

14 March 2017

## Exploration underway in NSW and Tennant Creek Cobalt and Bismuth in Tennant Creek Gold-Copper mineralisation

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- **Exploration commences at Kadungle in NSW (option between Emmerson Resources and Aurelia Metals):**
  - Flying of high-resolution aeromagnetic data completed and integration with historical data to define drill targets in progress
  - Field work has verified the potential for both epithermal gold and porphyry copper – gold mineralisation. Some of the historical intercepts include:
    - 12m at 7.73g/t gold and 0.12% copper (drill hole KDD002)
    - 3m at 7.14 g/t gold and 0.34% copper (drill hole KRC019)
    - 37m at 0.23% copper incl. 6m at 1.1% copper (KDD013)
    - 154m at 0.12% copper and 0.37g/t gold (KRC019)
- **High-resolution ground gravity and passive seismic surveys underway at the Edna Beryl high-grade gold project in Tennant Creek (NT)**
- **High-grade cobalt (up to 0.6%) and bismuth (up to 0.2%) associated with some Tennant Creek gold-copper projects**
- **Evolution Mining has formerly advised Emmerson of its intention to continue exploration at Tennant Creek Mineral Field (TCMF) with an agreement to extend the Phase 1 earn-in period of \$15m to December 2017.**
- **Evolution has also elected to include, and to fund exploration on, Emmerson's newly acquired Rover project under the TCMF earn-in and JV.**

Emmerson Resources Limited ("Emmerson" ASX: ERM) is pleased to announce the commencement of exploration over four of our NSW projects. These projects were generated from the application of proprietary, predictive 2 and 3D targeting models – developed in conjunction with our strategic alliance partner Kenex Limited. This alliance aims to greatly increase the success of predicting the next discoveries in NSW through identifying independent geological attributes that are highly correlated with mineralisation. Note: Kenex can earn up to a 10% interest in any tenements acquired upon achieving certain predetermined milestones (this does not apply to the Kadungle project).

Recent field activities at Kadungle (figure 1 & 2), the most advanced of the NSW projects, has confirmed the potential for extending both the previously drilled epithermal gold and porphyry copper- gold mineralisation. Interestingly further outcrops of epithermal quartz-hematite veins have been identified and will be the subject of further mapping and sampling. Once the integration of all data is complete, drilling will test for extensions of both styles of mineralisation. It is anticipated that drilling could commence by mid-year.

Note the Kadungle project falls under an option agreement with Aurelia Metals and provides the right for Emmerson to earn up to 80% through spending \$0.5m over a five year period.

Ground-based exploration has also commenced at our Tennant Creek project with an ultra-high resolution, ground-based gravity survey over the Edna Beryl gold project. This initial orientation survey is aimed at delineating the extent of multiple ironstones that host the high grade, bonanza gold, intersected in last year's drill programs. If successful, this program will be extended to other identified "Edna Beryl" targets ahead of drilling. In parallel, a trial passive seismic survey is also underway and is aimed at defining the base of the cover sequence and hematite ironstones (that host the gold mineralisation).

### **Tennant Creek Metal Suite – Potential High-Value Cobalt and Bismuth by-products**

A review of the metal inventory of our Tennant Creek gold-copper projects has highlighted the potential for credits from both cobalt and bismuth. As an example, the multi-metal, R54 ironstone within the extensive Gecko deposit has grades of copper at 1.2%, gold at 4.5g/t, **cobalt at 0.56%**, bismuth at 0.19% and silver at 3.8g/t (note R54 is a historical resource and does not qualify under the current JORC Resource reporting guidelines) - supported by additional exploration drill results, with one of the better drill holes as follows: GUD 1382 – 6.7m at 3.7% copper, 10.8g/t gold, **2.1% cobalt** and which includes 2.8m at 7.2% copper, 25.8g/t gold, and **4.7% cobalt**. These grades at the R54 exploration target are highly encouraging and occur in a 5m wide shear zone between two talc-magnetite ironstones. This style of mineralisation may extend to other exploration targets within our extensive Tennant Creek and Rover projects.

### **2017 Exploration Program**

- Focus on Edna Beryl High-Grade Gold: Additional geophysics (gravity and passive seismic surveys) is underway over the Edna Beryl gold project – this will assist in identifying extensions to the known, high-grade gold mineralisation ahead of drilling. If successful, these surveys will then be extended to cover additional new "Edna Beryl" targets in the immediate district
- Drill-Target Delineation at the Rover Joint Venture: The geological review of the Adelaide Resources (now renamed Andromeda Metals), Rover project (earn-in announced ASX: 15 November 2016) has been completed with the delineation of some outstanding targets. Some additional geophysics will likely be required to refine the targets ahead of drilling.
- Targeting and Drilling in NSW Copper-Gold: Exploration is now well underway in NSW with detailed high-resolution magnetic surveys completed over the EL's 8463 (Wellington), 8465 (Temora), 8464 (Fifield) and the Kadungle area (JV with Aurelia Metals). Fieldwork and data compilation is underway at Kadungle – our most advanced NSW project and where we anticipate drilling within the next quarter.

## **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 a variety of deposits including Gecko, Orlando, Warrego, White Devil, Chariot and Golden Forty, all of which are within Emmerson Resources (ASX: ERM) exploration and joint venture portfolio. These deposits are considered to be highly valuable exploration targets and, utilising modern exploration techniques, Emmerson has been successful in discovering copper and gold mineralisation at Goanna and Monitor in late 2011, the first discoveries in the TCMF for over a decade. To date, Emmerson has only covered 5.5% of the total tenement package (in area) with these innovative exploration techniques and is confident that, with further exploration, more such discoveries will be made.

Emmerson holds 2,500km<sup>2</sup> of ground in the TCMF, owns the only gold mill in the region and holds a substantial geological database plus extensive infrastructure and equipment. Emmerson has consolidated 95% of the highly prospective TCMF where only 8% of the historical drilling has penetrated below 150m.

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.

Pursuant to the Farm-in agreement entered into with Evolution Mining Limited (Evolution) on 11 June 2014, Evolution has committed to sole fund exploration expenditure of \$15 million by 31 December 2017 to earn a 65% interest (Stage 1 Farm-in) in Emmerson's tenement holdings in the TCMF. An option to spend a further \$10 million minimum, sole funded by Evolution over two years following the Stage 1 Farm-in, would enable Evolution to earn an additional 10% (Stage 2 Farm-in) of the tenement holdings. Emmerson is acting as manager during the Stage 1 Farm-in and is receiving a management fee during this period. Exploration expenditure attributable to the Stage 1 Farm-in to date is approximately \$11.9million.

## **About Evolution Mining**

Evolution Mining is a leading, growth-focussed Australian gold miner. Evolution operates six wholly-owned mines – Cowal in New South Wales; Mt Carlton, Mt Rawdon, and Cracow, in Queensland; and Mungari and Edna May in Western Australia. In addition, Evolution holds an economic interest in the Ernest Henry copper-gold mine that will deliver 100% of future gold and 30% of future copper and silver produced from an agreed life of mine area.

Outside of the life of mine area Evolution will have a 49% interest in future copper, gold and silver production. In FY16 Evolution produced 803,476 ounces of gold at an AISC of A\$1,014 per ounce generating an operating cash flow of A\$628.4 million.

As a result of the acquisition of an economic interest in Ernest Henry in November 2016, Evolution revised its FY17 Group gold production guidance to 800,000 – 860,000 ounces at an AISC of A\$900 – A\$960 per ounce.

## **About Kennex**

Kenex is a Wellington and West Australian based company which was established in 2002 to provide GIS and exploration services and advice for the exploration and mining industries in Australia and New Zealand. Over the last 10 years, Kenex has broadened their international experience through involvement with projects and clients in the Middle East, Africa, Scandinavia, Asia-Pacific and Latin America. Kenex is a group of highly motivated research professionals who have more than 85 years of combined experience and knowledge in exploration and mining, locally (New Zealand/Australia) and abroad, including the Solomon Islands, Africa, Papua New Guinea, Asia and Latin America. Kenex also has growing expertise in the marine minerals sector.

Kenex specialises in predictive modelling for minerals (2D and 3D) where it is at the forefront of providing these services to businesses to generate targets with the greatest geological potential in relation to the mineral system

being evaluated. This delivers to our client's outcomes which can be used for a variety of purposes including regional evaluation of a mineral belt, identification of opportunities for acquisition, the tools for effective exploration work programme planning and in the case of predictive 3D modelling, drill hole targeting.

**Regulatory Information**

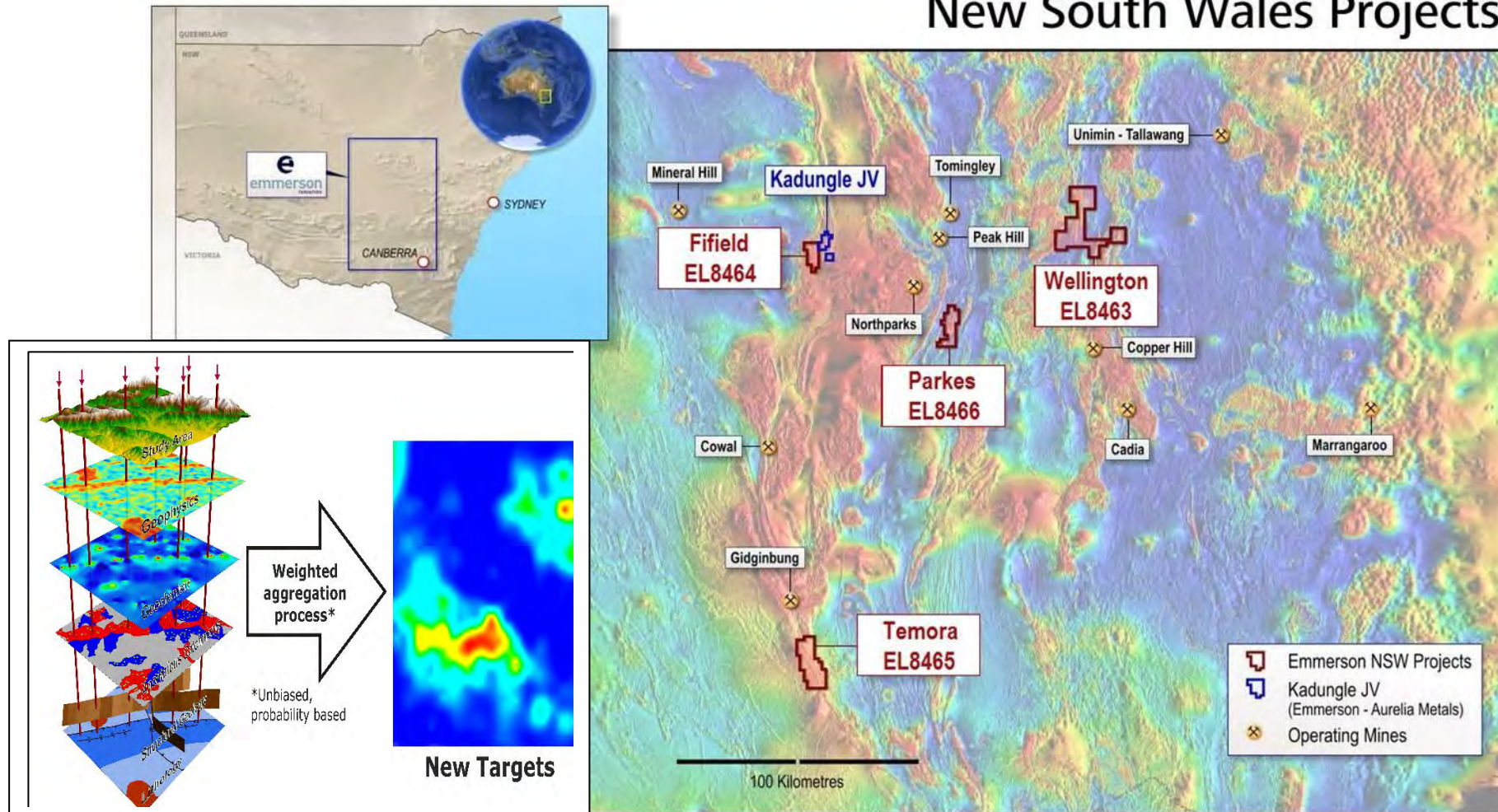
*The Company does not suggest that economic mineralisation is contained in the untested areas, the information contained relating to historical drilling records have been compiled, reviewed and verified as best as the Company was able. The Company is planning further drilling programs to understand the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

**Competency Statement**

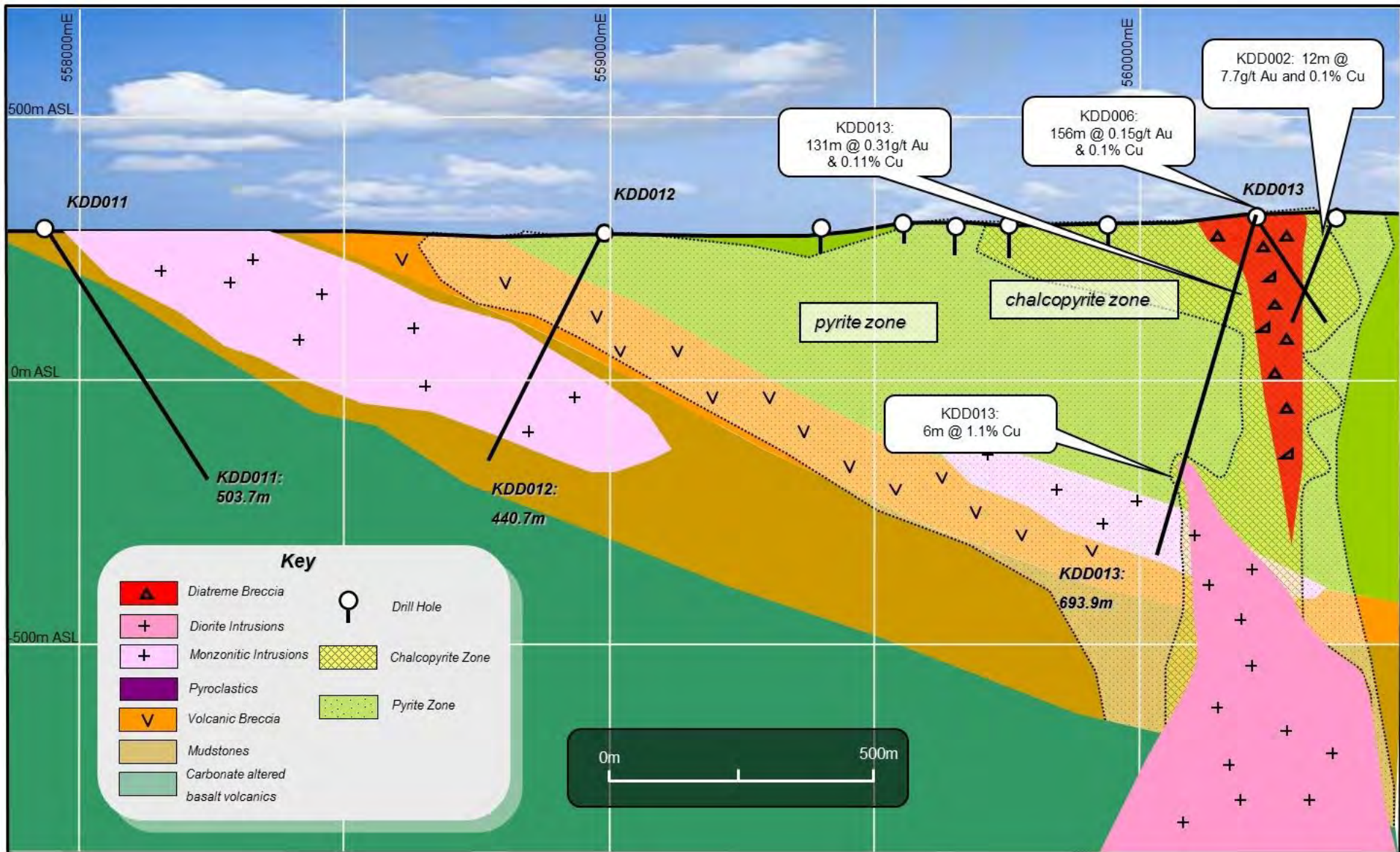
*The information in this report which relates to Exploration Results is based on information compiled by Dr Ana Liza Cuison, MAIG, MSEG. Dr Cuison is a Member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the 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.*

*The information in this report which relates to historical information intercepts at Kadungle is extracted from the report "New Gold-Copper Projects in NSW" created on 04 October 2016 and Edna Beryl Figures 4 and 5 are extracted from the report "Extension to high-grade gold at Edna Beryl confirmed" created 21 February 2017 and available to view on [www.asx.com](http://www.asx.com). The company confirms that it is not in possession of any new information or data that material impacts on the reliability of the results in the original market announcement and that all material assumptions and parameters underpinning the results in the relevant market continue to apply and have not materially changed. The Company confirms that the form and the context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.*

# New South Wales Projects



**Figure 1:** Emmerson Resources NSW Projects generated from proprietary, predictive 2D & 3D targeting models



**Figure 2:** Schematic cross section of the Kadungle (NSW) project showing some of the historical drill intercepts

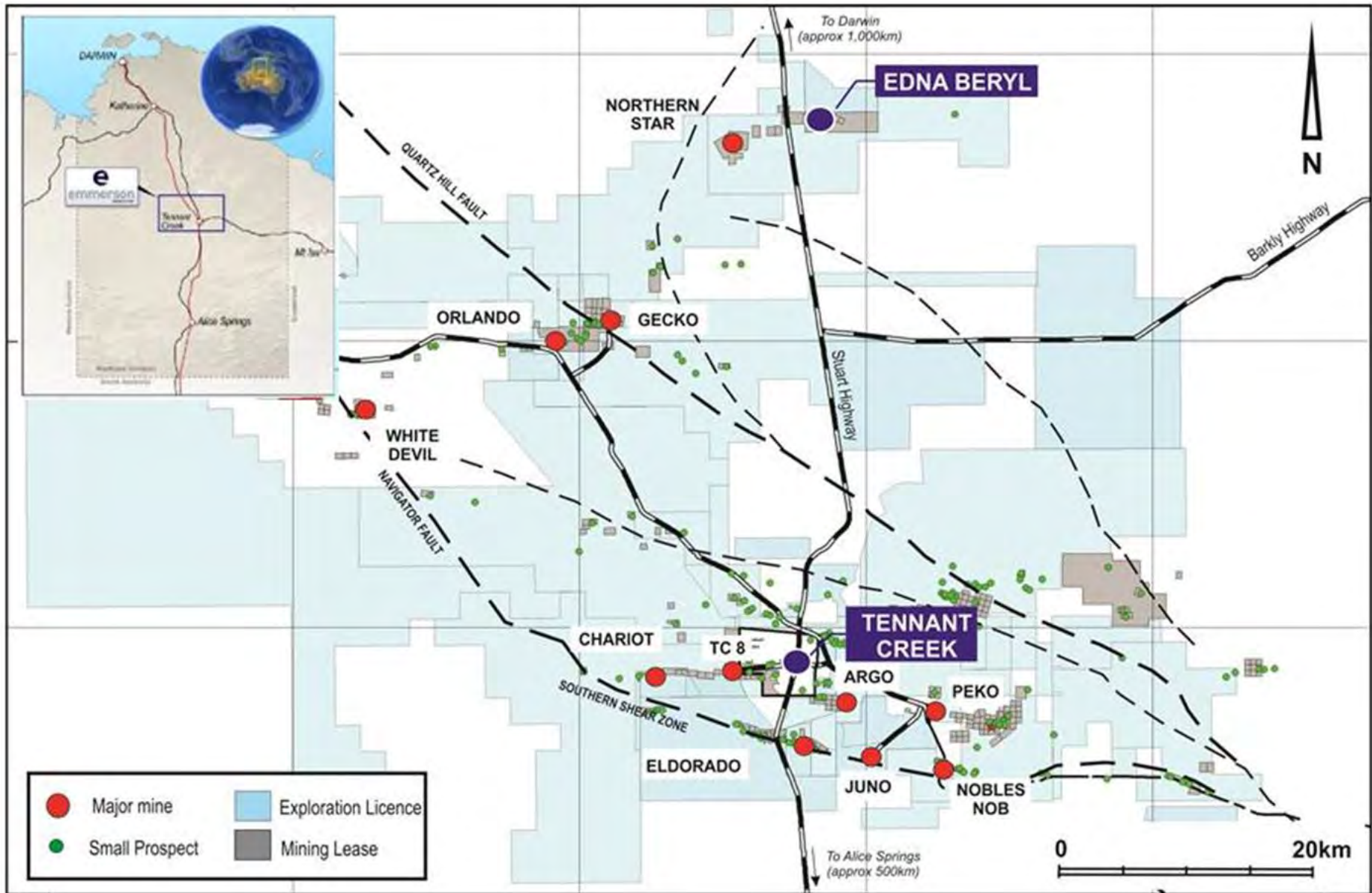
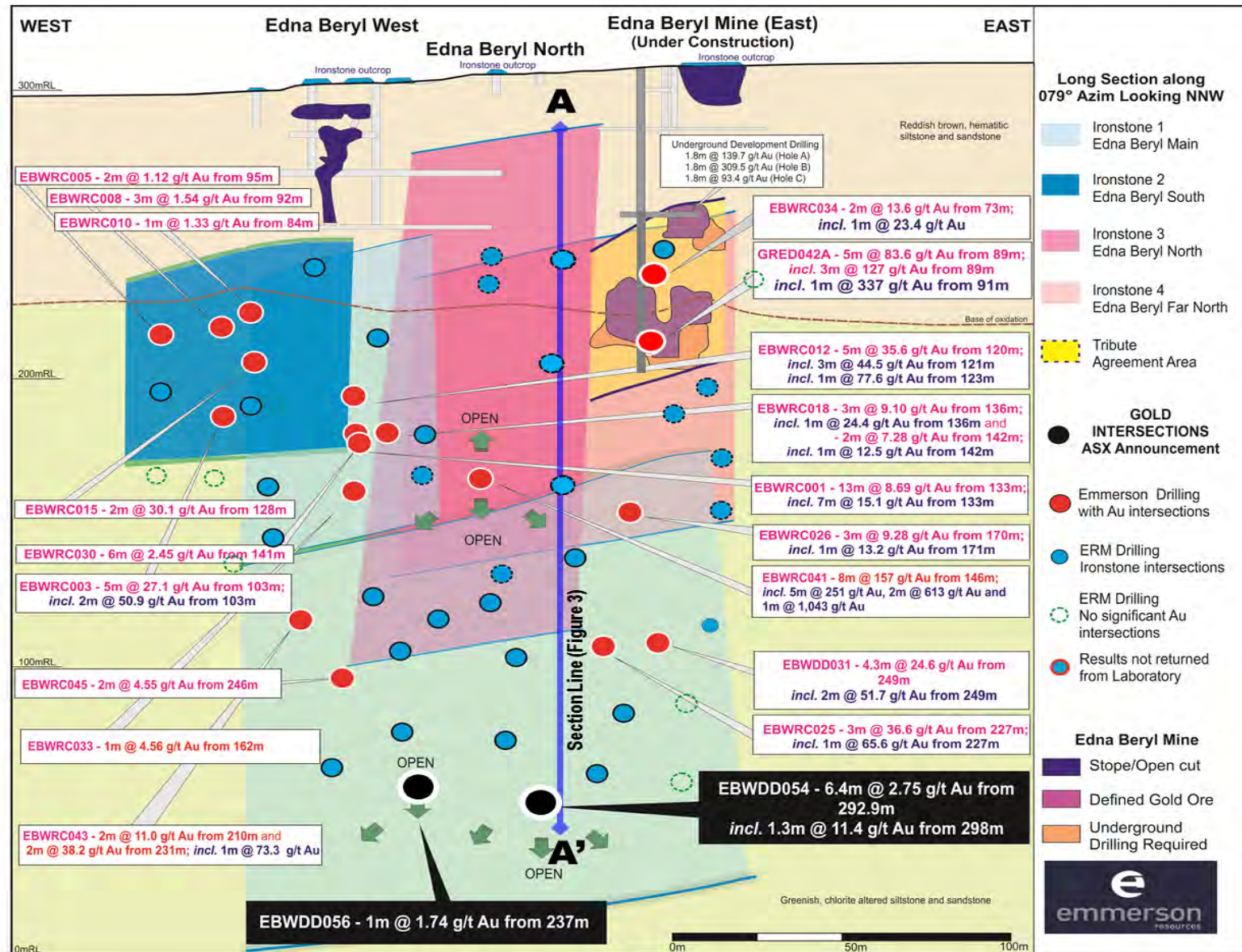
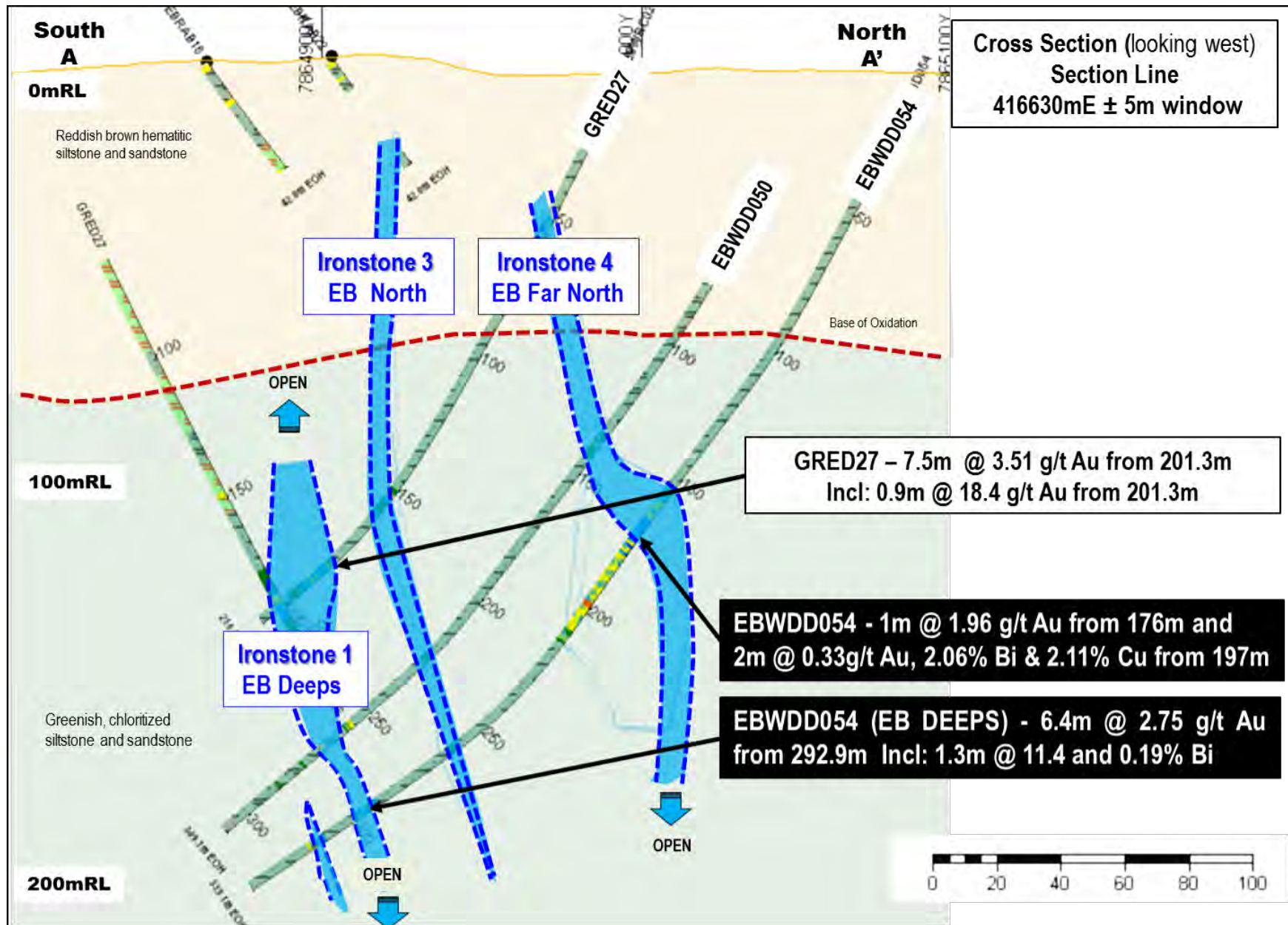


Figure 3 : Location diagram of the Edna Project and Gecko projects in the TCMF



**Figure 4:** Long Section of the Edna Beryl district and recently completed drilling (solid black circles) highlighting the possible extensions of the Edna Beryl mineralisation (green arrows).





**Figure 5:** Cross Section of the Edna Beryl ironstones with recently completed drilling and significant new gold intersections.