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ASX Symbol: CUL

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# **Exploration Update - Mt Eureka Nickel**

# Summary

- Cullen plans to commence drilling at its 100%-owned Mt Eureka project next week a programme of up to 7 RC holes for approximately 1200m
- Drilling will target massive nickel sulphides testing : two strong EM conductors and one weak EM conductor within an interpreted ultramafic sequence at Doyles prospect; and a 1km trend of ground EM anomalies at the Silverbark North prospect
- In the coming week, Cullen personnel will be on site at Mt Eureka, preparing the drill pads and finalising heritage clearance
- Cullen has sourced an RC drill rig it believes is capable of testing the Silverbark North nickel prospect where two previous RC holes did not reach the target.

## MT EUREKA, NORTH EASTERN GOLDFIELDS, W.A. – Gold and Nickel

### Background

Cullen Resources Limited (Cullen) holds 100% of ~650km<sup>2</sup> of approved tenure\* in the Mt Eureka Greenstone Belt in the North Eastern Goldfields of Western Australia which includes multiple targets for nickel sulphides and gold. The high nickel prospectivity of Cullen's ground is confirmed by the discovery of nickel sulphides by Rox Resources Limited (Rox) at Camelwood (Fisher East Project) and Cannonball - Musket, located a few kilometres on strike to the south of Cullen's tenement boundary (ASX release by Rox, ASX: RXL of 3/10/2013 describes Maiden Resource for Camelwood; and ASX release of 10/1/2014 describes discoveries at Cannonball and Musket).

### 1. GROUND EM COMPLETED AND DRILL TARGETS DEFINED AT DOYLES NICKEL PROSPECT

As previously detailed in Cullen's *Quarterly Report to the ASX of 30/1/2014*, Cullen has completed a ground EM survey at its Doyles nickel prospect, located approximately 25km along strike to the north of Camelwood, in order to optimise positioning for drilling. Interpretation of the ground EM data by geophysical consultants "Southern Geoscience" indicates the occurrence of two strong conductors, interpreted by Cullen to be positioned at the base of the oldest ultramafic horizon within the Mt Eureka greenstone sequence. This part of the stratigraphy was only lightly explored by previous explorers and no deeper drilling (>35m) is known to have occurred on or around the recently-discovered conductors. Cullen also notes that the Doyles prospect is located where the strongly magnetic BIF, which marks the eastern stratigraphic base to the greenstone belt, appears to be terminated or thinned – a setting very similar to the stratigraphic situation at the Camelwood discovery. Cullen's consultants have modelled the conductors to determine the size, shape and orientation of the plates, and proposed the positions for test drill holes.

## 2. SILVERBARK NORTH GROUND EM TARGET

This prospect comprises a trend of VTEM and ground EM modeled conductive plates which stretch over 1km in Cullen's ground (E1637). The recent results reported by Rox Resources Limited (10/1/2014) from their Camelwood-Cannonball-Musket nickel sulphide discoveries, demonstrate that mineralisation in the region may have significant strike potential (~3km potential mineralisation in their ground). Cullen interprets its ground EM targets at Silverbark North are in the same stratigraphic position as the Camelwood-Cannonball-Musket system. Two previous Cullen RC holes at Silverbark North ended in silicate facies banded iron formation (BIF) before reaching the target depth/modeled EM plate. Cullen intends to test this EM target conductor in its new RC drilling campaign.

It is interesting to note that a recent technical paper concerning aspects of the Spotted Quoll nickel sulphide deposit in the Forrestania greenstone belt, suggests that the Spotted Quoll nickel ore, although komatiite-associated, is localized by a shear zone and: "enclosed by BIF which extends above the ore and for 1 to 10m below the ore, where it is present as a silicate facies of the BIF......" (Prichard et al, 2013).

Cullen suggests that some nickel sulphide mineralisation in the Mt Eureka greenstone belt may be shear zone hosted, and a shear zone target for nickel sulphide mineralisation may be present at the Silverbark North prospect, and remains to be tested.

**Reference: Prichard, H.M., et al.,** 2013, Econ Geol., v.108, pp 1903-1921: The distribution of PGE and the role of arsenic as a collector of PGE in the Spotted Quoll nickel ore deposit in the Forrestania Greenstone Belt, Western Australia.





\* Figure 1: Mt Eureka Project – ELs 53/1299, 1300, 1209, 1630, 1635, 1637, 1611 - Cullen 100%

# **Cullen Resources Limited**





Figure 2: Cullen's interpreted geological setting of ground EM survey data, Doyles prospect - (from aeromag. and limited historical drilling) showing position of the two strong conductors at the base of the ultramafic lenses (UM) - note strata are younging to the west and dipping moderately east (overturned sequence).

#### Dr Chris Ringrose, Managing Director

#### 4 March, 2014

**ABOUT CULLEN**: Cullen is a Perth-based minerals explorer with a multi-commodity portfolio including projects managed through a number of JVs with key partners (FMG, APIJV (Aquila-AMCI), Hannans Reward, Northern Star, Matsa and Thundelarra/Lion One Metals), and a number of projects in its own right. The Company's strategy is to identify and build targets based on: data compilation, field reconnaissance and early-stage exploration (particularly geochemistry). A number of Cullen's 100%-owned projects are at the target drill-testing stage.

#### **Competent Person Statement**

The Information in this report that relates to Exploration Results for the Mt Eureka project is extracted from Cullen's ASX announcements of 22 and 30 of January 2014 entitled: "Strong EM conductors identified, Mt Eureka greenstone belt" and "Quarterly Report for the period ended 31 December 2013" respectively. Information in this report may also reflect past exploration results, and Cullen's assessment of exploration completed by past explorers, which was first prepared and disclosed under JORC Code 2004. It has not been updated since to comply with JORC Code 2012 on the basis that the information has not changed materially since it was last reported.

The information in this report that relates to exploration activities is based on information compiled by Dr Chris Ringrose, Managing Director, Cullen Resources Limited who is a Member of the Australasian Institute of Mining and Metallurgy. Dr. Ringrose is a full-time employee of Cullen Resources Limited. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined by the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr. Ringrose consents to the report being issued in the form and context in which it appears.

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