ASX ANNOUNCEMENT **20 OCTOBER 2010**

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Fraser Range:
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Polar Bear:
Nickel, gold
Lawlers:
Nickel
Youanmi:
Nickel, copper, zinc, PGM's

STRONG EM CONDUCTOR IDENTIFIED BENEATH NICKEL-COPPER-COBALT ANOMALY AT YOUANMI

Located near prospective basal contact zone of intrusion

Sirius Resources (**ASX:SIR**) is pleased to advise that it has identified a further EM conductor from its ongoing survey at Youanmi, where Sirius has a 70% interest in 597km^2 of ground surrounding Metals Australia's Manindi VMS zinc deposit and covering the contact zone of the Youanmi layered intrusion. The new EM conductor is located close to the interpreted basal contact of the Youanmi layered intrusion, associated with the strong coincident nickel-copper-cobalt soil anomaly described in the ASX announcement of 12th October 2010 (*see Figures 1 and 2*). This conductor is in a setting considered prospective for intrusion-related magmatic nickel-copper sulphide deposits and is completely unexplored.

EM is commonly used in exploration for such deposits as it is designed to detect massive sulphide bodies at depth beneath the oxidised zone of weathering. The new EM conductor was identified at the easternmost end of the southern line in the survey designed to test for repetitions of the Manindi VMS deposit as well as to test the basal contact zone of the intrusion (*see previous ASX announcement of 12th October 2010*).

The identification of three EM conductors in this area, each with strong coincident geochemical anomalies in the appropriate geological setting, is considered highly encouraging. Follow up EM is ongoing in order to better constrain the location, depth and geometry of this conductor prior to drilling.

Mark Bennett
Managing Director and CEO
Sirius Resources NL

Competent Persons statement

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Dr. Mark Bennett, who is an employee of the company. Dr Bennett is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2004 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Bennett consents to the inclusion in this report of the matters based on information in the form and context in which it appears. Exploration results are based on standard industry practices, including sampling, assay methods, and appropriate quality assurance quality control (QAQC) measures. Reverse circulation (RC), aircore and rotary air blast (RAB) drilling samples are collected as 1 metre samples and composited where

stated. Core samples are taken as half core sampled to geological boundaries where appropriate. In the case of soil samples, PGM assays are based on an aqua regia digest and Inductively Coupled Plasma (ICP) finish, and base metal assays are based on a four acid digest and inductively coupled plasma mass spectrometry (ICPMS), inductively coupled optical emission spectrometry (ICPOES) or atomic absorption spectrometry (AAS) finish. In the case of rockchip samples, PGM assays are based on lead or nickel sulphide collection fire assay digests and an ICP finish, base metal assays are based on a four acid digest and inductively coupled plasma mass spectrometry (ICPMS), inductively coupled optical emission spectrometry (ICPOES) and atomic absorption spectrometry (AAS) finish, and oxide metal elements such as Fe, Ti and Cr are based on a lithium borate fusion digest and X-ray fluorescence (XRF) finish. Sample preparation and analysis is undertaken at Genalysis Intertek and Ultratrace laboratories in Perth, Western Australia. The accuracy and precision of analytical results is monitored by the use of internal laboratory procedures and, where appropriate, certified standards, and subsequent statistical analysis to ensure that results are representative. Exploration results obtained by other companies and quoted by Sirius have not necessarily been obtained using the same methods or subjected to the same QAQC protocols. These results have not necessarily been independently verified because original samples and/or data may no longer be available.

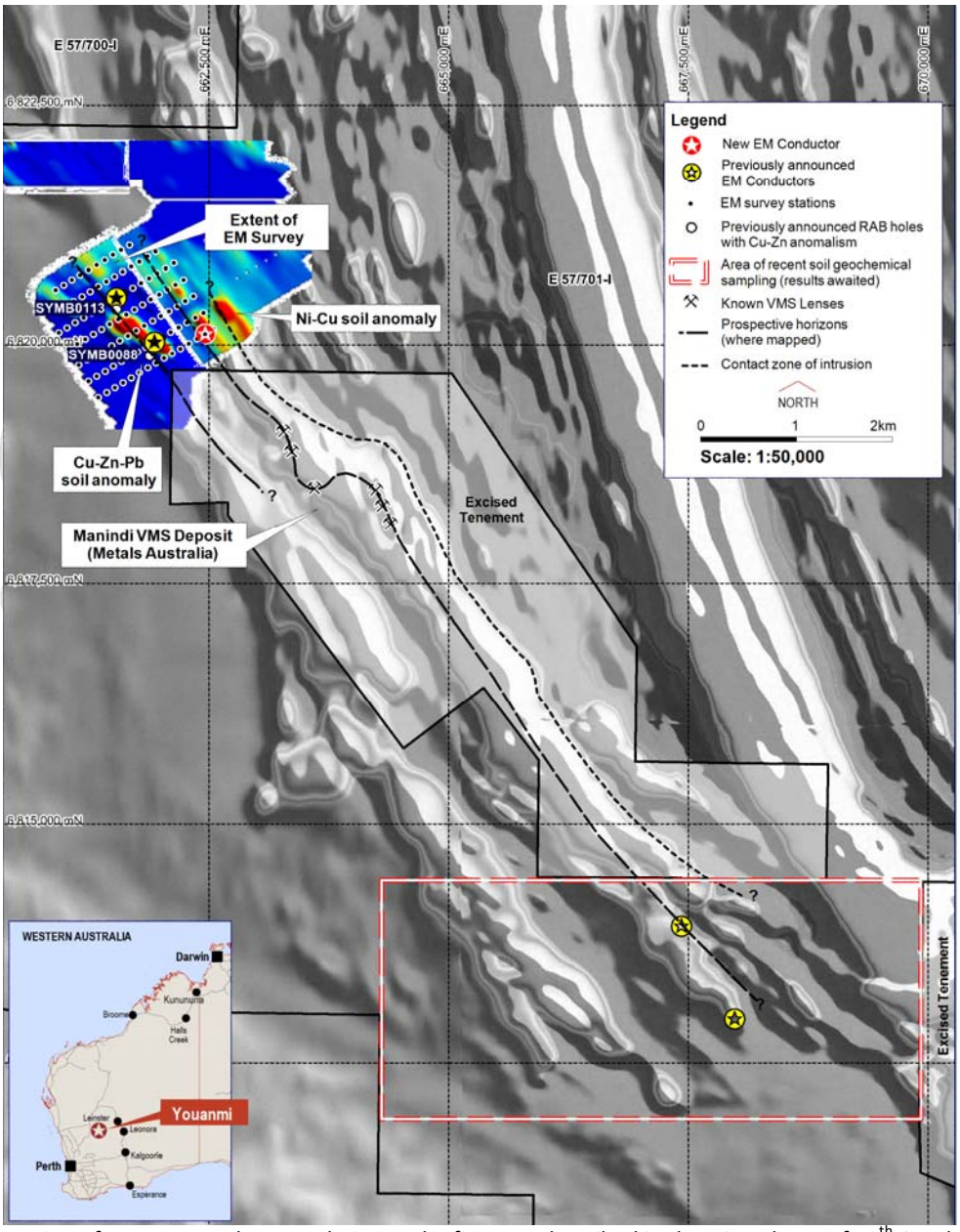

Figure 1. Location of new EM conductor, relative to the first two described in the ASX release of 12th October 2010.

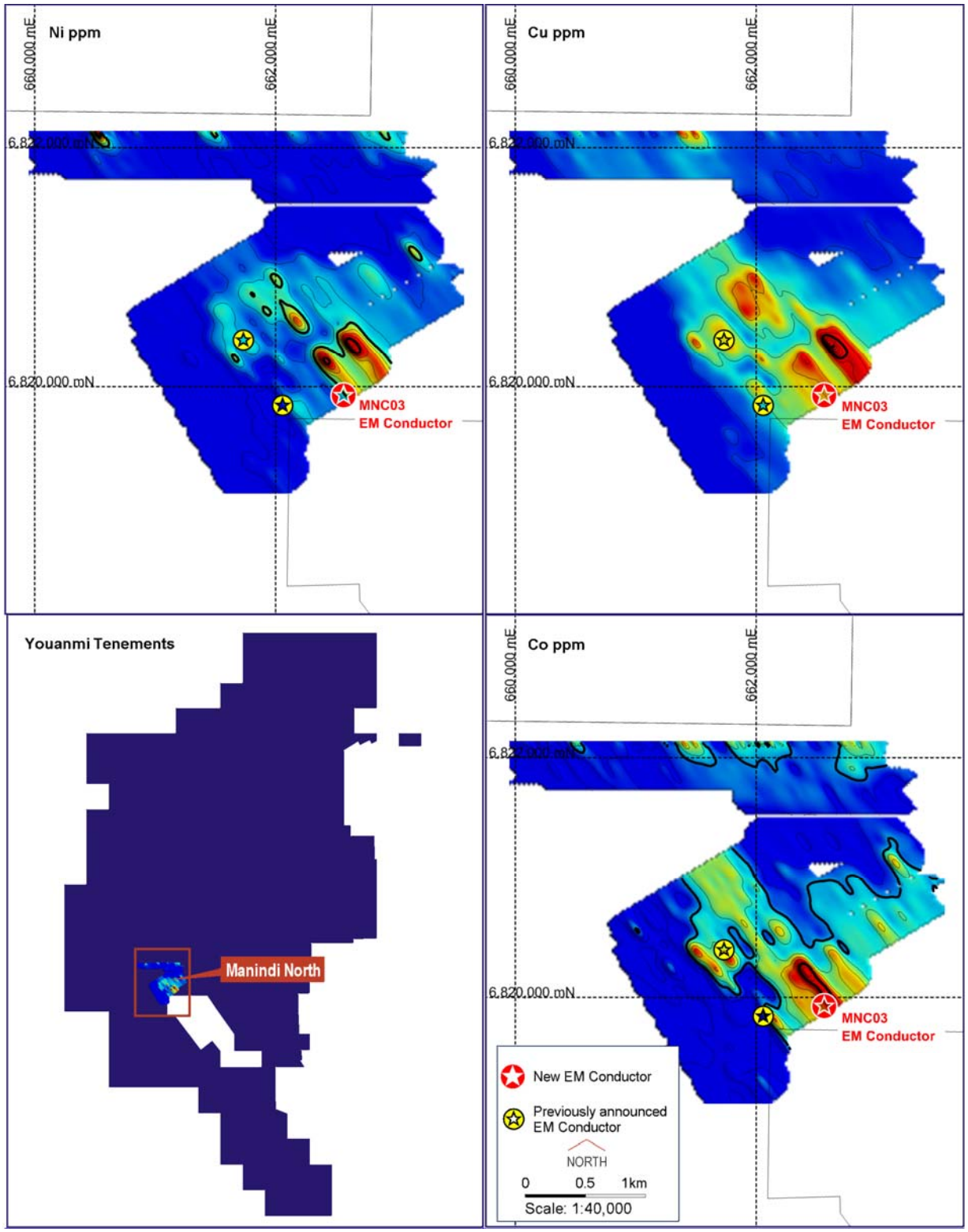

Figure 2. Nickel, copper and cobalt anomalies in soil sampling with location of new EM conductor.