

17 April 2018

# Exploration underway for high grade Cobalt, Copper and Gold within Emmerson's Tennant Creek Project

- Innovative helicopter-borne, geophysical survey underway to search for new Jasper Hills and Edna Beryl style deposits.
  - Survey of 680-line kilometres to cover the Northern Corridor that hosts:
    - Jasper Hills – recently announced Cobalt, Copper and Gold project with best grades from drill holes of:
      - 28m at 5.83g/t gold, 0.17% cobalt and 8.52% copper (from 108m) and includes:
        - 19m at 0.56g/t gold, 0.47% cobalt and 11.4% copper (ASX: 10 April 2018)
    - Edna Beryl – now in production with best grades of:
      - 8m at 157g/t gold, 34.5g/t silver and 0.5% copper (from 146m) and includes:
        - 5m at 251g/t gold, 54.6g/t silver and 0.6% copper (ASX: 31 October 2016)
    - Marathon - 7m at 202 g/t gold, 0.54% copper and 0.61% bismuth (from 164m) (ASX: 19 Mar 2013)
    - Hermitage - 9m at 13g/t gold and 2.17% bismuth (from 176m) (ASX: 21 Dec 2009)
    - Troy - 30.2m at 4.3% copper (from 287m) (ASX: 21 Dec 2009)
  - Drill program over previously defined high-grade gold projects commencing shortly



**Emmerson's Managing Director, Mr Rob Bills commented:** *"One of the most exciting exploration programs in Tennant Creek has commenced with:*

- 1) *An airborne geophysical survey to pinpoint further high-grade cobalt, copper and gold deposits within a highly prospective belt of rocks termed the northern corridor. This corridor is defined by a regional gravity ridge which hosts a variety of gold, copper and now with the inclusion of Jasper Hills, cobalt. Apart from the exceptional grades of these prospects, they are associated with similar geological settings consisting of oxidised hematite ironstones – something Emmerson has considerable experience in discovering. In fact, Emmerson discovered high grade copper and gold at the Goanna prospect back in 2012 utilising similar geological models and airborne electrical geophysics. Excitingly, we are now capitalising on this know-how and deploying an even more powerful and sophisticated airborne system that utilises the very latest technology.*
- 2) *A 2,400m drill program across high priority projects that were previously identified under the previous JV with Evolution. These prospects have potential for extensions to high grade gold mineralisation and depending on the results of this drilling, will either become part of our small mines or in the best case, expand to larger scale projects.*

*Much of the geology of the northern corridor is covered, thus the importance of collecting high quality, sub surface data to better detect the fingerprints of these high-grade/high value deposits. We are particularly pleased that Emmerson now has exposure to the high value "battery metals" of cobalt and copper - plus gold, which of course is a natural hedge against global volatility – all these metals face substantial supply constraints and will likely become increasingly valuable and sought after."*

### **Northern Corridor Exploration (figures 1 & 2)**

Emmerson Resources Limited ("Emmerson" ASX: ERM) is pleased to announce the commencement of exploration and the execution of an agreement with New Resolution Geophysics(NRG) to fly their latest helicopter borne, time domain electromagnetic (HTDEM) system.

*According to NRG, their system (called Xcite) "when compared to all other AEM technologies available on the market today, is uniquely qualified and is unparalleled in its abilities. It is the only system that offers early time (near surface) resolution due to its very fast transmitter pulse turn-off speed, coupled with late time (deep penetrating) performance in a single pulse waveform. The streaming data provides an along line resolution of ~0.5m with uninterrupted 'soundings' from near surface to >300m depth of investigation. No other AEM system can offer this level of resolution laterally and vertically."*

According to Emmerson's inhouse investigations, the association of cobalt and copper sulphides that characterise most of the deposits and prospects in the northern corridor, will generate detectable signatures for HTDM in both the oxidised and primary zones (depending on their size and intensity) (figure 3). Furthermore, the depth penetration of the Xcite system compared to the depth of the known prospects (see above "from" in

dot points) indicates this survey will be effective down to 300m. Which combined with our understanding of the formation of these deposit types provides great potential to pinpoint further mineralisation.

### **Next Drill program (figure 4)**

The first drill campaign for Emmerson's Tennant Creek project will commence later this month (weather permitting) and consist of:

- 8 RC drill holes in the Edna Beryl district aimed at delineating extensions outside of the Edna Beryl Mine area. Previous drilling and gravity geophysics completed in 2017 provided indications of new mineralised hematite ironstones.
- 5 RC drill holes to test for extensions and continuity at a promising new discovery called Mauretania. The discovery drill hole, MTRC006 intersected a hematite-chlorite ironstone, assaying 31m at 3.64g/t gold including 19m at 5.51g/t gold from 63m (ASX: 12 October 2015)
- The remainder of the drill holes are spread across potential small mines projects and aimed at providing further geological and grade information for future planning purposes

### **About Tennant Creek and Emmerson Resources**

The Tennant Creek Mineral Field (TCMF) is one of Australia's highest-grade gold and copper fields producing over 5.5 Mozs of gold and 470,000 tonnes 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 discoveries include high grade gold at Edna Beryl and Mauretania, plus copper-gold at Goanna and Monitor. These are the first discoveries in the TCMF for over a decade.

Emmerson announced the first gold pour from the high-grade Edna Beryl gold mine in December 2017. This mine is being operated under a Tribute Agreement with specialist small miner, the Edna Beryl Mining Company.

In addition, Emmerson recently commenced exploration on new gold-copper projects in NSW, identified (with our strategic alliance partner Kenex Limited) from the application of 2D and 3D predictive targeting models – aimed at increasing the probability of discovery. The highly prospective Macquarie Arc in NSW hosts >80Mozs gold and >13Mt copper with these resources heavily weighted to areas of outcrop or limited cover. Emmerson's five exploration projects contain many attributes of the known deposits within the Macquarie Arc but remain under explored due to historical impediments, including overlying cover (plus farm lands) and a lack of exploration focus. Kadungle is a JV with Aurelia Metals covering 43km<sup>2</sup> adjacent to Emmerson's Fifield project.

On the 19th of February 2018, Emmerson notified the ASX that it had reached and executed an agreement with previous JV partner, Evolution Mining pertaining to the Tennant Creek Mineral Field JV. Under the proposed restructure, Emmerson retains 100% ownership of 2,600km<sup>2</sup> or 94% of the previous JV area that includes all the gold projects and 100% of the revenue from the small mines. In return Evolution takes 100% of the copper dominant projects of Orlando, Gecko and Goanna. This agreement needs approval by Emmerson shareholders at a meeting of shareholders to be held in May 2018.

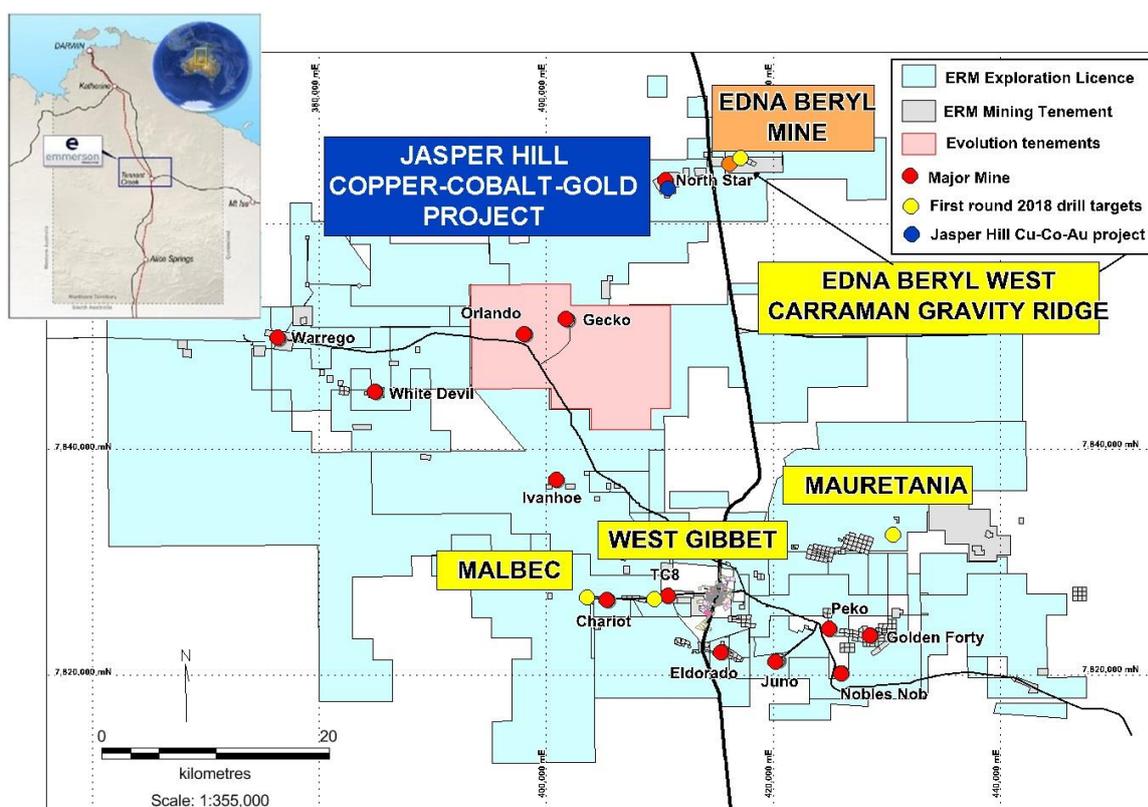
Emmerson is led by a board and management group of experienced Australian mining executives including former MIM and WMC mining executive Andrew McIlwain as non-executive chairman, and former senior BHP Billiton and WMC executive Rob Bills as Managing Director and CEO.

**Competency Statement:**

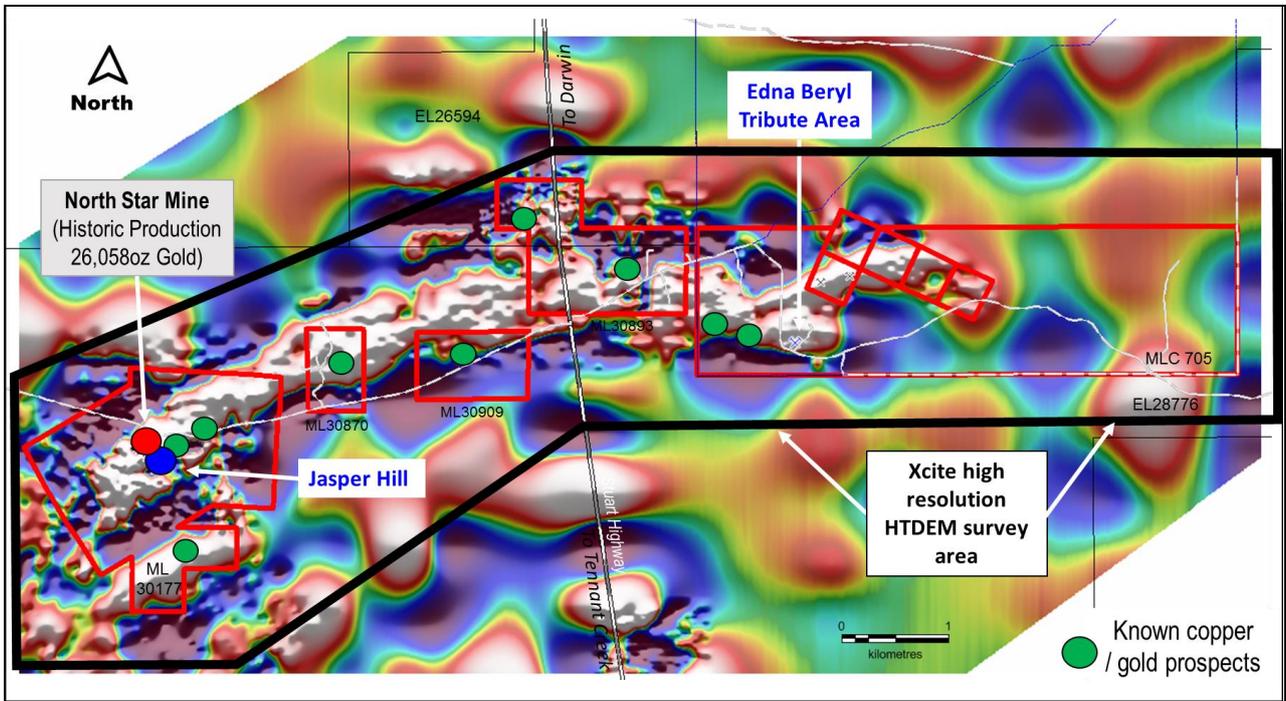
The information in this report which relates to Tennant Creek Exploration Results is based on information compiled by Mr Steve Russell BSc, Applied Geology (Hons), MAIG, MSEG. Mr Russell is a Member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which he 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. Mr Russell is a full-time employee of the Company and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

**Forward-Looking Statements:**

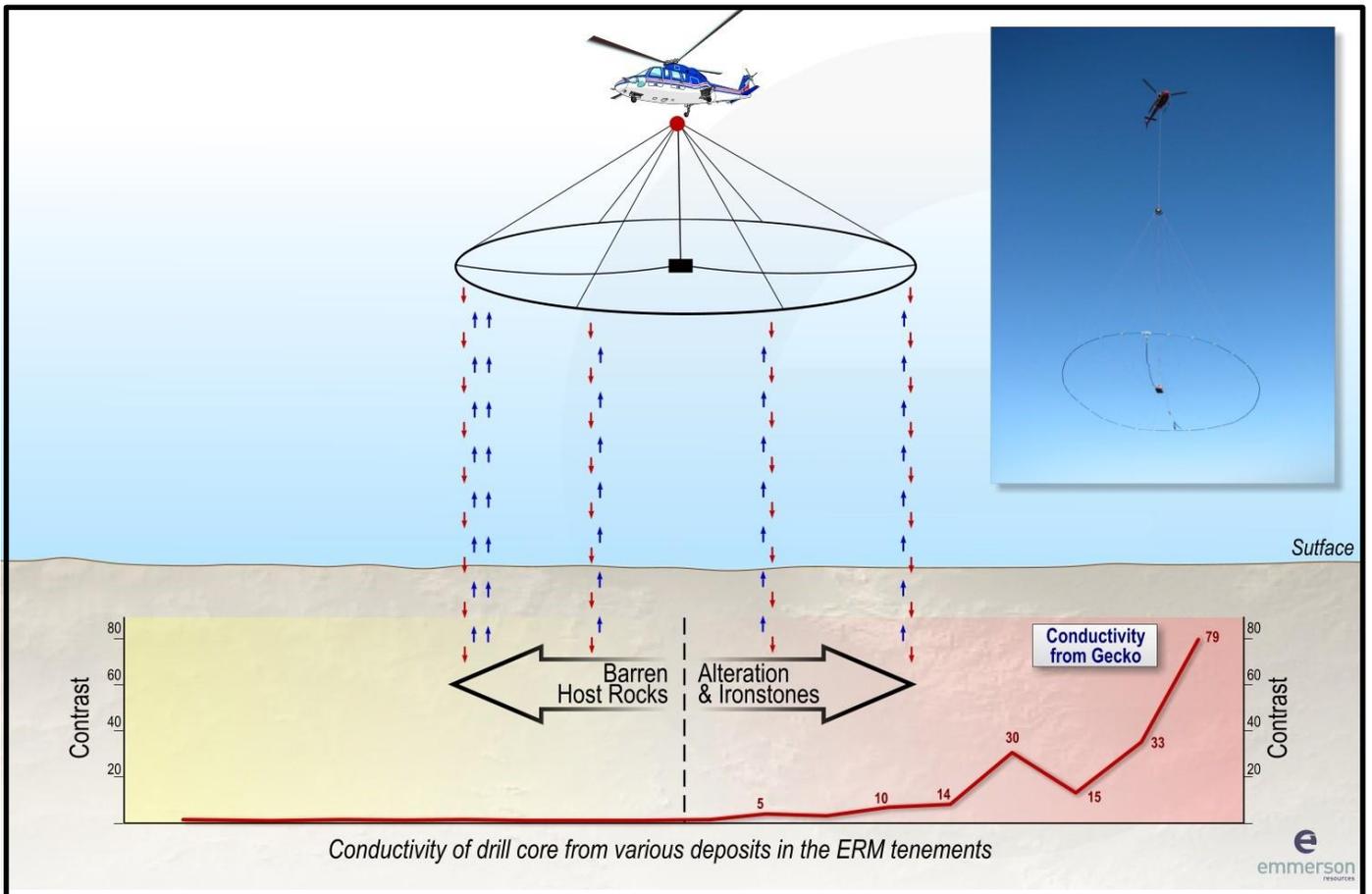
This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Emmerson Resources Limited's planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "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.



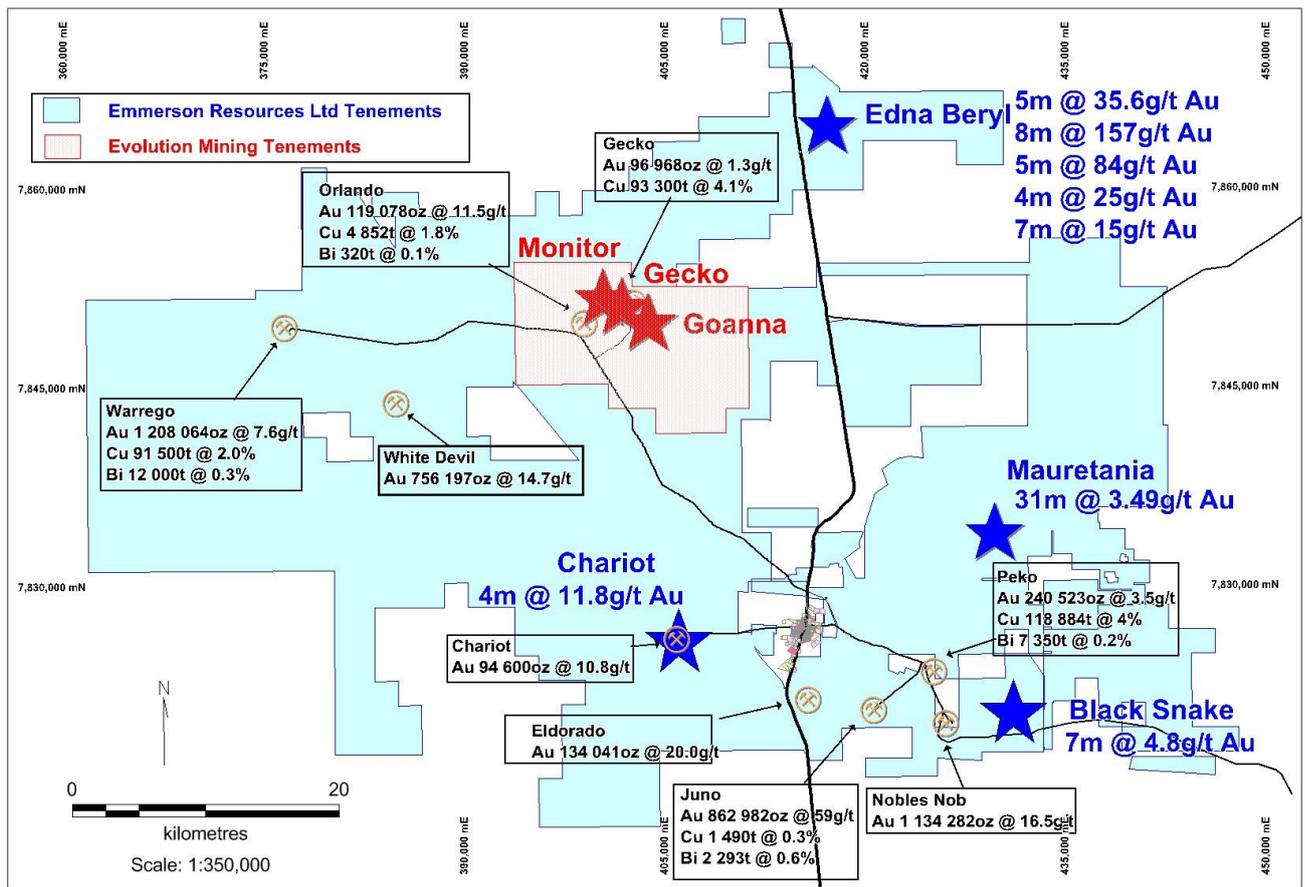
**Figure 1:** Location of Emmerson's tenement package (light blue), Jasper Hill cobalt-copper-gold project and targets of our next drill program (yellow dots).



**Figure 2:** Location of the Northern Corridor associated with a large gravity ridge (background colour = the residual gravity, with white representing the gravity high). Note the association of known deposits and prospects with this regional feature. The black outline shows the planned airborne electrical geophysical survey (HTDEM).



**Figure 3:** Theoretical conductivities of the barren host rocks versus the mineralisation



**Figure 4:** Emmerson's proposed 100% Tennant Creek Project (light blue) showing projects that contain significant gold intersections that are the subject of further evaluation and drilling. Note the red stipple is the 100% Evolution owned project area.