# **ASX Announcement 28 January 2022**

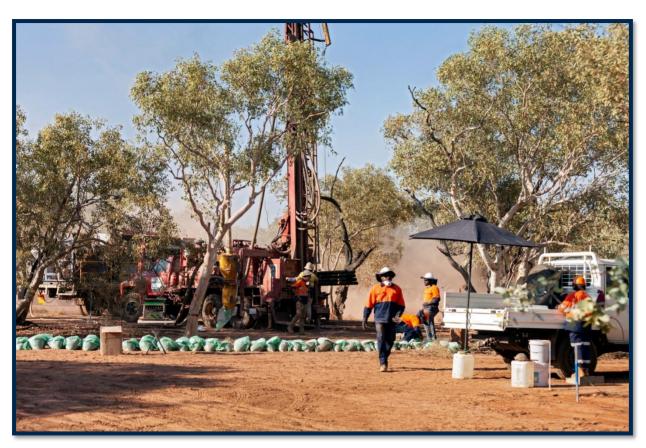


# QUARTERLY ACTIVITIES REPORT for the Period Ending 31 December 2021

#### **Highlights**

- RC drill hole HERC003 at the 100%-owned Hermitage Project at Tennant Creek intersects continuous highgrade mineralisation of 117m at 3.38% copper from 75m including:
  - o 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 HERC003 at Hermitage is the best to date copper-gold intersection in the Tennant Creek Mineral Field
  and was independently ranked as the 16th best copper intersection on a global basis for 2021
- Assays still pending for drill hole HERC004, and for gold only within the native copper zone in HERC003
- Phase 2 diamond and RC drill program being planned at Hermitage to include a diamond drill extension of HERC003, given it ended in high grade copper and gold mineralisation
- 40% increase in ounces to the Mineral Resource Estimate for the Chariot gold deposit at Tennant Creek to:
  - 556,200t at 7.8g/t Au for 138,800oz Au
- New Chariot resource supports a conceptual high grade 17.7g/t Au open pit and 6.3 g/t Au underground
  operation
- Assays pending for 2021 drill campaign at Emmerson's 100% owned Edna Beryl gold mine
- 10,000km² Ultra High-Resolution drone magnetic survey at Tennant Creek is now 70% complete, with highly successful "proof of concept" orientation flights over Mauretania
- Kiola project (NSW) recognised and awarded drilling grant by the NSW Government of \$118,000
- Cash held as at 31 December 2021 \$3.9M





**Photo 1:** Reverse circulation drill hole (HERC003) in progress at Hermitage. Note sand cover and lack of surface expression of the ironstone which hosts the mineralisation some 75m below the surface.

TENNANT CREEK: building a pipeline of high-impact exploration and mining projects with Strategic Alliance funding to generate future low risk, royalty streams

## Stunning 117m at 3.38% copper drill hit at the Hermitage Project in Tennant Creek (ASX: 8 December 2021)

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 (Figures 1 and 2). These prospects occur within the northern gravity corridor, consisting of denser, haematitic shales, jasper, and ironstones - the typical host to the mineralisation (Figure 2).

Hermitage has not seen any systematic, modern exploration with the last exploration campaign 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).

Phase 1 consisted of four RC holes aimed at 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 (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.

EMMERSON RESOURCES LIMITED Page 2 of 20



This hole was terminated in mineralisation due to encountering drilling difficulties however based on only the copper results, was independently ranked by OPAXE as the 16<sup>th</sup> best copper intersection in 2021 (on a global basis). Notably, the reported intersection ranked ahead of Greatland Gold/Newcrest Mining's drilling at the Haverion discovery in the Paterson Province of WA and displays many geological similarities.

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 4).

Still outstanding are assay results for HERC004 and gold results from the native copper zone in HERC003, plus 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. Phase 2 Diamond and RC drilling will recommence following the conclusion of the northern wet season and renewal of the Clearance Certificate.

## Chariot High Grade Gold Resource increased by 40% (ASX: 22 December 2021)

A significant upgrade to the Mineral Resource Estimate (MRE) for the Chariot Gold Project at Tennant Creek, Northern Territory (Figures 1 and 5) was delivered during the quarter. The MRE is an important part of the mining studies being undertaken by Strategic Partners Tennant Creek Mining Group (TCMG) with a view to commencing future mining and processing at their central processing hub.

A total of 138,800 ounces of gold has been reported as a MRE, in compliance with the 2012 JORC Code (Table 1A) and represents an increase of 40% from the previous underground estimate in November 2013 (ASX: 28 November 2013, Table 1B).

Chariot was originally discovered by Normandy Mining in 1998 and mined by Giants Reef Mining from 2003 to 2005 when the low gold price and mining issues led to closure.

Emmerson engaged independent consultant Optiro Pty Ltd ("Optiro") in 2013 to provide a MRE based on selective mining of high-grade ore shoots. The selective mining method would necessitate leaving ore behind to support the rock mass, resulting in suboptimal extraction of the orebody.

In 2021, TCMG engaged Optiro, (as part of TCMG's obligations under the Small Mines Joint Venture with Emmerson) to update the Chariot MRE. This scope of work included geologically remodelling the ironstone to include the surrounding, gold-bearing chlorite alteration halo and incorporating the results of the recent geotechnical relogging and optimisation studies.

Importantly, geotechnical relogging and the change to bulk rather than selective underground mining methods resulted in the reclassification of some of the upper portions of the orebody that had previously been sterilised due to poor ground conditions. Furthermore, this new geological interpretation better captures the distribution of gold grades hosted within the chlorite altered Chariot Shear Zone and provides a more robust and continuous resource at depth.

The Mineral Resource Estimate (Table 1A and Figure 6) is reported above a 1.0 g/t gold cut-off grade above 180mRL (open pit scenario), and above a 2.0g/t gold cut-off grade below 180mRL (underground scenario).

The Chariot orebody remains open and poorly explored at depth, which provides an opportunity for future underground exploration – with associated costs funded as part of the TCMG Small Mines Joint Venture with Emmerson.

#### Edna Beryl Drilling – drilling to test for continuity of high-grade shallow oxide gold

Edna Beryl is located within the Northern Project Area (NPA) of Emmerson's Tennant Creek project (Figure 1) and is excluded from the Joint Venture area with TCMG. It comprises a high-grade underground gold mine with mineralisation contained in at least four subparallel ironstones that occur within a 200m wide, east-west trending shear zone (Figure 7). These mostly hematite ironstones host very high-grade gold and are structurally controlled, both along strike and down plunge.

Previous surface drilling by Emmerson has indicated great potential for high grade, primary gold at depth. However, the focus of the December 2021 Reverse Circulation (RC) drill program was aimed at testing for continuity between the Edna

EMMERSON RESOURCES LIMITED Page 3 of 20



Beryl Mine and historic workings at Edna Beryl West, within ironstones one and three (Figure 7). From historic records, the Edna Beryl West mineralisation shows similar characteristics to the exceptional high-grade gold encountered at the Edna Beryl mine.

Additionally, this drilling tested for extensions to mineralisation in ironstone 3, where an earlier program intersected **5m at 251g/t gold** from 147m in drillhole EBWR041 (ASX: 31 October 2016), some 20m to the north of the Edna Beryl mine (Figures 4 and 7). The planned 2022 drilling will require renewal of the Clearance Certificate.

Edna Beryl was last operated from 2018-2021 under a mining and processing agreement (Tribute Agreement MLC 705) with TRL Tennant Creek Pty Ltd (TRL). Whereby Emmerson retained the underlying Mining Lease and received a free carried, 12% gold production tribute payment and licensed the rights and costs of mining and processing to TRL. Trial mining of a 2,107t parcel of ore by TRL in 2018 produced an average head grade of 29g/t gold (ASX: 11 November 2020), testament to the likely bulk grade of the gold in the oxide zone of ironstone 1.

After a lengthy legal process, both the mining, processing and operator agreements have now been terminated. This provides an opportunity to capitalise on the installation of a new CIL mill in Tennant Creek by our partners TCMG. As well as a broader strategic review of all projects within the northern corridor to build on Emmerson's strategy of creating an emerging gold royalty business. As part of this review, Emmerson believes there is good potential to re-establish a mining operation at Edna Beryl with the initial step to test for extensions to the shallow high grade gold zones.

## New Drone aeromagnetic survey - to generate new drill targets for the project pipeline

Emmerson (in partnership with TCMG) is deploying new detection technologies such as ultra-high resolution drone magnetic surveys to better define subtle magnetic anomalies – specifically, early magnetite ironstones that have been overprinted by the hematite bearing mineralised fluids, as evidenced at our previous discoveries at Mauretania, Edna Beryl and Goanna. The resolution of this drone survey is far superior to historic, fixed-wing magnetic surveys due to the drone being able to fly 15m above the ground and on 10m spaced lines. This technology is likely to have similar utility in the northern corridor and has great potential to delineate new gold and copper discoveries.

## NSW: hunting for large copper-gold porphyry deposits

## Kiola Project – high impact drilling for early 2022

In 2017 Emmerson and its strategic alliance partner, Kenex Limited (now Duke Exploration Limited), deployed **data analytics technology** across the Macquarie Arc to improve the success rate of discovery. This approach offered greater insight into the critical formational factors for porphyry gold-copper mineralisation in the Macquarie Arc and provided a ranked portfolio of potential opportunities. Consequently, Emmerson now has a strategic, early mover landholding position (Figure 8). Since then, Emmerson has undertaken systematic exploration across its NSW projects utilising traditional exploration methods and new research from the University of Tasmania Arc Linkage project.

Emmerson's Kiola project is one of the **highest ranked**, **early-stage gold-copper projects** in the portfolio and is centred on the 15km<sup>2</sup> Kiola Geochemical Zone (KGZ). It encompasses favourable Ordovician age rocks that display anomalously high gold and copper geochemistry plus historic workings. Recent work has confirmed that the KGZ contains many of the attributes of world class porphyry gold-copper mineralisation and is divided into a northern area centred on the Nasdaq skarn and a southern area around the South Pole, Kiola and Right-Hand Creek mine.

Emmerson's multifaceted field program has included soil and rock chip geochemistry, with rock chip samples returning up to 19.6g/t gold and 2.16% copper (ASX: 12 March 2020). It has also utilised aspects of the ARC Linkage project such as "green rock alteration" and age dating to refine the subsurface 3D model and provide vectors to the core of the copper and gold mineralisation. This has provided the framework for linking the surface geology and mineralisation within the 15km² KGZ to a unifying model at depth.

This large geophysical survey which also incorporates the reinterpretation of an existing VTEM survey (Versatile Time Domain Electromagnetic), was a significant investment which has produced some very exciting results. In that the copper and gold prospects at the surface are now interpretated as part of a much larger, potentially mineralised system at depth,

EMMERSON RESOURCES LIMITED Page 4 of 20



stretching over 5km from the Nasdaq Skarn in the north to the Yards prospect in the south (Figure 9).

## Kiola Project awarded New Frontiers drilling grant

The New Frontiers Cooperative Drilling grants program by the NSW Government encourages private exploration drilling in the search of high value mineral deposits in prospective underexplored areas of NSW and where companies are using the latest technology to identify new deposits.

This program is a co-funded initiative where the NSW Government provides up to 50 per cent of direct drilling costs for individual projects. Emmerson is pleased to advise that it has recently been awarded a grant of \$118,000 for the upcoming drilling at Kiola.

The next drill program at Kiola remains subject to operational limitations related to COVID-19 restrictions and contractor availability.

## CORPORATE: funding in place to support growth and future exploration programs

As announced to ASX on 9 November 2020, Emmerson terminated the previous Exploration Earn-in and Joint Venture Agreement (EEJV) over the Southern Project Area (SPA) with TRL Tennant Creek Pty Ltd (TRLTC), a subsidiary of Territory Resources. Emmerson was notified in early July 2021 that TRLTC has been placed into voluntary administration. Effective 7 October the creditors resolved that TRLTC be wound up and liquidators be appointed. Emmerson will monitor the progress of the Liquidation process as it unfolds.

Emmerson had an unaudited cash balance of \$3.9m as at 31 December 2021.

The Quarterly Cashflow Report (Appendix 5B) for the period ending 31 December 2021 was released to ASX the same day as this report and provides an overview of the Company's financial activities. Significant items in the Appendix 5B include:

- Exploration expenditure for the reporting period of \$713,000 which was offset by reimbursement from Joint Venture Partners totally \$531,000
- Corporate and other operating expenditure, net of other income, totalling \$374,000
- Total amount paid to directors of the entity in the period (item 6.1 of the Appendix 5B) of \$116,000 which includes salary, directors' fees, consulting fees and superannuation

## **Key Activities Expected in March Quarter 2022**

- Large RC and diamond drill program at Emmerson's 100% owned Hermitage project
- Further progress on gaining access to the Jasper Hills project with the Custodians approving Emmerson's work program and measures to protect sensitive sites
- Completion of the Ultra High Resolution drone magnetic survey over the Southern Project Area at Tennant Creek
- Finalisation and approval of drill programs for 2022 within the TCMG Joint Venture areas in Tennant Creek
- Continuation of advanced mine studies, including reporting of JORC Resource estimates at Mauretania and Black Snake
- Ongoing mine and environmental studies to advance Mauretania and Chariot to the TCMG mine schedule
- Outstanding assay results from Edna Beryl and Hermitage
- Possible commencement of drilling at Kiola subject to securing a drilling contractor and within the constraints of the COVID protocols

EMMERSON RESOURCES LIMITED Page 5 of 20



## **Announcements**

22 December 2021	Chariot high grade gold resource increased by 40% - Amended	
9 December 2021	Investor Update	
8 December 2021	Stunning 117m at 3.38% copper drill hit at Hermitage project	
3 December 2021	Investor Update	
2 December 2021	Change of Director's Interest Notice	
2 December 2021	Chariot high grade gold resource increased by 40%	
1 December 2021	Notification regarding unquoted securities – ERM	
25 November 2021	Results of Meeting	
15 November 2021	Initial Director's Interest Notice	
15 November 2021	Jobkeeper Payments Notice	
15 November 2021	Notification of cessation of securities – ERM	
12 November 2021	Addendum to Notice of Annual General Meeting / Proxy Form	
12 November 2021	Letter to shareholders – Addendum to Notice of AGM	
11 November 2021	Appointment of Alan Tate as Non-Executive Director	
29 October 2021	Quarterly Cashflow Report	
29 October 2021	Quarterly Activities Report	
28 October 2021	Mining in the Territory Conference Presentation	
26 October 2021	Investor Update	
26 October 2021	Visual copper intersected in drilling at Hermitage project	
14 October 2021	Letter to Shareholders – Notice of Annual General Meeting	
14 October 2021	Notice of Annual General Meeting / Proxy Form	

EMMERSON RESOURCES LIMITED Page 6 of 20



14 October 2021 Annual General Meeting Notice

14 October 2021 Drilling of high-grade gold & copper targets underway at TC

## 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.

EMMERSON RESOURCES LIMITED Page 7 of 20



## 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) 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.

## **About Tennant Consolidated Mining Group (TCMG)**

TCMG is a subsidiary of TA Private Capital Security Agent Ltd and advised by TransAsia Private Capital (TA), a Hong Kong headquartered assets management firm, best known for its private debt solutions spanning trade finance through mid-tenor supply chain financing to mid to longer tenor term and project loans. TA has a diverse portfolio of capital deployed globally including within the Australian mining sector.

TCMG's focus is to rationalise assets in the Tennant Creek area, with the objective of undertaking detailed studies with the ultimate goal of developing a centralised processing facility commercialising known mill feed sources in and around Tennant Creek.

#### 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 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 2004 edition and 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.

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

EMMERSON RESOURCES LIMITED Page 8 of 20



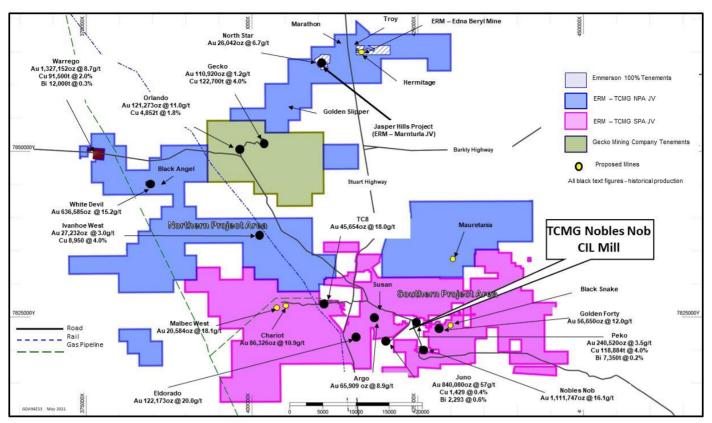


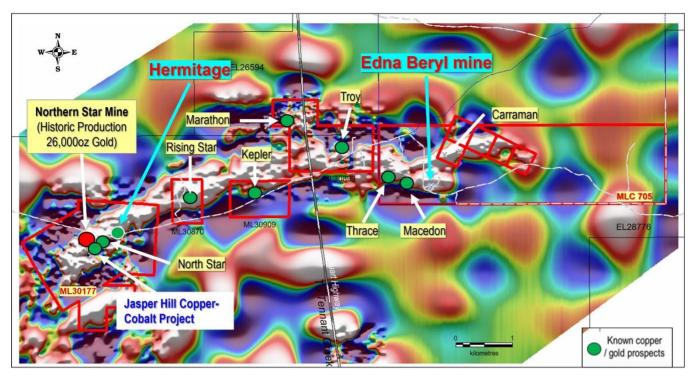
Figure 1: Map of the Emmerson Tennant Creek Project showing the Northern Project Area (NPA), and Southern Project Area (SPA), which is covered by the Exploration (EEJV) and Small Mines (SMJV). Yellow dots are potential small mines and/or remnant resources. Noting that Emmerson retains 100% of the Jasper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

#### Note:

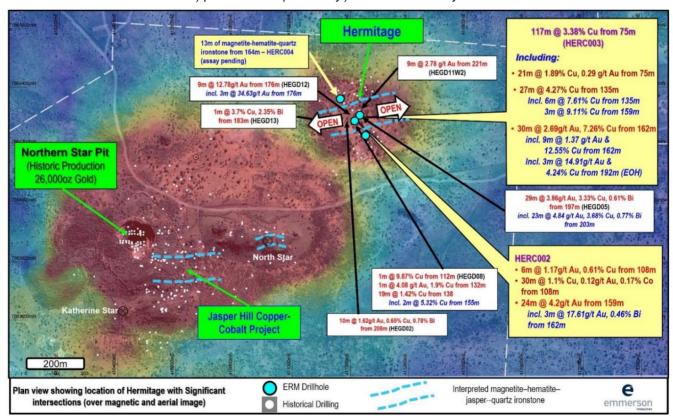
- Quoted production from major historical deposits after Ahmad, M. and Munson, T.J. (2013). Geology and mineral resources of the Northern Territory, Special Publication 5, p. 9:37.
- For Chariot mine and Malbec West mine, quoted production from Giants Reef Mill Reconciled Production to end of month September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

EMMERSON RESOURCES LIMITED Page 9 of 20





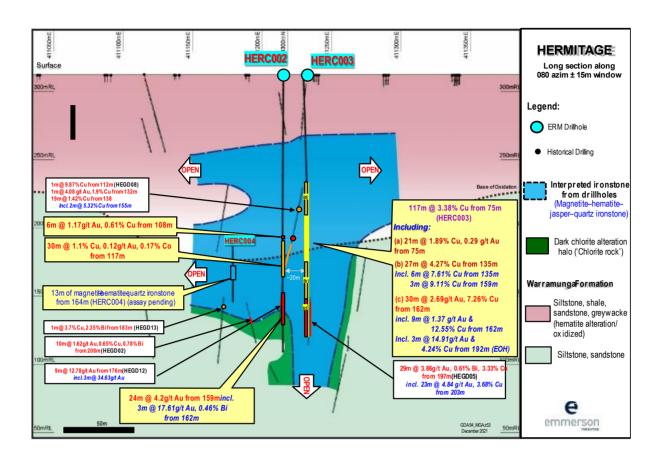
**Figure 2:** Map of the northern corridor with gold, copper and cobalt projects. Background colour is the residual gravity map with white representing the northern gravity (high) ridge. Noting that ML 30177 (Jasper Hills, Hermitage, North and Northern Star) plus MLC 705 (Edna Beryl) are 100% owned by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



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

EMMERSON RESOURCES LIMITED Page 10 of 20





**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).



Figure 5: Plan view of Chariot Deposit and drill hole location. Also showing the Chariot Mineral Resource Estimate.

EMMERSON RESOURCES LIMITED Page 11 of 20



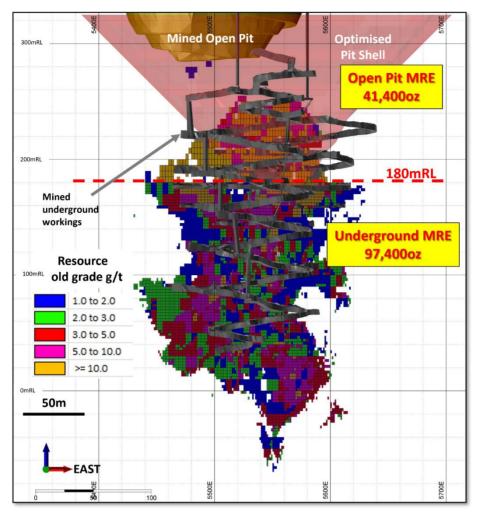
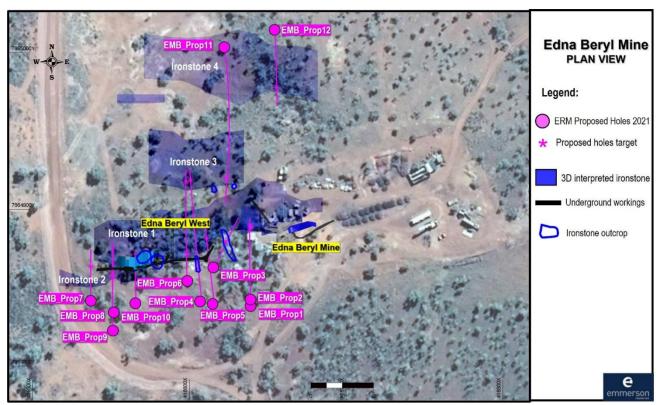


Figure 6: Chariot Mineral Resource Estimate

EMMERSON RESOURCES LIMITED Page 12 of 20





**Figure 7**: Plan view of the planned collar and drill traces of holes at Edna Beryl. Note the interpreted 3D wireframe (blue) of Edna Beryl ironstones.

EMMERSON RESOURCES LIMITED Page 13 of 20



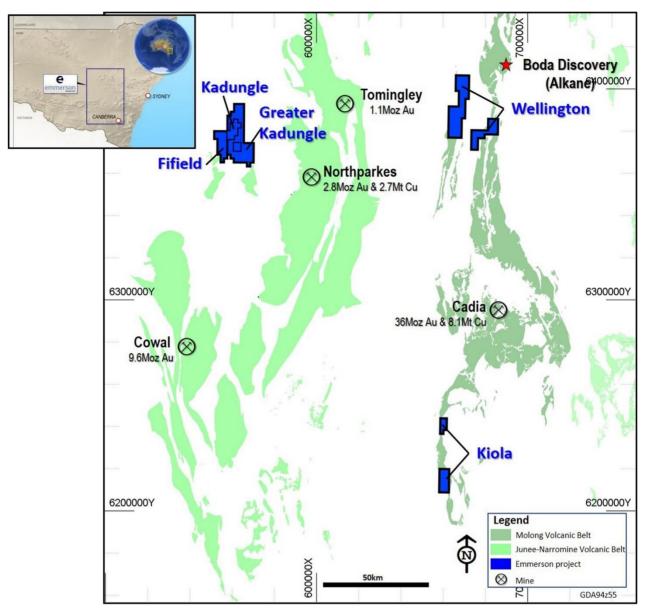
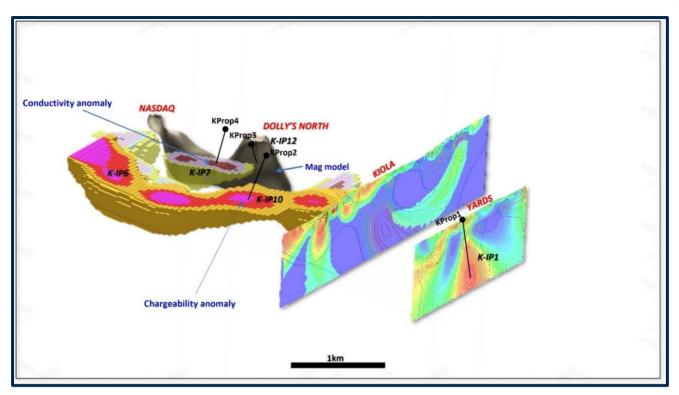


Figure 8: Location of Emmerson's NSW Projects (Lachlan Resources).

The background is from the regional magnetic image representing the Molong and Junee-Narromine Volcanic Belts of the Macquarie Arc.

EMMERSON RESOURCES LIMITED Page 14 of 20





**Figure 9:** 3D and 2D MIMDAS Geophysical Model and inversions stretching over 5km from the mineralised Nasdaq skarn in the north to the Yards prospect in the south. Proposed drill holes (traces) include KProp 1 to 4. Noting the red reflects chargeable and conductive anomalies centred around the Dolly's North intrusive (which is also magnetic = black)

## **Native copper**



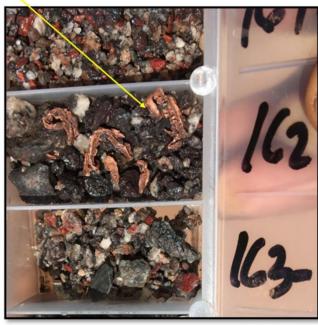


Photo 2: Native copper in RC drill hole HERC003.

EMMERSON RESOURCES LIMITED Page 15 of 20





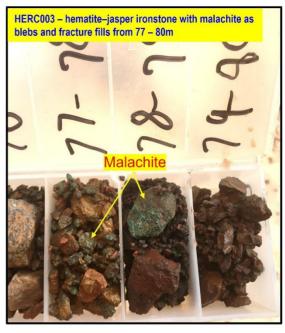


Photo 3: Reverse Circulation drill chips showing copper (malachite) in the oxide zone of drill hole HERC003.





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

EMMERSON RESOURCES LIMITED Page 16 of 20



Table 1A: Chariot Mineral Resource Estimate November 2021

Nov -21 Chariot MRE						
Category		Tonnes (kt)	Gold grade (g/t)	Ounces (koz)		
	Indicated	64.5	18.1	37.6		
Open Pit	Inferred	8.2	14.4	3.8		
	Total	72.7	17.7	41.4		
	Indicated	223	7	77		
Underground	Inferred	260.5	4.6	20.4		
	Total	483.5	6.3	97.4		
	Total 556.2 7.8 138.8					

Note: Inconsistencies in total tonnage reporting are due to rounding

**Table 1B: Chariot Mineral Resource Estimate September 2013** 

01/09/2013 Chariot MRE						
Category		Tonnes (kt)	Gold grade (g/t)	Ounces (koz)		
	Indicated	13.3	11.1	4.7		
Open Pit	Inferred	59.4	19.2	36.7		
	Total	72.7	17.7	41.4		
	Indicated	51.8	16	26.6		
Underground	Inferred	53	18.4	31.4		
	Total	104.8	17.2	58		
	Total 178 17.4 99.5					

Note: Inconsistencies in total tonnage reporting are due to rounding

Table 1C: Variance between Chariot 2013 and 2021 Mineral Resource Estimates

Variance							
	Category	Tonnes (kt)	Gold grade (g/t)	Ounces (koz)			
	Indicated	51.2	7.0	32.9			
Open Pit	Inferred	-51.2	-4.8	-32.9			
	Total	0	0.0	0			
	Indicated	171.2	-9	50.4			
Underground	Inferred	207.5	-13.8	-11			
	Total	378.7	-10.9	39.4			
	Total	378.2	-9.6	39.3			

EMMERSON RESOURCES LIMITED Page 17 of 20

<sup>\*</sup>Open Pit model is Sept-13 and reported within an optimised pit shell at a cut-off grade of 1.0 g/t gold

<sup>\*</sup>Underground model is Nov-21, reported below 180mRL at a cut-off grade of 2.0 g/t gold

<sup>\*</sup>All failure zone material is reported as Indicated as geotechnical study confirmes material is mineable by caving

<sup>\*</sup>Open Pit model is Sept-13 and reported within a optimised pit shell at a cut-off grade of 1.0 g/t gold

<sup>\*</sup>Underground model is Nov-21, reported below 180mRL at a cut-off grade of 6.0 g/t gold

<sup>\*</sup>Failure zone material all classified as Inferred



# Mining Tenements Held at 31 December 2021 (Northern Territory, Australia)

Tenement	Name	Interests	Tenement	Name	Interests	Tenement	Name	Interests
EL10114	McDougall	100	MCC316	The Trump	100	MLC132	Golden Forty	100
EL10124	Speedway	100	MCC317	The Trump	100	MLC133	Golden Forty	100
EL10313	Kodiak	100	MCC334	Estralita Group	100	MLC134	Golden Forty	100
EL10406	Montana	100	MCC340	The Trump	100	MLC135	Golden Forty	100
EL23285	Corridor 2	100	MCC341	The Trump	100	MLC136	Golden Forty	100
EL23286	Corridor 3	100	MCC344	Mt Samuel	100	MLC137	Golden Forty	100
EL23905	Jackie	100	MCC364	Estralita	100	MLC138	Golden Forty	100
EL26594	Bills	100	MCC365	Estralita	100	MLC139	Golden Forty	100
EL26787	Rising Ridge	100	MCC366	Estralita	100	MLC140	Golden Forty	100
EL27011	Snappy Gum	100	MCC524	Estralita	100	MLC141	Golden Forty	100
EL27408	Grizzly	100	MCC55	Mondeuse	100	MLC142	Golden Forty	100
EL27537	Chappell	100	MCC56	Shiraz	100	MLC143	Golden Forty	100
EL27538	Mercury	100	MCC57	Mondeuse	100	MLC144	Golden Forty	100
ELA27539	Telegraph	100	MCC66	Golden Forty	100	MLC146	Golden Forty	100
ELA27902	Lynx	100	MCC67	Golden Forty	100	MLC147	Golden Forty	100
EL28601	Malbec	100	MCC9	Eldorado	100	MLC148	Golden Forty	100
EL28602	Red Bluff	100	MCC925	Brolga	100	MLC149	Golden Forty	100
EL28603	White Devil	100	MCC926	Brolga	100	MLC15	Eldorado 4	100
EL28618	Comstock	100	ML22284	Billy Boy	100	MLC16	Eldorado 5	100
EL28760	Delta	100	ML23216	Chariot	100	MLC17		
EL28761	Quartz Hill	100	MLA29527	Wiso	100	MLC176	Chariot	100
EL28775	Trinity	100	MLA29528	Wiso	100	MLC177	Chariot	100
EL28776	Whippet	100	MLA29529	Wiso	100	MLC18	West Gibbet	100
ELA30123	Mosquito Creek	100	MLA29530	Wiso	100	MLC182	Riesling	100
EL30167	Dolomite	100	MLA29532	Wiso	100	MLC183	Riesling	100
EL30505	Golden East	100	ML30096	Malbec	100	MLC184	Riesling	100
EL30584	Juno North	100	ML30177	North Star	100	MLC253	Mulga 1	100
ELA30746	Mule	100	ML30322	Verdot	100	MLC254	Mulga 1	100
ELA30747	Power of Wealth	100	ML30620	Kia Ora	100	MLC255	Mulga 1	100
EL30748	Battery Hill	100	ML30623	Pinnacles South	100	MLC256	Mulga 2	100
ELA30749	Mary Anne	100	ML30716	Comstock	100	MLC257	Mulga 2	100
ELA31355	Mt Samuel	100	ML30742	Black Cat	100	MLC258	Mulga 2	100
EL31832	Russell	100	ML30743	True Blue	100	MLC259	Mulga 2	100
EL31833	Prosperity	100	ML30870	Rising Star	100	MLC260	Mulga 2	100
EL31834	Colombard	100	ML30872	The Extension	100	MLC261	Mulga 2	100
EL31835	Bishops Creek	100	ML30893	Troy	100	MLC32	Golden Forty	100
EL31919	Billy Boy	100	ML30909	Archmedes	100	MLC342	Tinto	100
EL32030	Grey Bluff East	100	ML30911	Wolseley	100	MLC343	Rocky Range	100
EL32213	Golden Slipper	100	ML30912	Ivanhoe	100	MLC344	Rocky Range	100
EL9403	Jess	100	ML30938	EXP195	100	MLC345	Rocky Range	100
EL9958	Running Bear	100	ML30945	Metallic Hill	100	MLC346	Rocky Range	100
MA23236	Udall Road	100	ML31074	Rocky Range	100	MLC347	Golden Forty	100
MA30798	Little Ben	100	ML31123	Gibbet 1	100	MLC348	Brolga	100
MCC203	Galway	100	ML31651	White Devil	100	MLC349	Brolga	100
MCC211	Shamrock	100	ML32214	Mauretania	100	MLC35	Golden Forty	100
MCC212	Mt Samuel	85	MLC127	Peko East Ext 4	100	MLC350	Brolga	100
MCC239	West Peko	100	MLC129	Peko Sth-East	100	MLC351	Brolga	100
MCC240	West Peko	100	MLC130	Golden Forty	100	MLC352	Golden Forty	100
MCC308	Mt Samuel	85	MLC131	Golden Forty	100	MLC353	Golden Forty	100
MLC354	Golden Forty	100	MLC51	Eldorado Anom	100	MLC615	Lone Star	100
MLC355	Golden Forty	100	MLC518	Ellen, Eldorado	100	MLC616	Lone Star	100

EMMERSON RESOURCES LIMITED Page 18 of 20



Tenement	Name	Interests	Tenement	Name	Interests	Tenement	Name	Interests
MLC36	Golden Forty	100	MLC520	Great Northern	100	MLC617	Mt Samuel	50
MLC362	Lone Star	100	MLC522	Aga Khan	100	MLC619	Ture Blue	85
MLC363	Lone Star	100	MLC523	Eldorado	100	MLC644	Enterprise	100
MLC364	Lone Star	100	MLC524	Susan	100	MLC645	Estralita	100
MLC365	Lone Star	100	MLC527	Mt Samuel	100	MLC654	TC8 Lease	100
MLC366	Lone Star	100	MLC528	Dingo, Eldorado	100	MLC66	Traminer	100
MLC367	Lone Star	100	MLC529	Cats Whiskers	100	MLC67	Traminer	100
MLC368	Lone Star	100	MLC53	Gold Forty	100	MLC683	Eldorado	100
MLC369	Lone Star	100	MLC530	Lone Star	100	MLC692	Warrego Mine	100
MLC37	Golden Forty	100	MLC535	Eldorado No. 5	100	MLC705	Apollo 1	100
MLC370	Lone Star	100	MLC54	Gold Forty	100	MLC91	Carraman/Klondyke	100
MLC371	Lone Star	100	MLC546	The Mount	100	MLC92	Carraman/Klondyke	100
MLC372	Lone Star	100	MLC55	Golden Forty	100	MLC93	Carraman/Klondyke	100
MLC373	Lone Star	100	MLC555	Tennant Creek		MLC94	Carraman/Klondyke	100
MLC374	Lone Star	100	MLC558	New Hope	100	MLC95	Carraman/Klondyke	100
MLC375	Lone Star	100	MLC56	Golden Forty	100	HLDC101	Sally No Name	100
MLC376	Mulga 1	100	MLC576	Golden Forty	100	HLDC37	Warrego No. 1	100
MLC377	Mulga 1	100	MLC577	Golden Forty	100	HLDC39	Warrego Min	100
MLC378	Mulga 1	100	MLC581	Eldorado ABC	100	HLDC40	Warrego No. 2	100
MLC379	Mulga 1	100	MLC582	Eldorado ABC	100	HLDC41	Warrego No. 3	100
MLC38	Memsahib East	100	MLC583	Eldorado ABC	100	HLDC42	Warrego S7	100
MLC380	Mulga 1	100	MLC584	Golden Forty	100	HLDC43	Warrego S8	100
MLC381	Mulga 1	100	MLC585	Golden Forty	100	HLDC44	Warrego No. 2	100
MLC382	Mulga 1	100	MLC586	Golden Forty	100	HLDC45	Warrego No. 1	100
MLC383	Mulga 1	100	MLC591	TC8 Lease	100	HLDC46	Warrego No. 1	100
MLC384	Mulga 2	100	MLC592	TC8 Lease	100	HLDC55	Warrego No. 4	100
MLC385	Mulga 2	100	MLC593	TC8 Lease	100	HLDC56	Warrego No. 5	100
MLC386	Mulga 2	100	MLC594	TC8 Lease	100	HLDC58	Wiso Line No. 6	100
MLC387	Mulga 2	100	MLC595	TC8 Lease	100	HLDC59	Warrego No. 6	100
MLC4	Peko Extended	100	MLC596	TC8 Lease	100	HLDC94	Warrego No. 4	100
MLC406	Comet	100	MLC597	TC8 Lease	100	HLDC95	Warrego No. 3	100
MLC407	Comet	100	MLC598	Golden Forty	100	HLDC96	Wiso Basin	100
MLC408	Comet	100	MLC599	Mt Samuel	85	HLDC97	Wiso Basin	100
MLC409	Comet	100	MLC601	TC8 Lease	100	HLDC99	Wiso No.3 pipe	100
MLC432	Mulga 1	100	MLC602	TC8 Lease	100			
MLC48	Tinto	100	MLC603	TC8 Lease	100			
MLC49	Mt Samuel	100	MLC604	TC8 Lease	100			
MLC498	Eldorado	100	MLC605	TC8 Lease	100			
MLC499	Eldorado	100	MLC606	Lone Star	100			
MLC5	Peko Extended	100	MLC607	Lone Star	100			
MLC50	Eldorado Anom	100	MLC608	Lone Star	100			
MLC500	Eldorado	100	MLC609	Lone Star	100			
MLC501	Eldorado	100	MLC610	Lone Star	100			
MLC502	Eldorado	100	MLC611	Lone Star	100			
MLC503	Eldorado	100	MLC612	Lone Star	100			
MLC504	Eldorado	100	MLC613	Lone Star	100			
MLC505	Eldorado	100	MLC614	Lone Star	100			

EMMERSON RESOURCES LIMITED Page 19 of 20



# Mining Tenements Held at 31 December 2021 (New South Wales, Australia)

Tenement	Name	Interest
EL8463	Wellington	90%
EL8464	Fifield	90%
EL8590	Kiola	90%
EL8766	Greater Kadungle	100%
EL8999	Kadungle	89%

EMMERSON RESOURCES LIMITED Page 20 of 20