



ASX ANNOUNCEMENT

27th August, 2012

VTEM Survey Identifies Additional Targets for Potential Nickel-Copper Sulphide Mineralisation Musgrave Province Project S.A.

A 200 line kilometre airborne electromagnetic (VTEM) survey has been completed by Geotech Airborne Limited within EL 4587 (100% PepinNini). The survey covered a portion of the Cooperinna Block, which lies to the west of targets currently being drilled by the Company (18th July, 2012 ASX Announcement). This tenement area has never before been systematically explored using modern exploration techniques.

Sixteen "Priority-1" electromagnetic features have been identified from the preliminary survey data (Figure 1). These conductivity responses form a number of discrete "multi-line" clusters which locate favourably to the conceptual geological model by being spatially coincident to interpreted mafic-ultramafic intrusions and feeder dykes.

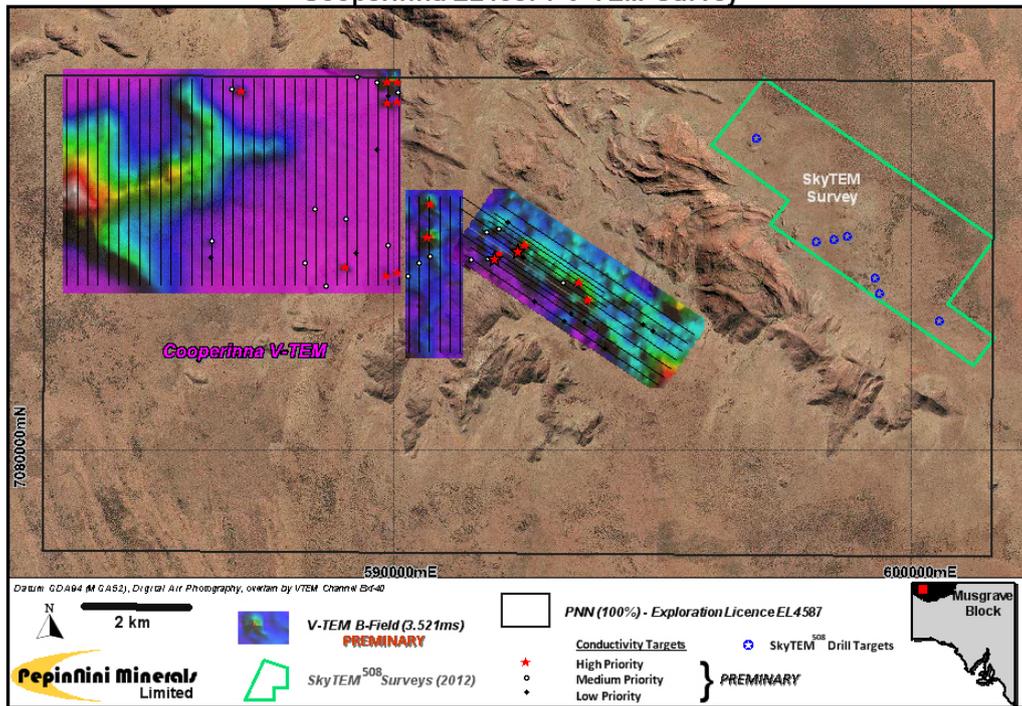
Reconnaissance field mapping has confirmed the recent interpretation of aeromagnetic and geochemical datasets, which constrain the distribution of rocks that potentially host the target magmatic Ni-Cu sulphide bodies at Cooperinna.

All 16 high-priority targets are being comprehensively assessed and will be confirmed on receipt of final data. If warranted they will be investigated with detailed vacuum drilling geochemical sampling and ground electromagnetic surveys. The final targets will be diamond drill-tested following the receipt of statutory approvals and the completion of heritage clearances.

PepinNini's field camp and diamond drilling rig are currently located at EL4587 Cooperinna.

The identification of such distinct strong conductors in the Cooperinna Block from both the recently completed VTEM survey and SkyTEM⁵⁰⁸ survey conducted early this year is very encouraging for the potential discovery of magmatic Ni-Cu sulphide bodies.

Cooperinna EL4587 : V-TEM Survey



VTEM bedrock conductor anomalies - Cooperinna Block EL 4587 Musgrave Province South Australia



VTEM system over PepinNini field camp – Musgrave Province South Australia – August, 2012

The information in this report that relates to Exploration Results is based on information compiled by Norman Kennedy BSc MAusIMM. Norman Kennedy is the Chairman and Managing Director of PepinNini Minerals Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Norman Kennedy consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

For further information please contact:

Mr Norman Kennedy
Chairman and Managing Director, PepinNini Minerals Limited
Phone: +61 (0)8 8218 5000

Note: Additional information on PepinNini Minerals Limited can be found on the website: www.pepinnini.com.au