

11 October 2023

East Laverton Project soil survey defines extensive new rare earth and nickel targets.

Highlights:

- Broad rare earth element (REE) anomalies expand zones of potential clay-hosted mineralisation to more than 200km² at the Point Kidman prospect in the project's north.
- Further anomalous nickel results extend laterite nickel targets at the Seahorse prospect in the project's south.

MTM Critical Metals Limited (ASX:MTM) (MTM or the Company) has identified several new broad REE anomalies at the Point Kidman prospect, and further nickel anomalies at the Seahorse prospect, at its East Laverton Project in Western Australia after completing an extensive surface geochemical sampling program in August.

MTM Managing Director, Mr Lachlan Reynolds, said prospectivity for mineralisation had been identified over several very large areas.

"Point Kidman is proving to have district-scale, clay-hosted REE mineralisation potential with numerous kilometre-scale, coherent REE anomalies defined over a prospect area covering a total area in excess of 200km²," Mr Reynolds said.

"Previous aircore drilling of anomalous areas have indicated the presence of significant thicknesses and grades of clay-hosted REE¹ which are interpreted to be related to fertile basement granite and granite-gneiss rocks that have a preserved weathering profile."

Mr Reynolds said promising nickel results had also been returned at the Seahorse prospect.

"The sampling results at Seahorse show that there are coherent anomalies which are prospective for nickel mineralisation located several kilometres to the west of where the Company has previously drilled lateritic nickel mineralisation².

"We now have plans to drill these new REE and nickel anomalies at East Laverton with the aim of revealing additional zones of similar mineralisation," he said.

The geochemical sampling comprised around 3,400 samples collected on a grid spacing of 200m x 1,000m at the Point Kidman REE prospect, and 200m x 400m at the Seahorse nickel prospect.

¹ Refer MTM ASX announcement dated 15 May 2023 *Drilling confirms further rare earth element mineralisation and increased potential at East Laverton*

² Refer MTM ASX announcement dated 19 May 2023 *Laterite nickel discovery at East Laverton*

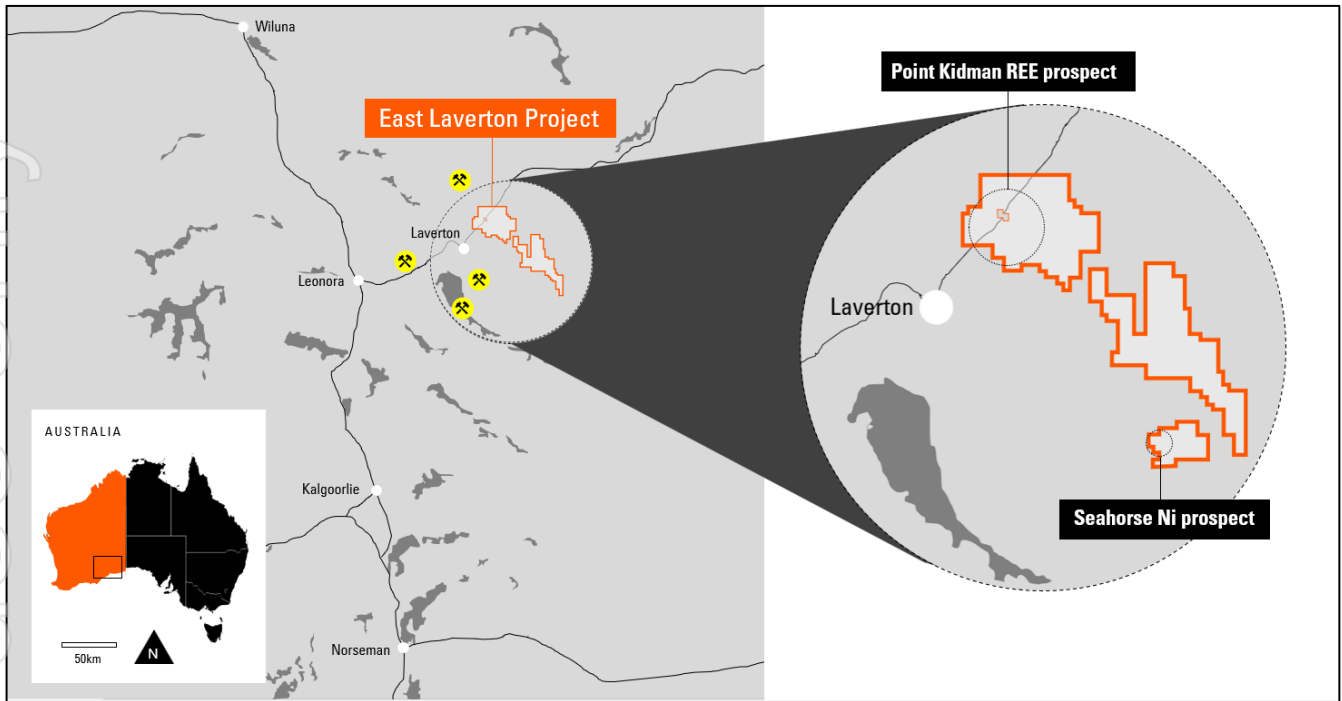


Figure 1: Location map of prospects at the East Laverton Project.

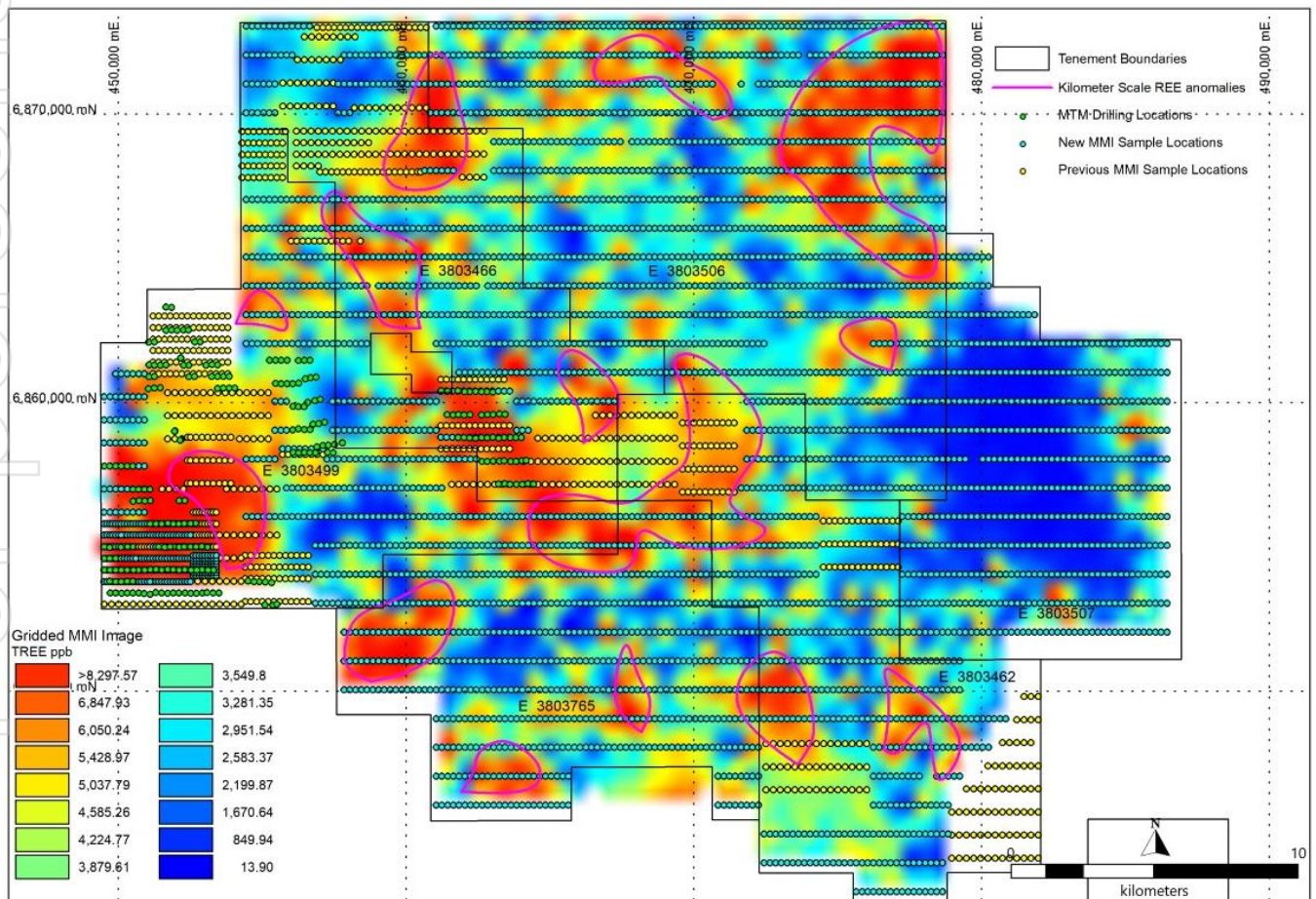


Figure 2: Gridded image of Total REE surface geochemistry results showing the location of soil samples and drilling at the Point Kidman prospect.

Figure 2 shows that the recent sampling has highlighted a number of new large, coherent REE anomalies (red colours) across the Company's tenement areas at Point Kidman, identifying major target zones for additional REE mineralisation. The majority of these areas are untested by any previous drilling.

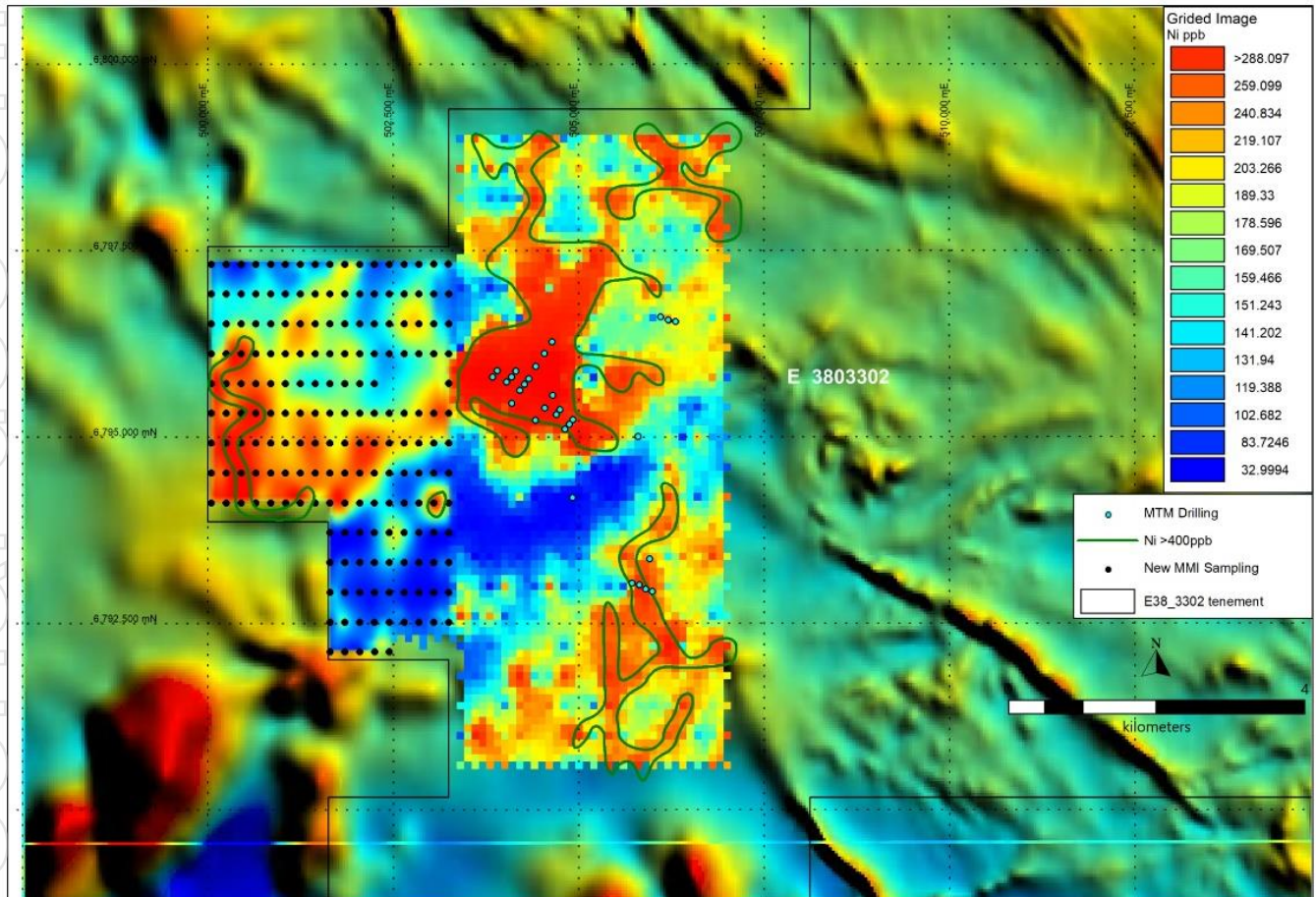


Figure 3: Gridded image of Nickel surface geochemistry results showing the location of soil samples and drilling at the Seahorse prospect (overlaid on TMI magnetic image).

The newly identified nickel anomaly at the Seahorse prospect (Figure 3) extends over an area of 2km x 2km, indicating that there are likely to be further ultramafic units within the bedrock gneisses. These units may have also developed laterite nickel mineralisation, similar to the area drilled by MTM several kilometres to the east.

This announcement has been authorised for release by the Board of Directors.

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About MTM Critical Metals Limited

MTM Critical Metals Limited is an exploration company which is focused on searching for rare earth elements (REE), gold, lithium, nickel, and base metals in the Goldfields and Ravensthorpe districts of Western Australia and in the Abitibi region of the Province of Québec. The Company holds over 3,500km² of tenements in three prolific and highly prospective mineral regions in Western Australia and has an option to acquire, through an earn-in arrangement, a 100% interest in 2,400 ha of exploration rights in Québec, Canada. The East Laverton Projects is made up of a regionally extensive package of underexplored tenements prospective for REE, gold and base metals. The Mt Monger Gold Project comprises an area containing known gold deposits and occurrences in the Mt Monger area, located ~70km SE of Kalgoorlie and immediately adjacent to the Randalls gold mill operated by Silver Lake Resources Limited. The Ravensthorpe Project contains a package of tenements in the southern part of Western Australia between Esperance and Bremer Bay which are prospective for a range of minerals including REE, lithium, nickel and graphite. The Pomme Project in Québec is a known carbonatite intrusion that is enriched in REE and niobium and is considered to be an extremely prospective exploration target adjacent to a world class REE resource (Montviel deposit). Priority drilling targets have been identified in all project areas and the Company is well funded to undertake effective exploration programs. The Company has an experienced Board and management team which is focused on discovery to increase value for Shareholders.

Competent Person's Statement

The information in this announcement that relates to Exploration Results is based on and fairly represents information compiled by Mr Lachlan Reynolds. Mr Reynolds is the Managing Director of MTM Critical Metals Limited and is a member of both the Australasian Institute of Mining and Metallurgy and the Australasian Institute of Geoscientists. Mr Reynolds has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken, 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, Mineral Resources and Ore Reserves. Mr Reynolds consents to the inclusion in this announcement of the matters based on information in the form and context in which they appear.

Previous Disclosure

The information in this announcement is based on the following MTM Critical Metals Limited (formerly Mt Monger Resources Limited) ASX announcements, which are all available from the MTM Critical Metals Limited website www.mtmcriticalmetals.com.au and the ASX website www.asx.com.au.

- 15 May 2023, "Drilling Confirms Further Rare Earth Element Mineralisation and Increased Potential at East Laverton"
- 19 May 2023, "Laterite nickel discovery at East Laverton"
- 6 July 2023, "Soil sampling program underway to extend known REE mineralised areas at East Laverton"

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original ASX announcements and that all material assumptions and technical parameters underpinning the relevant ASX announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are represented have not been materially modified from the original ASX announcements.

Cautionary Statement Regarding Values & Forward-Looking Information

The figures, valuations, forecasts, estimates, opinions and projections contained herein involve elements of subjective judgment and analysis and assumption. MTM Critical Metals does not accept any liability in relation to any such matters, or to inform the Recipient of any matter arising or coming to the company's notice after the date of this document which may affect any matter referred to herein. Any opinions expressed in this material are subject to change without notice, including as a result of using different assumptions and criteria. This document may contain forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as "seek", "anticipate", "believe", "plan", "expect", and "intend" and statements than an event or result "may", "will", "should", "could", or "might" occur or be achieved and other similar expressions. Forward-looking information is subject to business, legal and economic risks and uncertainties and other factors that could cause actual results to differ materially from those contained in forward-looking statements. Such factors include, among other things, risks relating to property interests, the global economic climate, commodity prices, sovereign and legal risks, and environmental risks. Forward-looking statements are based upon estimates and opinions at the date the statements are made. MTM Critical Metals undertakes no obligation to update these forward-looking statements for events or circumstances that occur subsequent to such dates or to update or keep current any of the information contained herein. The Recipient should not place undue reliance upon forward-looking statements. Any estimates or projections as to events that may occur in the future (including projections of revenue, expense, net income and performance) are based upon the best judgment of MTM Critical Metals from information available as of the date of this document. There is no guarantee that any of these estimates or projections will be achieved. Actual results will vary from the projections and such variations may be material. Nothing contained herein is, or shall be relied upon as, a promise or representation as to the past or future. MTM Critical Metals, its affiliates, directors, employees and/or agents expressly disclaim any and all liability relating or resulting from the use of all or any part of this document or any of the information contained herein.

APPENDIX 1 - JORC Compliance Tables

Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. 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. 	<ul style="list-style-type: none"> Soil samples weighing approximately 250 grams were taken by hand from a depth of about 15-20cm below surface. Each sample was sieved on site using a plastic sieve to remove coarse particles and placed in plastic snap seal bags. Standard field collection procedures for soil samples were used.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> Not applicable, no drilling completed.
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Not applicable, no drilling completed.
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Not applicable, no drilling completed.

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Sample preparation of soil samples involves collection of a 50g sub-sample for assay. No sample preparation or drying is required for the MMI assay technique. No field duplicates were taken as this is not warranted at the current stage of exploration. The sample size and distribution of the soil samples is appropriate for the current stage of exploration.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Soil samples were submitted to SGS Australia Ltd in Perth for analysis by the proprietary mobile metal ion (MMI) technique. MMI utilised proprietary extractants with element measurement by ICP-MS and ICP-MS Dynamic Reaction Cell™. Elements assayed included: Ag, Al, As, Au, Ba, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Hg, In, K, La, Li, Mg, Mn, Mo, Nb, Nd, Ni, P, Pb, Pd, Pr, Pt, Rb, Sb, Sc, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, U, W, Y, Yb, Zn, Zr. The MMI method is a partial leach and does not dissolve the majority of the minerals in the sample. Laboratory QC procedures for soil samples involve the use of internal certified reference material as assay standards, along with blanks, duplicates and replicates.
Verification of sampling and assaying	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The assay results have not been verified by independent or alternative company personnel. This is not required at the current stage of exploration. Primary assay data has been entered into the Company's digital database, which is maintained by an external consultant. There are no adjustments to the assay data.

Criteria	JORC Code Explanation	Commentary
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Sample locations were recorded with a handheld GPS instrument with an estimated accuracy of $\pm 3\text{m}$. The grid system used for location of the samples and shown in all tables and figures is MGA Zone 51, GDA94. Topographic control is not applicable.
Data spacing and distribution	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The soil samples were collected on east-west lines locally using 200m x 1,000m at the Point Kidman REE prospect, and 200m x 400m at the Seahorse nickel prospect. Soil sampling data is not appropriate to establish geological and grade continuity. No sample compositing has been applied.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Orientation of sampling and sampling bias is not relevant to rock chip or soil sample results.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Sampling was completed by MTM employees and samples were delivered by them directly to the assay laboratory.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No audit or review has been completed by an external party and is not warranted at the current stage of exploration.

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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The mineral tenements relevant to this announcement are granted exploration licences E38/3462, E38/3466, E38/3499, E38/3506, E38/3507, E38/3765 and E38/3302. Exploration licences E38/3462, E38/3466, E38/3499 are held 49% by Tevel Pty Ltd (Tevel). MTM Critical Metals has executed an earn-in and joint venture agreement with Tevel that entitles the Company to earn up to a 75% interest in the tenements. The tenements are secure and there are no known impediments to obtaining a licence to operate in the area. The tenements are covered by the Nyalpa Pirniku native title claim WAD91/2019. MTM Critical Metals and Tevel have completed a Heritage Protection Agreement to allow access for exploration activities. The tenements are located on the Laverton Downs and White Cliffs pastoral stations.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The tenements contain extensive sedimentary cover and there has been minimal exploration in the area either by exploration companies or government geological surveys. Earliest exploration within the region was for diamonds, nickel and uranium, with only a limited number of drill holes targeting gold mineralisation. Reconnaissance exploration activities including geophysical data interpretation and surface geochemical sampling, have identified a number of gold and rare earth element anomalies requiring further follow up work. A number of early-stage exploration programs including shallow RAB and aircore drilling have been completed in the Pt Kidman, Seahorse and Dexter prospect areas.

Criteria	JORC Code Explanation	Commentary
Geology	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> • The tenement area is located within the poorly understood Burtville Terrane on the eastern edge of the Eastern Goldfields Superterrane. Interpreted geology comprises predominantly Archaean granite gneiss with relatively narrow remnant greenstone units. The area contains limited outcrop, with the bedrock geology predominantly concealed by younger transported cover. • The area is on the eastern fringe of the Yilgarn Craton, surrounded by existing and emerging world class gold camps. To the west, the +25 Moz Au Laverton Greenstone Belt is home to Sunrise Dam (10 Moz Au), Wallaby (8 Moz Au) and Granny Smith (2.5 Moz Au) and a suite of other nearby deposits. Gold production from the belt is estimated to be in excess of 28 Moz Au. Lying to the east of the area is the Yamarna Greenstone Belt, hosting the 6 Moz Au granitoid-hosted Gruyere deposit, whilst the 7.5 Moz Au granite gneiss-hosted Tropicana deposit is located in the Albany-Fraser Province to the southeast. • Limited previous exploration within the Point Kidman project area has identified light rare earths (LREE) mineralisation hosted by laterite clays and strongly weathered granites associated with Archaean granitoid terrane. Aircore drilling intersected anomalous LREE mineralisation (Ce, La, Nd, Pr and Sm) in reconnaissance aircore drill holes (see Section 5.3 of the IGR) over a wide area that remain to be followed up with additional exploration. Very widely spaced Geological Survey of Western Australia (GSWA) rock chip samples in the area have returned anomalous REEs and indicates the size of the anomalous REE fingerprint in the region is much larger than the area drilled to date.
Drill hole Information	<ul style="list-style-type: none"> • <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, including 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 plus hole length.</i> • <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> 	<ul style="list-style-type: none"> • Not applicable, no drilling completed.
Data aggregation methods	<ul style="list-style-type: none"> • <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> • <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for</i> 	<ul style="list-style-type: none"> • No weighted averages, grade truncations or cut-off grades have been applied. • No drilling intersections are reported. • Total rare earth element (TREE) values were derived by the simple addition of grades for lanthanum (La), cerium (Ce), praseodymium (Pr), neodymium (Nd),

Criteria	JORC Code Explanation	Commentary
	<p><i>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"> • The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<p>samarium (Sm), europium (Eu), gadolinium (Gd), terbium (Tb), dysprosium (Dy), erbium (Er), ytterbium (Yb), yttrium (Y) and scandium (Sc).</p> <ul style="list-style-type: none"> • No metal equivalent values are reported.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • 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 (eg 'down hole length, true width not known'). 	<ul style="list-style-type: none"> • No mineralisation widths or intercept lengths are reported. • The relationship between the surface geochemical results and geometry of mineralisation is not known.
Diagrams	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Appropriate maps are provided in the body of the announcement.
Balanced reporting	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Comprehensive reporting of results is not practicable. • Gridded results showing the distribution of grades for selected elements is presented in the announcement.
Other substantive exploration data	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Material geological and geophysical observations are detailed in the body of the announcement.
Further work	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Further work may include additional soil sampling to extend and infill the existing grids. Drilling may be subsequently undertaken to test geochemical and geophysical anomalies.