# ASX Announcement

9 MAY 2024

# NEW COPPER OCCURRENCES DISCOVERED AT VICTORIA BORE

*Figure 1 – Copper Oxide Found at Previously Unknown Historic Copper Workings*

## HIGHLIGHTS

- **Fourteen unrecorded historic workings discovered across a strike length of 600m, all containing remnant copper oxides**
- **Copper confirmed by portable x-ray fluorescence (pXRF) - *See Appendix 2***
- **1.3km long copper anomaly surrounding the workings defined via pXRF, anomalous area is 3km southeast along strike of historic Victoria Bore Copper Mine**
- **Follow up work to further define copper occurrences planned, grab samples of copper oxide to be dispatched imminently, results expected within the current quarter**


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**Projects**
Edjudina Gold Project (100% Owned)
Victoria Bore Copper Project (100% Owned)

| | |
|---|---|
| Shares on Issue | 58.4M |
| Share Price | $0.055 |
| Market Cap | $3.2M |
| ASX Code | M3M |

**M3 Mining Limited (ASX:M3M) (M3 Mining** or the **Company)** is pleased to announce that fourteen new historic copper workings have been found at the Victoria Bore Project (**Victoria Bore** or the **Project**) located 120km south of Onslow in Western Australia.

**EXECUTIVE DIRECTOR SIMON ELEY SAID:**

*"M3 Mining is thrilled to share that additional copper oxide occurrences have been found 3km to the southeast of the historic Victoria Bore Copper Mine which produced high grade copper averaging circa 32.7% Cu for 62.5t of copper[1]. These workings were not previously recorded and were 'rediscovered' by a recent pXRF soil sampling program. The significance of finding further historic copper workings at Victoria Bore cannot be understated. The team will focus all their attention on identifying the scale and nature of the copper mineralisation across the 600m extent where the fourteen workings were found. The importance of copper continues to grow and is expected to remain a critical commodity moving forward. M3 Mining is well placed to take advantage of this with its recent success and significant land holding in the district."*

***Figure 2 – Further Copper Oxide Occurrences at Historic Copper Workings***

[1] See M3M announcement 27/07/2021 "Prospectus" for further details

**Disclaimer: soil and rock samples were analysed using a portable x-ray fluorescence (pXRF) analyser. Values obtained are directly comparable to one another, hence are a useful and cheaper way to define metal distributions in soils and mineral confirmation purely for exploration purposes. However, these values are not as accurate as laboratory XRF analyses and, whilst indicative, may not define absolute values accurately. Several samples have been dispatched to independent laboratories for assessment. The Company will provide updates if the results from this affect the anomalies stated in this announcement.**

**Please refer to Appendix 3 (JORC table) for pXRF methodology.**

**CAUTIONARY STATEMENT ON VISUAL ESTIMATES OF MINERALISATION**
**References in this announcement to visual results are from rock samples. Visible oxide mineralisation in rock samples consist of malachite and/or chrysocolla, azurite, and have had preliminary pXRF determinations confirming Cu as noted in Appendix 2. To ensure a reasonable correlation, the minerals present on the grab samples from each working area has had 3 pXRF determinations showing the variation.**

**Due to mineralisation being in oxide form, no estimates are presented. Only minor (<1%) sulphides were present in some of the samples and as such does not warrant tabular presentation of estimates in Appendix 2.**

**Assay results are expected in late June 2024. Refer to Appendix 3 for further details.**

## Historic Copper Workings

Fourteen historic copper workings have been found at Victoria Bore whilst undertaking a pXRF soil sampling program (see Figure 4). They are located approximately 3km to the southeast (along the same magnetic trend) of the historic Victoria Bore Copper Mine. The workings all contain remnant copper oxide mineralisation (confirmed by pXRF with elevated levels above background – refer to Appendix 3). Grab samples have been obtained from all sites in addition to other copper occurrences that were found between the workings. These samples are currently being dispatched to independent laboratories in Perth with results expected later in the current quarter. The group of workings could relate to the 'Victoria West' Minedex entry which may have been mistakenly lodged (or the product of incorrect coordinate conversion) as occurring 1.5km to the north, however, this is yet to be confirmed.

The workings extend over approximately 600m, each working varies in scale (see Figure 3), and all are considered to be small in comparison to the historic Victoria Bore Copper Mine (see Table 1).

No evidence of drilling was sighted in the wider vicinity surrounding the workings and M3 believes that the historic copper workings have not yet been evaluated through modern exploration methods.

| | Location (GDA2020) | | Approximate Size | | |
|---|---|---|---|---|---|
| Working | Easting | Northing | Depth | Length | Width |
| 1 | 315,225 | 7,485,373 | 1m | 5m | 5m |
| 2 | 315,216 | 7,485,411 | 0.5m | 4m | 3m |
| 3 | 315,181 | 7,485,482 | 0.3m | 3m | 3m |
| 4 | 315,179 | 7,485,485 | 1.2m | 5m | 3m |
| 5 | 315,194 | 7,485,493 | 0.5m | 6m | 3m |
| 6 | 315,182 | 7,485,510 | 1.5m | 4m | 2m |
| 7 | 315,224 | 7,485,376 | 0.2m | 3m | 2m |
| 8 | 315,303 | 7,485,164 | 1m | 5m | 3m |
| 9 | 315,335 | 7,484,961 | 1.2m | 5m | 4m |
| 10 | 315,326 | 7,484,947 | 1m | 6m | 4m |
| 11 | 315,325 | 7,484,938 | 0.5m | 6m | 3m |
| 12 | 315,321 | 7,484,940 | 0.2m | 2m | 2m |
| 13 | 315,359 | 7,484,952 | 0.2m | 5m | 3m |
| 14 | 315,350 | 7,485,012 | 1m | 4m | 3m |

*Table 1 – Historic working details*

*Figure 3 – Historic Copper Workings*

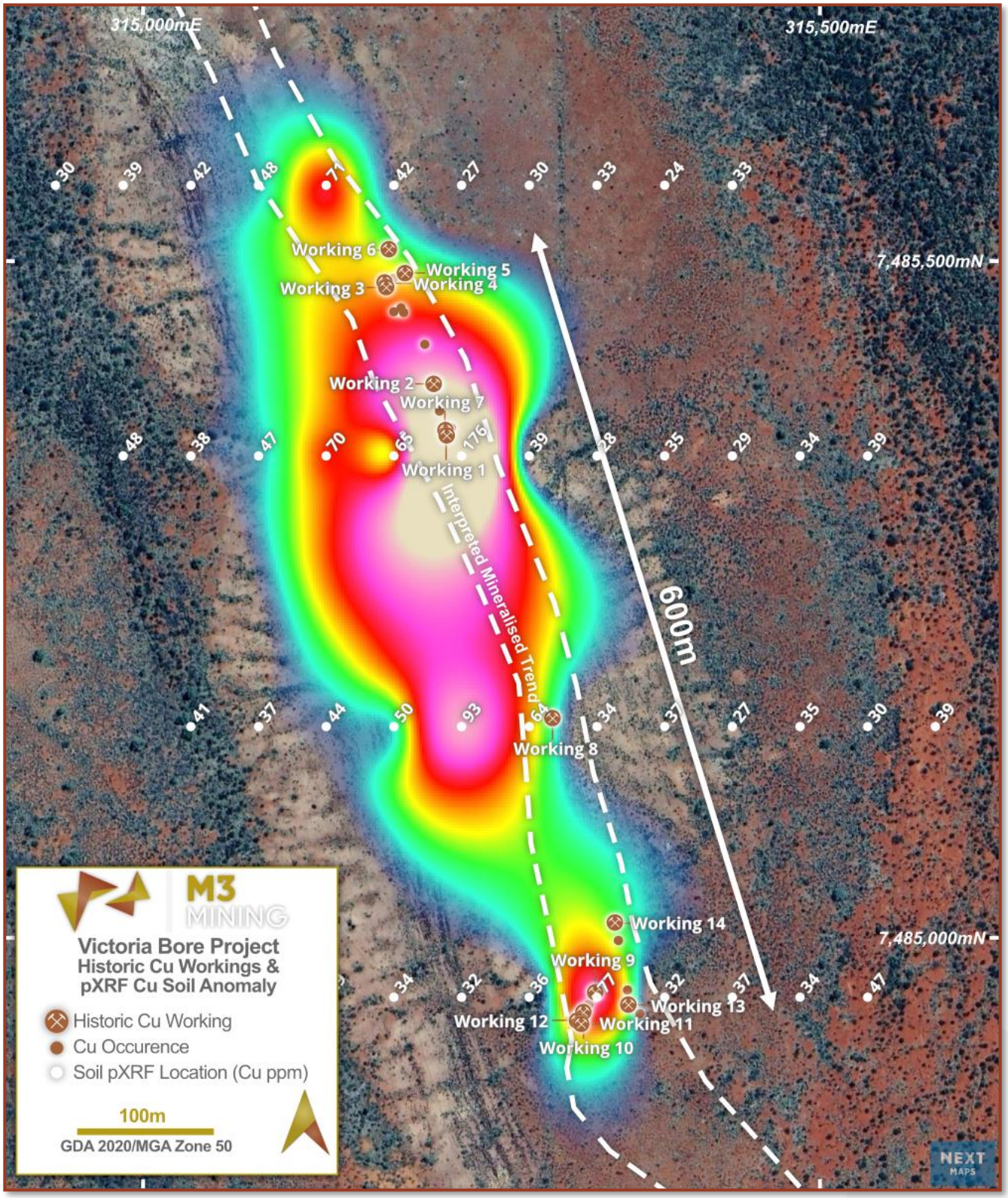


*Figure 4 – Historic Copper Workings and pXRF Copper Soil Anomalism*

## pXRF Soil Sampling

The area assessed is located approximately 3km southeast along strike of the historic Victoria Bore Copper Mine. It is interpreted to be situated on the same limb of Wyloo group metasediments which hosts the historic copper mine. The area consists of variably foliated meta-sedimentary schists, black shale, dolerite and quartz veining, which outcrop at surface.

Sampling consisted of eight lines (in addition to the scout line sampled in 2023[2]) oriented in an east-west direction, samples were collected at 50m spacing (see Figure 4).

It is currently interpreted that this area hosts copper occurrences similar to the historic Victoria Bore Copper Mine (see Figure 5). This is due to the geological similarities and paired copper mineralisation. In addition, the historic Victoria Bore Copper Mine occurs on the eastern border of the Wyloo group metasediments (see Figure 6). All fourteen historic workings occur within this same magnetic setting.

This magnetic trend is yet to be tested to the north and south due to transported cover potentially limiting the effectiveness of surface geochemical sampling. Further investigations will be undertaken to better understand the nature and scale of copper mineralisation surrounding the historic workings and along the remaining untested sections of the magnetic trend.

*Figure 5 – Further Copper Oxide Occurrences at Historic Copper Workings*

[2] See M3M announcement 29/01/2024 "Regional Base Metal Anomalism at Victoria Bore" for further details

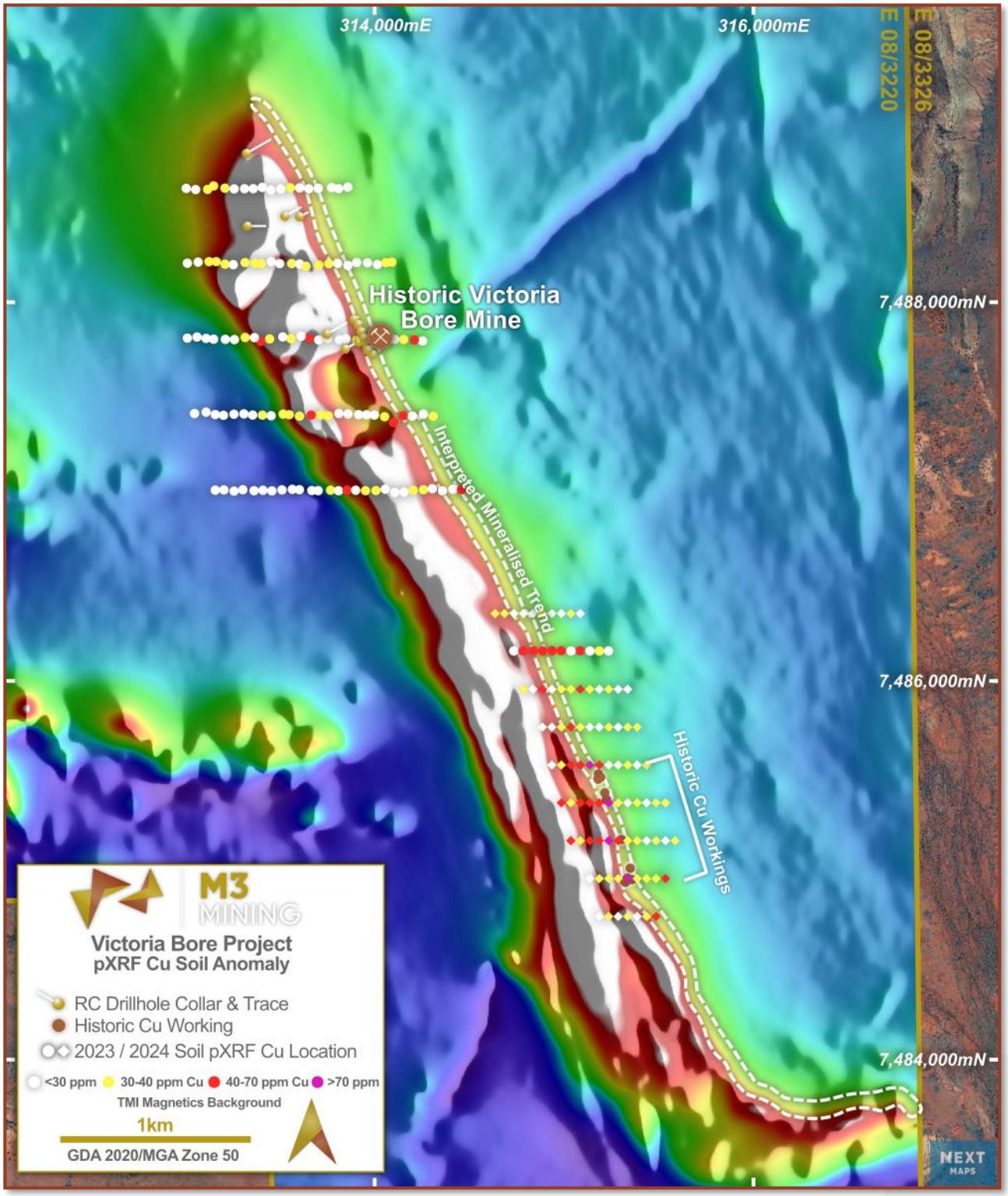


*Figure 6 – Victoria Bore Project Magnetics (Total Magnetic Intensity)*

*Figure 7 – Further Copper Oxide Occurrences at Historic Copper Workings*

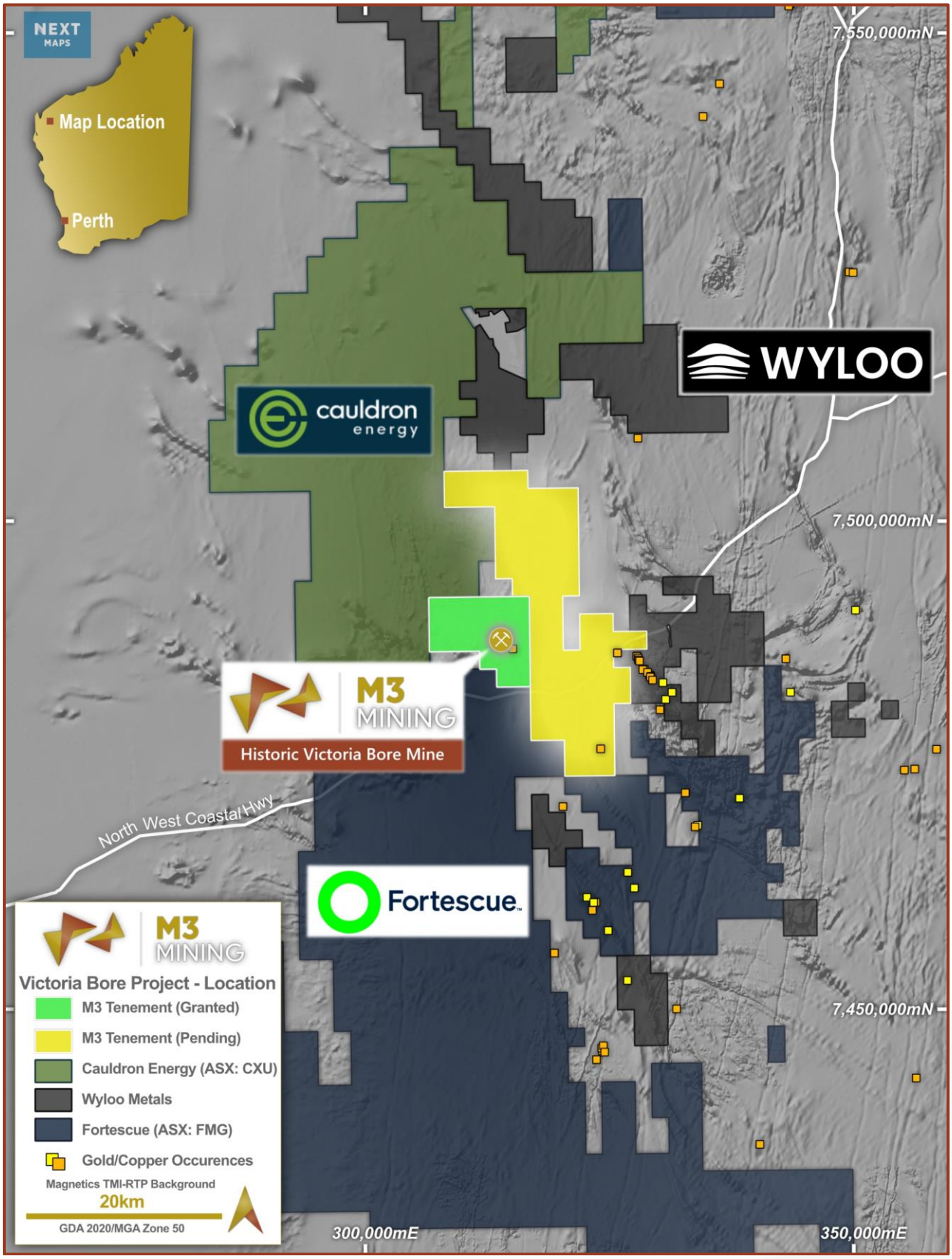


*Figure 8 – The Victoria Bore Project*

**-END-**

This announcement has been authorised for issue by the Board of M3 Mining Limited in accordance with ASX Listing Rule 15.5.

Investors should refer to previously stated announcements for additional details on exploration results and associated competent person statement.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the earlier released announcements.

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## About M3 Mining

M3 Mining Limited (ASX:M3M) is a Perth-based mineral exploration company focused on creating value for shareholders through exploration and development of a high-quality base metal and gold exploration portfolio. M3 Mining's projects are strategically located in regions surrounded by majors and has experienced minimal modern, systematic exploration across both projects. The Company's strategy is to apply a systematic approach to the assessment and prioritisation of its projects, all of which have the potential to produce material discoveries.

The information in this announcement that relates to exploration results is based on and fairly represents information compiled by Jeremy Clark, a competent person who is a member of the AusIMM. Jeremy Clark is the sole director of Lily Valley International Pty. Ltd. Jeremy Clark 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 of Reporting of Exploration Results, Mineral Resources and Ore Reserves. Jeremy Clark consents to the inclusion in this announcement of the matters based on his work in the form and context in which it appears.

# Appendix 1 – pXRF Soil Sampling Information

| Station ID | Easting | Northing | Cu_ppm |
|---|---|---|---|
| 92 | 314,636 | 7,486,358 | 39 |
| 93 | 314,686 | 7,486,358 | 33 |
| 94 | 314,736 | 7,486,358 | 28 |
| 95 | 314,786 | 7,486,358 | 22 |
| 96 | 314,836 | 7,486,358 | 22 |
| 97 | 314,886 | 7,486,358 | 31 |
| 98 | 314,936 | 7,486,358 | 20 |
| 99 | 314,986 | 7,486,358 | 22 |
| 100 | 315,036 | 7,486,358 | 31 |
| 101 | 315,086 | 7,486,358 | 26 |
| 102 | 314,786 | 7,485,958 | 36 |
| 103 | 314,836 | 7,485,958 | 27 |
| 104 | 314,886 | 7,485,958 | 42 |
| 105 | 314,936 | 7,485,958 | 27 |
| 106 | 314,986 | 7,485,958 | 38 |
| 107 | 315,036 | 7,485,958 | 32 |
| 108 | 315,086 | 7,485,958 | 41 |
| 109 | 315,136 | 7,485,958 | 32 |
| 110 | 315,186 | 7,485,958 | 30 |
| 111 | 315,236 | 7,485,958 | 36 |
| 112 | 315,286 | 7,485,958 | 21 |
| 113 | 315,336 | 7,485,958 | 26 |
| 114 | 314,886 | 7,485,758 | 21 |
| 115 | 314,936 | 7,485,758 | 26 |
| 116 | 314,986 | 7,485,758 | 35 |
| 117 | 315,036 | 7,485,758 | 42 |
| 118 | 315,086 | 7,485,758 | 34 |
| 119 | 315,136 | 7,485,758 | 26 |
| 120 | 315,186 | 7,485,758 | 23 |
| 121 | 315,236 | 7,485,758 | 33 |
| 122 | 315,286 | 7,485,758 | 25 |
| 123 | 315,336 | 7,485,758 | 36 |
| 124 | 315,386 | 7,485,758 | 31 |
| 125 | 314,936 | 7,485,558 | 30 |
| 126 | 314,986 | 7,485,558 | 39 |
| 127 | 315,036 | 7,485,558 | 42 |
| 128 | 315,086 | 7,485,558 | 48 |
| 129 | 315,136 | 7,485,558 | 71 |
| 130 | 315,186 | 7,485,558 | 42 |
| 131 | 315,236 | 7,485,558 | 27 |
| 132 | 315,286 | 7,485,558 | 30 |
| 133 | 315,336 | 7,485,558 | 33 |
| 134 | 315,386 | 7,485,558 | 24 |
| 135 | 315,436 | 7,485,558 | 33 |
| 136 | 314,986 | 7,485,358 | 48 |
| 137 | 315,036 | 7,485,358 | 38 |
| 138 | 315,086 | 7,485,358 | 47 |
| 139 | 315,136 | 7,485,358 | 70 |

| Station ID | Easting | Northing | Cu_ppm |
|---|---|---|---|
| 140 | 315,186 | 7,485,358 | 65 |
| 141 | 315,236 | 7,485,358 | 176 |
| 142 | 315,286 | 7,485,358 | 39 |
| 143 | 315,336 | 7,485,358 | 28 |
| 144 | 315,386 | 7,485,358 | 35 |
| 145 | 315,436 | 7,485,358 | 29 |
| 146 | 315,486 | 7,485,358 | 34 |
| 147 | 315,536 | 7,485,358 | 39 |
| 148 | 315,036 | 7,485,158 | 41 |
| 149 | 315,086 | 7,485,158 | 37 |
| 150 | 315,136 | 7,485,158 | 44 |
| 151 | 315,186 | 7,485,158 | 50 |
| 152 | 315,236 | 7,485,158 | 93 |
| 153 | 315,286 | 7,485,158 | 64 |
| 154 | 315,336 | 7,485,158 | 34 |
| 155 | 315,386 | 7,485,158 | 37 |
| 156 | 315,436 | 7,485,158 | 27 |
| 157 | 315,486 | 7,485,158 | 35 |
| 158 | 315,536 | 7,485,158 | 30 |
| 159 | 315,586 | 7,485,158 | 39 |
| 160 | 315,136 | 7,484,958 | 29 |
| 161 | 315,186 | 7,484,958 | 34 |
| 162 | 315,236 | 7,484,958 | 32 |
| 163 | 315,286 | 7,484,958 | 36 |
| 164 | 315,336 | 7,484,958 | 77 |
| 165 | 315,386 | 7,484,958 | 32 |
| 166 | 315,436 | 7,484,958 | 37 |
| 167 | 315,486 | 7,484,958 | 34 |
| 168 | 315,536 | 7,484,958 | 47 |
| 169 | 315,186 | 7,484,758 | 25 |
| 170 | 315,236 | 7,484,758 | 33 |
| 171 | 315,286 | 7,484,758 | 28 |
| 172 | 315,336 | 7,484,758 | 31 |
| 173 | 315,386 | 7,484,758 | 25 |
| 174 | 315,436 | 7,484,758 | 36 |
| 175 | 315,486 | 7,484,758 | 41 |
| VBS235 | 315,236 | 7,486,158 | 24 |
| VBS236 | 315,186 | 7,486,158 | 39 |
| VBS237 | 315,136 | 7,486,158 | 30 |
| VBS238 | 315,086 | 7,486,158 | 41 |
| VBS239 | 315,036 | 7,486,158 | 29 |
| VBS240 | 314,986 | 7,486,158 | 41 |
| VBS241 | 314,936 | 7,486,158 | 63 |
| VBS242 | 314,886 | 7,486,158 | 46 |
| VBS243 | 314,836 | 7,486,158 | 70 |
| VBS244 | 314,786 | 7,486,158 | 43 |
| VBS245 | 314,736 | 7,486,158 | 29 |

***Please refer to pXRF disclaimer on page 3.***

## Appendix 2 – Historic Copper Workings pXRF Information

| Working | pXRF ID | Easting | Northing | Cu_% |
|---|---|---|---|---|
| 1 | pXRF1628 | 315,225 | 7,485,373 | 19.81 |
| 1 | pXRF1629 | 315,225 | 7,485,373 | 11.47 |
| 1 | pXRF1630 | 315,225 | 7,485,373 | 14.47 |
| 2 | pXRF1631 | 315,216 | 7,485,411 | 10.72 |
| 2 | pXRF1632 | 315,216 | 7,485,411 | 9.14 |
| 2 | pXRF1633 | 315,216 | 7,485,411 | 8.82 |
| 3 | pXRF1634 | 315,181 | 7,485,482 | 9.49 |
| 3 | pXRF1635 | 315,181 | 7,485,482 | 20.23 |
| 3 | pXRF1636 | 315,181 | 7,485,482 | 28.00 |
| 4 | pXRF1637 | 315,179 | 7,485,485 | 17.94 |
| 4 | pXRF1638 | 315,179 | 7,485,485 | 44.25 |
| 4 | pXRF1639 | 315,179 | 7,485,485 | 7.05 |
| 5 | pXRF1640 | 315,194 | 7,485,493 | 25.35 |
| 5 | pXRF1641 | 315,194 | 7,485,493 | 18.07 |
| 5 | pXRF1642 | 315,194 | 7,485,493 | 24.40 |
| 6 | pXRF1643 | 315,182 | 7,485,510 | 17.47 |
| 6 | pXRF1644 | 315,182 | 7,485,510 | 15.05 |
| 6 | pXRF1645 | 315,182 | 7,485,510 | 12.13 |
| 7 | pXRF1646 | 315,224 | 7,485,376 | 12.64 |
| 7 | pXRF1647 | 315,224 | 7,485,376 | 18.44 |
| 7 | pXRF1648 | 315,224 | 7,485,376 | 4.13 |

| Working | pXRF ID | Easting | Northing | Cu_% |
|---|---|---|---|---|
| 8 | pXRF1649 | 315,303 | 7,485,164 | 44.51 |
| 8 | pXRF1650 | 315,303 | 7,485,164 | 45.99 |
| 8 | pXRF1651 | 315,303 | 7,485,164 | 43.83 |
| 9 | pXRF1652 | 315,335 | 7,484,961 | 39.59 |
| 9 | pXRF1653 | 315,335 | 7,484,961 | 23.76 |
| 9 | pXRF1654 | 315,335 | 7,484,961 | 27.17 |
| 10 | pXRF1655 | 315,326 | 7,484,947 | 35.73 |
| 10 | pXRF1656 | 315,326 | 7,484,947 | 6.51 |
| 10 | pXRF1657 | 315,326 | 7,484,947 | 53.93 |
| 11 | pXRF1658 | 315,325 | 7,484,938 | 18.09 |
| 11 | pXRF1659 | 315,325 | 7,484,938 | 6.23 |
| 11 | pXRF1660 | 315,325 | 7,484,938 | 4.47 |
| 12 | pXRF1661 | 315,321 | 7,484,940 | 36.31 |
| 12 | pXRF1662 | 315,321 | 7,484,940 | 24.88 |
| 12 | pXRF1663 | 315,321 | 7,484,940 | 6.51 |
| 13 | pXRF1664 | 315,359 | 7,484,952 | 13.97 |
| 13 | pXRF1665 | 315,359 | 7,484,952 | 9.03 |
| 13 | pXRF1666 | 315,359 | 7,484,952 | 8.85 |
| 14 | pXRF1667 | 315,350 | 7,485,012 | 8.83 |
| 14 | pXRF1668 | 315,350 | 7,485,012 | 12.20 |
| 14 | pXRF1669 | 315,350 | 7,485,012 | 8.48 |

*The above pXRF readings were undertaken to confirm the presence of copper oxide minerals. As mentioned in the pXRF disclaimer on page 3, the readings should be treated as relative rather than absolute. Three scans were completed on differing rock chips from each historic working site. Each scan was positioned to test copper oxide minerals and the results are NOT indicative of whole rock geochemistry. pXRF analysis can only detect the elemental composition of a very small area (approximately 20mm x 20mm) and penetration past the sensor is limited to 10mm. These factors lead to the variability of the readings seen above. Each rock chip has a highly heterogenous mineral composition and texture, and the scanning surface is highly variable. These readings are NOT indicative of the ore grade at each working, they are purely for copper oxide mineral discrimination.*

# Appendix 3 – JORC Table

## JORC Code, 2012 Edition – Table 1 report – pXRF Soil Sampling

### Section 1 Sampling Techniques and Data

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

| Criteria | Commentary |
|---|---|
| *Sampling techniques* | • pXRF Soil sampling – Dry samples were collected from a depth between 5 - 40cm below surface and sieved in the field to -0.4mm (40 mesh)<br>• This material was then scanned using a Vanta Series-M pXRF. Exposure time was set to 10 seconds per beam for a total scan time of 30 seconds per sample<br>• The pXRF soil sampling techniques are considered standard industry practice |
| *Drilling techniques* | • No drilling results reported, refer to sampling techniques section above |
| *Drill sample recovery* | • No drilling results reported, sample recovery from pXRF soil sampling is considered complete recovery. Practices to avoid surface contamination were adhered to |
| *Logging* | • Soil sample sites are described noting landform and nature of soil media<br>• Soil sample descriptions are considered qualitative in nature |
| *Sub-sampling techniques and sample preparation* | • pXRF readings were taken on the sub 0.4mm fraction of the original dry soil sample<br>• No drilling results are being reported<br>• Based on the information provided sample sizes are considered appropriate to correctly represent interpreted anomalism given the status of the projects and allow an assessment of exploration potential<br>• Industry Standard QAQC was utilised included standard, duplicates and blanks |
| *Quality of assay data and laboratory tests* | • Handheld pXRF readings reported<br>• Vanta Series-M with read times of 30 seconds (10, 10, 10 seconds per the three beams). Instrument calibrated at start<br>• Routine 'standard' (mineralised pulp) Certified Reference Material (CRM) was analysed by M3. Routine 'blank' material was also analysed. No significant issues were noted<br>• Handheld Geochemical analysis by handheld XRF should be considered as a preliminary indication only and subject to confirmation by laboratory assay<br>• Results from pXRF analysis can vary significantly from laboratory assay |
| *Verification of sampling and assaying* | • pXRF is used as a preliminary analysis to identify samples with anomalous elements of interest<br>• Duplicate analysis was undertaken on samples with elevated copper to ensure device consistency. No significant issues were noted<br>• Several samples in previous programs have been dispatched to independent laboratories for an assessment. The results from this orientation survey confirm that pXRF analysis is suitable for identifying preliminary mineral anomalies |
| *Location of data points* | • Sample locations were collected using a handheld GPS and are considered acceptable for the nature of this program<br>• Sample locations are recorded with a handheld Garmin GPS (+/- 3m)<br>• GPS coordinates for each station was undertaken using the standard inbuilt GPS systems grid system – WGS84 UTM Zone 51 |
| *Data spacing and distribution* | • Soil samples – 50m sample spacing along lines, with lines spaced 200m<br>• The spacing and location of the sampling in the projects is, by the nature of early exploration, variable.<br>• The spacing and location of data is currently only being considered for exploration purposes. |
| *Orientation of data in relation to geological structure* | • Limited drilling has been completed to confirm the optimal sampling orientation. Exploration Results are reported, and no estimate is completed as further works are required |
| *Sample security* | • M3 staff and contractors ensured a strict chain of custody procedures that are adhered to for all samples |
| *Audits or reviews* | • M3's review is independent of the Company and all previous owners |

## Section 2 Reporting of Exploration Results

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

| Criteria | Commentary |
|---|---|
| *Mineral tenement and land tenure status* | • The Victoria Bore Copper Project consists of one exploration license and seven exploration licence applications<br>• No joint venture or royalties are understood to impact the tenements.<br>• No known impediments are understood to occur to allow further exploration |
| *Exploration done by other parties* | • Limited exploration has been completed, historical rock chip sampling as well as a MLEM and FLEM was completed along with two RC programs as released previously<br>• A tenement wide airborne geophysical survey has been undertaken by M3<br>• Exploration is considered to be at an early stage across all tenements |
| *Geology* | • The data supplied indicates mineralisation within the tenements is potentially in line with the commonly observed shear hosted, structurally control mineralisation style. Limited understanding of the mineralisation occurs to date |
| *Drill hole Information* | • No drilling undertaken, refer to section 1 above for pXRF soil sampling methodology |
| *Data aggregation methods* | • No drilling undertaken; on samples where duplicate scans were performed, an average of the readings has been used |
| *Relationship between mineralisation widths and intercept widths* | • No drilling undertaken, all reported geochemical anomalies are present in the surficial regolith. No widths of intercepts have been reported. Trends that are inferred between sampling stations are just interpretations and require further field work to be confirmed |
| *Diagrams* | • Suitable figures have been included in the body of the announcement |
| *Balanced reporting* | • Key results and conclusions have been included in the body of the announcement |
| *Other substantive exploration data* | • Historical rock sampling and drilling data mentioned in the release can be found in previous releases and detailed in the Independent Geologist Report in the prospectus |
| *Further work* | • Follow up field work is planned |