

ASX ANNOUNCEMENT

15th October, 2013

Cooperinna Project - Exploration Update Musgrave Project, SA.

- Diamond drilling of ground EM targets at Cooperinna has been completed.
- Geophysical targets at Deception, Venus & Cactus Prospects sourced by graphitic gniess.
- Magmatic sulphides intersected within the holes are dominated by pyrrhotite (Iron sulphide)

PepinNini Minerals advises that the remaining three holes to test ground electromagnetic targets within the Cooperinna Block of EL4587 (100% PepinNini) have been completed and sample assay results are now received.

The work contributes to the Company's ongoing search for magmatic Nickel-Copper sulphide deposits across the Musgrave Province of South Australia (*figure 1*).

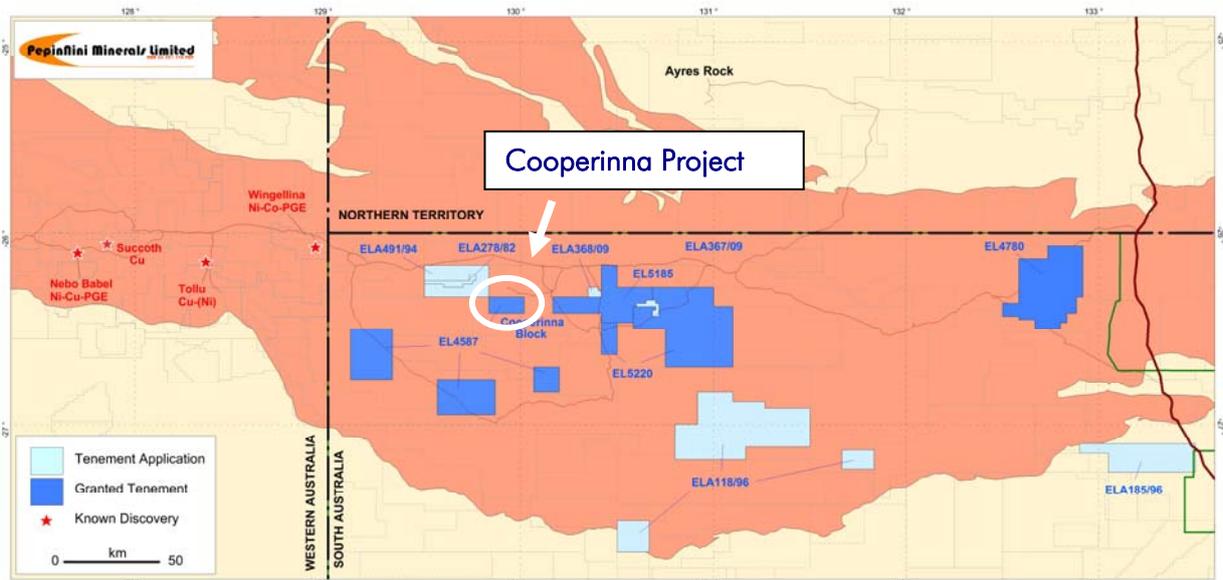


Figure 1: Tenement Location Plan

Three diamond core holes have recently been completed at the Deception, Venus and Cactus Prospects targeting conductivity anomalies detected by fixed loop electromagnetic surveys undertaken during May 2013. Details and locations of the holes are presented in Table 1 and on Figure 2.

Hole ID	Easting	Northing	Elevation	Azimuth	Dip	Depth
Deception Prospect						
DD13COP022	586440mE	7084049mN	691m	205°	-70°	204.09m
Venus Prospect						
DD13COP023	589926mE	7083957mN	719m	255°	-60°	122.87m
Cactus Prospect						
DD13COP024	590725mE	7084090mN	725m	230°	-75°	150.05m

Table 1: Cooperinna – DD13COP022 to 024 diamond drill hole details

Cooperinna EL4587 : Drill Program Update (Sept 2013)

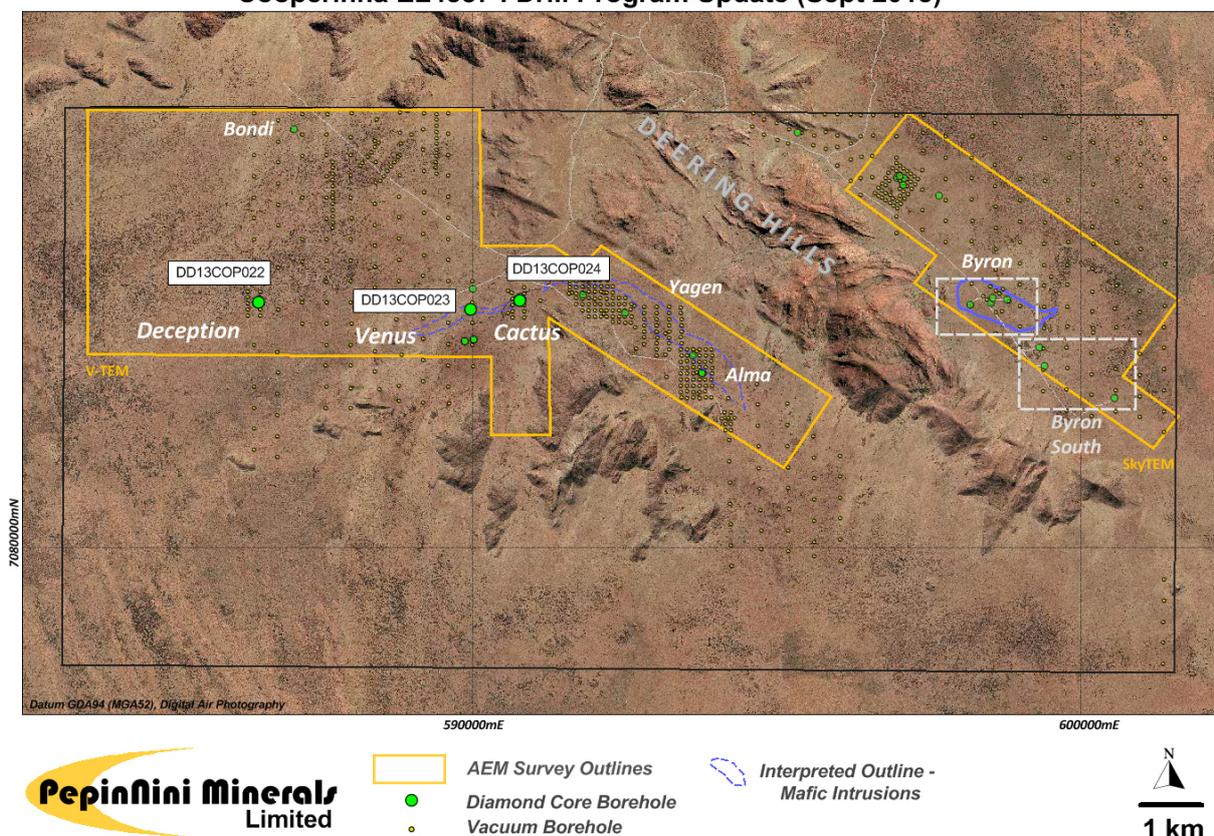


Figure 2: Drill hole locations DD13COP022-24, Cooperinna block (EL4587)

The conductivity target at the Deception Prospect was tested with drill hole DD13COP022 and has been conclusively resolved as being sourced by zones of magmatic sulphide breccia dominated by pyrrhotite (iron sulphide).

At the Venus and Cactus Prospects drill holes DD13COP023 and DD13COP024 intersected zones of graphite gneiss which adequately explain the electromagnetic targets. Disseminated magmatic sulphides in pyroxenite at the top of DD13COP024 were dominated by pyrrhotite (iron sulphide) but are not considered to contribute to the geophysical conductivity response.

A total of seven diamond drill holes for a total of 1,446 metres have now been completed during 2013 to test the priority conductivity targets defined and modelled from the fixed and moving loop ground electromagnetic surveying conducted during May 2013. All of the holes intersected graphitic gneiss, graphitic shear zones, disseminated to massive sulphides or a combination of graphitic-sulphidic stratigraphy. The source of each anomalous bedrock

conductivity feature was adequately resolved.

Sulphide accumulations associated with mafic to ultramafic rocks were dominated by pyrrhotite (iron sulphide) with trace pyrite (iron sulphide) and chalcopyrite (copper sulphide). No pentlandite (nickel sulphide) was visually observed.

The targeted mafic-ultramafic intrusive rocks appear less widespread than initially interpreted from the airborne magnetic data. It is concluded that the occurrence of gabbroic rocks represents a “failed” network of invading magma that was unable to develop into a significantly voluminous layered intrusion as was achieved elsewhere in the region.

Analytical results from selected samples from sulphide bearing intervals within the drill holes reflect the mafic–ultramafic litho-geochemistry of the sequence and confirm the levels copper – nickel – cobalt within the magmatic sulphide accumulations. A summary of maxima geochemical results from the seven holes is presented in Table 2;

Hole	Prospect	Maximum Values (<i>ppm, unless stated</i>)					
		Copper	Nickel	Cobalt	Chrome	Sulphur	Iron
DD13COP018	Venus	189	100	39.8	187	2.5%	18.4%
DD13COP019	Alma	847	503	182	570	2.8%	15.0%
DD13COP020	Alma	364	164.5	62.6	158	2.4%	11.4%
DD13COP021	Yagen	343	188	58.3	525	2.4%	11.1%
DD13COP022	Deception	372	40.9	75.6	139	>10%	26.9%
DD13COP023	Venus	681	195.5	97.6	186	4.6%	14.8%
DD13COP024	Cactus	592	324	109.5	188	6.0%	19.4%

Table 2: Cooperinna – DD13COP018 to 024 (maxima geochemical values from core samples)

The diamond drilling activities moved to EL5185 "Woodroffe" which is part of the Rio Tinto Joint Venture where PepinNini is undertaking activities to earn 51% in the project. The drilling was located at the Marrawah Prospect to test a priority fixed loop electromagnetic conductivity anomaly which had been defined during follow-up of a SkyTEM airborne electromagnetic target.

The information in this report that relates to Exploration Results is based on information compiled by Phil Clifford BSc MAusIMM. Phil Clifford is Technical 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”. Phil Clifford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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