



## MT CHALMERS

### Highlights

25th July 2022



Assay results from a further ten RC holes drilled in June have now been received;



Results include further wide high-grade intersections of up to 17.3% Copper Equivalent (CuEq);



Significant intersections include:<sup>1</sup>

- **37m @ 2.90% CuEq** from 118 metres;
  - including **4m @ 17.3% CuEq** from 145 metres;
- **25m @ 1.65% CuEq** from 81 metres;
  - including **3m @ 7.3% CuEq**;
- **21m @ 1.38% CuEq** from 79 metres;
  - including **7m @ 3.3% CuEq**;
- **14m @ 1.94% CuEq** from 76 metres;
  - including **5m @ 3.98 % CuEq** from 79 metres;



Downhole EM survey data capture now complete with further priority targets identified;



Drilling continues at Mt Chalmers with further results expected shortly; and



**Recent results bode well for third resource upgrade expected in H2-2022.**

<sup>1</sup> Individual grades presented in table 2.

## Overview

QMiners Limited (**ASX:QML**) (**QMiners** or **Company**) is pleased to provide the following results from the ongoing RC drilling program at its flagship Mt Chalmers copper and gold project, located 17km north-east of Rockhampton, Queensland (Figure 1).

Further high-grade copper equivalent (CuEq) results were received from the ten most recent RC drill holes (MCRC021-MCRC030) reported from the June - July drilling program. Peak grades of **17.28% CuEq** (MCRC029) and **7.25% CuEq** (MCRC023) were returned. Base and precious metal grades from the significant intercepts of the June - July drilling program are presented in Table 2.

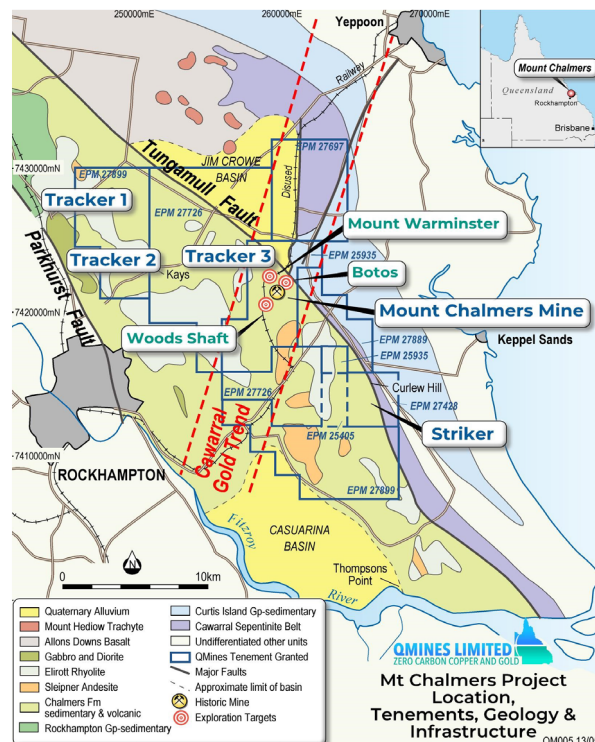


Figure 1: Mt Chalmers Project, tenure, geology and infrastructure.

## Management Comment

QMiners Executive Chairman, Andrew Sparke, comments:

“We are very pleased with recent drilling results. They show that Mt Chalmers is continuing to grow in scale. The RC rig is now moving to the southern end of the Mt Chalmers deposit to test for further extensions.

These continued high-grade, shallow and wide intersections bode well for the Company's third resource upgrade expected in 2H-2022.”

RC drilling operations continue at Mt Chalmers with the Company completing a further two RC holes for 450 metres since returning to site. Multiple drill pads have also been prepared at the southern end of the Mt Chalmers West Pit in preparation for resource extension drilling to the south. The holes drilled to date can be seen in Figure 2 and represent the continuation of the RC drilling program. Planned holes and holes completed from the June-July drilling programs are summarised in Table 1. Completed and planned drill hole locations are shown in Figure 2. Significant results from this recent Mt Chalmers drilling program are shown in Table 2.

| PROJECT      | DRILLING TYPE | HOLES     | METERS       | TENEMENT  | STATUS                |
|--------------|---------------|-----------|--------------|-----------|-----------------------|
| Mt Chalmers  | RC            | 10        | 1,425        | EPM 25935 | Completed             |
| Mt Chalmers  | RC            | 2         | 450          | EPM 25935 | <b>Assays Pending</b> |
| Mt Chalmers  | RC            | 18        | 2,400        | EPM 25936 | Planned               |
| <b>TOTAL</b> |               | <b>30</b> | <b>4,275</b> |           |                       |

Table 1: Total RC holes drilled and planned at Mt Chalmers June - July 2022.



RC holes MCRC021 – MCRC027 were drilled along the western side of both the Main Pit and the West Pit and have closed off the mineralisation on this side of the project. Holes MCRC028 – MCRC032 were drilled to the north of the Main Pit where mineralisation remains open. Results for holes MCRC021 – MCRC030 have been received and have returned high-grade results over broad intervals including **37m @ 2.9% CuEq** in MCRC029 and **25m @ 1.65% CuEq** in MCRC023.

The Mt Chalmers drilling program will continue throughout 2022 with results expected to be announced on a regular basis throughout the remainder of the year.

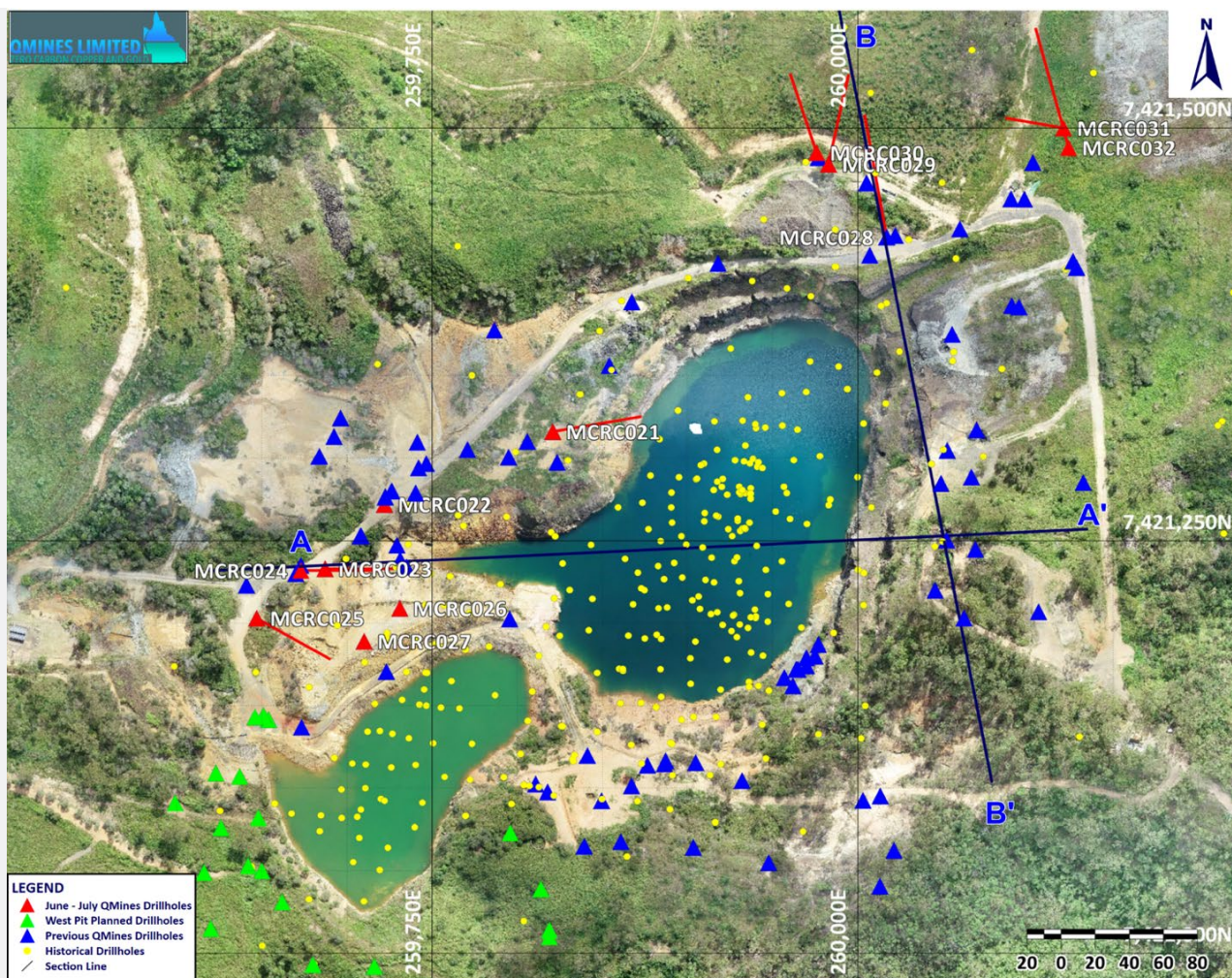


Figure 2: June-July 2022 RC drill hole collar locations with Sections AA' and BB'.

The aim of the ongoing drill program is to expand (step-out) and upgrade the resource by infilling areas of low confidence. Mineralisation intersected in some holes is broader than expected, based on historic drilling. In addition to broader zones of mineralisation, stacked mineralisation horizons have been noted. The Company has focussed drilling at the northern end of the project and will move the RC rig to the south end of the West Pit this month, where mineralisation also remains open. Drilling this period will focus at the southern end of the West Pit with planned holes shown in Figure 2.

The Company has completed 10,581 meters of drilling (4,679 meters of RC and 5,902 meters of diamond) to date at Mt Chalmers. The increased drill density, together with deeper drilling, is delivering a more detailed geological and structural interpretation for the Mt Chalmers project. The Company is drilling grouped holes from various prepared drill pads due to terrain and access.

Examples of the recent mineralised intersections from the drilling program can be seen in Sections AA' and BB' (Figures 3-4), with multiple holes intersecting high-grade mineralisation.



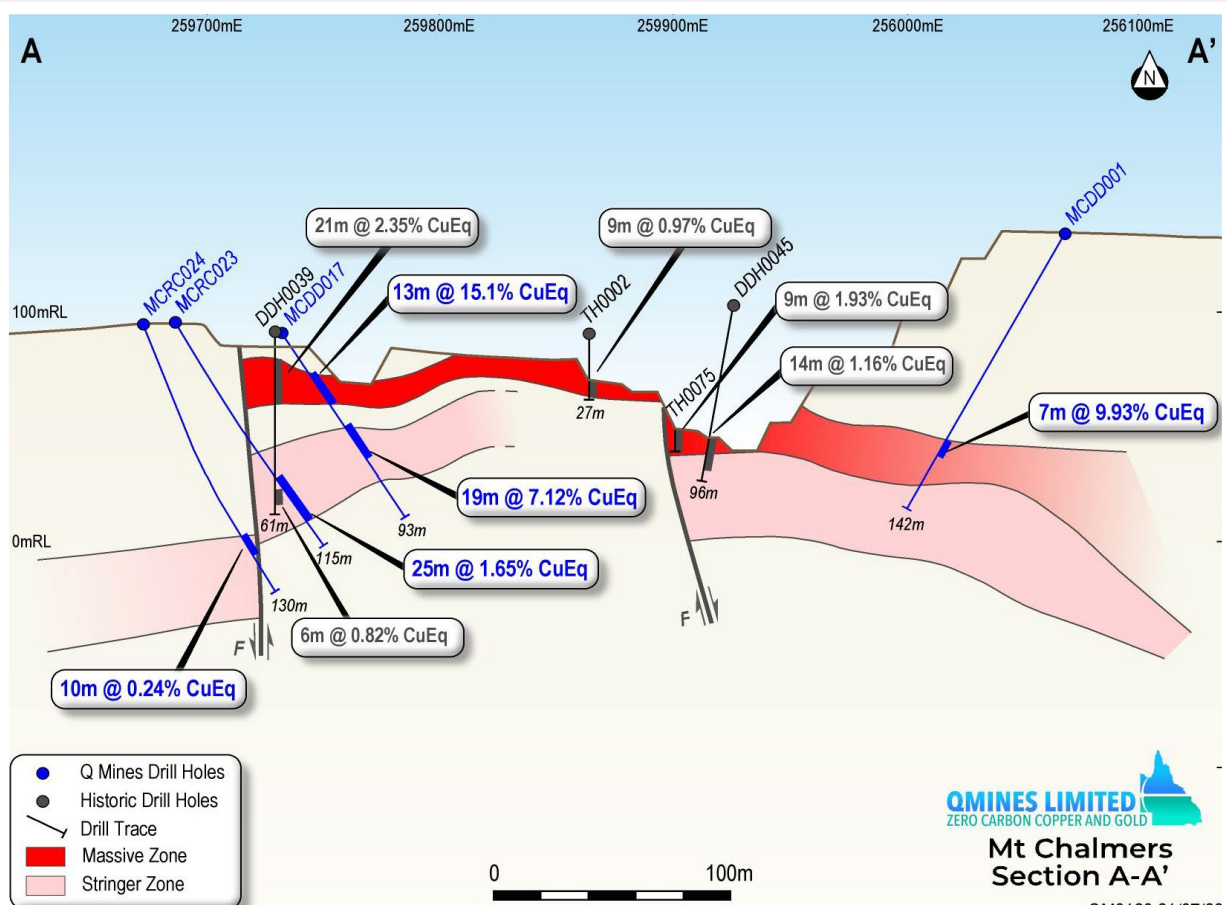


Figure 3: Section AA' (looking N) mineralised intersections with interpreted geology (section window  $\pm 7$  m).

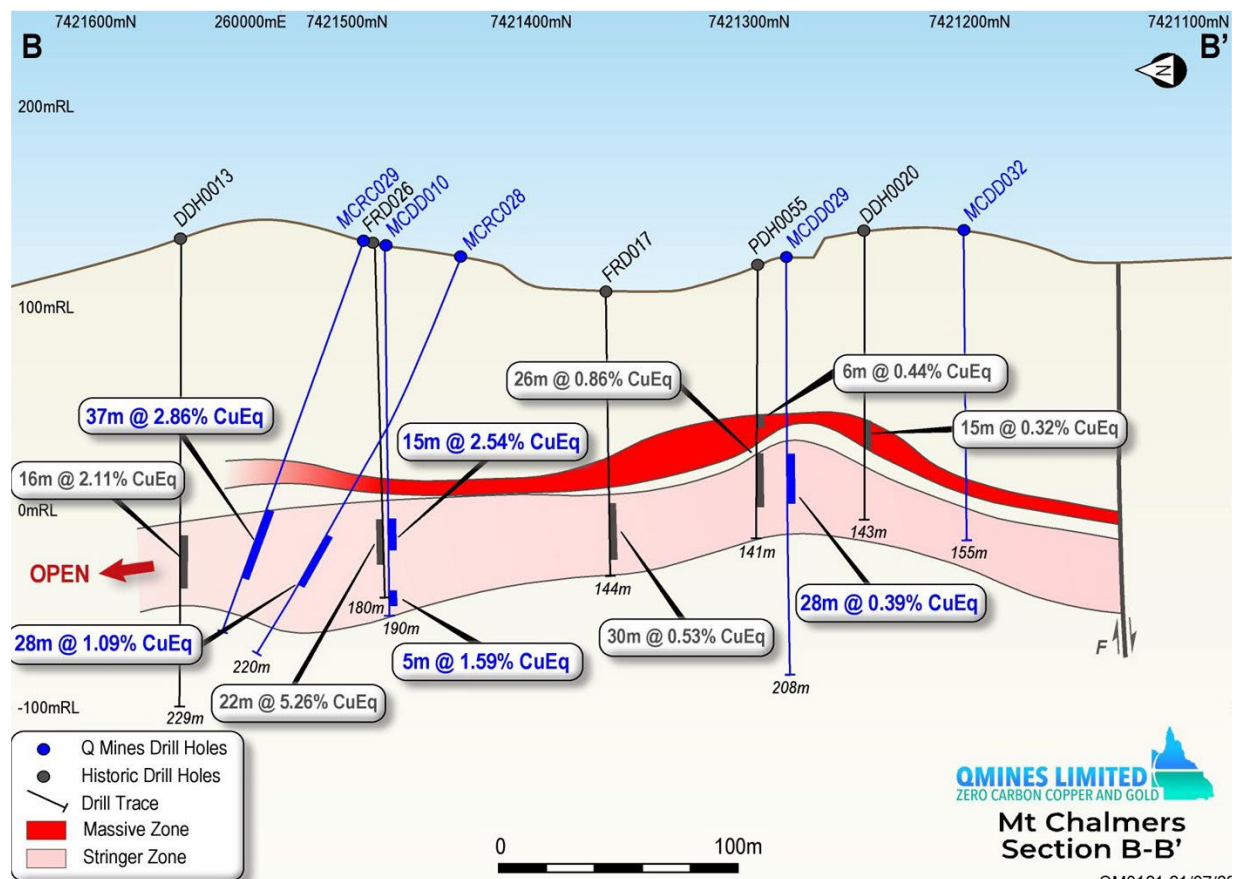


Figure 4: Section BB' (looking WSW) mineralised intersections with interpreted geology (section window  $\pm 7$  m).

## Downhole Electromagnetic Survey

In June, the Company commissioned Mitre Geophysics Pty Ltd to complete a downhole electromagnetic (**DHEM**) orientation survey to better understand the electromagnetic (**EM**) response of the Mt Chalmers mineralisation. The results of the downhole orientation survey are to be used to design a more extensive airborne EM survey over a large part of the Mt Chalmers tenement package.

Drillholes MCRC009 and MCDD005 were used as the first survey holes. The results from the downhole EM are not fully understood. The outcome of the survey showed a weak response returned from the mineralised intersections in the surveyed holes.

**However, a strong off-hole response from drillhole MCRC009** was returned (Figures 5, 6 and 7). Modelling of the response proved difficult and some unusual artifacts were noted in the data (however the quality of the raw data was deemed to be good).

As a result of the DHEM survey results, the Company has reviewed historical drillhole data adjacent to the MCRC009 off-hole response and can confirm four historical holes intersected significant copper mineralisation in stringer zones including DDH0014 intersected **22.6m @ 2.05% Cu**, DDH0013 intersected **15.8m @ 2.05% Cu**, DDH0012 intersected **22m @ 1.49% Cu** and DDH0009 which intersected **22m @ 1.02% Cu**.

To confirm the veracity of the response and the suitability of EM as an effective exploration tool at Mt Chalmers, the Company plans to target the off-hole response with an angled RC hole, and if required complete an additional downhole EM survey. Airborne EM may prove to be a rapid assessment and targeting tool over the wider Mt Chalmers project, assisting in targeting the large Cu and Zn in soil anomalies at Tracker 1, 2 and 3<sup>1</sup>.

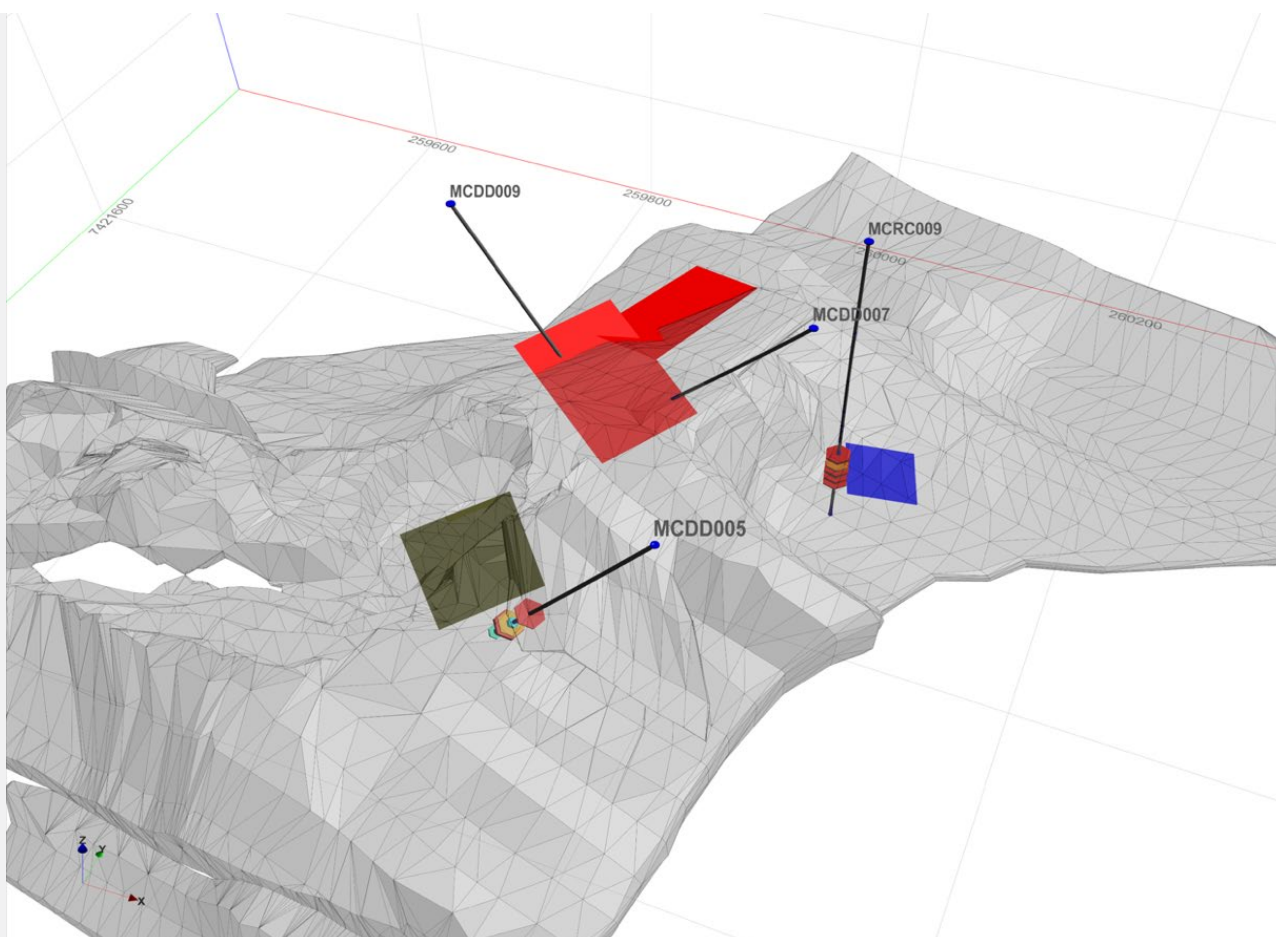
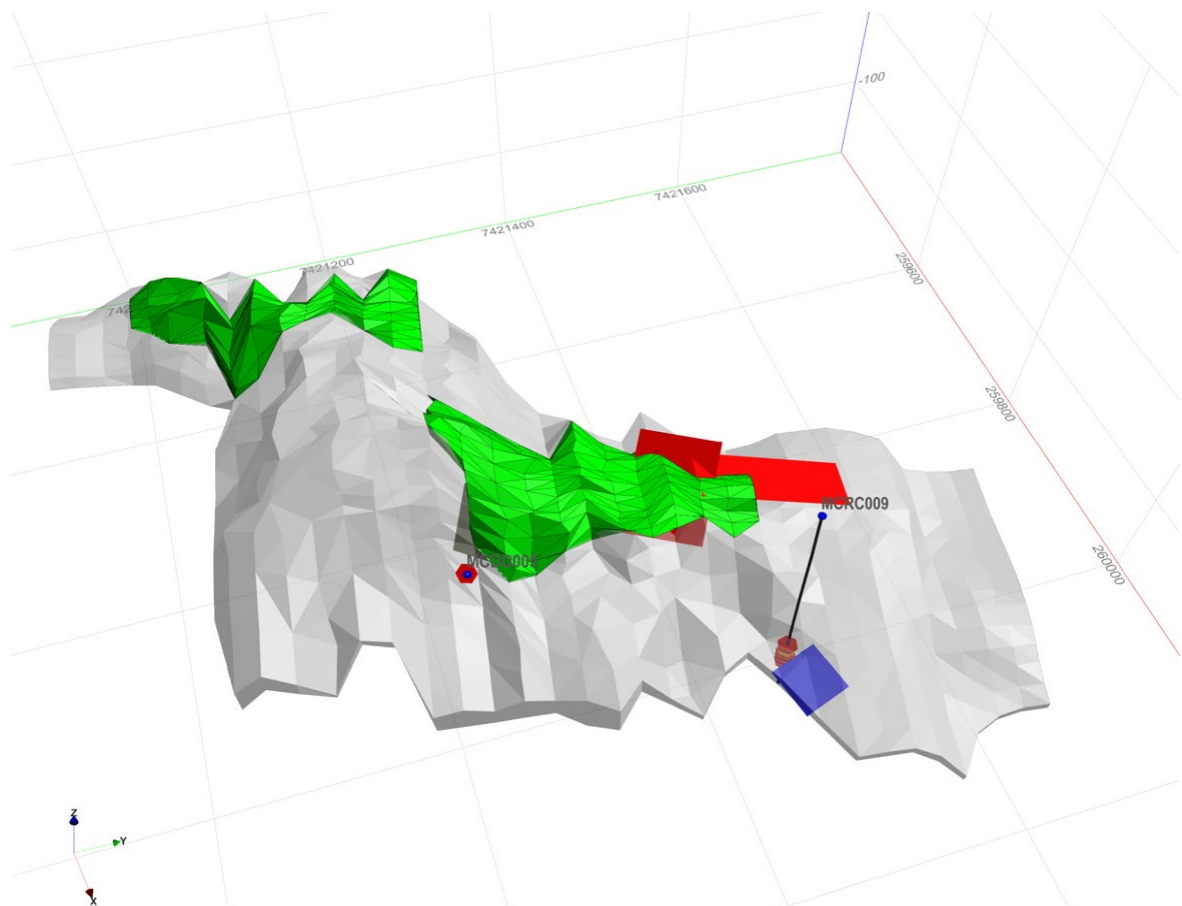
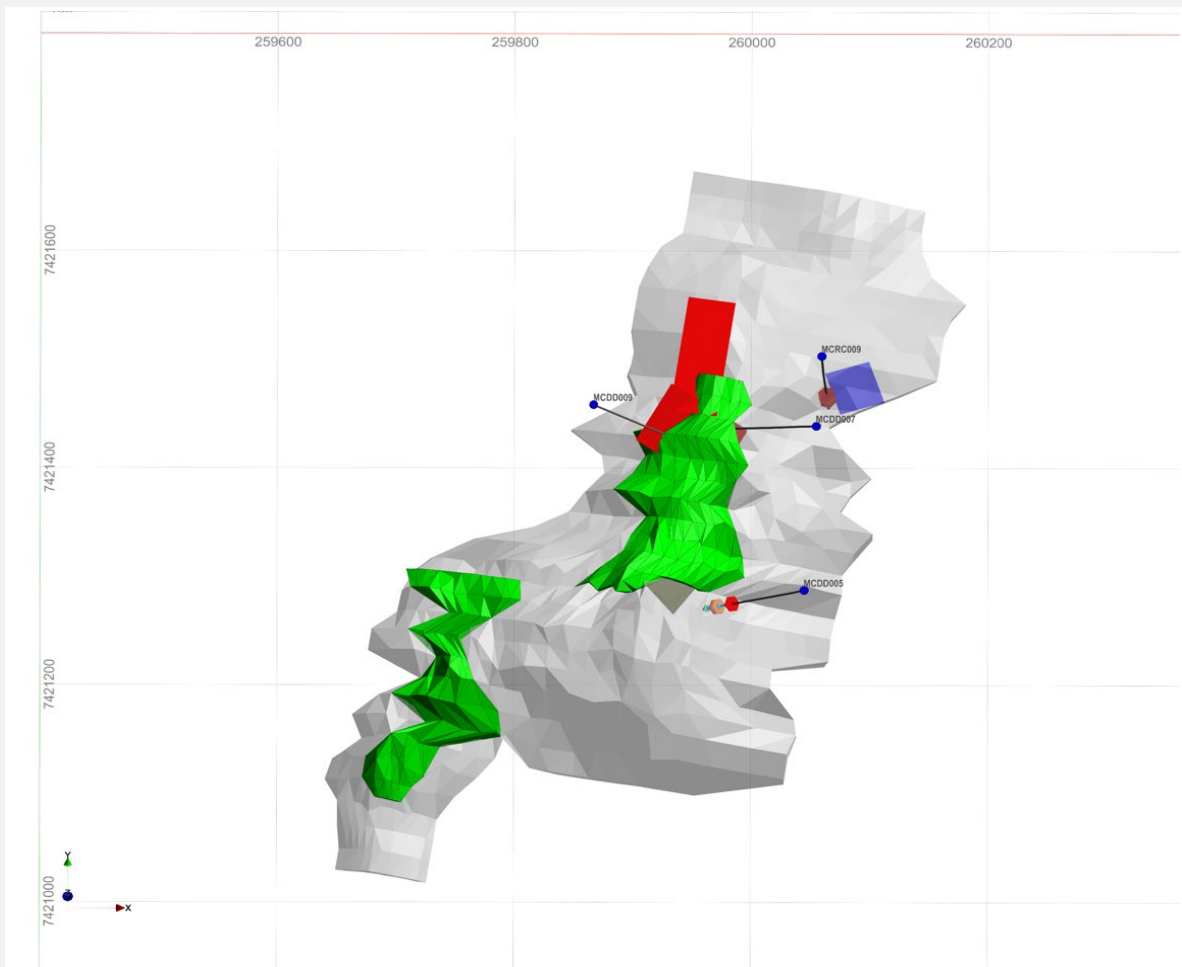


Figure 5: DHEM anomalies, with anomaly MCRC009\_500S shown in Red, Looking NW.

<sup>1</sup> ASX Announcement – [Mt Chalmers Look-a-Likes Confirms Large Scale Potential](#), 3 August 2021.



Figures 6-7: Mt Chalmers wireframe with massive sulphide and stringer ore zones and DHEM anomaly.



## Discussion

Historical drilling is largely confined to the existing Mt Chalmers mine and immediate surrounds. Recent drilling, interpretation and modelling has confirmed block faulting and the structural dislocation of mineralisation within the mine area. Late-stage faulting and uplift, probably by upward migration of the footwall rhyolite dome, has created a central horst block which includes the West Pit and part of the Main Pit areas (Figure 8).

Downfaulting along the Southern Fault appear to have displaced mineralisation to the south by approximately 40m. Downfaulting of the west side of the Western Fault by approximately 50m coincides with a rapid increase in base metal sulphides to the east, suggesting that this fault may have also acted as an earlier conduit for mineralisation prior to reactivation during doming. The Main Fault is also likely to have been long-lived, with the sulphide stringer zone (**SSZ**) developed to the northeast but absent across this fault to the southwest. Younger volcanoclastics of the Chalmers Formation drape this faulted lower topography, supporting a syngenetic to early epigenetic timing. As part of this geological modelling, domaining of the massive sulphide / exhalate mineralised horizon and the sulphide stringer zone has allowed for improved metallurgical zoning for the next resource update.

The geometry of the Mt Chalmers ore body indicates a relatively flat lying asymmetrical massive sulphide mound (Figure 8) with both historical and recent drilling results intersecting higher grade Cu-Au massive sulphides proximal to the centre of the deposit and high grade Pb, Zn, Ag in the massive sulphide and exhalate ore body distal from the centre of the orebody. Similar metal zoning has also been observed in the stringer/disseminated zone beneath the Massive Sulphide Ore Body where Cu-Au grades are typically higher in the centre and Pb, Zn, Ag grades typically higher distally and at greater depths.

A structural study of drillcore from holes drilled in early 2022 has found that the SSZ is comprised of anastomosing and multidirectional sulphide veins, often present as breccia cement, with no clearly defined structural orientation. This is more typical of boiling zone architecture. Stringer sulphides are more highly concentrated at the top of the SSZ where they directly underlie the massive sulphide horizon. These findings suggest the massive sulphide horizon has at least in part resulted from the combined surface output of this widespread boiling zone and possibly more so than a single feeder pipe.

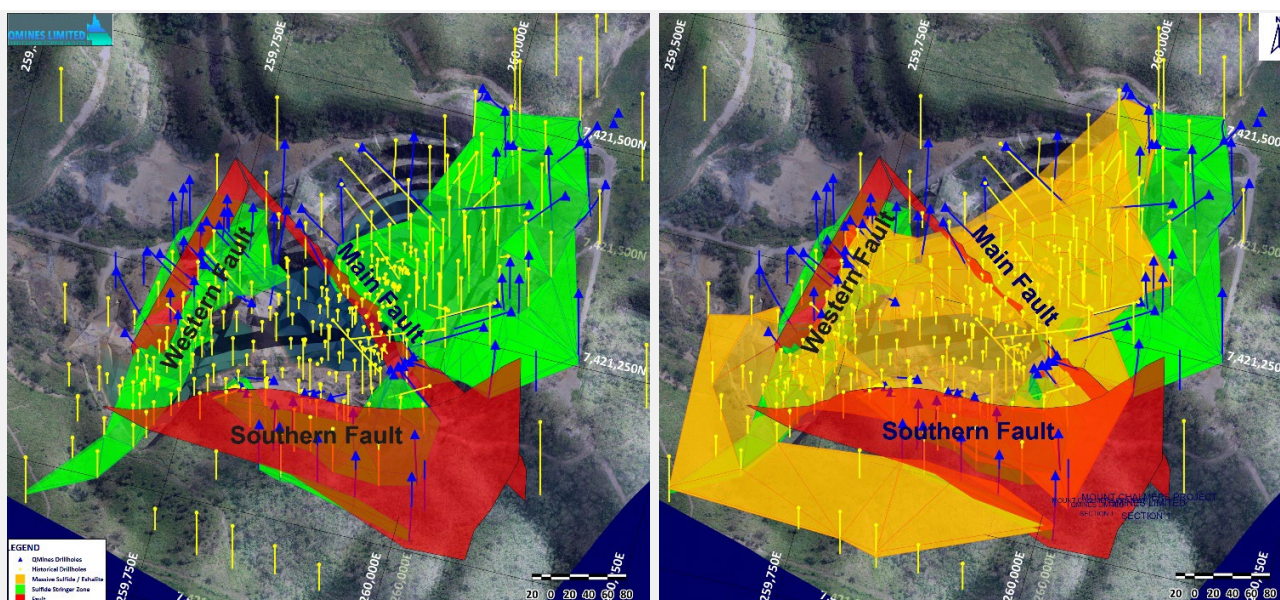


Figure 8: Geological Model of the Mt Chalmers Resource. Sulphide Stringer Zone to left, Massive Sulphide overlay to right, Looking N.W

## Ongoing Exploration Activity



Ongoing drill programs for the planned +30,000m of RC and Diamond drilling;



Drilling to commence at the Woods Shaft prospect, the first of three Exploration Targets (JORC 2012);



Follow-up Downhole Electromagnetic survey to provide better confidence for planned airborne survey;



Ongoing geological interpretation and modelling including regional prospects; and



**Third resource upgrade planned to be released in CY-2022.**

## Copper Equivalent Calculations

All Copper Equivalent (CuEq) figures included in this announcement are calculated based on the following formula:

$$\text{CuEq(\%)} = (\text{Cu grade} \times \text{Cu recovery}) + ((\text{Pb grade} \times \text{Pb recovery} \times \text{Pb price}) / \text{Cu Price}) + (\text{Zn grade} \times \text{Zn price} \times \text{Zn recovery}) / \text{Cu price} + ((\text{Au grade} \times \text{Au price} \times \text{Au recovery}) / \text{Cu price}) + ((\text{Ag grade} \times \text{Ag price} \times \text{Ag recovery}) / \text{Cu price})$$

All grades are converted to % and prices converted to \$/T prior to calculating CuEq.

Commodity price used: Au price of US\$1,900/oz, Ag price of US\$25/oz, Cu price of US\$6,655/t, Pb price of US\$2,450/t, and Zn price of US\$3,450/t.

The following metallurgical recoveries have been applied: 87% Au, 70.5% Ag, 97.0% Cu, 85.0% Pb and 77.0% Zn.

It is the company's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold. CuEq with all results for base and precious metals that make up the CuEq also shown. The CuEq Formula uses the same Metal Price Assumptions and Metallurgical Recovery Grades used in the Company's recent resource upgrade delivered to the market in December 2021<sup>1</sup>.

## Forward-Looking Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning QMines Limited planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "expect," "intend," "may", "potential," "should," and similar expressions are forward-looking statements. Although QMines believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that further exploration will result in the estimation of a Mineral Resource or a larger Mineral Resource.

## Competent Person Statement Exploration

The information in this document that relates to mineral exploration and exploration targets is based on work compiled under the supervision of Mr Glenn Whalan, a member of the Australian Institute of Geoscientists (AIG). Mr Whalan is QMines' principal geologist and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that 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' (JORC 2012 Mineral Code). Mr Whalan consents to the inclusion in this document of the exploration information in the form and context in which it appears.

<sup>1</sup> ASX Announcement - [Mt Chalmers Resource Upgrade](#), 1 December 2021.



# Significant Intercepts

| Hole ID   | MGA East* | MGA North* | mRL   | Dip | MGA Azi* | Max Depth | M from         | M to | Int (m) | Cu (%) | Au (g/t) | Ag (g/t) | Pb (%) | Zn (%) | CuEq (%) |
|-----------|-----------|------------|-------|-----|----------|-----------|----------------|------|---------|--------|----------|----------|--------|--------|----------|
| MCRC021   | 259821    | 7421316    | 103   | -65 | 80       | 125       | 79             | 100  | 14      | 0.12   | 1.31     | 36.3     | 0.54   | 0.74   | 1.94     |
| including |           |            |       |     |          |           | 79             | 86   | 5       | 0.3    | 2.45     | 85.7     | 1.3    | 1.5    | 3.98     |
| MCRC022   | 259722    | 7421272    | 98    | -90 | 360      | 125       | 90             | 92   | 2       | 0.92   | 1.21     | 1        | NSR    | NSR    | 1.87     |
| and       |           |            |       |     |          |           | 104            | 106  | 2       | 1.68   | 0.12     | 1        | NSR    | NSR    | 1.73     |
| MCRC023   | 259687    | 7421233    | 95    | -65 | 90       | 115       | 81             | 106  | 25      | 0.5    | 1.45     | 1        | NSR    | NSR    | 1.65     |
| including |           |            |       |     |          |           | 95             | 97   | 2       | 1.02   | 3        | 1        | NSR    | NSR    | 3.39     |
| including |           |            |       |     |          |           | 100            | 103  | 3       | 0.9    | 7.96     | 2.4      | NSR    | NSR    | 7.25     |
| MCRC024   | 259673    | 7421235    | 95    | -70 | 90       | 130       | 102            | 112  | 10      | 0.25   | NSR      | NSR      | NSR    | NSR    | 0.24     |
| MCRC025   | 259647    | 7421203    | 93    | -60 | 120      | 100       | 74             | 76   | 2       | 0.65   | 0.4      | 11       | NSR    | NSR    | 1.04     |
| MCRC026   | 259731    | 7421209    | 103   | -90 | 360      | 110       | 1              | 33   | 33      | 0.23   | 0.64     | 8        | 0.23   | 0.27   | 0.98     |
| and       |           |            |       |     |          |           | 40             | 56   | 16      | 0.66   | 0.43     | 2.5      | 0.2    | 0.41   | 1.23     |
| and       |           |            |       |     |          |           | 78             | 82   | 4       | 0.56   | 0.1      | 1        | NSR    | NSR    | 0.63     |
| MCRC027   | 259710    | 7421189    | 103   | -90 | 360      | 85        | 1              | 24   | 24      | 0.24   | 0.75     | 9.3      | 0.19   | 0.2    | 1.05     |
| and       |           |            |       |     |          |           | 73             | 74   | 1       | 1.34   | 0.13     | 2.7      | NSR    | NSR    | 1.43     |
| MCRC028   | 260017    | 7421434    | 124   | -70 | 350      | 220       | 149            | 177  | 28      | 0.74   | 0.45     | 1        | NSR    | NSR    | 1.09     |
| including |           |            |       |     |          |           | 158            | 165  | 7       | 1.45   | 1.3      | 2        | NSR    | NSR    | 2.46     |
| and       |           |            |       |     |          |           | 196            | 198  | 2       | 0.97   | 0.1      | 2        | NSR    | NSR    | 1.04     |
| MCRC029   | 259975    | 7421474    | 137.1 | -75 | 5        | 220       | 118            | 125  | 7       | 1.18   | 0.28     | 28.4     | 0.67   | 1.94   | 2.59     |
| and       |           |            |       |     |          |           | 144            | 181  | 37      | 2.76   | 0.2      | 2.6      | NSR    | NSR    | 2.86     |
| including |           |            |       |     |          |           | 144            | 153  | 9       | 8.06   | 0.52     | 6.9      | NSR    | NSR    | 8.29     |
| including |           |            |       |     |          |           | 145            | 149  | 4       | 17     | 0.86     | 12.4     | NSR    | NSR    | 17.28    |
| MCRC030   | 259970    | 7421474    | 137.1 | -75 | 340      | 195       | 143            | 148  | 4       | 0.33   | 0.63     | 15.6     | 0.37   | 1.47   | 1.66     |
| MCRC031   | 260121    | 7421500    | 121.7 | -80 | 280      | 210       | Assays Pending |      |         |        |          |          |        |        |          |
| MCRC032   | 260124    | 7421488    | 121.7 | -70 | 345      | 240       | Assays Pending |      |         |        |          |          |        |        |          |

Table 2: Significant intercepts, Mt Chalmers RC drilling program July 2022\*

## \*Note GDA94, MGA94 Zone 56

- In reported exploration results, length weighted averages are used for any non-uniform intersection sample lengths. Length weighted average equals (sum product of interval x corresponding interval assay grade), divided by sum of interval lengths and rounded to two decimal places.
- No top cuts have been considered in reporting of grade results, nor was it deemed necessary for the reporting of significant intersections.
- NSR** = No Significant Result

\*\* Intercept widths reported from vertical drill holes represent the approximate true width of mineralisation.

\*\* Intercept widths reported from ~60-degree dip holes represent approximately 87% true width of mineralisation.

## About QMines

QMines Limited (**ASX:QML**) is a Queensland based copper and gold exploration and development company. The Company owns 100% of four advanced projects covering a total area of 1,096km<sup>2</sup>. The Company's flagship project, Mt Chalmers, is located 17km North East of Rockhampton.

Mt Chalmers is a high-grade historic mine that produced 1.2Mt @ 2.0% Cu, 3.6g/t Au and 19g/t Ag between 1898-1982. Mt Chalmers has a Measured, Indicated and Inferred Resource (JORC 2012) of 5.8Mt @ 1.7% CuEq for 101,000t CuEq<sup>1</sup>.

QMines' objective is to grow its Resource base, consolidate assets in the region and assess commercialisation options. The Company has commenced an aggressive exploration program (+30,000m) providing shareholders with significant leverage to a growing Resource and exploration success.

## Projects & Ownership

Mt Chalmers (100%)

Silverwood (100%)

Warroo (100%)

Herries Range (100%)

## QMines Limited

ACN 643 212 104

## Directors & Management

### ANDREW SPARKE

Executive Chairman

### ELISSA HANSEN (Independent)

Non-Executive Director & Company Secretary

### PETER CARISTO (Independent)

Non-Executive Director (Technical)

### JAMES ANDERSON

General Manager Operations

### GLENN WHALAN

Exploration Geologist  
(Competent Person – Exploration)

## Shares on Issue

113,672,748

## Unlisted Options

4,200,000 (\$0.375 strike, 3 year term)

## Compliance Statement

With reference to previously reported Exploration results and mineral resources, the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources or Ore Reserves that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

This announcement has been approved and authorised by the Board of QMines Limited.

## Contact

### QMines Limited (ASX:QML)

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**Andrew Sparke**, Executive Chairman

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<sup>1</sup> ASX Announcement - [Mt Chalmers Resource Upgrade](#), 1 December 2021.



# JORC Code, 2012 Edition – Table 1 Mt Chalmers Mineral Resources

## 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 (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</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 (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul> | <ul style="list-style-type: none"> <li>QMINES continued drilling operations at Mt Chalmers, drilling 12 reverse circulation percussion (RC) holes for 1,875 metres.</li> <li>RC samples were collected at 1m intervals from an on-rig cyclone cone splitter with 2-3kg, or approximately 10% of the split sample saved in calico bags with the exception of duplicate samples with each being 1-2kg, or approximately 5% of the total sample.</li> <li>During the course of drilling, to avoid contamination, four individual calicos were placed in polyweave bags and sealed for delivery to the assay lab. Samples were sent by road to ALS Laboratories in Brisbane, crushed, pulverised and riffle split delivering 200g pulp for base metal and precious metal assay.</li> </ul> |
| <b>Drilling techniques</b> | <ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard</li> </ul>   | <ul style="list-style-type: none"> <li>RC drilling was completed by the company's KWLRC350 rig with booster and auxiliary compressor and using 5 m, 102 mm diameter RC rods and a 143 mm percussion face</li> </ul>  |

| Criteria                       | JORC Code explanation   | Commentary  |
|--------------------------------|---|---|
|                                | <i>tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>   | sampling hammer.  |
| <b>Drill sample recovery</b>   | <ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>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.</i></li> </ul>                           | <ul style="list-style-type: none"> <li>• Rock chips from each RC metre were collected in chip trays and logged.</li> <li>• The majority (&gt;95%) of RC samples were dry. Calico sample bags used in this program are of a sufficiently fine weave as to retain almost all of the sample fine fraction even when saturated.</li> <li>• Drilling methods were consistent with current industry practices.</li> </ul>   |
| <b>Logging</b>                 | <ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul> | <ul style="list-style-type: none"> <li>• All drilling was competently logged by Company geologists with all logging data digitised electronically into a Panasonic Toughbook.</li> <li>• Logging codes were established prior to commencement of drilling operations by H &amp; S Consultants and are a mixture of quantitative and qualitative data.</li> <li>• Geological information consists of lithology descriptions, alteration, mineralisation, veining, weathering etc.</li> <li>• All data is available in a digital format.</li> <li>• All chip trays have been digitally photographed and stored in the Company NAS drive.</li> </ul> |
| <b>Sub-sampling techniques</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> </ul>  | <ul style="list-style-type: none"> <li>• RC samples were collected from a cyclone with a cone splitter delivering 10% representative sampling per linear</li> </ul>   |



| Criteria  | JORC Code explanation  | Commentary  |
|---|--|---|
| <b>and sample preparation</b>                     | <ul style="list-style-type: none"> <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> | <p>metre drilled. Duplicate samples were collected every 25 m and 75 m drilled in the drilling sequence with duplicate samples being a 50-50% split sample from the same cone splitter.</p> <ul style="list-style-type: none"> <li>ALS Laboratories dry the samples prior to crushing and pulverising. All sample material from each RC sample submission is crushed and pulverized to a nominal 90% passing 75 µm giving a 200 g representative sample from which a sub-sample of 30 g is taken for base metal analysis and a 50 g charge for gold.</li> </ul>   |
| <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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></li> </ul>    | <ul style="list-style-type: none"> <li>All samples for assay were submitted to ALS Laboratories in Brisbane.</li> <li>Ag, As, Ba, Cu, Pb, S and Zn were determined by ALS (ME-ICP61) using ICP-AES on a four-acid digest. Au was determined using ALS method AA25 (fire assay with AAS finish on a 30 g pulp). Sample preparation and base metal analysis was undertaken in Brisbane and Fire Assay undertaken by ALS in Townsville.</li> <li>The Company submits batches to ALS from drill programs as they come to hand. Reporting on QAQC results for all drillhole samples submitted between February 2021 and November 2021 has been undertaken by Lisa Orr of Orr and Associates, who found that QMines' QAQC is consistent with current industry practice for a drill program.</li> <li>Duplicate samples of cone splits are inserted at 50 m intervals and are utilised to monitor laboratory reproducibility. With coefficients of variation under 31% there is no significant bias in assayed results from duplicates assayed.</li> </ul> |

| Criteria                                     | JORC Code explanation   | Commentary   |
|--|---|--|
|  |   | <ul style="list-style-type: none"> <li>• Certified Reference Materials (CRM) are supplied by OREAS and GEOSTATS Pty Ltd and are inserted at 20 m intervals with suitable CRMs being used to monitor laboratory accuracy. With 252 out of 265 CRMs reporting within 3 standard deviations of certified values a success rate of 95.1% was achieved.</li> <li>• Blank samples of barren gravel are inserted at 33 m intervals.</li> <li>• Internal laboratory QAQC reports are delivered by ALS with certification of assay method used and certified assay results. These results are delivered to the principal geologist, database manager and the Company</li> </ul>   |
| <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> | <ul style="list-style-type: none"> <li>• Since early 2021, all documentation and digitisation of data has been undertaken by the company database manager, Lisa Orr of Orr and Associates. The drill hole database is stored as an Access database and housed independently in an external NAS drive and backed up in a cloud storage system.</li> </ul>   |
| <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>  | <ul style="list-style-type: none"> <li>• QMines has implemented a complete conversion by local mine surveyors of all historical drill collar surveys and local gridding utilised by previous explorers. The local work has been validated by MINECOMP Surveying.</li> <li>• Conversion has been from local grids to GDA 94 MGA Zone 56.</li> <li>• Some drill hole collars positions listed in this release were located by hand held GPS with accuracy of +/-3 m and these will be later picked up by and validated by the site surveyors.</li> <li>• The Company has flown a Digital Terrain Model (DTM) using drone survey technology.</li> <li>• The quality and accuracy of the DTM has been validated and processed independently of the data capture by MINECOP Surveying.</li> </ul> |



| Criteria   | JORC Code explanation  | Commentary  |
|--|--|---|
| <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> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>                        | <ul style="list-style-type: none"> <li>• The drill programs have been designed to validate historical drill hole data, expand the resource envelope and make new discoveries</li> <li>• Line and drill hole spacing is not applicable</li> <li>• No composite sampling has been applied</li> </ul>  |
| <b>Orientation of data in relation to geological structure</b> | <ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>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.</i></li> </ul> | <ul style="list-style-type: none"> <li>• The deposit is generally flat-lying and most drillholes are vertical to give an optimal intersection angle with mineralisation.</li> <li>• Angled holes from the current program have been oriented to reach otherwise inaccessible targets.</li> <li>• Downhole intersections contained in this announcement in drill holes at for example ~60-degree dip represent approximately 87% true width of the assayed mineralised intersections contained in Table 1 of this announcement. The apparent width reduces from 87% to 80% in the case of hole MCRC012 as the target is inclined slightly down dip.</li> <li>• There is no obvious sampling bias with the drilling orientation.</li> </ul> |
| <b>Sample security</b>   | <ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>   | <ul style="list-style-type: none"> <li>• Samples were collected directly from the cone splitter into individual numbered calico sample bags, then 4 calico bags are inserted into polyweave bags, sealed and tied. Polyweave bags were numbered in sequence and placed in large bulka bags.</li> <li>• The bulka bags were then delivered by Company staff to a commercial freight depot in Rockhampton and shipped directly to the ALS Laboratory in Brisbane overnight.</li> </ul>  |

| Criteria                 | JORC Code explanation  | Commentary  |
|--------------------------|--|---|
| <b>Audits or reviews</b> | <ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul> | <ul style="list-style-type: none"> <li>Sampling techniques were established by the Company geologist. Results were reviewed and validated by the Company database geology manager.</li> <li>Exploration results are not audited independently.</li> </ul> |

## 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><i>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.</i></li> <li><i>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.</i></li> </ul> | <ul style="list-style-type: none"> <li>QMiners Pty Ltd has two 100% owned subsidiaries, Dynasty Gold Pty Ltd and Rocky Copper Pty Ltd, through which the Company has a 100% beneficial interest in the Mt Chalmers Project. The Mt Chalmers Project is held in EPM 25935 and EPM 27428 located 25 kilometres east of the City of Rockhampton in coastal central Queensland, Australia. The project covers an area of historic gold and copper mining, which comprises an area of 198 km<sup>2</sup>.</li> <li>The Project is free and unencumbered by either joint ventures or any other equity participation of the tenement.</li> <li>QMiners has yet to negotiate any landowner provisions or Government royalties or yet to commence environmental studies within the project area. Currently the Queensland Department of Natural Resources &amp; Mines is conducting remediation works on minor acid mine waste draining from a mineralised mullock dump.</li> <li>All the tenements are for “all minerals” excepting coal.</li> <li>Note that the granted tenements allow QMiners to carry out many of their planned drilling programs under relevant access procedures applying to each tenement.</li> </ul> |

| Criteria                                 | JORC Code explanation  | Commentary   |
|--|--|--|
|  |  | <ul style="list-style-type: none"> <li>All the EPMs are subject to the Native Title Protection Conditions with respect to Native Title.</li> <li>Declared Irrigation Areas, Declared Catchment Areas, Declared Drainage Areas, Fossicking Areas and State Forest are all land classifications that restrict exploration activity. These do not affect QMines' main prospects but may have impacts on regional programs in places.</li> <li>All annual rents and expenditure conditions have been paid and QMines has been fully compliant.</li> </ul>  |
| <b>Exploration done by other parties</b> | <ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul> | <ul style="list-style-type: none"> <li>INAL, CEC and Geopeko were generally recognized as highly competent exploration companies that used appropriate techniques for the time. Written logs and hardcopy sections of their work are considered good.</li> <li>Federation was a small explorer that was entirely focussed on defining the Mt Chalmers resource. They used a very competent geologist, Alex Taube, for the drilling program. Alex Taube is widely respected for his knowledge about VHMS deposits in North Queensland.</li> </ul>   |
| <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>The Mt Chalmers mineralization is situated in the early Permian Berserker Beds, which occur in the fault-bounded Berserker Graben, a structure 120 km long and up to 15 km wide. The graben is juxtaposed along its eastern margin with the Tungamull Fault and in the west, with the Parkhurst Fault.</li> <li>The Berserker Beds consist mainly of acid to intermediate volcanics, tuffaceous sandstone and mudstone (Kirkegaard and Murray 1970). The strata are generally flat lying, but locally folded. Most common are rhyolitic and andesitic lavas, ignimbrites or ash flow tuffs with numerous breccia zones. Rocks of the Berserker Beds are weakly metamorphosed and, for the most part, have not been</li> </ul> |



| Criteria | JORC Code explanation | Commentary  |
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|          |                       | <p>subjected to major tectonic disturbance, except for normal faults that are interpreted to have developed during and after basin formation.</p> <ul style="list-style-type: none"> <li>• Late Permian to early Triassic gabbroic and dioritic intrusions occur parallel to the Parkhurst Fault. Smaller dolerite sills and dykes are common throughout the region and the Berserker Beds.</li> <li>• Researchers have shown that the Mt Chalmers mineralization is a well-preserved, volcanic-hosted massive-sulphide ("VHMS – Kuroko style") mineralized system containing zinc, copper, lead, gold and silver. Mineral deposits of this type are syngenetic and formed contemporaneously on, or in close proximity to, the sea floor during the deposition of the host-rock units deposited from hydrothermal fumaroles, direct chemical sediments or replacements (massive sulphides), together with disseminated and stringer zones within these host rocks.</li> <li>• The oldest rocks in the area, the 'footwall sequence' of pyritic tuffs, are seen only in the Mt Chalmers open pit and in drill holes away from the mine. The rock is usually a light coloured eutaxitic tuff with coarse fragments, mainly of chert, porphyritic volcanics and chloritic fiamme (fiamme are aligned, "flame-like" lenses found in welded ignimbrite) and other pyroclastic rocks and indicate subaerial deposition. Eutaxitic texture, the layered or banded texture in this unit, is commonly caused by the compaction and flattening of glass shards and pumice fragments around undeformed crystals). The alteration (silicification, sericitization and pyritization) of this basal unit becomes more intense close to mineralization.</li> <li>• The 'mineralized sequence' overlying the 'footwall sequence' consists mainly of tuffs, siltstones and shales and</li> </ul> |

| Criteria | JORC Code explanation | Commentary  |
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|          |                       | <p>contains stratiform massive sulphide mineralization and associated exhalites: thin barite beds, chert and occasionally jasper, hematitic shale and thin layers of bedded disseminated sulphides. Dolomite has been recorded in the mineralized sequence close to massive sulphides. This sequence represents a hiatus in volcanic activity and a period of water-lain deposition.</p> <ul style="list-style-type: none"> <li>• The 'hanging wall sequence' is a complex bedded series of unaltered crystal and lithic rhyolitic tuffs and sediments with breccia zones and occasional chert and jasper.</li> <li>• A mainly conformable body of andesite, ranging from 10 m to 250 m thick, intrudes the sequence; it usually occurs just above the 'mineralized sequence'. A quartz-feldspar porphyry body intrudes the volcanic sequence and in places intrudes the andesite.</li> <li>• The rocks in the mine area are gently dipping, about 20° to the north in the Main Lode mine area and similarly dipping south at the West Lode: the predominant structure is a broad anticline trending north-north-east. Slaty cleavage is strongly developed in some of the rocks, notably in sediments and along fold axes. Such cleavage is prominent in areas close to the mineralization.</li> <li>• Doming of the rocks close to the mineralization has been interpreted by detailed work in the open cut to be largely due to localized horst block-faulting (Taube 1990), but the doming might also be a primary feature in part. Steep dips are localized and usually the result of block faulting. The Main Lode outcrop and West Lode outcrop are variably silicified rocks which, by one interpretation, may have been pushed up through overlying rocks in the manner of a Mont Pelée spine (Taube 1990), but in any case, form a dome of rhyolite / high level intrusions of the Ellrott Rhyolite. The</li> </ul> |

| Criteria                        | JORC Code explanation   | Commentary   |
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|                                 |   | surrounding mineralized horizon is draped upon the flanks of domal structures and dissected by at least three major faults.  |
| <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> | <ul style="list-style-type: none"> <li>Exploration Results are reported in the body of the relevant announcements in Table 2.</li> </ul>   |
| <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 (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <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> </ul>  | <ul style="list-style-type: none"> <li>In reported exploration results, length weighted averages are used for any non-uniform intersection sample lengths. Length weighted average is (sum product of interval x corresponding interval assay grade), divided by sum of interval lengths and rounded to two decimal points.</li> <li>No top cuts have been considered in reporting of grade results, nor was it deemed necessary for the reporting of significant intersections.</li> <li>All Copper Equivalent (CuEq) figures included in this announcement are calculated based on the following formula: <math>CuEq(\%) = (Cu \text{ grade} \times Cu \text{ recovery}) + ((Pb \text{ grade} \times Pb \text{ recovery} \times Pb \text{ price}) / Cu \text{ Price}) + (Zn \text{ grade} \times Zn \text{ price} \times Zn \text{ recovery}) / Cu \text{ price} + ((Au \text{ grade} \times Au \text{ price} \times Au \text{ recovery}) / Cu</math></li> </ul> |



| Criteria  | JORC Code explanation  | Commentary   |
|---|--|--|
|   | <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>price) + ((Ag grade x Ag price x Ag recovery)/Cu price). All grades are converted to % and prices converted to \$/T prior to calculating CuEq. Commodity price used: Au price of US\$1,900/oz, Ag price of US\$25/oz, Cu price of US\$6,655/t, Pb price of US\$2,450/t, and Zn price of US\$3,450/t. The following metallurgical recoveries have been applied: 87% Au, 70.5% Ag, 97.0% Cu, 85.0% Pb and 77.0% Zn.</p> <ul style="list-style-type: none"> <li>Mt Chalmers VHMS is a polymetallic base and precious metal mineral system, cut off grades used by the Company in calculating reported mineralized intersections are 0.2% Cu, 0.1 ppm Au and 1 ppm Ag, 0.2% Zn and 0.2% Pb.</li> <li>Metal Price Assumptions and Recovery data used in calculating the Copper Equivalent has been reported to the market in December 2021 and is contained in the Mt Chalmers Resource Upgrade Report and can be seen on the Company Website;<br/> <a href="https://wcsecure.weblink.com.au/pdf/QML/02460632.pdf">https://wcsecure.weblink.com.au/pdf/QML/02460632.pdf</a></li> </ul> |
| <b>Relationship between mineralisation widths and intercept lengths</b> | <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 (e.g. 'down hole length, true width not known').</i></li> </ul> | <ul style="list-style-type: none"> <li>At Mt Chalmers, the drilling has generally intersected the mineralization at high angles.</li> <li>The majority of holes drilled at Mt Chalmers Copper Project are vertical in nature.</li> <li>Holes drilled on other dips are reported in the Significant Intercepts table. True widths in e.g. 60-degree dipping holes are not reported. True width at 60 degrees is approximately 87% of the down hole intersection.</li> </ul>   |
| <b>Diagrams</b>   | <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>   | <ul style="list-style-type: none"> <li>Maps, sections, mineralized intersections, plans and drill collar locations are included in the body of the relevant announcement.</li> </ul>   |

| Criteria                                  | JORC Code explanation   | Commentary  |
|---|---|---|
| <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>Table 2 in the body of the announcement</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 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.</li> </ul> | <ul style="list-style-type: none"> <li>CEC and Geopeko completed some brownfields exploration to assist with defining the resource including Induced Polarization surveys and Sirotem (electromagnetic method) surveys.</li> <li>Federation concentrated on defining the resource estimates.</li> <li>INAL completed greenfields exploration in the 1960's and 1970's. Exploration included geological mapping, soil and rock chip sampling, costeaning and rotary percussion drilling.</li> <li>In 2021 QMines digitized the results of soil geochemical grids obtained from the Geological Survey of Queensland consisting of 19,000 samples collected by various workers for its use in ongoing target generation.</li> <li>Mitre Geophysics Pty Ltd completed a downhole EM survey in June 2022, results of which are described in the body of this announcement including a link to the relevant report.</li> <li>No other exploration data is considered meaningful at this stage.</li> </ul> |
| <b>Further work</b>                       | <ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>                                     | <ul style="list-style-type: none"> <li>Infill and resource expansion drilling is being undertaken to upgrade and potentially expand the current resource estimates.</li> <li>Additional Downhole EM survey work is planned.</li> <li>Infill soil geochemical sampling is planned.</li> </ul>  |