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## ASX ANNOUNCEMENT 30 April 2014

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# **Exploration Update: Santa Ines Project, Salta, Argentina**

PepinNini Minerals is pleased to advise that the recent phase of exploration field activity at its Santa Ines Project in Salta Province Argentina has been completed. The work included induce polarization (IP) surveying, soil and rock chip sampling, and detailed mapping. Results

![](_page_0_Figure_5.jpeg)

of the work are yet to be received.

PepinNini is focussed on the discovery of large porphyry copper-gold or gold-molybdenumcopper systems within the Santa Ines project area similar to the Escondida Copper Mine located to the northwest or Lindero Gold Deposit located to the southeast. These two deposits lie, along with a number of other deposits (Rio Grande, Taca Taca), within the NW trending Archicarca mega-lineament which is one of several major structural systems that control the distribution of porphyry and epithermal mineral deposits in the Andean Belt (*See Figure* 1).

The Salta Province project (PepinNini 100%) comprises two separate areas designated Santa Ines and Chivinar (*see Figure 1*). The Santa Ines

![](_page_1_Picture_0.jpeg)

![](_page_1_Picture_1.jpeg)

### Figure 1 – PepinNini SA Project Locations

Project comprises one granted mining lease, one mining lease application and one granted exploration tenement covering approximately 82 km<sup>2</sup>. The Chivinar Project comprises four granted mining leases and four mining lease applications and covers 204 kms<sup>2</sup>.

The recently completed exploration work at the Santa Ines Project expands on the mapping,

sampling and ground geophysical surveying work undertaken during December 2013 (*previous announcements to the ASX on 12 December 2013 and 28 February 2014*). The previous work had highlighted two exciting porphyryepithermal prospects, 'La Recompensa' and 'El Obsequio' – (*see Figure 2*).

El Obsequio is an epithermal Cu-Au target which contains multiple historic artisanal copper workings

![](_page_1_Picture_7.jpeg)

where grab samples have returned up to 21.7% copper, 0.9 g/t gold, 34.9 g/t silver and 26.4% Iron (*ASX release 15 June 2012*). Detailed magnetic surveying highlighted multiple concealed anomalies which 3D inversion modeling suggests deepen to the northwest. The magnetic anomalies are possibly sourced by mineralised magnetite veins similar to those observed in outcrop. The sampling across the prospect in December 2013 highlighted coincident

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anomalous poly-metallic values with maxima of 3.26% Copper, 0.8 g/t gold, 12.5 g/t silver in rock chips (*ASX release 28 February 2014*).

La Recompensa Prospect is a Porphyry Cu-Au target recognized as a large (800m x 1400m) concealed ground magnetic anomaly which 3D inversion modeling suggests deepens to the west. This is significant given the association of gold-copper mineralisation with magnetite at the nearby Lindero and Rio Grande deposits. The identification of "D" veinlets with pyritic cores and semi-coincident propylitic alteration assemblages (epidote-chlorite) provides further analogies to the porphyry copper environment.

![](_page_2_Figure_3.jpeg)

### Figure 2 – La Recompensa(the Reward) and El Obsequio(the Gift)

The recently completed activities include Induced Polarization (IP) geophysical surveying, soil and rock chip sampling and detailed mapping. IP at EI Obsequio and La Recompensa comprise both north-south and an east-west survey lines across concealed magnetic targets at each of the prospects for a total 6.4 line km. The focus of the survey work is to identify priority chargeability targets worthy of drill testing later in the year. The soil sampling, rock chip sampling and detailed mapping expand the previous coverage of the El Obsequio Prospect across to the La Recompensa Prospect. Approximately 270 soil samples were collected for handheld XRF multi-element analysis and thirteen rock chip samples were collected for laboratory multi-element geochemical analysis. Detailed mapping was undertaken across parts of the prospect areas not concealed by younger volcanic cover.

Results of the geophysical surveys, sampling, and mapping are awaited and will be reported June-July 2014.

![](_page_3_Picture_0.jpeg)

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Phil Clifford BSc MAusIMM. Phil Clifford is the 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 2012 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. This information was prepared and first disclosed under JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

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