

# Bulk Sampling Program Continues to Yield Gold Doré and Valuable Insights

13<sup>th</sup> December, 2024



M2M (the Company) is pleased to announce the recovery of **48.5 ounces (1,510 g)** of gold doré to date, achieved through the ongoing bulk sampling program at Golden Crown Prospect, demonstrating successful gravity gold recovery and revenue generation.

- **48.5 ounces (1,510 g)** of gold doré produced to date through wet gravity recovery.
- **34.7 ounces (1,079 g)** of gold recovered during the latest phase in October–November 2024.
- 276 tonnes of mineralised material processed, yielding 34.7 ounces of gold doré.
- **\$170,546** revenue generated from gold doré sales to The Perth Mint Refinery.
- The program is generating revenue while delivering valuable insights into the geology, geotechnics, mining, and metallurgy of the prospect.
- These insights are expected to drive cost-effective, targeted strategies for future exploration and potential development activities at Golden Crown.
- Golden Crown mineralisation exhibits high gold recovery via gravity and leach methods.
- Current focus on higher-grade zones, achieving increased gold recovery.



Managing Director Trevor Dixon said, "The higher grade Golden Crown mineralisation has produced gold recovery results that confirm the strong suitability for efficient gravity processing techniques whilst providing critical insights for future targeted and cost effective exploration."



## Golden Crown Prospect – Bulk Sampling Update

This year's drilling programs (drilling results announced to ASX on 13th March, 2024 and 5th July 2024) at the Golden Crown prospect successfully identified a mineralised corridor measuring 50m in length and 15m in width, characterised by high-grade gold mineralisation and visible gold occurrences.

Following this a bulk sampling program was initiated to further evaluate the economic potential of the prospect. High-grade material from the prospect is processed at a nearby gravity processing facility managed by Blockchain Resources Pty Ltd.

To date, a cumulative total of 48.5 ounces of gold doré bars have been produced from the processing of 443 tonnes of mineralised material. This includes:

- **34.7 ounces (1,079 g)** recovered during the latest phase in late October and throughout November 2024 (Picture 1 and 2). During the recent phase, 276 tonnes of mineralised material were processed at a nearby gravity processing facility.
- **13.8 ounces (431 g)** were produced during an earlier phase from the processing of 167 tonnes, as previously announced to ASX on 21st October 2024.

The gold doré bars were sold to The Perth Mint Refinery, generating a payment of \$170,546. The purity of the bars, as determined by The Perth Mint, ranged from 85.6% to 90.4% Au (see Table 1).

### Key Highlights of the program:

The Golden Crown mineralisation exhibits high amenability to both gravity recovery and leach processing, achieving excellent gold recoveries (ASX announcement dated 28th June 2024 and 7th August 2024).

The program is being conducted efficiently, further de-risking the potential for future potential mining operations.

The program continues to demonstrate success, generating gold revenue while providing valuable insights. These insights are expected to lead to cost-effective and targeted approaches for future exploration and development.

The remaining mineralised material is being stockpiled into low-grade (0.5 to 2 g/t Au) and medium-grade (2 to 5 g/t Au) categories, with options currently under evaluation to monetise this stockpiled material.



Picture 1. Picture of Gold doré bar produced from Batch-B5.



Picture 2. Picture of Gold doré bars produced from Batch-B3, B4, and Batch-B6.

**Table 1. Bulk Sampling Gravity Recoverable Gold Processing details of the Batches.**

| Batch | Batch Description                                                                                                                                                                                                                                                                                                                                                                                                  | Total Processed Weight (Tonnes) | Recovered Gold Doré Bar Weight (grams)                   | Gold % | Silver % |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------------------------------------------------|--------|----------|
| B5    | Extracted from the centre of the pit between 395 and 393 mRL Quartz vein                                                                                                                                                                                                                                                                                                                                           | 63                              | 299                                                      | 90.4   | 5.33     |
| B3    | This batch (Crumble Pile) represents mineralised material from the central section of the bulk sampling pit, from 397 to 395 mRL, consisting of the remaining mineralised material after the quartz vein was extracted. This batch includes felsic volcanics and various lithotypes notably the high-grade red-purple sheared andesitic material found near the rock chip sample XRBS029 which has 458.39 g/ t Au. | 44                              | 65                                                       | 85.64  | 5.04     |
| B4    | This batch represents both surface and subsurface quartz vein, situated near drillholes 24GCRC060 and 24GCRC064 in the southeastern corner of the bulk sampling area.                                                                                                                                                                                                                                              | 34                              | 46                                                       |        |          |
| B6A   | Extracted from the centre of the pit between 393 and 390 mRL Quartz vein.                                                                                                                                                                                                                                                                                                                                          | 134                             | 669<br>(the ongoing processing will add additional gold) |        |          |

*Note: The Totals may vary due to rounding off errors.*

*The gold and silver assay for Batch B5 is the average of the assays from B1, B2, and B5.*

*Batch B6A processing is still undergoing.*

*Batches B3 and B4 were earlier reported as "under processing" in Table 1 of the ASX announcement dated 21st October 2024.*

Bulk sampling plays a pivotal role in advancing the development and understanding of the Golden crown Prospect.

The grade reconciliation from the bulk sampling program aligns closely with the drilling results, enhancing confidence in the drilling results. This alignment supports precise ongoing resource modeling and estimation.

Geotechnical data obtained during the program will aid in assessing rock stability and strength, providing critical insights for developing a safe and efficient pit design tailored to the site.

Simulating actual mining conditions, the program evaluates the suitability of mining methods and equipment, enabling trialing and optimising low cost mining techniques, as well as identifying potential operational challenges for future operations.

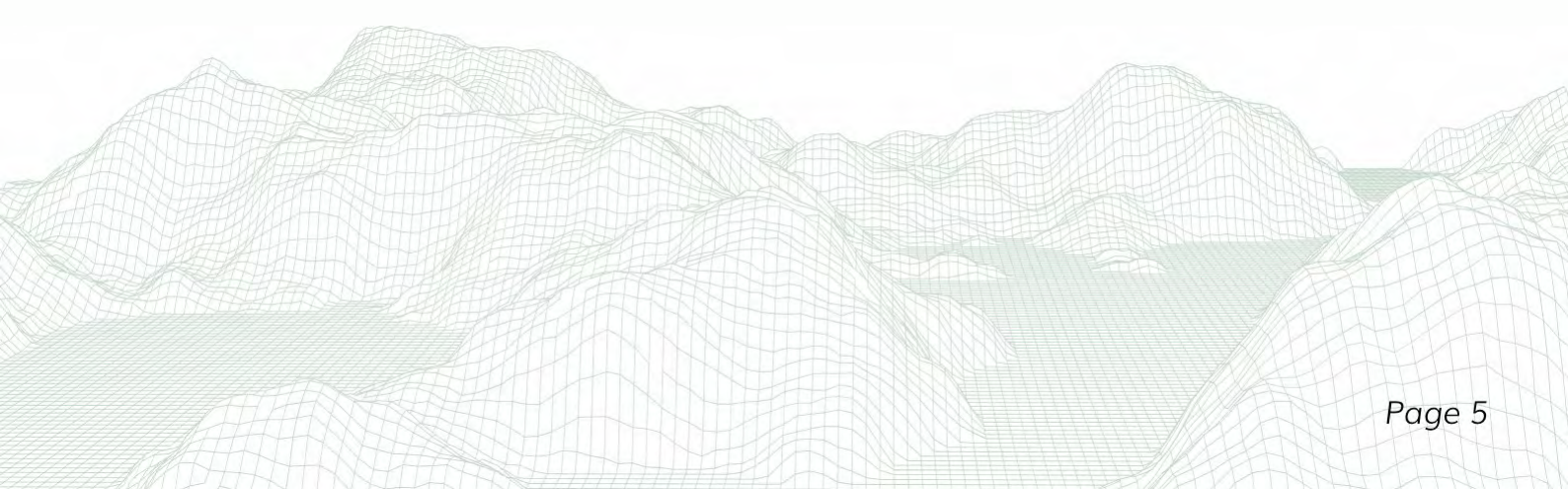
The bulk samples gravity recovery results underpin suitability of this processing technique and demonstrates efficient extraction through wet gravity separation.

This comprehensive approach ensures the economic viability of the Golden Crown prospect, aligning geological, mining, and metallurgical insights for a robust foundation.

## **Structural Drivers of Gold Mineralisation at Golden Crown**

Geological data collected during the bulk sampling program reveals that the mineralisation trends along a 340–350° strike, with a sub-vertical dip and a plunge to the NNW at approximately 50–55°. The high-grade mineralisation is concentrated in well-defined zones, creating efficient extraction through bulk sampling and small-scale mining strategies.

The Golden Crown mineralisation comprising high-grade shallow zones within sheared intermediate and felsic volcanics and a stacked quartz vein system with a robust structural fabric, is further substantiated by data from ongoing bulk sampling (Picture 4).





Picture 3. Southward view of the pit.

The Golden Crown mineralisation can be summarised as follows, based on the current information:

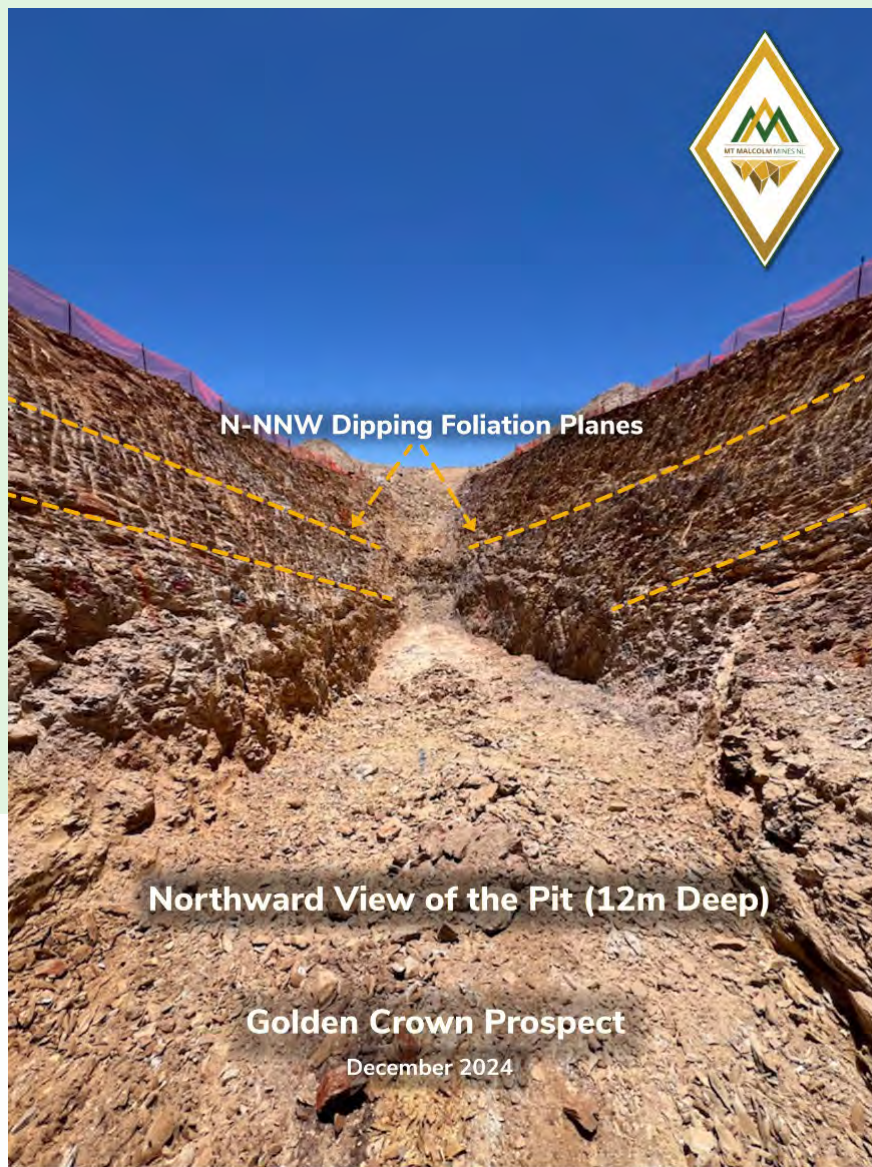
1. **Gold Mineralisation within Sheared Intermediate Volcanics:** These zones are structurally controlled, likely associated with shearing and faulting within the host volcanic rocks. Such structural settings created an environment for hydrothermal fluids rich in gold to intrude within the host rocks. The shearing enhances permeability allowing gold-bearing fluids to infiltrate and deposit gold along the shear planes and fractures leading to a disseminated style of mineralisation.
2. **Quartz Vein Hosted Gold Mineralisation:** This type of mineralisation is hosted within quartz veins that are emplaced along structural zones, particularly dilational jogs within the volcanic sequence. The quartz veins present a distinct and more visually recognizable mineralisation style within the excavation area (Picture 5).



Pictures 4 & 5. Types of gold mineralisation exposed within the bulk sampling pit.



The structural and lithological setting presents a favourable environment for gold mineralisation, occurring both as disseminated forms within sheared volcanics and as higher-grade veins within quartz structures. This dual-style mineralisation model provides a strategic advantage for defining and targeting zones suitable for near-surface bulk sampling and selective high-grade small-scale mining, contingent on the continuity and grade distribution of the mineralisation across the structure.



*Picture 6. Northward view of the Pit.*

The ongoing bulk sampling at Golden Crown has highlighted the significance of distinct shear-related structures in localising gold mineralisation. These include sigmoidal veins, tension gashes, and dilational jogs. These features typically appear as small offsets along shear zones, creating openings in the rock that allow hydrothermal fluids to flow and deposit gold within these spaces. This structural configuration forms under conditions of intense stress, providing an ideal environment for gold mineralisation.

The veins at Golden Crown often display a "tile" or "shingle" pattern, indicating multiple phases of fracturing and mineral deposition. Additionally, sigmoidal "T" veins have been observed along numerous joint planes (see Picture 7), reflecting significant stress conditions during their formation.

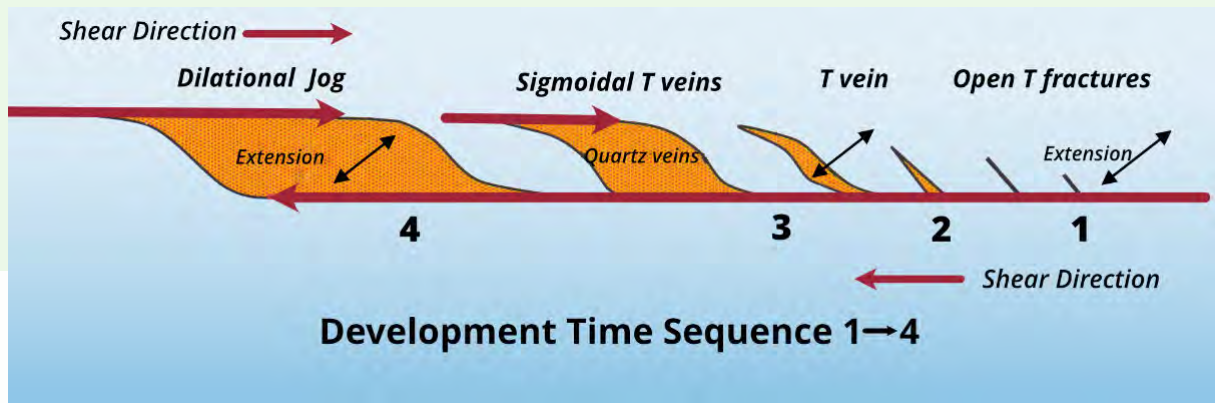


Figure 1. Developmental stages of the Stacked vein system (source: rogermarjoribanks.info).

In summary, the stacked, shingle-like arrangement of overlapping veins and the presence of multiple phases of mineralisation at Golden Crown highlight the site's potential for significant mineralisation and provide valuable insights into the movement and stress directions within the surrounding rocks, offering a deeper understanding of Golden Crown's geological history.

The collected geological information is significantly guiding the next stage drilling planning.



Pictures 7, 8. Examples of the stacked quartz vein system are visible on the pit's northern wall, where the quartz veins have been highlighted using blue spray paint.

## About Golden Crown Prospect

The Golden Crown Prospect is part of the Company's Malcolm Project that covers a large semi-contiguous area of approximately 200 km<sup>2</sup>. The Malcolm Project is located between 10 km and 25 km to the east and northeast of Leonora in Western Australia (see Figure 2).

This region is well-known for its rich gold deposits and a rich history of mining operations. It is also home to several notable gold mines, including the Genesis Gwalia mine, one of Australia's largest and deepest gold mines, located just 12 km southwest of the Golden Crown Prospect.

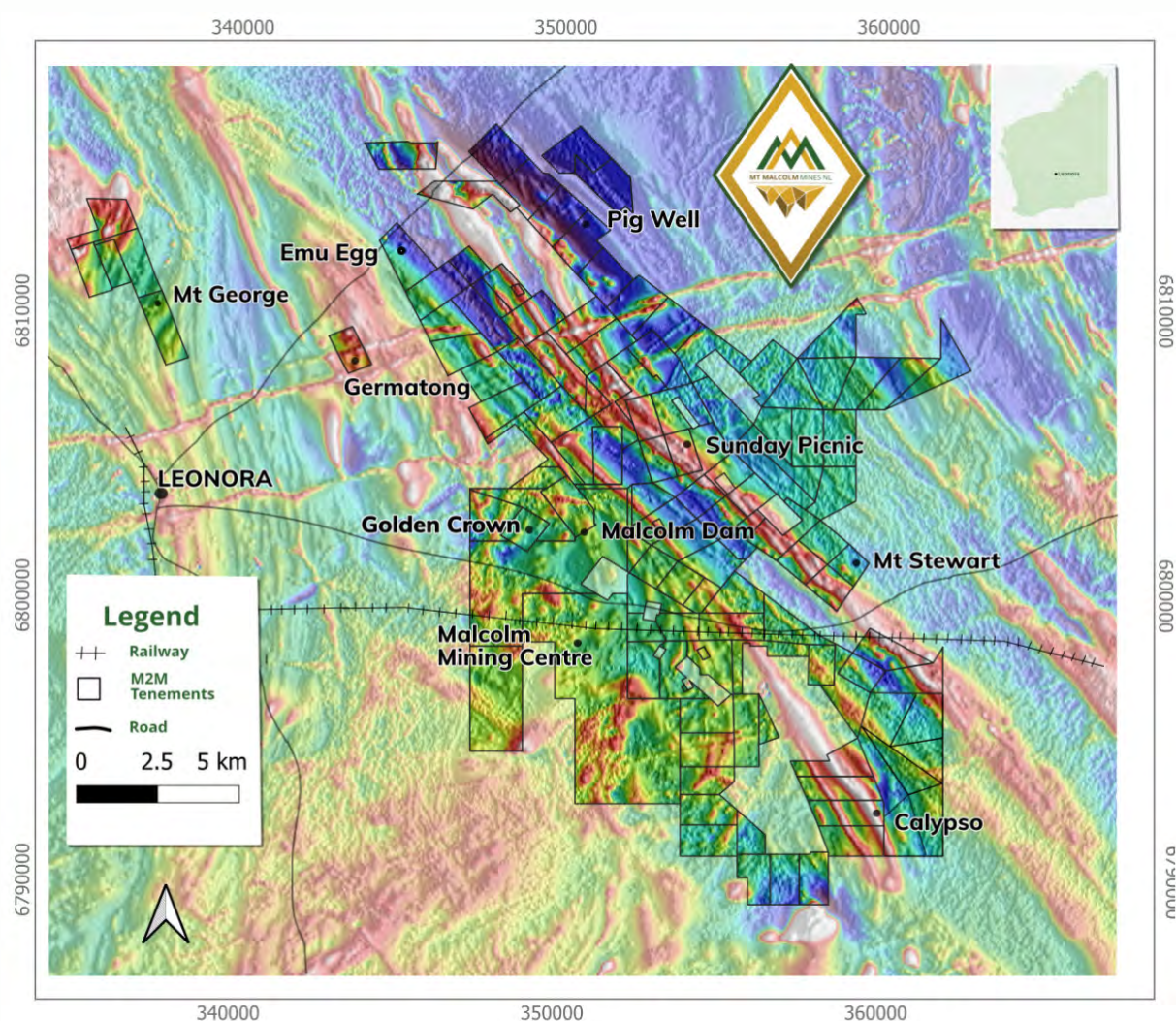


Figure 2. Malcolm Project boundaries displayed on the Total Magnetic Intensity (TMI) image.

The Golden Crown Prospect itself has contributed to the region's gold production in the past. The prospect's favorable geology, coupled with its historical contributions, establishes the Golden Crown Gold Mine as a key site within the Leonora region.

The Golden Crown prospect benefits from established infrastructure, including access roads and nearby processing facilities, which support development activities.

## Competent Person Statement

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources is based on information compiled by Mr. Vivek Sharma, a Competent Person and a full-time employee of the company who is a Member of The Australasian Institute of Mining and Metallurgy. Mr. Vivek Sharma has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Vivek Sharma consents to the inclusion in the report of the matters based on the information compiled by him, in the form and context in which it appears.

## Forward Looking Statements

Some of the statements appearing in this announcement may be forward-looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which Mt Malcolm Mines NL operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward-looking statement. No forward-looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by a number of factors and subject to various uncertainties and contingencies, many of which will be outside M2M's control. In relying on the above mentioned ASX announcement and pursuant to ASX Listing Rule 5.32.2, the Company confirms that it is not aware of any new information or data that materially affects the information included in the above-mentioned announcement.

This announcement has been authorised by the Board of Mt Malcolm Mines NL.

For further information please contact: -

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## APPENDIX A

### JORC 2012 TABLE 1 REPORT - GOLDEN CROWN PROSPECT

#### SECTION 1 - Sample techniques and Data

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

| Criteria                                       | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sampling techniques                            | <p>A total of 443 tonnes of high-grade mineralised material, identified through previous grade control drilling, was selected for gravity processing from the bulk sampling area between 403 mRL and 390 mRL. The excavation was performed using a Caterpillar 336D2 digger with a bucket capacity of 1.88 cm, along with a Caterpillar D8T dozer.</p> <p>The selected mineralised material was divided into batches and these batches were dispatched to a nearby gravity processing facility operated by Blockchain Resources Pty Ltd., which employs water-based gravity separation methods for gold recovery.</p> <p>The sampling techniques and methodologies employed are considered appropriate and in line with industry standards for this type of exploration.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Drilling techniques                            | Not applicable. Drilling is not being reported.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Drill sample recovery                          | Not applicable. Drilling is not being reported.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Logging                                        | Qualitative field logging and photos of the rock-chip grab samples were taken and entered into M2M's database.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Sub-sampling techniques and sample preparation | <p>The processing method for the bulk sample involves several steps designed to maximise recovery. Initially, the mineralised material is sized to less than 250mm, followed by crushing to approximately 30mm. The material is then separated using sluice systems, hydrocyclones, and centrifugal force separators such as the Knelson concentrator. For final processing, the material is reduced to 200 mesh and subjected to water-based gravity separation techniques. The gold concentrate from the wet gravity processing facility was collected by the Company Personnel initially screened using a 1 mm coarse mesh. Following this, the material was processed through finer sieves, specifically 50 mesh and 30 mesh, utilising a micro sluice or a gold cube. This series of steps produced a refined gold concentrate, which was then smelted and weighed at the recovery room by the Company personnel.</p> <p>The smelted gold doré bars represent semi pure products, the actual gold content was analysed by The Perth mint, and reported in the body of this announcement.</p> <p>The results from the gravity recovery method in the past indicated that the employed approach is effective and suitable for coarse high-grade material, with recovery rates aligning with expectations.</p> <p>The bulk sample size is deemed appropriate for this type of gold mineralisation and aligns with industry-accepted methods for evaluating gold deposits in the Eastern Goldfields of Western Australia.</p> <p>The bulk sample size is deemed appropriate for this type of gold mineralisation and aligns with industry-accepted methods for evaluating gold deposits in the Eastern Goldfields of Western Australia.</p> |

**APPENDIX A cont.**  
**JORC 2012 TABLE 1 REPORT - GOLDEN CROWN PROSPECT**

| Criteria                                                       | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Quality of assay data and laboratory tests</i>              | The results from gravity processing are preliminary, but the technique is effective and well-suited for high-grade, coarse gold mineralised material. However, the efficiency of Blockchain Resource's wet gravity recovery facility, where the material is being processed, requires additional industry-standard certification for both the flow sheet and the plant. The smelted gold doré bars (semi pure) were analysed by The Perth Mint Refinery, and results are provided in this report. The Perth Mint assay techniques are industry standard. |
| <i>Verification of sampling and assaying</i>                   | Field notebook was used to record primary data in the field. Primary data was then entered digitally and is stored in M2M's database. Data is visually checked and validated prior to import and additional validation is carried out upon entry to the database.                                                                                                                                                                                                                                                                                        |
| <i>Location of data points</i>                                 | GDA94 datum and MGA zone 51 projection system is used. Hand-held GPS with accuracy of +/- 3 metres was used.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <i>Data spacing and distribution</i>                           | No Mineral Resources or Ore Reserves are being reported<br>Data acquired and processed is only being considered for exploration purposes.                                                                                                                                                                                                                                                                                                                                                                                                                |
| <i>Orientation of data in relation to geological structure</i> | Not applicable – samples were collected from bulk sampling area having no preferred orientation.                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <i>Sample security</i>                                         | The excavated mineralised material was transported to the nearby processing facility by the Company personnels.                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <i>Audits or reviews</i>                                       | Further audits or reviews are not considered necessary at this particular exploration stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## Section 2 - Reporting of Exploration Results

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

| Criteria                                       | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Mineral tenement and land tenure status</i> | <p>The Golden Crown tenement (M37/475) is located within the Shire of Leonora in the Mt Margret Mineral Field in the centre of the North Eastern Goldfields of Western Australia. The tenement is in good standing.</p> <p>M37/475 is held by (96/96) Mt Malcolm Gold Holdings Pty Ltd, a wholly owned subsidiary of Mt Malcolm Mines NL. The tenements are managed and explored by Mt Malcolm Mines NL.</p> <p>The details of all Company tenements are disclosed in Annexure B "Solicitor's report on tenements" which was released by the company in its IPO Prospectus dated 2nd August 2021 "Mt Malcolm Mines NL CAN 646 466 435 Prospectus" as supplemented by a supplementary Prospectus dated 19th August 2021 (Prospectus). All gold production is subject to a Western Australian government royalty of 2.5%.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <i>Exploration done by other parties</i>       | <p>The Golden Crown tenement has been explored and drilled by a number of exploration and mining companies over numerous years dating back to the late 1980s, more active gold exploration companies include Chevron, North Limited, Jubilee Gold Mines and Melita Mining NL. All have contributed to various exploration programs utilising a wide variety of standard exploration techniques.</p> <p>Exploration activities by these companies covered all aspects of mineral exploration with a particular focus on gold. On ground activities included geophysics, geochemistry, geological mapping, drill programs (RAB, Aircore, RC), sampling, structural interpretation and geological assessments. Historical reporting and descriptions of laboratory sample preparation, assay procedures and quality control protocols for the samples from the various drilling programs are variable in their descriptions and completeness.</p> <p>The drilling database has been assembled, interrogated and scrutinised to a satisfactory level however, in the majority of cases the data is historical and predates JORC 2012 compliance. It has not been possible to fully verify the reliability and accuracy of all portions of the data however it appears that no serious problems have occurred. Historical exploration was conducted to the industry standards of the day.</p> |
| <i>Geology</i>                                 | <p>The Project area is located 12 km east of Leonora overlying altered mafic basalt/felsic volcanoclastic/sedimentary sequences of the Malcolm Greenstone Belt, including the Golden Crown sequence positioned within the greenstones of the Kurnalpi Terrain. Local lithologies are characterised by linear trending steeply dipping structures and highly sheared stratigraphy.</p> <p>Rock outcrop is evident, and the project area is located on a small hill. Structurally the area is intensely sheared and folded. Regionally gold mineralisation is associated with lithological contacts hosted by NW, NNW &amp; EW trending shear zones often associated with quartz veining. There are several old workings and open stopes evident at the Golden Crown prospect.</p> <p>The sequence from footwall to hanging wall is dacite, rhyolite, rhyodacite, basalt and andesitic andesite. Gold lodes represented by shallowly northwest-plunging shoots are focused along the hanging wall of the rhyolite unit with a repetition within the overlying rhyodacite.</p>                                                                                                                                                                                                                                                                                                              |

## Section 2 - Reporting of Exploration Results

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

| Criteria                                                                | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Drill hole Information</i>                                           | Not applicable. Drilling is not being reported.                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <i>Data Aggregation methods</i>                                         | <p>No aggregation has been applied.</p> <p>No top cutting of data or grades was undertaken in the reporting of these results.</p> <p>No metal equivalent used.</p>                                                                                                                                                                                                                                                                                                                                  |
| <i>Relationship between Mineralisation widths and intercept lengths</i> | <p>No drill hole results are reported in this announcement.</p> <p>During the bulk sampling program, actual geometry of mineralisation zones will be established.</p>                                                                                                                                                                                                                                                                                                                               |
| <i>Diagrams</i>                                                         | The example diagrams and plans are included in the body of this announcement. All results are provided in this report. The report is considered balanced and provided in context.                                                                                                                                                                                                                                                                                                                   |
| <i>Balanced Reporting</i>                                               | The processed mineralised material and rock chip samples were collected from the mineralised zones of the bulk sampling area and all relevant information reported.                                                                                                                                                                                                                                                                                                                                 |
| <i>Other Substantive exploration data</i>                               | <p>Regarding the results reviewed, no other substantive data is currently considered necessary. The project area has been explored by several listed companies in the past, only results regarded as substantial, by those companies, have been reported.</p> <p>M2M drilling results were reported from time to time.</p> <p>All meaningful and material information is presented in this document. Further data collection will be reviewed and reported as and when considered material.</p>     |
| <i>Further work</i>                                                     | <p>Complete the bulk sampling program.</p> <p>Conduct resource estimation using recent, historical drilling results and bulk sampling information.</p> <p>Comprehensive metallurgical studies, including gravity test work and cyanide leaching for different grind sizes.</p> <p>Waste rock characterization studies to evaluate potential environmental impacts and implement sustainable waste management practices.</p> <p>Further exploratory drilling to extend the known mineralisation.</p> |