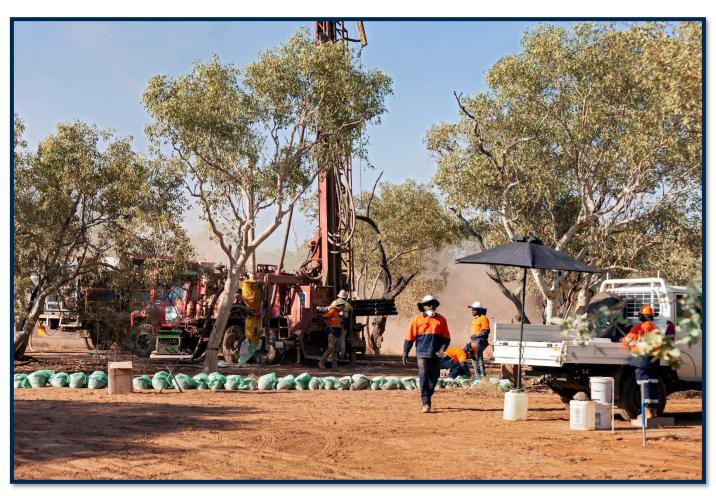
## 8 December 2021



# Stunning 117m at 3.38% copper drill hit at the Hermitage Project in Tennant Creek ends in mineralisation

#### **Highlights**

- RC drill hole HERC003 at the 100%-owned Hermitage Project intersects continuous mineralisation of 117m at 3.38% copper from 75m including:
  - 30m at 7.26% copper and 2.69g/t gold from 162m including:
    - 3m @ 14.91g/t gold and 4.24% copper to end of hole
- Drill hole abandoned in mineralisation at 192m and will be continued with a diamond tail in 2022
- RC hole HERC002 intersected:
  - o 18m at 1.40% copper and 0.23% cobalt from 117m; and,
  - 24m at 4.2g/t gold from 159m including:
    - 3m at 17.61g/t gold and 0.46% bismuth from 162m
- Assays pending for drill hole HERC004, and for gold in native copper zone in HERC003



**Photo 1:** Reverse circulation drill hole (HERC003) in progress. Note sand cover and lack of surface expression.



## **Emmerson Managing Director, Rob Bills commented:**

"These results are some of the best seen in the Tennant Creek Mineral Field as they reflect very extensive, high-grade copper mineralisation, with intervals of high-grade gold and cobalt - all associated with iron-oxides of hematite and magnetite. Whilst it is still early days, the metal zonation and mineralisation in drill hole HERC003 displays increasing gold and copper grades with depth – the subject of future diamond drilling. Although based on limited data (i.e., rock chips), it appears that HERC003 intersected a subvertical, brecciated, high grade metal rich feeder zone which has channelled and concentrated the copper and gold and remains open at depth.

Interestingly, HERC002 drilled outside of the interpreted breccia pipe but contains high grade cobalt, with a similar metal zonation to previously reported cobalt at the nearby Jasper Hills project. Where high-grade cobalt (up to 1.32% consisting of mainly cobaltite) transgresses the high-grade copper.

The Hermitage and Jasper Hills Projects have seen no modern exploration and are located within Mining Lease 30177 that is 100% owned by Emmerson Resources and now a key priority for future exploration.

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#### Hermitage Project – drill testing for high grade gold, copper and cobalt (Figure 1)

Hermitage is one of a cluster of 100% Emmerson owned prospects on granted mining leases that occurs within the northern corridor at Tennant Creek. These prospects incorporate North Star, Jasper Hills, Katherine Star and Northern Star in mining lease (ML 30177) and, Edna Beryl, Thrace, and Macedon in ML 705 (Figure 2). These prospects occur within the northern gravity corridor, consisting of denser, haematitic shales, jasper, and ironstones - the typical host to the mineralisation.

Hermitage has not seen any systematic, modern exploration, with the last exploration efforts ending in the 1990's. This phase of Emmerson's exploration program, underpinned by leading edge targeting technology was aimed at establishing the thickness, grade, and potential for extensions to the historic mineralisation in HEGD12 of 9m at 12.8g/t gold from 176m and, HEGD05 of 23m at 4.84g/t gold and 3.7% copper from 203m (ASX: 14 October 2021).

Four RC holes were drilled by Emmerson in this program, testing an area approximately 200m east-west but focussed on the concept of high-grade mineralisation hosted in sub-vertical, iron-oxide breccia pipes.

Drill hole HERC003 (Figure 3 and Photo 1) intersected a zoned iron-oxide (ironstone) breccia that consists of hematite – jasper closer to the surface, and that grades to magnetite -hematite-chlorite at depth. The metal zonation reflects the interaction of both primary and supergene (oxidation) processes with malachite (copper carbonate - Photo 2) occurring from ~70m to 120m, a thick zone of native copper from 135 to 162m (from oxidation processes - Photo 3), before grading into primary chalcopyrite- quartz-chlorite (copper-iron sulphide – Photo 4) at 180m to the end of the drill hole (Figure 4). Noting that the gold assay results from 135m to 162m (in HERC003) are still outstanding as additional samples were required by the assay laboratory.

This hole was terminated in mineralisation due to encountering drilling difficulties.

The dimensions of the breccia and true thickness of the mineralisation are currently unknown. Drill hole HERC002 is interpreted to be proximal to the breccia pipe in containing cobalt mineralisation and lower tenor copper, plus high-grade gold associated with strong chlorite alteration at depth. HERC001 with no significant mineralisation is likely distal to the breccia pipe, although there may be multiple such pipes within the larger magnetic anomaly (Figure 3).

Still outstanding are assay results for HERC004, complete gold results from HERC003, and 1m sample splits of the 3m composites from all significant intercepts in HERC002 and HERC003.

This drilling has greatly enhanced the ranking and potential for economic gold, copper, and cobalt mineralisation across the Northern Project Area, particularly within the northern gravity ridge that is host to several similar style iron-oxide copper-gold prospects. Diamond drilling will commence at Hermitage following the northern hemisphere wet season.

#### Edna Beryl Project - drill testing for high grade gold

The RC drill program at Edna Beryl was completed earlier this month and was principally aimed at testing for continuity of the high-grade gold in the shallow oxide zone, between the Edna Beryl Mine and prospectors' shaft at Edna Beryl West (ASX: 14 October 2021). Given the back log of samples at the laboratory, these results will not be available until early 2022.

#### For further information, please contact:

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

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#### 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 1,700km² 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 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.

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Table 1: Hermitage drilling Significant Intersections

Hole ID	East (MGA94_53)	North (MGA94_53)	RL AHD	Dip (deg)	AZI MAG (deg)	Fron	n (m)	To (m)	Width (m)	Au (g/t)	Ag (ppm)	Bi (ppm)	Co ppm	Cu (%)	Fe (%)	Mo (ppm)	Pb (ppm)	Sb (ppm)	Se (ppm)	Zn (ppm)	Sample Type	Geology	Tenement									
											108.0	114.0	6.0	1.17	0.1	710.9	749.6	0.61	16.2	64.8	79.8	24.4	1.3	93.0		Magnetite-hematite ironstone; vuggy						
							117.0	147.0	30.0	0.12	1.4	417.7	0.17%	1.09	31.9	114.9	68.0	32.5	1.8	24.5		Magnetite-hematite-quartz ± jasper ironstone with blebs of chalcopyrite										
HERC002	411217.9	7864286.0	312.5	-87	330.9	incl.	117.0	135.0	18.0	0.13	1.4	157.3	0.23%	1.40	31.9	114.9	68.0	32.5	1.8	24.5	3m Composite											
							159.0	183.0	24.0	4.20	10.2	854.9	84.4	0.02	16.1	31.1	255.2	9.4	76.8	185.4		Magnetite-hematite ironstone transitioning to chlorite-hematite on the footwall										
															incl.	162.0	165.0	3.0	17.61	27.9	0.46%	66.1	0.07	18.6	123.5	636.2	9.4	209.0	235.0			
														75.0	192.0	117.0		2.5	287.7	450.4	3.38	19.5		26.8	13.0		134.1					
											incl.	75.0	96.0	21.0	0.29	1.3	348.3	612.6	1.89	11.9	88.8	33.4	15.8	0.8	114.1		Hematite-jasper ironstone; vuggy; malachite notable	ML30177				
										incl.	135.0	162.0	27.0		4.8	90.1	518.8	4.27	29.2		27.9	25.0		259.4		Interval with intermittent native						
		1229.7 7864303.1 312.4	7864303.1						incl.	135.0	141.0	6.0		9.0	180.5	513.5	7.61	33.1		25.0	25.0		181.0	3m	copper; brecciated hematite- magnetite-quartz±jasper ironstone, vuggy locally; dolomite-							
HERCUU3	HERC003 411229.7 7864303			312.4	4 -88	99.85	incl.	159.0	162.0	3.0		5.0	109.0	481.0	9.11	26.4		25.0	25.0		249.0	Composite	quartz localized									
							incl.	162.0	192.0	30.0	2.69	4.1	691.9	497.8	7.26	21.6	93.8	34.5	12.8	11.0	80.8											
						incl.	162.0	171.0	9.0	1.37	4.5	0.12%	614.1	12.55	14.5	92.9	37.7	5.2	4.0	79.0		Magnetite± hematite ironstone; transitioning to chlorite-magnetite- hematite										
						incl.	189.0	192.0	3.0	14.91	9.3	298.8	246.1	4.24	18.5	192.9	28.4	7.7	45.0	152.0												

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#### Note:

- (1) All samples are 3m composite.
- (2) RC samples multi element analysis method by Aqua Regia digestion (ICP MS AR25/OM) except for HERC003 (135m 162m).
- (3) HERC003 from 135m to 162m with native copper interval; analysed by AR25/MS and 4AH/OE to screen for nugget effect; results from weighted average above +105um and -105um and show accurate assay of overall copper content.
- (4) Intersections are reported as downhole lengths and not true width.
- (5) Minimum cut-off of 0.5% Cu. No maximum cut-off.
- (6) Minimum cut-off of 0.5 g/t Au. No maximum cut-off.
- (7) Maximum of 3m internal dilution.

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Table 2: Hermitage drilling collar details

HoleID	Total Depth	Hole Type	MGA94_z53 Easting	MGA94_z53 Northing	RL	Dip	Azi_ Mag	Date Drilled	Tenure
HERC001	132	RC	411251.08	7864240.84	312.72	-66.0	146.85	17/10/2021	ML30177
HERC002	204	RC	411217.90	7864286.01	312.49	-87.0	330.85	18/10/2021	ML30177
HERC003	192	RC	411229.66	7864303.06	312.36	-88.0	99.85	20/10/2021	ML30177
HERC004	192	RC	411161.16	7864360.48	311.99	-64.0	145.85	29/10/2021	ML30177

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**Photo 2:** Reverse Circulation drill chips showing copper (malachite) in the oxide zone of drill hole HERC003.

## **Native copper**





Photo 3: Native copper in RC drill hole HERC003.

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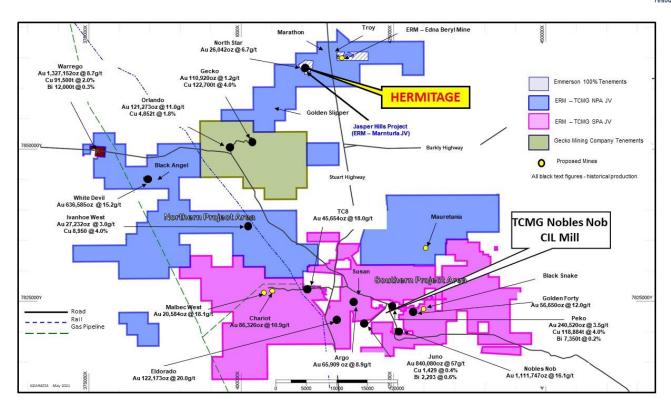




Photo 4: Reverse Circulation drill chips showing copper (chalcopyrite) in the deeper primary of drill hole HERC003.

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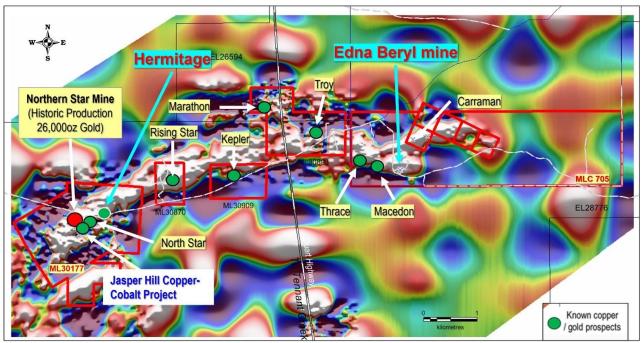




**Figure 1:** Map of the Emmerson Tennant Creek Project showing the Northern Project Area (NPA), and Southern Project Area (SPA), which is covered by the Exploration (EEJV) and Small Mines (SMJV). Yellow dots are potential small mines and/or remnant resources.

Noting that Emmerson retains 100% of the Jasper Hills, Hermitage, North and Northern Star and Edna Beryl projects.

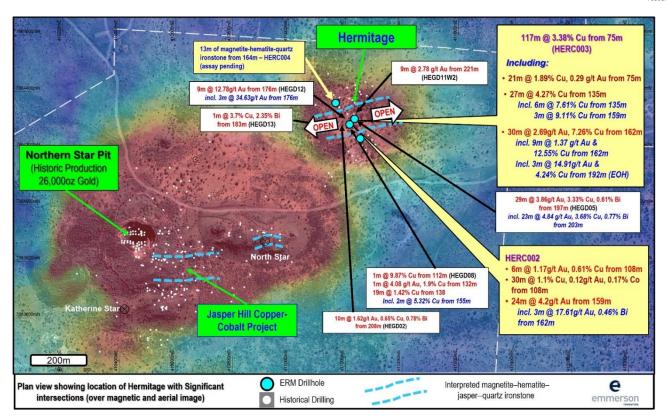
- Note:
  - Quoted production from major historical deposits after Ahmad, M. and Munson, T.J. (2013). Geology and mineral resources of the Northern Territory, Special Publication 5, p. 9:37.
    - For Chariot mine and Malbec West mine, quoted production from Giants Reef Mill Reconciled Production to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



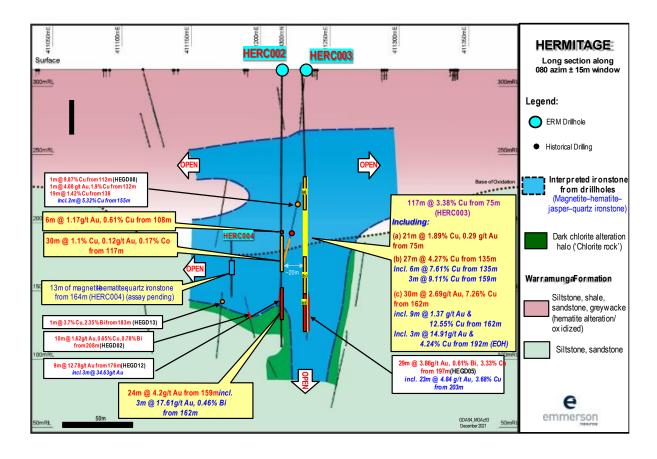
**Figure 2:** Map of the northern corridor with gold, copper, and cobalt projects. Background colour is the residual gravity map with white representing the northern gravity (high) ridge. Noting that ML 30177 (Jasper Hills, Hermitage, North and Northern Star) plus MLC 705 (Edna Beryl) are 100% owned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

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**Figure 3**: Plan view Hermitage (with drill collars), North Star and Jasper Hills projects within Emmerson's 100% owned Mining Lease 30177. Background is magnetics (red = highly magnetic) and aerial image.



**Figure 4**: Long Section (within 30m wide corridor) of Emmerson drill holes HERC002 and 003. Also note pending assay results (HERC004) and historical intercepts (HEDGD).

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## 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 Exploration Target

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul> <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> <li>Hermitage Exploration Target (also called Explorer 26) was drilled with Reverse Circulation (RC) drilling. Four holes have been completed, HERC001, HERC002, HERC003 and HERC004.</li> <li>The HERC001 is angled hole (-66°) to optimally test the interpreted shear zone at Hermitage south. HERC002 and HERC003 are subvertical holes to test the plunge of the mineralisation and to test vertical continuity of the ironstone body. HERC004 is angled (-64°) to test the up plunge of mineralisation and west extension of the interpreted ironstone.</li> <li>A 3m composite sample collected directly from 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 are placed back into the original sample bag and left on site.</li> <li>Most wet samples were not able to riffle split, grab samples were taken every metre and composited to 3m.</li> <li>3m composite samples weighs from 1 – 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 (AR25/MS).</li> </ul>
Drilling techniques	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).	<ul> <li>RC drilling accounts for 100% of the current reported drilling at Hermitage Exploration Target.</li> <li>RC drill rig used was a Schramm 450W.</li> <li>RC drilling used 4-inch face sampling bit.</li> <li>RC depths for HERC001 = 132m, HERC002 = 204m and HERC003 = 192m, HERC004 = 192m for a total of 720m.</li> </ul>
Drill sample recovery	<ul> <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 have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Chip recoveries are fair for reported RC drilling (HERC001 to HERC004).</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> <li>The cyclone and splitter are routinely cleaned with more attention spent during the drilling of damp or wet samples.</li> <li>No detailed analysis was conducted to determine relationships between sample recovery of metal grades. Emmerson consider that there is potential 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>
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	<ul> <li>All holes drilled at Hermitage Exploration Target are geologically logged.</li> <li>Standard operating procedures are employed by Emmerson for logging RC holes. RC drill chips are</li> </ul>

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Criteria	JORC Code Explanation	Commentary
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.     The total length and percentage of the relevant intersections logged.	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 sampled.  RC logging data is directly entered using Logchief into field laptop computer. Standardised codes are used for lithology, oxidation, alteration, minerals, and veins; presence of sulfide information is recorded.  RC holes are logged both qualitative (discretional) and quantitative (% volume).  All RC chips are photographed on chip trays.  All RC holes (HERC001 to HERC004) total length of 720m were geologically log 100%.
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core 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> <li>Quality control procedures adopted for all subsampling 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>	<ul> <li>Standard sampling operating procedures are used for sampling RC samples.</li> <li>3m composites were run through the riffle splits for HERC001 to HERC004 (collar to end of holes), for dry samples.</li> <li>For HERC002 and HERC003, ~90% were riffle splits. Where very wet samples were encountered (~10%), grab sample was taken every metre and combined to get the 3m composite sample.</li> <li>The 3m composite samples weigh from 1 – 5kg.</li> <li>The sample sizes are considered to be appropriate to correctly represent the mineralisation on the style of mineralisation.</li> <li>RC duplicate samples were routinely submitted with duplicate assays returning acceptable comparison results.</li> <li>Standards are routinely inserted in the sampling batch for QAQC purposes.</li> </ul>
Quality of assay data and laboratory tests	<ul> <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> <li>The samples are submitted to Intertek Laboratory in Alice Spring for crushing and sample preparation and subsequently to Intertek lab in Perth for analysis:         <ul> <li>For AR25/OM:                  <ul></ul></li></ul></li></ul>

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Criteria	JORC Code Explanation	Commentary
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	lab selected 200g for screening with a 105µm screen.  The entire coarse fraction was analysed by AR25/MS and the finer fraction by 4AH/OE.  The weighted average copper value is calculated using the (weight of the coarse screen x grade) + weight of the fine x grade) all over the total weight (200g).  No downhole geophysical tools or handheld XRF instruments are used to determine grade.  Magnetic susceptibility data are collected every 1m metre as per standard procedure using a Terraplus KT-10 magnetic susceptibility meter.  Emmerson field QC procedures involve the use of certified reference material (CRM's) as assay standards and include blanks. Certified reference material or blanks are inserted at least every 20 samples.  Laboratory checks include CRM's and/or in-house controls, blanks, splits, and replicates that are analysed with each batch of samples submitted. These QC results are reported along with sample values in the final analytical report.  The Group Exploration Manager (GEM) of ERM has visually verified significant intersections reported in the RC samples.  Assay data from the lab is received as .csv. The results are the loaded by external database administrator to an industry-standard database (Datashed). Sample data sheets were used to merge the assay results with the sample intervals for each hole. Assay data and intercepts are cross-checked internally by Emmerson geologist.  Drill hole data including meta data, any gear left in the drill hole, lithological, mineral, downhole survey, sampling, magnetic susceptibility is collected and entered to Logchief.  All digital logs, sample ledgers, assay results were uploaded to a secure server (Datashed). The merged and complete database is then imported to Micromine software for assessment.  Data back-ups (onsite) are employed to external drive.  No adjustments were made on original assay data for the purpose of reporting grade and mineralised intervals.
Location of data points	<ul> <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> <li>No twin drillholes have been undertaken.</li> <li>Collar locations and details are shown in Table 2 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> <li>Collar survey accuracy is ± 30mm for easting, northing, and elevation coordinates.</li> <li>Downhole survey measurements are collected every</li> </ul>

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Criteria	JORC Code Explanation	Commentary
Data spacing and distribution	<ul> <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> <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> <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>No sample compositing was applied.</li> </ul>
Orientation of data in relation to geological structure	<ul> <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> <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>
Sample security	The measures taken to ensure sample security.	<ul> <li>RC 3m composite samples are collected and bagged in a pre-determined Sample Number by field technician at the drill site.</li> <li>The samples are placed in polyweave bags and sealed. Polyweave bags are then placed in a larger bulka bags for transport to the sample preparation facility in Alice Springs (Intertek – Genalysis laboratory).</li> <li>The GEM fills a Submission Form with the sample numbers and send the SubForm digitally to the laboratory.</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 collected are stored in Emmerson's yard in Tennant Creek.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No formal audits or reviews have been completed on the samples being reported.

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# Section 2: Reporting of Exploration Results – Hermitage Exploration Target

Criteria	JORC Code Explanation		Commentary
Criteria  Mineral tenement and land tenure status  Exploration done by other parties	JORC Code Explanation  Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.  The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	•	The Hermitage Exploration Target lies wholly within Mineral Lease 30177 (ML30177).  The Hermitage Exploration Target is located 37kms north of Tennant Creek Township and 4kms west of the Stuart Highway.  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.  ML30177 is located within Perpetual Pastoral Lease 946, known as Phillip Creek Station.  ML30177 is 100% held by Santexco Pty Ltd a 100% subsidiary of Emmerson Resources Limited.  As the Hermitage Exploration Target is on Perpetual Pastoral Lease exploration is subject to terms and agreements under Emmerson's ILUA.  The ILUA entered between Emmerson Resources and the Central Land Council on behalf of the Aboriginal landowners provides for the protection of registered sites and the payment of compensation.  Exclusion Zones are identified within ML30177 however these do not impact on the Hermitage Exploration Target.  ML30177 is in good standing and no known impediments exist.  There is no record of production from the Hermitage Exploration Target and there at no workings except for several shallow pits on the most easterly ironstone outcrop.  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.  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
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Geology	Deposit type, geological setting, and style of mineralisation.	•	inside ML30177.  The geological understanding of the Tennant Creek Mineral Filed (TCMF) has been advanced by
			detailed mapping, dating of stratigraphic units and regional geophysical interpretation.

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Criteria	JOKC Code Explanation	<ul> <li>Tennant Creek Au-Cu-Bi mineralisation (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 Northern Star, Jasper Hills, Northern Star, Katherine Star, and Retsina within ML 30177 and regionally also Rising Star, Marathon, Troy, Kepler, Troy, Thrace, Macedon, Carraman, Milligal and Olympus and Edna Beryl. 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>Recent drilling by Emmerson advanced the understanding of the gold and copper rich nature of the Hermitage prospect.</li> <li>The magnetite – hematite – quartz ± jasper ironstones at Hermitage trend east-west and remain open in most directions.</li> <li>Above the base of oxidation, hematite - jasper ± magnetite ironstone is usually vuggy with malachite as notable copper sulfide mineral.</li> <li>Below the base of oxidation, magnetite – hematite ± quartz ± jasper is brecciated, locally massive, with zone of native copper occurring as coarse grains and platy, while massive blebs of chalcopyrite occur at depth.</li> <li>High grade zones of gold and copper occur at the footwall of the ironstone, occurring in mineralized</li> </ul>
Drillhole information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:	A list of drill hole information, collar detail and intersections are provided in the main text, Table 1 and Table 2.
Data aggregation methods	<ul> <li>Hole length</li> <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> <li>Mineralised intersections are reported as down hole intervals and not weighted averages.</li> <li>Significant Intersections are shown in Table 1. Cutoff grades have been used for reporting of exploration drill results and are defined below Table 1. Non-significant assay values were not individually reported.</li> <li>These results are exploration results only and no allowance is made for recovery losses that may occur should mining eventually result, nor metallurgical flow sheet considerations.</li> <li>No metal equivalent values reported.</li> </ul>

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Criteria	JORC Code Explanation	Commentary
Relationship between mineralization widths and intercept lengths	<ul> <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> <li>The magnetite – hematite – quartz ± jasper ironstones at Hermitage trend east-west. Mineralisation at the Hermitage Exploration Target is hosted in hematite - jasper ± magnetite ironstone is usually vuggy in the oxidized zone. Below the base of oxidation, magnetite – hematite ± quartz ± jasper is brecciated, locally massive.</li> <li>The Hermitage ironstones is subvertical and strikes ~east-west to 080° azimuth. Ironstone intersections from drilling showed a lateral extent of ~70m and vertical extent of ~15m – ironstone is still open in all directions</li> </ul>
Diagrams	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.	Refer to Figures in body of text for location of holes and cross section.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.	Drilling results are reported at cut-offs as shown in Table 1.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <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 historical geophysical surveys have been conducted over the Hermitage Exploration Target. These include magnetic and gravity surveys.</li> </ul>
Further work	The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Further work on the reported exploration targets will involve:         Update the geological model and interpretation of ironstone from recent drilling.         Assessment of assay results.         Representative samples of hematite collected for age dating.         Representative samples of chlorite rock will be collected for mineral chemistry to assist in understating the halo of mineralized ironstone.         Compilation of historical geophysical data.         Follow up drilling.

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