

## Visual copper intersected in follow up drilling at Hermitage project in Tennant Creek

### Highlights



*Massive malachite (copper carbonate)*

*On fractures and infill within the brecciated ironstone*



*Abundant native copper (brown) in brecciated ironstone*

Top photos: **New zone of mineralization in HERCDD005.**

Bottom photo (immediately above): **Native copper in diamond drill hole HERCDD006.**

- **38m interval of new mineralisation consisting of malachite, native copper, and chalcopyrite ± bornite(?)** in HERCDD005 (from ~38m down the drill hole), hosted in brecciated hematite-quartz- jasper (Photo 1)
- **57m interval of mineralisation consisting of native copper, malachite, and chalcopyrite** in HERCDD006 (from 127m), hosted in brecciated hematite-quartz-jasper ironstone, with intermittent intervals of chlorite-hematite and vuggy hematite (Photo 2)
- Deepening of discovery RC drill hole HERC003 (originally drilled in phase 1) was abandoned after encountering broken ground and poor core recovery, likely corresponding to a major fault. Prior to entering the fault, the drill hole intersected a further 0.5m of massive hematite-magnetite ironstone with chalcopyrite blebs.
- Drilling continues and first assay results expected in late June 2022

---

**Emmerson’s Managing Director, Rob Bills commented:**

---

*“These first few drill holes build on our understanding of the Hermitage mineralisation and visually confirms the very high-grade nature of the copper mineralisation. HERCDD005 intersected an entirely new zone of malachite, chalcopyrite and possible bornite mineralisation, that is relatively shallow and some 40m outside of the central ironstone. We look forward to the assay results, particularly for the gold and cobalt which because of their small grainsize cannot be visually seen or estimated.*

*Several post mineral faults were encountered and are common in many of the deposits across the Tennant Creek Mineral Field. These faults are likely late thrust faults as seen at the nearby North Star and Jasper Hills projects (Higgins and Granger Faults – refer to Figure 4), and where they have relatively small displacements. It is anticipated that with further drilling the offset portion of the ironstone will be intersected in future drill holes. “*

---

## **Visual native copper mineralisation within ironstone has been extended in Phase 2 drilling**

Hermitage is one of a cluster of prospects that occurs within the northern corridor at Tennant Creek. These prospects of North Star, Jasper Hills, Katherine Star and Northern Star in mining lease (ML) 30177 and, Edna Beryl, Thrace and Macedon in ML 705 are 100% Emmerson owned tenements (Figure 1). These prospects occur along the northern gravity corridor, within denser, hematitic shales, jasper, and ironstones - the typical host to the mineralisation (Figure 2). Not only has this area seen little modern exploration but some of the areas have restricted access.

Discovery RC drill hole HERC003 (the phase 1 drill program) intersected 116m at 3.4% copper and 0.88g/t gold (Figure 3) (ASX: 28 March 2022). Follow up phase 2 diamond drilling (Figure 3) has extended visual mineralisation a further 0.5m, intersecting massive hematite-magnetite ironstone with blebs of chalcopyrite (up to 2 % volume) before encountering broken ground likely associated with a late fault. This hole was eventually abandoned due to drilling difficulties.

Drill hole HERCDD005 intersected a previously unknown ironstone (figure 3) that contains a **38m interval of mineralisation consisting of malachite, native copper, and chalcopyrite ± bornite(?)** – photo 1. This mineralisation occurs 38m down the drill hole and is hosted within a brecciated hematite-quartz- jasper ironstone with malachite occurring along fractures (up to 2 % volume), aggregates of native copper (up to 2 % volume) and blebs of chalcopyrite ± bornite(?) (up to 2 % volume). This new zone of mineralisation occurs some 40m to the north of the previously defined, central ironstone which was intersected at 155m (down the hole). And where a 7m interval of chalcopyrite mineralisation (up to 2 volume %) occurs in stockwork quartz veins hosted by chlorite-hematite ironstone, before being truncated by a late fault.

The latest drill hole, HERCDD006 intersected the central ironstone and **57m interval of mineralisation consisting of native copper, malachite, and chalcopyrite** from 127m down the hole. This mineralisation is hosted in brecciated hematite-quartz-jasper ironstone, with intermittent intervals of chlorite-hematite and vuggy hematite. The mineralization consists of variable amounts of native copper and malachite (up to 2% volume) in the upper portion and blebs plus stringers of chalcopyrite (up to 2% volume) within quartz stockwork veins in the lower zones.

All visual volume percent estimates are approximate only and accurate values will be reported once assay results are returned from the laboratory. First assay results from Hermitage are expected late June 2022.

The faults encountered in this drilling are common across the Tennant Creek Mineral Field and are likely post mineral thrust faults as seen at the nearby North Star and Jasper Hills projects (Higgins and Granger Faults – refer to Figure 4). Typically, they have relatively small displacements and the ironstones and mineralisation continue at depth.

The true thickness of these various copper zones identified to date remain unknown and will require further drilling to better delineate their full spatial extent, as it is becoming apparent that there are a number of both shallow secondary and also deeper primary copper targets within the Hermitage project.

### **For further information, please contact:**

**Rob Bills**  
Managing Director and CEO  
E: rbills@emmersonresources.com.au  
T: +61 8 9381 7838

**Media enquiries**  
Michael Vaughan, Fivemark Partners  
E: michael.vaughan@fivemark.com.au  
T: +61 422 602 720

**This release has been authorised by the Board of Emmerson Resources Limited.**

## **About Emmerson Resources, Tennant Creek and New South Wales**

Emmerson has a commanding land position and is exploring the Tennant Creek Mineral Field (TCMF), one of Australia's highest-grade gold and copper fields that has produced over 5.5Moz of gold and 470,000t of copper from deposits including Warrego, White Devil, Orlando, Gecko, Chariot, and Golden Forty. These high-grade deposits are highly valuable exploration targets, and to date, Emmerson's discoveries include high-grade gold at Edna Beryl and Mauretania, plus copper-gold at Goanna and Monitor. These discoveries were found utilising new technology and concepts and are the first discoveries in the TCMF for over two decades.

### **A recent rush of new tenement applications by major and junior explorers in the Tennant Creek district, not only highlights the prospectivity of the region for copper and gold but also Emmerson's strategic 1,700km<sup>2</sup> land holding.**

In addition, Emmerson is exploring across four early-stage gold-copper projects in NSW, identified (with our strategic alliance partner Kenex/Duke Exploration ASX: DEX) from the application of 2D and 3D predictive targeting models – aimed at increasing the probability of discovery. Duke can earn up to 10% (to pre BFS) of any project generated providing certain success milestones are met.

The highly prospective Macquarie Arc in NSW hosts >80Moz gold and >13Mt copper with these resources heavily weighted to areas of outcrop or limited cover. Emmerson's four exploration projects contain many attributes of the known deposits within the Macquarie Arc but remain underexplored due to historical impediments, including overlying cover (farmlands and younger rocks) and a lack of effective exploration.

### **Regulatory Information**

*The Company does not suggest that economic mineralisation is contained in the untested areas, the information contained relating to historical drilling records have been compiled, reviewed, and verified as best as the Company was able. As outlined in this announcement the Company is planning further drilling programs to understand the geology, structure, and potential of the untested areas. The Company cautions investors against using this announcement solely as a basis for investment decisions without regard for this disclaimer.*

### **Competency Statement**

*The information in this release on Exploration Results is based on information compiled by Dr Ana Liza Cuison, MAIG, MSEG. Dr Cuison is a Member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which she 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. Dr Cuison is a full-time employee of the Company and consents to the inclusion in this report of the matters based on her information in the form and context in which it appears.*

### **Cautionary Statement**

*The Exploration Targets described above are conceptual in nature. It must be noted that there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.*

### **Forward-Looking Statements**

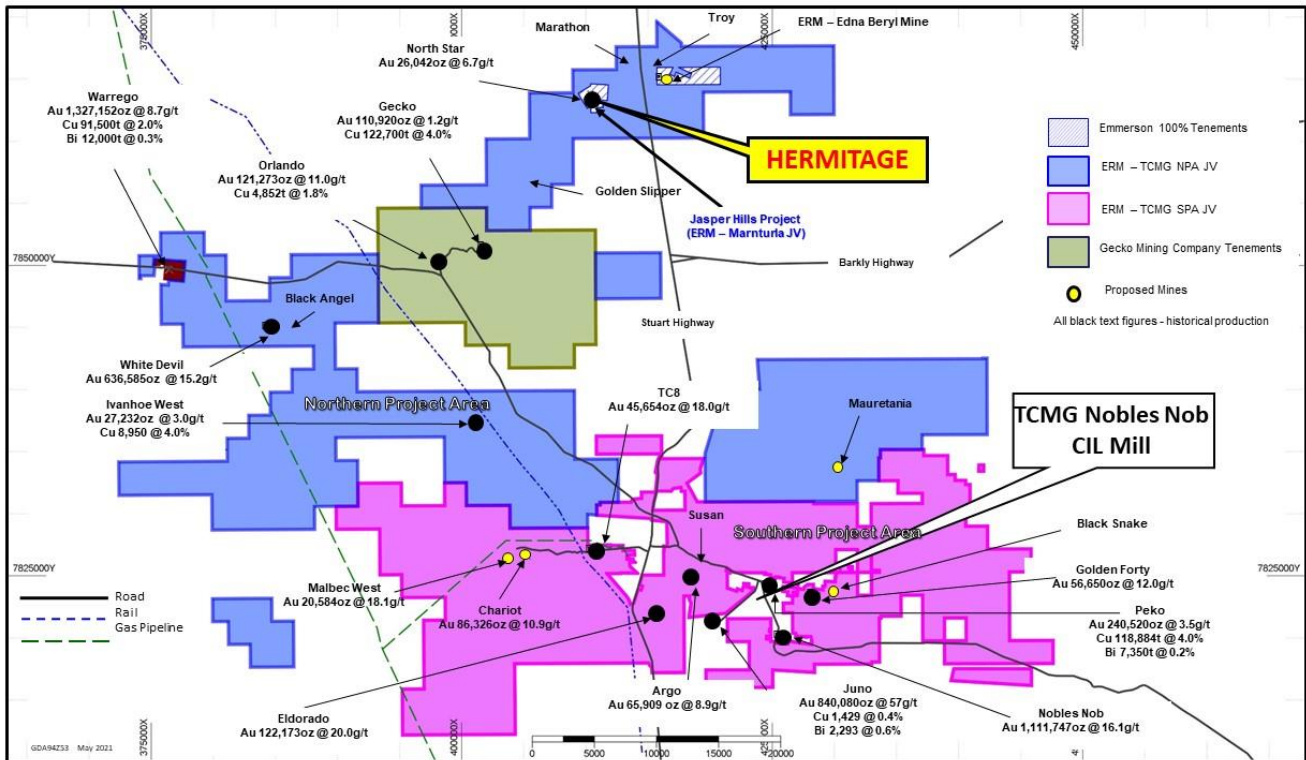
*This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Emmerson Resources Limited's anticipated future events, including future resources and exploration results, and other statements that are not historical facts. When used in this document, the words such as "could," "estimate," "plan," "expect," "intend," "may," "potential," "should," and similar expressions are forward-looking statements. Although Emmerson believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks, assumptions, uncertainties, and other important factors, many of which are beyond the control of the Company, and which may cause actual results, performance, or achievements to differ materially from those expressed or implied by such statements.*

*The Company does not undertake any obligation to update forward-looking statements even if circumstances or management's estimates or opinions should change. Forward-looking statements are provided as a general guide only and should not be relied on as an indication or guarantee of future performance. Given these uncertainties, investors should not place undue reliance on forward-looking statements. The Company cautions investors against using this announcement solely as a basis for investment decisions without regard for this disclaimer.*

**Table 1: Hermitage Drilling Collar Details**

HoleID	Hole Type	MGA94_z53 Easting	MGA94_z53 Northing	RL	Dip	Azi_Mag	Total Depth	Date Drilled	Tenure
HERCDD003	Diamond (tail)	411229.7	7864303.1	312.38	-88.0	99.62	4.8	14/04/2022	ML30177
HERCDD005	RC/Diamond	411236.7	7864379.0	311.94	-72.0	165.27	220	19/04/2022	ML30177
HERCDD006	RC/Diamond	411180.90	7864336.57	312.12	-75	148.85	196.4	30/04/2022	ML30177
HERC007	RC	411183.0	7864331.6	312.2	-65	164.85	On-going		ML30177

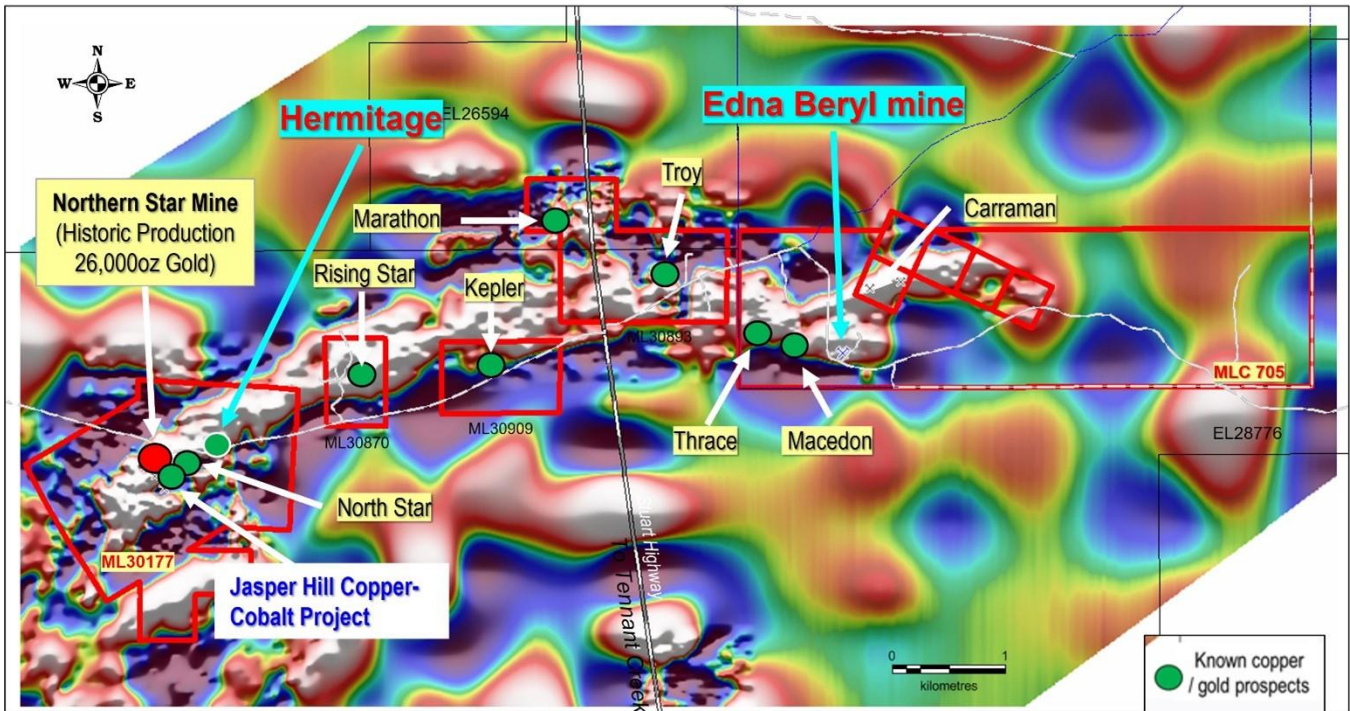




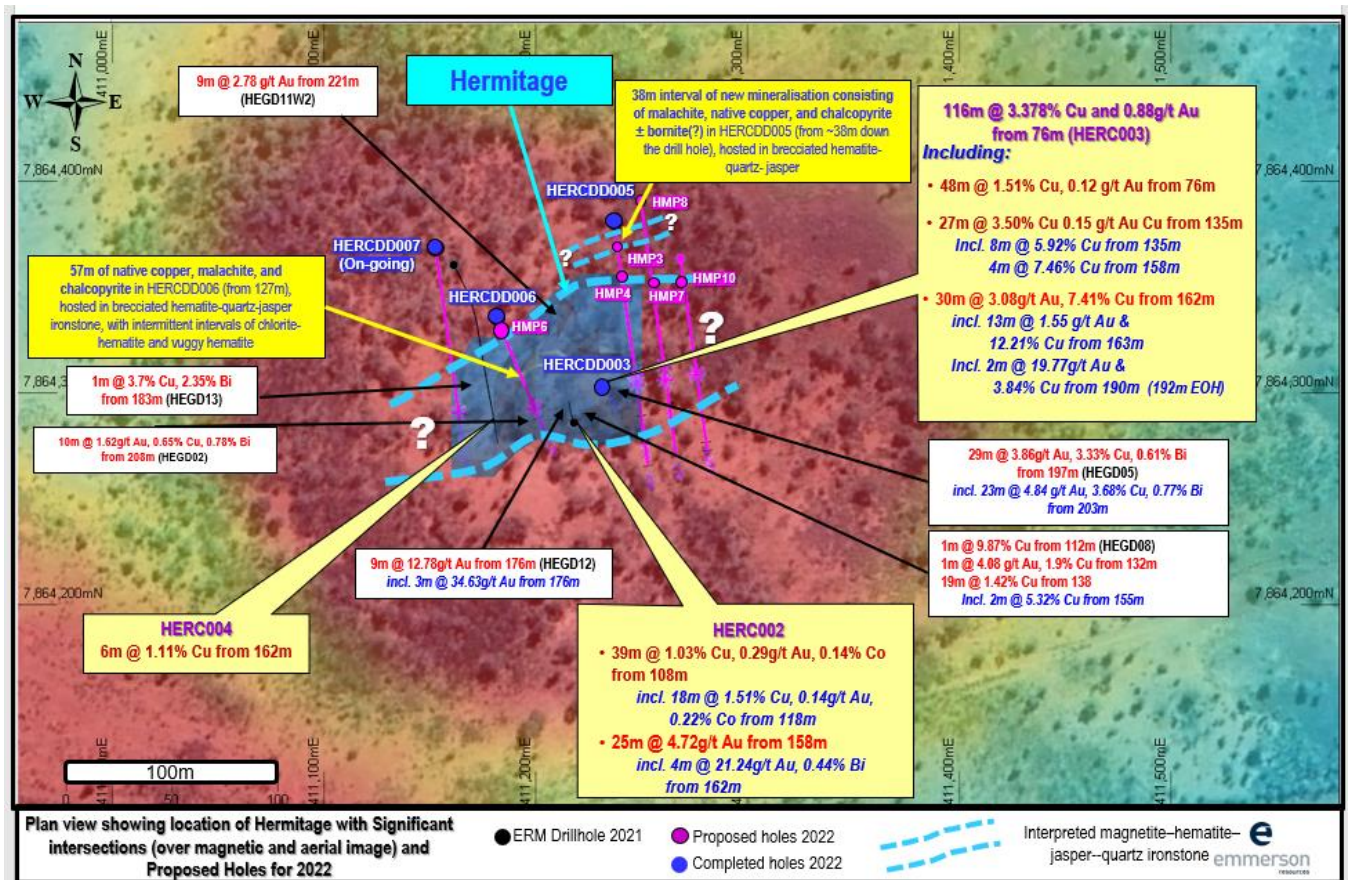
**Figure 1:** Map of the Emmerson Tennant Creek Project showing the Northern Project Area (NPA), and Southern Project Area (SPA), which is covered by the Exploration (EEJV) and Small Mines (SMJV). Yellow dots are potential small mines and/or remnant resources. Noting that Emmerson retains 100% of the Jasper Hills, Hermitage, North and Northern Star and Edna Beryl projects.

**Note:**

- Quoted production from major historical deposits after Ahmad, M. and Munson, T.J. (2013). *Geology and mineral resources of the Northern Territory, Special Publication 5*, p. 9:37.
- For Chariot mine and Malbec West mine, quoted production from *Giants Reef Mill Reconciled Production to end of month September 2005 (internal report)*.

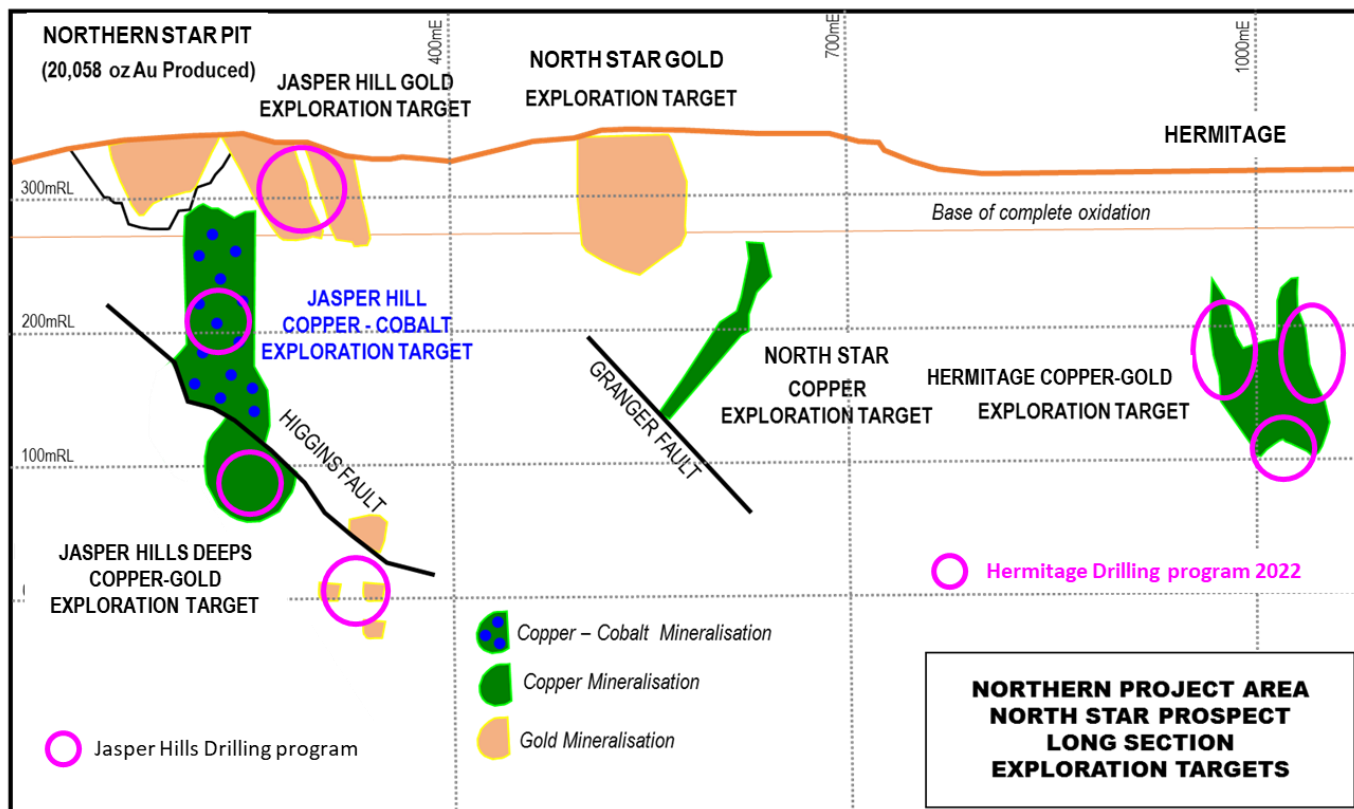


**Figure 2:** Map of the northern corridor with gold, copper and cobalt projects. Background colour is the residual gravity map with white representing the northern gravity (high) ridge. Noting that ML 30177 (Jasper Hills, Hermitage, North and Northern Star) plus MLC 705 (Edna Beryl) are 100% owned by Emmerson.



**Figure 3:** Plan view of the phase 2 (magenta) RC and diamond drill holes at Hermitage. Noting HERCDD003 was abandoned due to drilling issues. Also showing completed holes (blue) and the new ironstone intersected in HERCDD005. Yellow call out boxes = ERM phase 1 drilling; and blue = interpreted ironstones.





**Figure 4:** Long section of planned drill targets at Hermitage and Jasper Hills – noting that drilling at Jasper Hills is subject to further approvals.



## Appendix 1

The exploration results contained within the above company release are in accordance with the guidelines of The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2012)

### Section 1 - Sampling Techniques and Data – Hermitage Project Area – Reverse Circulation and Diamond Drilling (Criteria in this section apply to all succeeding sections)

Criteria	JORC Code Explanation	Commentary
<i>Sampling techniques</i>	<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 downhole 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>Hermitage Exploration Target (also called Explorer 26) are currently being drilled with Reverse Circulation (RC) drilling, then to Diamond Drillhole (DDH) tail. Three holes have been completed to date, HERCDD003, HERCDD005 and HERCDD006.</li> <li>The first hole, HERCDD003 is a diamond tail of HERC003 drilled in 2021 (ASX: 26 October 2021). HERCDD005 and HERCDD006 are angled holes to test east and west extensions and test the width/thickness of the main ironstone.</li> <li>A 3m composite sample directly off the cyclone is riffle split to separate and produce two samples, with one side going into a pre-numbered calico sample bag, effectively providing a 3m composite sample for analysis. The other half were then be placed back into the original sample bag and left on site.</li> <li>3m composite samples weighs from 2 – 5kg, from which a representative sample is pulverised (at Intertek - Genalysis in Alice Springs) to produce a 25g charge for analysis by Aqua Regia digestion/ ICP MS (AR10/OM).</li> <li>Diamond core sampled on geological intervals cut into half core to provide sample weights of approximately 4.0kg. Individual core samples are crushed and pulverised to produce a 25g charge for analysis by Aqua Regia digestion/ ICP MS (AR10/OM).</li> </ul>
<i>Drilling techniques</i>	<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 tube, depth of diamond tails, face-sampling bit, or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>RC and diamond drilling accounts for 100% of the current reported drilling at Hermitage Exploration Target.</li> <li>The rig is a Sandvik DE810 Multipurpose AWD truck mounted drill rig drill.</li> <li>RC drilling used 5.5-inch face sampling bit.</li> <li>HERCDD003 = diamond tail (NQ2) = 4.8m.</li> <li>HERCDD005 = RC precollar = 64.2m, diamond tail: (HQ tiple tube) = 1.7m; then to NQ2 = 154.1m; TOTAL DEPTH = 220m.</li> <li>HERCDD006 = RC precollar = 131m, diamond tail NQ2 = 65.5m; TOTAL DEPTH = 196.5m.</li> <li>The core was oriented using down hole core orientation equipment provided by the drilling company.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may</li> </ul>	<ul style="list-style-type: none"> <li>Core recoveries are fair for reported RC precollar drilling and DDH drilling.</li> <li>RC samples are visually checked for recovery, moisture, and contamination.</li> <li>Any issues or concerns are recorded in the sampling ledger.</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<p>have occurred due to preferential loss/gain of fine/coarse material.</p>	<ul style="list-style-type: none"> <li>• The RC cyclone and splitter are routinely cleaned with more attention spent during the drilling of damp or wet samples.</li> <li>• Diamond core recovery was marked after each drill run using plastic/wooden blocks calibrating depth by the drilling contractor. The driller adjusting rig procedures as necessary including rotation, fluid, pressure to maintain sample integrity.</li> <li>• Emmerson field technician then measure/check the recovery after each run, RQD and fracture count, and core loss has been recorded on the original diamond logging sheets (Geotech sheet) and entered into the database.</li> <li>• No detailed analysis was conducted to determine relationships between sample recovery of metal grades. Emmerson consider that there is evidence for sample bias that may have occurred due to preferential loss/gain of fine/coarse material, especially on zones where water was intersected.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>• The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>• All holes drilled at Hermitage Exploration Target are geologically logged.</li> <li>• Standard operating procedures are employed by Emmerson for logging RC and DDH holes.</li> <li>• RC and DDH logging data is directly entered using Logchief into field laptop computer. Standardised codes are used for lithology, oxidation, alteration, minerals and veins; presence of sulphide information is recorded.</li> <li>• RC drill chips are collected every 1m interval from the green plastic bag, sieved, cleaned, and scooped and placed in the RC chip trays corresponding to the depth/interval of being samples.</li> <li>• DDH logging includes structural logging records orientation of veins, fractures, and lithological contacts for DDH tail HERCDD003, HERCDD005 and HERCDD006. Geotechnical logging records the RQD, core lengths, recovery, and fracture count and hardness. Specific density is recorded for all lithological types and entered in the database.</li> <li>• Diamond and RC holes were logged both qualitative (discretional) and qualitative (% volume).</li> <li>• DDH diamond were photographed (wet and dry).</li> <li>• All RC precollar were photograph on chip trays.</li> <li>• Magnetic susceptibility data were collected for both diamond core and RC every 1m meter as per standard procedure using a Terraplus KT-10 magnetic susceptibility meter.</li> <li>• All RC precollar (total length – 195.2m) were geologically logged 100%.</li> <li>• All DD tail (total length = 226.1m) was geologically and geotechnically logged 100%.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all cores taken.</li> <li>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>• For all sample types, the nature, quality, and appropriateness of the sample preparation technique.</li> </ul>	<ul style="list-style-type: none"> <li>• Standard sampling operating procedures are used for sampling RC samples and diamond core.</li> <li>• The 3m composite samples weigh from 2 – 5kg.</li> <li>• RC sampling: 3m composite sample directly off the cyclone is riffle split to separate and produce two samples, with one side going into a pre-numbered calico sample bag, effectively providing a 3m</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> </ul>	<p>composite sample for analysis. The other half were then be placed back into the original sample bag and left on site.</p> <ul style="list-style-type: none"> <li>Diamond core sampling: Diamond core was halved using an automatic core saw at Emmerson's Tennant Creek exploration office. The core interval for sampling was marked by Emmerson geologist during logging, taking into account the contact of mineralization and alteration. Samples were collected from the same side of drill core and dispatched for assay. The remaining half core is retained and stored at Emmerson's core yard located at Tennant Creek for future viewing and cross-checking of assay values against the actual geology. Half core samples are submitted for analysis, unless a field duplicate is required, in which case quarter core samples are submitted.</li> <li>Diamond core sample weight varies between 3 – 5kg.</li> <li>The RC and core sample sizes are considered to be appropriate to correctly represent the mineralization on the style of mineralisation.</li> <li>Standards, Blanks and Duplicates are routinely inserted in the sampling batch for QAQC purposes.</li> <li>Emmerson field QC procedures involve the use of certified reference material (CRM's) inserted at every 20 samples.</li> <li>Duplicates are collected every 20 samples.</li> <li>Blanks are inserted every 100 samples.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The RC and core samples are submitted to Intertek Laboratory in Alice Spring for preparation. The sample preparation of samples follows industry best practice.</li> <li>Representative RC and core samples are dried, crushed, and pulverised at Intertek - Genalysis in Alice Springs to produce a 25g charge for analysis by Aqua Regia digestion/ ICP MS. The technique requested for analysis is AR10/OM.</li> <li>No downhole geophysical tools or handheld XRF instruments are used to determine grade.</li> <li>Magnetic susceptibility data are collected every 1m meter as per standard procedure using a Terraplus KT-10 magnetic susceptibility meter.</li> <li><b>Not reporting on assaying.</b></li> <li><b>No assay results yet available during the time of writing this report.</b></li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li><b>Not reporting on assaying.</b></li> <li><b>No assay results available during the time of writing this report.</b></li> <li>No twin drill holes have been completed at the Hermitage Exploration Target.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Collar locations and details are shown in Table 1 within the main text.</li> <li>All reported drill hole collars are surveyed using a differential GPS and by a suitably qualified company contractor.</li> </ul>

Criteria	JORC Code Explanation	Commentary
		<ul style="list-style-type: none"> <li>• Collar survey accuracy is <math>\pm 30</math> mm for easting, northing, and elevation coordinates.</li> <li>• Downhole survey measurements are collected every 30m using True North seeking Gyro (Reflex).</li> <li>• All coordinates are based on Map Grid Australia Zone 53H Geodetic Datum of Australia 1994.</li> <li>• Topographic measurements are collected from the final survey drill hole pick up.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• Data spacing for reporting of Exploration Results.</li> <li>• 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.</li> <li>• Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>• Drill density in the Hermitage Exploration Target area is variable, ranging from 15m to 30m apart.</li> <li>• The mineralised areas are yet to demonstrate sufficient grade or continuity to support the definition of a Mineral Resource and the classifications applied under the 2012 JORC code.</li> <li>• Emmerson considers the Hermitage gold and copper mineralisation to be an Early to Medium Stage Exploration Target.</li> <li>• <b>Not reporting on assaying.</b></li> <li>• <b>No assay results yet available during the time of writing this report.</b></li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>• If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>• Exploration drilling is perpendicular to the interpreted strike of the Hermitage target.</li> <li>• No orientation-based sampling bias has been identified in the data at this point.</li> <li>• Review of available drill data, historical reports and geological maps suggest that the Hermitage Exploration Target has been drilled at the correct orientation.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>• RC 3m composite samples are collected and bagged in a pre-determined Sample Number by field technician at the drill site.</li> <li>• Cut core and RC samples were placed in sealed calico bags with predetermined sample number. The samples are placed in sealed polyweave bags and then larger bulka bags for transport to the sample preparation facility in Alice Springs (laboratory).</li> <li>• The Group Exploration Manager fills a Submission Form with the sample numbers and send the SubForm digitally to the Lab.</li> <li>• The assay laboratory confirms that all samples have been received and that no damage has occurred during transport.</li> <li>• Sample receipt is logged into Emmerson's sample ledger.</li> <li>• While samples are being prepared in the laboratory they are considered to be secured.</li> <li>• Tracking is available through the internet and designed by the laboratory to track the progress of batches of samples.</li> <li>• All RC chips and diamond core are stored in Emmerson yard in Tennant Creek.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Not reporting on assaying.</b></li> <li>• <b>No assay results yet available during the time of writing this report.</b></li> </ul>



## Section 2: Reporting of Exploration Results – Hermitage Project Area – Reverse Circulation and Diamond Drilling

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The Hermitage Exploration Target lies wholly within Mineral Lease 30177 (ML30177).</li> <li>The Hermitage Exploration Target is located 37kms north of Tennant Creek Township and 4kms west of the Stuart Highway.</li> <li>The Hermitage Exploration Target is situated on map sheet SE53-14 Tennant Creek 1:250,000 and sheet 5759 Flynn 1:100,000 at GDA94_Z53 coordinate 411234mE/7864300mN.</li> <li>ML30177 is located within Perpetual Pastoral Lease 946, known as Phillip Creek Station.</li> <li>ML30177 is 100% held by Santexco a 100% subsidiary of Emmerson Resources Limited.</li> <li>As the Exploration Target is on Perpetual Pastoral Lease exploration is subject to terms and agreements under Emmerson's ILUA.</li> <li>The ILUA entered between Emmerson Resources and the Central Land Council on behalf of the Aboriginal landowners provides for the protection of site and the payment of compensation.</li> <li>Exclusion Zones are identified within ML30177 however does not impact on the Hermitage Exploration Target.</li> <li>ML30177 is in good standing and no known impediments exist.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>There is no record of production from the Hermitage Exploration target and there are no workings except for several shallow pits on the most easterly ironstone outcrop.</li> <li>AGGSN conducted a ground magnetometer survey over the area in 1937 which defined an anomaly and later became Geopeko's Explorer 26. Later airborne and ground magnetic survey confirmed the presence of the anomaly.</li> <li>Geopeko (A Division of Peko Wallsend Operations Ltd) was granted EL4536 in July 1984 and conducted an airborne magnetic survey over the area and identified several anomalies, one of them was called Explorer 26. The prospect was gridded with ground magnetics. Geopeko drilled a total of 11 holes from 1987 to 1988, and intersected significant copper, gold and bismuth mineralization from several holes.</li> <li>North Flinder Mines Ltd (in JV with Poseidon Gold Ltd) entered into a JV with Geopeko in 1991. NFM explored the area from 1991 to 1997. Work completed by NFM included gravity survey, vacuum and RAB drilling, and ground magnetic survey and one diamond drillhole.</li> <li>ML30177 North Star was granted to Emmerson Resources in April 2014, Hermitage is one of the targets located inside ML30177.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The geological understanding of the Tennant Creek Mineral Field (TCMF) has been advanced by detailed mapping, dating of stratigraphic units and regional geophysical interpretation.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>• Tennant Creek Au-Cu-Bi mineralization, typically hosted in hematite-magnetite-quartz-jasper ironstones are hosted in the Lower Proterozoic Warramunga Formation.</li> <li>• Hermitage is one of a cluster of prospects that occurs within the northern corridor, and which encompass North Star, Jasper Hills, Katherine Star and Northern Star within ML 30177 and regionally also Rising Sun, Marathon, Kepler, Troy, Thrace, and Macedon. All these prospects occur within the northern gravity corridor which reflects a combination of denser, haematitic shales and ironstones.</li> <li>• Outcrop in the Hermitage area is dominated by hematite-quartz ironstone, silicified hematite-rich siltstone, and jasper units.</li> <li>• The structure of the area is roughly east-west and a north-east trend.</li> <li>• HERCDD003 is a diamond tail of HERC003 (ASX: March 2022). The diamond tail has extended visual copper mineralisation a further 0.5m, intersecting massive hematite-magnetite ironstone with blebs of chalcopyrite before encountering broken ground likely associated with a late fault. This hole was eventually abandoned due to drilling difficulties.</li> <li>• Drill hole HERCDD005 intersected a previously unknown ironstone that contains a 38m interval of mineralisation consisting of malachite, native copper, and chalcopyrite ± bornite(?). This mineralisation occurs 38m down the drill hole and is hosted within a brecciated hematite-quartz- jasper ironstone with malachite occurring along fractures, aggregates of native copper and blebs of chalcopyrite ± bornite(?). This new zone of mineralisation occurs some 40m to the north of the previously defined, central ironstone which was intersected at 155m (down the hole). And where a 7m interval of chalcopyrite mineralisation occurs in stockwork quartz veins hosted by chlorite-hematite ironstone, before being truncated by a late fault.</li> <li>• HERCDD006 intersected the central ironstone and 57m of native copper, malachite, and chalcopyrite from 127m down the hole. This mineralisation is hosted in brecciated hematite-quartz-jasper ironstone, with intermittent intervals of chlorite-hematite and vuggy hematite. The mineralization consists of variable amounts of native copper and malachite in the upper portion and blebs plus stringers of chalcopyrite within quartz stockwork veins in the lower zones.</li> </ul>
<i>Drillhole information</i>	<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 drillholes: <ul style="list-style-type: none"> <li>○ Easting and northing of the drillhole collar.</li> <li>○ Elevation or RL of the drillhole collar.</li> <li>○ Dip and azimuth of the hole.</li> <li>○ Downhole length and interception depth.</li> <li>○ Hole length.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• A list of drill hole information and collar details is provided in the main text, Table 1.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Data aggregation methods</i>	<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> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li><b>Not reporting on assaying.</b></li> <li><b>No assay results available during the time of writing this report.</b></li> </ul>
<i>Relationship between mineralization widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</li> <li>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g., 'downhole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li><b>Not reporting on assaying.</b></li> <li><b>No assay results available during the time of writing this report.</b></li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to Figure in body of text for location of holes.</li> <li><b>Not reporting on assaying.</b></li> <li><b>No assay results available during the time of writing this report.</b></li> </ul>
<i>Balanced reporting</i>	<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><b>Not reporting on assaying.</b></li> <li><b>No assay results available during the time of writing this report.</b></li> </ul>
<i>Other substantive exploration data</i>	<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>North Flinders Mines Ltd completed an “in house” Resource Estimate and Geological Report for the Hermitage Exploration Target.</li> <li>Emmerson are cautious and do not believe a historical Resource Estimate can be reported in accordance with the current 2012 JORC Code.</li> <li>Various geophysical surveys have been conducted over the Hermitage Exploration Target. These include magnetic and gravity surveys.</li> </ul>
<i>Further work</i>	<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>Further work on the reported exploration targets will involve: <ul style="list-style-type: none"> <li>Assessment of assay results when received from the lab.</li> <li>Update the geological model and interpretation of ironstone from recent drilling.</li> <li>Preliminary resources estimate potential for Hermitage (non JORC).</li> </ul> </li> </ul>