drill targets at Copper Ridge (figure 2).

The infill sampling has shown there is likely significant structures controlling the potential mineralising fluids at Copper Ridge. The sampling has also outlined a defined orientation to the anomalous copper mineralisation, occurring within a 4.7km long ENE trend that is co-incident with an interpreted fault offset that can be seen in the regional aeromagnetic data. This further highlights the significance of the copper anomaly.



**Figure 2** Copper and Gold Anomalies across

The maiden RC drill programme for Copper Ridge is set to begin on or around 31 May 2021, with the Great Western exploration team currently preparing to mobilise out into the field.

The programme of drilling is expected to be complete by mid-June 2021, with results due back by mid to late July 2021.

Great Western is also progressing a number of field work programmes across areas of the Company's substantial tenure, that the Company is confident will result in a greater understanding of a number of areas of interest, enhanced prospects and drill ready targets. This work includes:

- Soil and lag sampling at a number of areas considered prospective for copper, nickel and/or gold; and
- Ground and airborne geophysical surveys across numerous projects;
- A geophysical review of existing data and a targeting report to be completed by Great Western's consultants Newexco across a number of the Company's Project areas.

Great Western looks forward to updating shareholders, in what will be a period of high intensity exploration activity.

### Ultrafine +

Ultrafine + is a newly developed geochemical method by the CSIRO to detect buried base and precious metal mineralisation at depth under cover. The Company believes the Yerrida basin is well suited for the use of this method where base metal deposits maybe located near the surface in flat lying stratigraphy that may not outcrop which is typical for Proterozoic basins.

Authorised for release by the board of directors of Great Western Exploration Limited.

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Company Secretary  
Great Western Exploration Limited  
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Email: [enquiries@greatwestex.com.au](mailto:enquiries@greatwestex.com.au)

## Competent Person Statement

*The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr. Thomas Ridges who is a member of the Australian Institute of Mining and Metallurgy. Mr. Ridges is an employee of Great Western Exploration Limited and has sufficient experience which is relevant to the style of mineralisation 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Ridges consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

# Appendix 1: Copper Ridge Ultrafine + Soil Sampling

Sample Medium: Soil; B horizon or 30 cm depth

Sample Collection: ~500g sample collected using metal tools passing through 0.9mm sieve into plastic bags and submitted to LabWest Minerals Analysis Pty Ltd for Ultrafine + and conventional analysis. Industry standard procedures used to minimise sample site contamination.

Copper Ridge Infill Spacing: Nominal 400m x 200m

Copper Ridge Regional: Nominal 400m x 800m

No Samples: 321

QAQC: Duplicate sample collected every 50; no CRM standards submitted; laboratory reported standards

Analysis: Ultrafine + analysis (recently developed geochemical method developed by CSIRO and carried out by Labwest).

Sample Preparation: 2 g of 2-micron size fraction sieved from sample the remaining sample discarded.

Sample Analysis: Microwaved assisted aqua regia with ICP-MS/OES

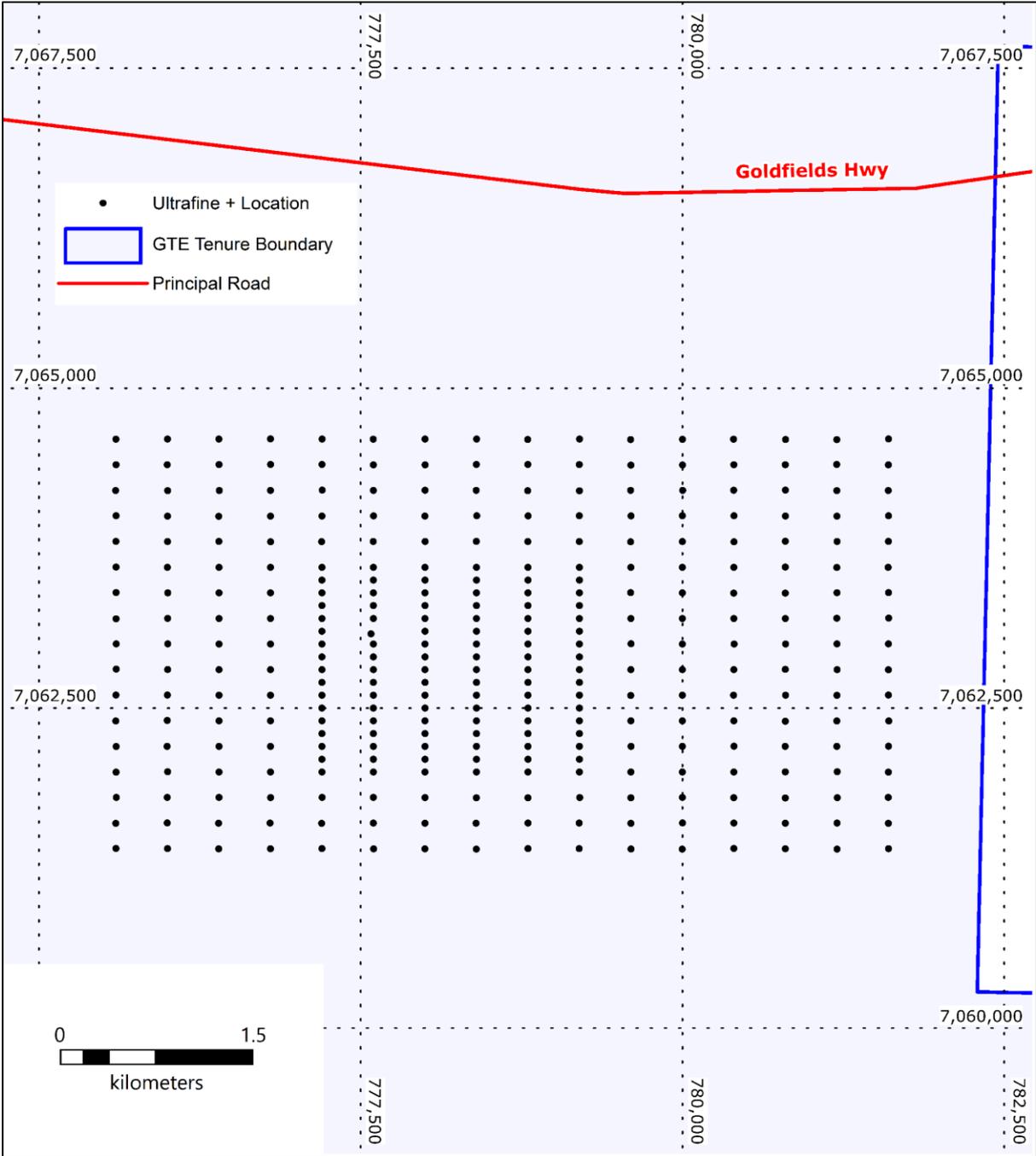
Elements:

Table 1. List of Elements analysed with units and Detection Limit

Element	Units	Detection Limit	Element	Units	Detection Limit	Element	Units	Detection Limit
Ag	ppm	0.003	Hf	ppm	0.002	Sc	ppm	0.2
Al	ppm	10	Hg	ppm	0.001	Se	ppm	0.05
As	ppm	0.5	In	ppm	0.001	Sn	ppm	0.02
Au	ppb	0.5	K	ppm	10	Sr	ppm	0.1
Ba	ppm	0.2	La	ppm	0.05	Ta	ppm	0.001
Be	ppm	0.01	Li	ppm	0.05	Te	ppm	0.001
Bi	ppm	0.002	Mg	ppm	10	Th	ppm	0.02
Ca	ppm	10	Mn	ppm	0.5	Ti	ppm	2
Cd	ppm	0.004	Mo	ppm	0.03	Tl	ppm	0.003
Ce	ppm	0.05	Nb	ppm	0.01	U	ppm	.003
Co	ppm	0.01	Ni	ppm	0.2	V	ppm	1
Cr	ppm	2	Pb	ppm	0.05	W	ppm	0.001
Cs	ppm	0.03	Pt	ppb	1	Y	ppm	0.05
Cu	ppm	0.1	Rb	ppm	0.1	Zn	ppm	0.2
Fe	ppm	50	Re	ppm	0.0001	Zr	ppm	0.1
Ga	ppm	0.05	S_	ppm	5			
Ge	ppm	0.05	Sb	ppm	0.001			

## Copper Ridge Infill Ultrafine+ Analysis Statistics

Element	Count	Min	Max	Mean	Median	Std				
						Dev	25%	90%	96%	98%
Ag	321	0.02	0.15	0.06	0.05	0.02	0.04	0.08	0.10	0.11
Au	321	0.70	14.90	3.32	2.90	1.71	2.20	5.30	6.82	7.40
Co	321	5.36	77.80	14.62	11.70	8.33	10.00	23.30	36.36	39.46
Cu	321	46.20	355.00	83.48	69.20	39.31	60.60	123.00	161.00	185.80
Mo	321	1.39	12.00	3.00	2.50	1.44	2.12	4.90	6.14	7.10
Ni	321	19.20	123.00	41.57	39.20	11.56	35.00	53.00	64.80	71.80
Pb	321	24.40	112.00	37.93	37.40	8.33	33.50	42.60	48.34	53.80
Sb	321	0.00	1.45	0.36	0.51	0.33	0.00	0.72	0.87	0.91
Sn	321	0.00	3.74	1.62	2.59	1.44	0.00	3.09	3.26	3.39
Zn	321	43.90	146.00	66.42	63.90	12.23	58.60	82.40	91.58	98.26



## Appendix 2:

JORC Code, 2012 Edition – Table 1

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg 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.</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.</li> <li>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.</li> </ul>	See Appendix 1
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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).</li> </ul>	Not applicable
<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>Measures 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</li> </ul>	Not applicable



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Criteria	JORC Code explanation	Commentary
	<i>occurred due to preferential loss/gain of fine/coarse material.</i>	
<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>	Not applicable
<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 riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>• For all sample types, the nature, 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>	See Appendix 1 for details
<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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<p><u>Soil Sampling</u></p> <p>Samples submitted to Labwest for Ultrafine + method developed by the CSIRO for exploration of blind deposits.</p> <p>See Appendix 1 for details</p>
<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 (physical and electronic) protocols.</li> <li>• Discuss any adjustment to assay data.</li> </ul>	<p><u>Soil Sampling</u></p> <ul style="list-style-type: none"> <li>• Results reviewed by both the Chief Geologist and Geochemistry consultant</li> <li>• Assays were received both as text files and pdf from laboratory</li> <li>• Results are stored in central database</li> <li>• No adjustments or</li> </ul>

Criteria	JORC Code explanation	Commentary
		calibrations were made to the results
<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 Resource estimation.</li> <li>• Specification of the grid system used.</li> <li>• Quality and adequacy of topographic control.</li> </ul>	<u>Soil Sampling</u> Data was GPS located on UTM grid GDA94 zone 50 sub 5m accuracy
<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 Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>• Whether sample compositing has been applied.</li> </ul>	See Appendix 1
<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>	Not applicable
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• The measures taken to ensure sample security.</li> </ul>	Samples were transported to Perth by Company personnel Sample security not considered a significant risk
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• The results of any audits or reviews of sampling techniques and data.</li> </ul>	No audit conducted Data reviewed by third party geochem consultant

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary	
<b>Mineral tenement 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 interests, 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>	<b>Tenement No:</b> <b>Tenement Type:</b> <b>Status:</b> <b>Location:</b> <b>Size (km2)</b> <b>Ownership:</b>  <b>Native Title:</b>  <b>Other Agreements:</b>  <b>Non-State Royalties:</b>  <b>Other Encumbrances:</b>  <b>National Parks:</b>	E53/1894 Exploration License Granted - 24/05/2017 Wiluna 213 100%  Prospect area covered by Determined Native Title claim; TMPAC; Regional Land Access Agreement executed none none none none

Criteria	JORC Code explanation	Commentary
		Other Environmental: none
		Tenement No: E51/1727
		Tenement Type: Exploration License
		Status: Granted - 31/10/2017
		Location: Wiluna
		Size (km2) 135
		Ownership: 100%
		Native Title: Prospect area covered by Determined Native Title claim; TMPAC; Regional Land Access Agreement executed
		Other Agreements: none
		Non-State Royalties: none
		Other Encumbrances: none
		National Parks: none

Criteria	JORC Code explanation	Commentary
		<p>Other Environmental: none</p>
<p><b>Exploration done by other parties</b></p>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<p>There has been only minor previous exploration within the Project areas.</p> <p><u>Copper Ridge</u></p> <p>Two RC drill holes (PP007 &amp; VRC01) completed in the vicinity of the Copper Ridge target</p> <p>PP007 was drilled in 1984 by Australian Consolidated Minerals Ltd (ACM) and reported in WAMEX report A12928.</p> <p>VRC01 was drilled in 1995 by Renison Limited (RGC Exploration Pty Ltd) ) and reported in WAMEX report A48417</p> <p>MMI sampling by Emergent Resources Limited. The MMI sampling was reported in WAMEX reports A91893 &amp; A91898</p> <p>Details of this historical work was disclosed in Company (GTE.ASX) announcements dated 30/11/2020 – Large Scale Copper-Gold Targets identified at Copper Ridge and 15/01/2021 Quarterly Activities Report for the Quarter ended 31 December 2020</p>

Criteria	JORC Code explanation	Commentary
<b>Geology</b>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sedimentary Hosted Copper &amp; Base Metals, VMS</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>• <i>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:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Where aggregate intercepts incorporate short lengths of high</i></li> </ul>	<ul style="list-style-type: none"> <li>• No applicable</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>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.</i></p> <ul style="list-style-type: none"> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	
<p><b>Relationship between mineralisation widths and intercept lengths</b></p>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
<p><b>Diagrams</b></p>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<p>See Appendix 1.</p>
<p><b>Balanced reporting</b></p>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high</i></li> </ul>	<p>See Appendix 1</p>

Criteria	JORC Code explanation	Commentary
	<i>grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	
<b>Other substantive exploration data</b>	<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 contaminating substances.</i></li> </ul>	Not applicable
<b>Further work</b>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg 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, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Further soil sampling</li> <li>• Geological mapping</li> <li>• Aircore and/or RC drilling</li> <li>• Ground geophysics</li> </ul>