

## ASX Announcement

28 July 2021



**Great Western**  
EXPLORATION

# Large, Strong EM Anomaly Enhances Prospectivity of Thunder

## Summary

- A large, discrete, conspicuous EM anomaly has been identified by a moving loop electromagnetic ("MLEM") survey at Thunder
- The EM anomaly is some 800 metres in length from a depth of 100m, with a shallow dip to the west
- Thunder, recently identified by Great Western fieldwork, is interpreted to be an analogue to the Degruessa VMS copper-gold deposit located 112km to the northwest
- Significantly, the EM anomaly is directly adjacent to a 1.7km strike length copper-gold soil anomaly (with a core zone >160ppm Cu and > 8ppb Au) and interpreted by Great Western to sit within a setting of shales and siltstones intruded by mafic volcanic dykes and adjacent to the intersection of two large faults
- Drill planning has now commenced

## Thunder EM Anomaly

Great Western Exploration Limited (ASX: GTE, "Great Western") advises that a moving loop electromagnetic (MLEM) survey has defined a large, conspicuous, discrete EM anomaly at its 100% owned Thunder copper-gold target, 112kms from Sandfire's (ASX:SFR) DeGrussa copper-gold operation. Designed by Great Western's geophysical consultants Newexco, the MLEM has defined an EM anomaly that is some 800 metres in length, from a depth of only 100 metres, with a shallow dip to the west.



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The Thunder copper-gold target was identified by Great Western's grassroots fieldwork programme of regional Ultrafine + soil sampling in May this year, the results of which identified two large areas (~4 km<sup>2</sup>) of anomalous copper and gold (refer Great Western announcement of 18 May 2021).

Significantly, the anomaly is directly adjacent to a 1.7km strike length copper-gold soil anomaly (with a core zone >160ppm Cu and > 8ppb Au) (Figure 1 & 2). The anomalous area is interpreted by Great Western to sit in proximity to a number of dolerite dykes intruding the Yerrida Proterozoic rocks which consist of siltstones and shales of the Maraloou formation, and adjacent to the intersection of two large faults (interpreted). The base of the Maraloou Formation is also interpreted to be intercalated with basalts which is the ideal setting for DeGrussa-style VMS mineralisation.

Thunder is interpreted to be an analogue to the Degrudda copper-gold deposit located 112km to the northwest, being a VMS model of mafic volcanics intruding Proterozoic sediments along large faults.

Thunder is located in the southern portion of the Yerrida Basin which is currently being actively explored by Sandfire Resources on their 100% owned tenure, and on SFR-GTE Yerrida North Joint Venture ground, and also by DGO Gold (ASX:DGO) (Figure 3).

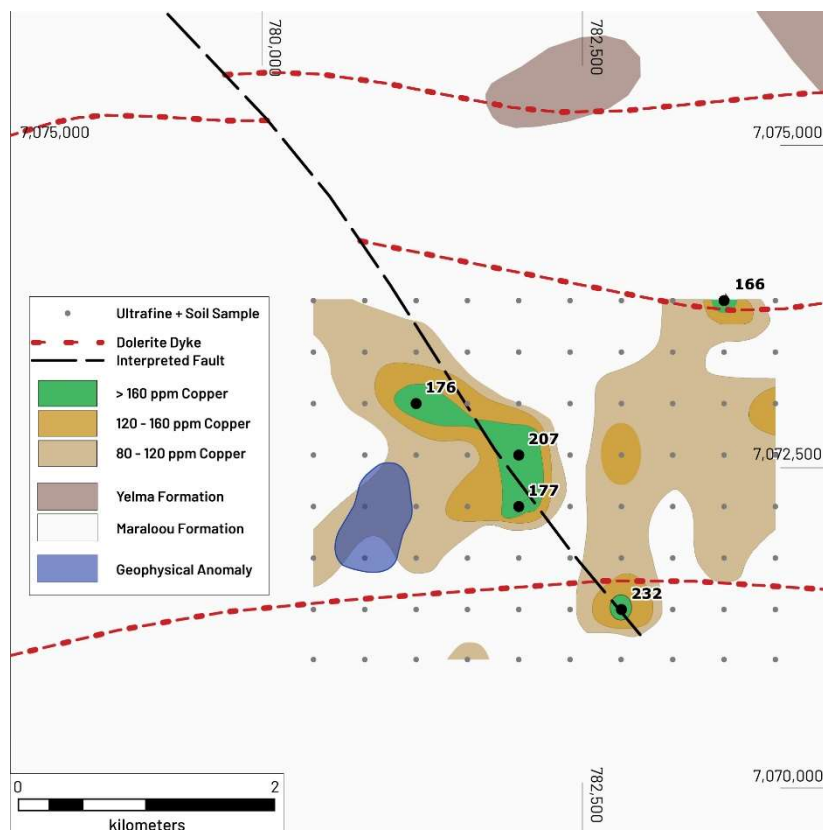


Figure 1. Location of Slingram EM anomaly at Thunder Copper-Gold Target with copper-in-soil anomaly

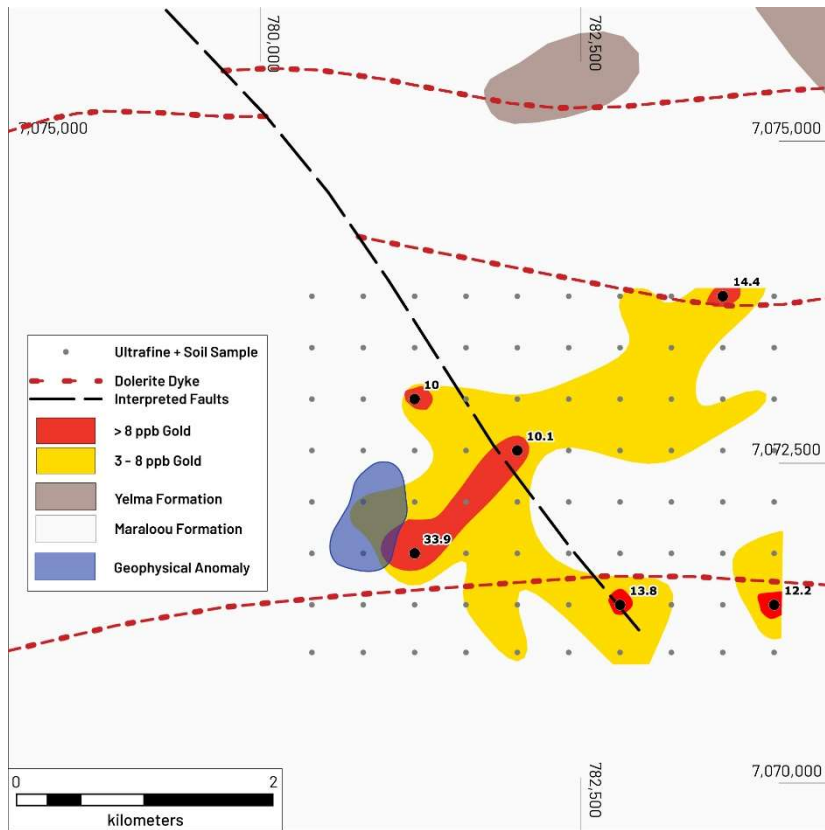


Figure 2. Location of Slingram EM anomaly at Thunder Copper-Gold Target with gold-in-soil anomaly

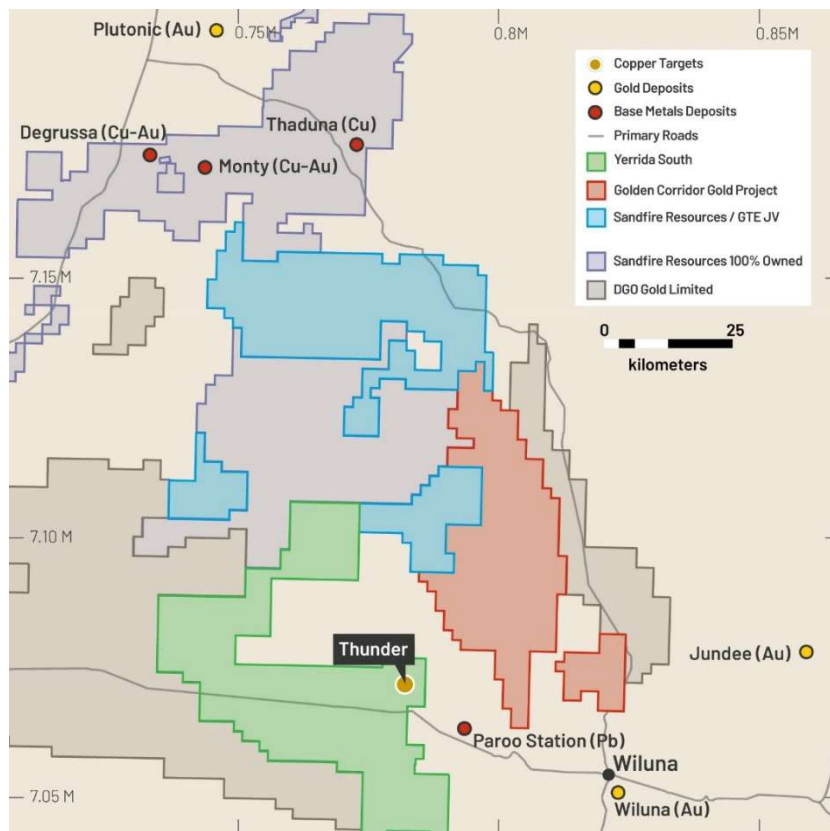
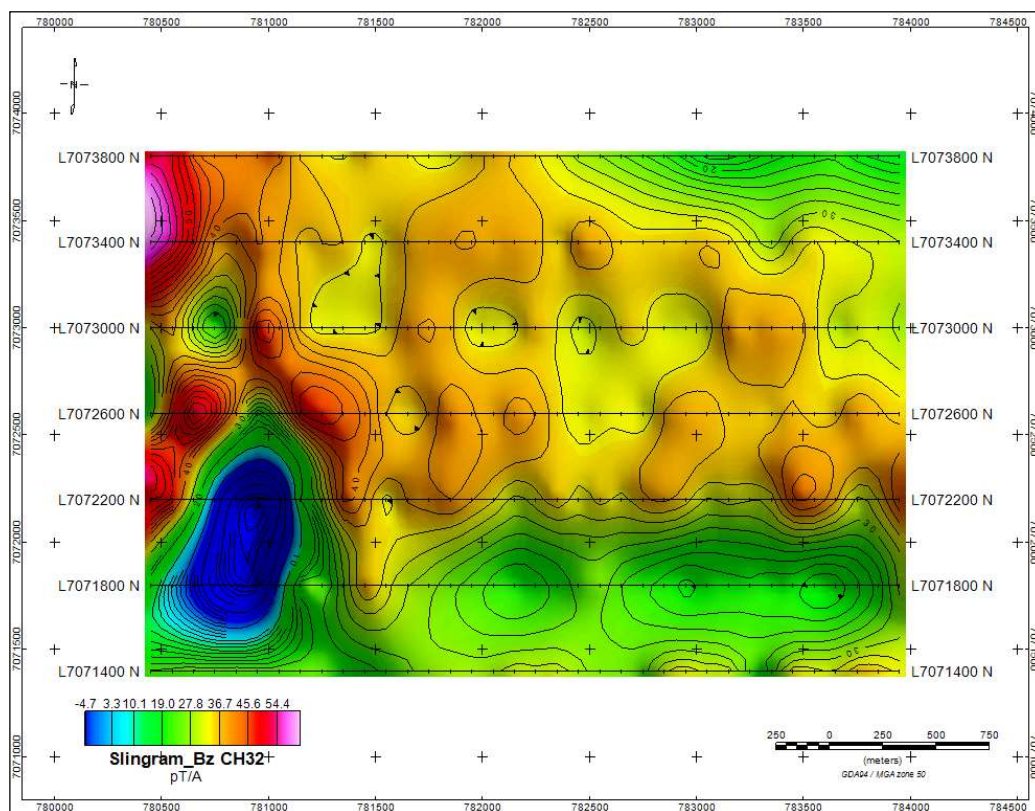


Figure 3. Location of Thunder Copper-Gold Target

In their reporting of MLEM results, Newexco said “the anomaly exhibits the classic Slingram Z-component ( $B_z$ ) negative which shows as blue (low) when viewed on a late time grid of  $B_z$  (Figure 4). The anomaly is estimated to be approximately 800m long and from a depth of less than 100m.”



**Figure 4.** The Slingram EM anomaly is seen on the western end of lines 7071800mN, 7072200mN and 7072600mN at the Thunder Copper-Gold Target.

Drill planning has now commenced.

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

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## 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. Thomas 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:

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>• <i>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.</i></li><li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li><li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li><li>• <i>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.</i></li></ul>	<ul style="list-style-type: none"><li>• Newexco Exploration Pty Ltd were engaged by Great Western Exploration to design a Moving-Loop Electromagnetic (MLEM) survey programme at the Thunder copper-gold Prospect.</li><li>• Vortex Geophysics completed the MLEM programme during July.</li><li>• Eight lines were completed over the Thunder copper-gold Target for a total of 288 stations.</li><li>• The ground EM survey was carried out by Vortex Geophysics at a 400m line spacing with 100m stations using</li></ul>



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Criteria	JORC Code explanation	Commentary
		<p>EMIT Fluxgate B-Field sensor and SMARTem24 receiver.</p> <ul style="list-style-type: none"> <li>•EM configuration: A Slingram configuration was used. A 200 x 200m transmitter loop with 1 turn to generate 95amps equivalent with a base frequency of 0.125Hz. Receiver center to transmitter center separation was 300m for Slingram configuration. Three consistent readings taken at each station.</li> <li>•EM survey locations collected by handheld 12 channel GPS</li> </ul>
<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 occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	Not applicable
<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



Criteria	JORC Code explanation	Commentary
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>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.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	No drilling is being reported in this announcement.
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	No drilling is being reported in this announcement.
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<p>For the Geophysical surveys, the data was inspected, and quality control was carried out using Newexco's proprietary software and EMIT SMT24 software and Maxwell</p> <p>All digital data was inspected on a daily basis to ensure that good quality data was acquired in the field.</p>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	The grid system used for the survey data points is GDA94 - MGA (Zone 50).
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>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.</i></li> </ul>	100m east to west and 400m north to south station spacing.



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Whether sample compositing has been applied.</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>	Survey lines were orientated on an east to west grid, locally key geological structures are orientated NW to SE.
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	Data was transmitted by Vortex Geophysics in a raw data format from site to Newexco Exploration Pty Ltd for review and QAQC, Newexco Services provided data analysis, which was then reported to the Company's representatives
<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>	Data reviewed by third party geophysical consultant Newexco Exploration Pty Ltd

## 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>	E53/1894
		<b>Tenement Type:</b>	Exploration License
		<b>Status:</b>	Granted - 24/05/2017
		<b>Location:</b>	Wiluna
		<b>Size (km2)</b>	213
		<b>Ownership:</b>	100%
		<b>Native Title:</b>	Prospect area covered by Determined Native Title claim; TMPAC; Regional Land Access Agreement executed
		<b>Other Agreements:</b>	none
		<b>Non-State Royalties:</b>	none
		<b>Other Encumbrances:</b>	none
		<b>National Parks:</b>	none
		<b>Other Environmental:</b>	Paroo calcrete PEC covers a portion of the E53/1894 tenement, include some of the Thunder copper-gold target. This is not expected to impact GTE's work programmes.

Criteria	JORC Code explanation	Commentary
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<p>There is limited previous exploration within the Project areas.</p> <p><u>Thunder copper gold Target</u></p> <p>2011: MMI sampling by Emergent Resources Limited was reported in WAMEX reports A91893 &amp; A91898 and 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> <p>Ultrafine+ soil sampling completed by GTE and announced to the market dated 18/05/2021 - New Copper-Gold Target Defined</p>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>VMS, sedimentary Hosted Copper &amp; Base Metals</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>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: <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) of 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> <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>	Not applicable
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high</li> </ul>	<ul style="list-style-type: none"> <li>No applicable</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p>grades) and cut-off grades are usually Material and should be stated.</p> <ul style="list-style-type: none"> <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>	
<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 (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>See body of announcement and Figure 4.</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>All EM results have been reported for Thunder MLEM survey.</li> </ul>
<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</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>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>	
<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 Ultrafine+ soil sampling</li> <li>• Geological mapping</li> <li>• Aircore and/or RC drilling</li> </ul>