PepinNini Minerals limited
ABN 55 101 714 989

ASX ANNOUNCEMENT

28 February 2014

Initial Results Santa Ines Project Argentina

- **Phase- I of initial systematic exploration program complete.**
- **Rock chip samples up to 3.26% copper, 0.8 g/t gold and 12.5 g/t silver**
- **Apparent polymetallic (Fe-Co-Pb-Zn-Bi-W-Mo) association with Cu-Au-Ag mineralisation**
- **Approximately 180 line km of ground magnetic data acquired**
- **Largely concealed 1.4km x 0.8km ground magnetic target identified**
- **Phase two of the exploration program to recommence shortly**

PepinNini Minerals is pleased to announce that phase I of exploration activities undertaken across its Santa Ines Project, Salta Province, Argentina has been completed and results have now been received. The work was undertaken by geological consultants CSA Global during December 2013 (*as announced in ASX release, 12th December, 2013)*.

In December it was announced that field exploration activities had commenced within three tenements comprising the Santa Ines Project in Salta Province Argentina (Table 1). The work was completed during the two weeks prior to Christmas 2013 and included geological mapping, geochemical sampling and ground magnetic surveying with the aim of better detailing the geology and mineral potential of the area, identifying concealed targets through geophysical surveying, and further investigating the mineralised system around the historical Santa Ines artisanal mine workings previously located within the project area (*sample results previously announced in ASX release, 15th June 2012*).

The exploration activities were undertaken by consultants CSA Global who have considerable experience in South America.

The Santa Ines Project is located on the eastern side of the Andean Mountain Range approximately 275km west of Salta City in Salta Province, Argentina. It benefits logistically by being only 5kms from the Salta-Antofagasta rail line and is easily accessed using existing roads and tracks.

Figure 1 – Location of Santa Ines Project

Tenure

PepinNini Sociadad Anonima. (*a subsidiary of PepinNini Minerals Ltd*.) holds 100% interest in three adjoining tenure blocks within the Santa Ines Project. Details of the tenure are included in Table A.

Table A – Santa Ines, details of project tenure

Tenure	Number	Grant	Expiry	Size (Hectares)Ha
Mina Santa Ines	File No. 1201	20/9/2011	N/A	18
Mina Santa Ines VIII	File No 22074	Application	N/A	3,000
Santa Ines	Cateo 20613	17/8/2012	11 Oct 2014	3,133
Total				**6,313**

Project Potential

The Santa Ines Project is located within a crustal scale mega–lineament (the Archibarca lineament zone) which trends to the northwest and contains the giant Escondida Copper-Gold Project located 80km to the northwest in Chile. These crustal structures are widely recognised as being fundamental in the control and distribution of porphyry-epithermal deposits, particularly where they are intersected by northeast-trending structures, such as those seen at Santa Ines.

PepinNini is exploring the project area for a large copper-gold-molybdenum porphyry system that may alos have iron-copper-gold (IOCG) characteristics. Potential epithermal gold-silver mineralisation has also been identified.

Mapping and Sampling

The geological field team have completed approximately 1,000 ha of mapping across the central portion of the project area which lies to the west of the historic Santa Ines mine working during the first phase of

mapping activities (Figure 2). Thirty seven rock chip and grab samples were collected across the mapping area for multi element geochemical analysis and gold assay. Ten samples returned significant results with eight of those recording greater than 0.5% copper to a maximum result of 3.256% Copper. The anomalous samples are located in the vicinity and to the west of the Santa Ines historic mine (Fig 3). The ten samples also recorded anomalous poly-metallic values with maxima of 0.8 g/t gold, 12.5 g/t silver, 91.1ppm molybdenum, 541.1ppm lead, 2,992ppm zinc, 36.29% iron, and >200 ppm tungsten.

A total of fifty eight rock samples were also collected for hyperspectral analyses to investigate the alteration patterns across the project area. Analysis of these samples using a Spectral Evolution oreXpress spectrometer supports field observations indicative of regional propylytic alteration within which there is locally developed crystalline kaolinite and illite.

Ground Magnetic Survey

A detailed, continuous-reading, ground magnetic survey was undertaken during the phase-I exploration activities using locally based geophysical contractors (Geofisica Argentina). The survey involved the acquisition of approximately 180 line kilometres of data along 150m spaced N-S survey lines in the central portion of the project area (Figure 4).

The survey has highlighted an interesting 1.4km x 0.8km target in an area dominated by alluvial /colluvial / scoria cover. Profiling of the data suggests a deep magnetic source worthy of additional investigations given the association of copper-gold mineralisation with magnetite at the nearby Lindero and Rio Grande deposits.

Several interesting magnetic responses have been identified from the survey that will also be investigated in further detail.

Continuation of exploration activities

Phase – II of the CSA Global exploration activities are scheduled to recommence shortly at the Santa Ines Project. The continued work will expand the geological mapping coverage and include soil and rock chip sampling where possible.

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Colin Brodie who is a member of the Australasian Institute of Mining and Metallurgy. Mr Brodie is an associate senior geological consultant to CSA Global and has a minimum of five years relevant experience in the style of mineralisation and type of deposit under consideration and qualifies as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Brodie consents to the inclusion of the information in this report in the form and context in which it appears.

For further information please contact:

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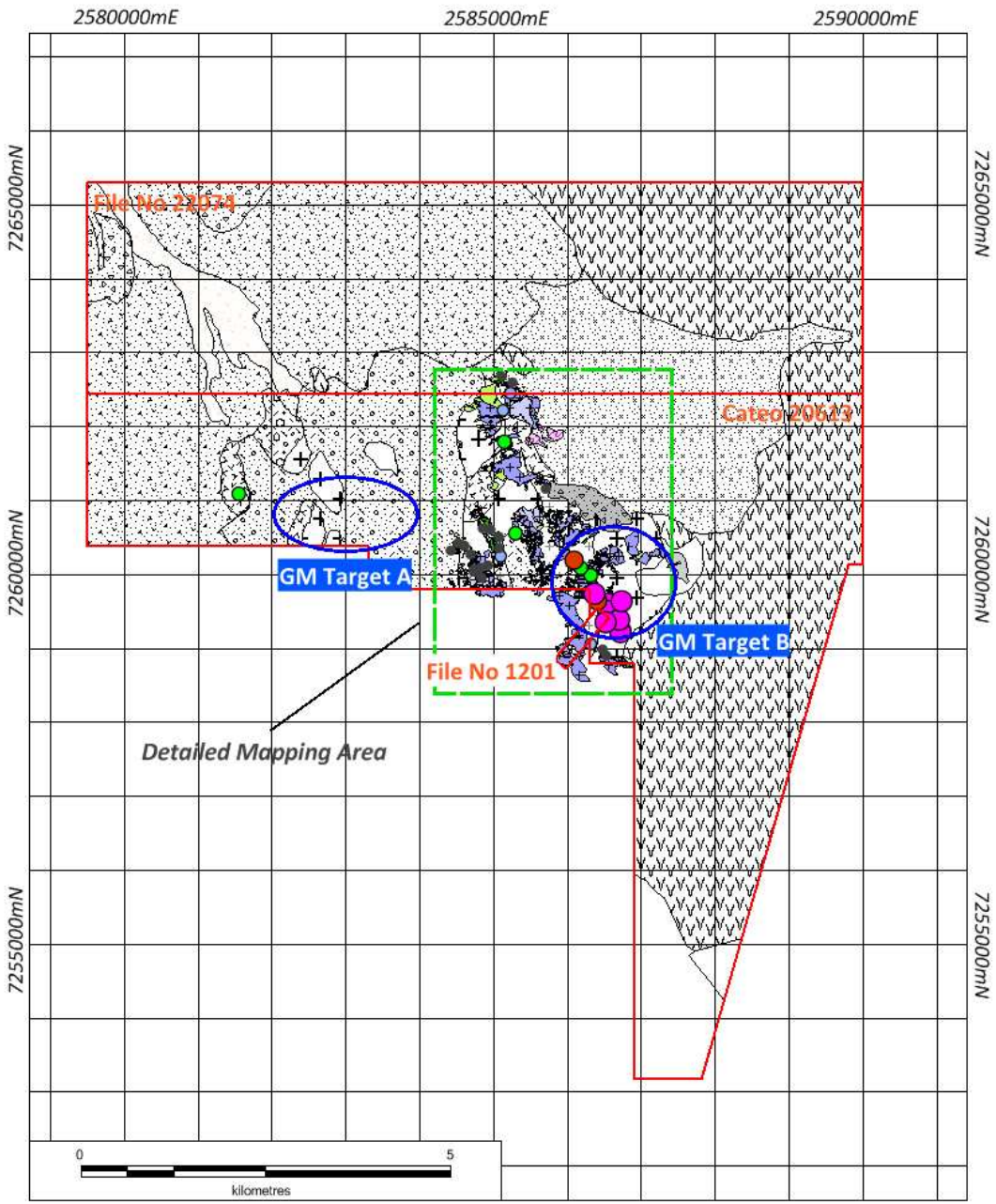
Note: Additional information on PepinNini Minerals Limited can be found on the website: www.pepinnini.com.au

Table B: Significant Rock Chip Sample Results

Sample	East	North	Altitude	Cu	Au (ppb)	Ag (g/t)	Mo (ppm)	Pb (ppm)	Zn (ppm)	Fe (%)	W (ppm)
PEP-08	*2586715*	*7259254*	*4,408.8m*	1.22%	200	0.1	2.6	432.6	1,633	8.34	13.1
PEP-09	*2586714*	*7259248*	*4,412.3m*	0.71%	38	0.2	2.2	456.1	1,409	8.25	11.1
PEP-10	*2586537*	*7259631*	*4,454.5m*	1.34%	335	0.6	14.5	49	442	36.29	>200
PEP-11	*2586532*	*7259522*	*4,449.5m*	3.26%	27	12.5	9.2	541.6	1,817	8.18	14.6
PEP-12	*2586699*	*7259418*	*4,436.2m*	1.61%	80	1.9	14.7	190.5	614	20.8	51.6
PEP-13	*2586412*	*7259658*	*4,483.5m*	0.37%	145	1.2	18.4	11.3	408	24	185.5
PEP-14	*2586365*	*7259755*	*4,483.6m*	0.68%	170	2.2	13.5	11.7	106	9.16	8.3
PEP-15	*2586507*	*7259376*	*4,421.8m*	0.68%	7	0.5	11.9	73.5	1,139	24.92	>200
PEP-16	*2586725*	*7259661*	*4,424.9m*	2.44%	635	2.7	91.1	18.5	562	12.36	4.9
PEP-19	*2586096*	*7260210*	*4,404.6m*	0.11%	8	1	3.5	40.1	2,992	16.18	60.1

NB. East / North co-ordinates = Argentina Gauss-Kruger Zone 2

Analysis by ACME ANALYTICAL LABORATORIES LTD, all analyses by multi-acid digestion with an ICP finish, except Au, which was done by 30g charge fire assay and ICP finish. Analyses of W are likely to be partial rather than total values. The analyses include grab samples of mine dump material and are not representative of grades to be expected from in-situ mineralisation. A further 27 samples contained lower Cu values.



Santa Ines Project - Geology

Geology Legend
(adapted from Socompa Regional Geology)

- Colluvium / Alluvium (Quaternary)
- Tuff, Scoria (Cenozoic) - STRATAVOLCANICS
- Andesite (Miocene) - QUEBRADA DE AQUA COMPLEX
- Agglomerate/lavatube (Palaeocene) - QUEBRADA DE AQUA COMPLEX
- Rhyolite Porph Dykes (Eocene) - SANTA INES VOLCANIC COMPLEX
- Dacite, Ignimbrite (Eocene) - SANTA INES VOLCANIC COMPLEX
- Micro Diorite (Triassic) - LLULLAILACO PLUTONIC SUITE
- Granite & granite porphyry (Permian) - LLULLAILACO PLUTONIC SUITE
- Granodiorite (Ordovician) - CHUCULAQUI FORMATION

Rock Chip Samples
Cu Results

0.5% to 3.3% Cu	(8)
0.1% to 0.5% Cu	(2)
100ppm to 0.1% Cu	(5)
50ppm to 100ppm Cu	(4)
< 50ppm Cu	(19)

Tenure Boundaries

Preliminary GM Target Areas

Mapsheet: Socompa 2569-II (1:250,000)
Coords: Argentina Gauss-Kruger - Zone 2
Projection: Argentina Gauss-Kruger - Zone 2

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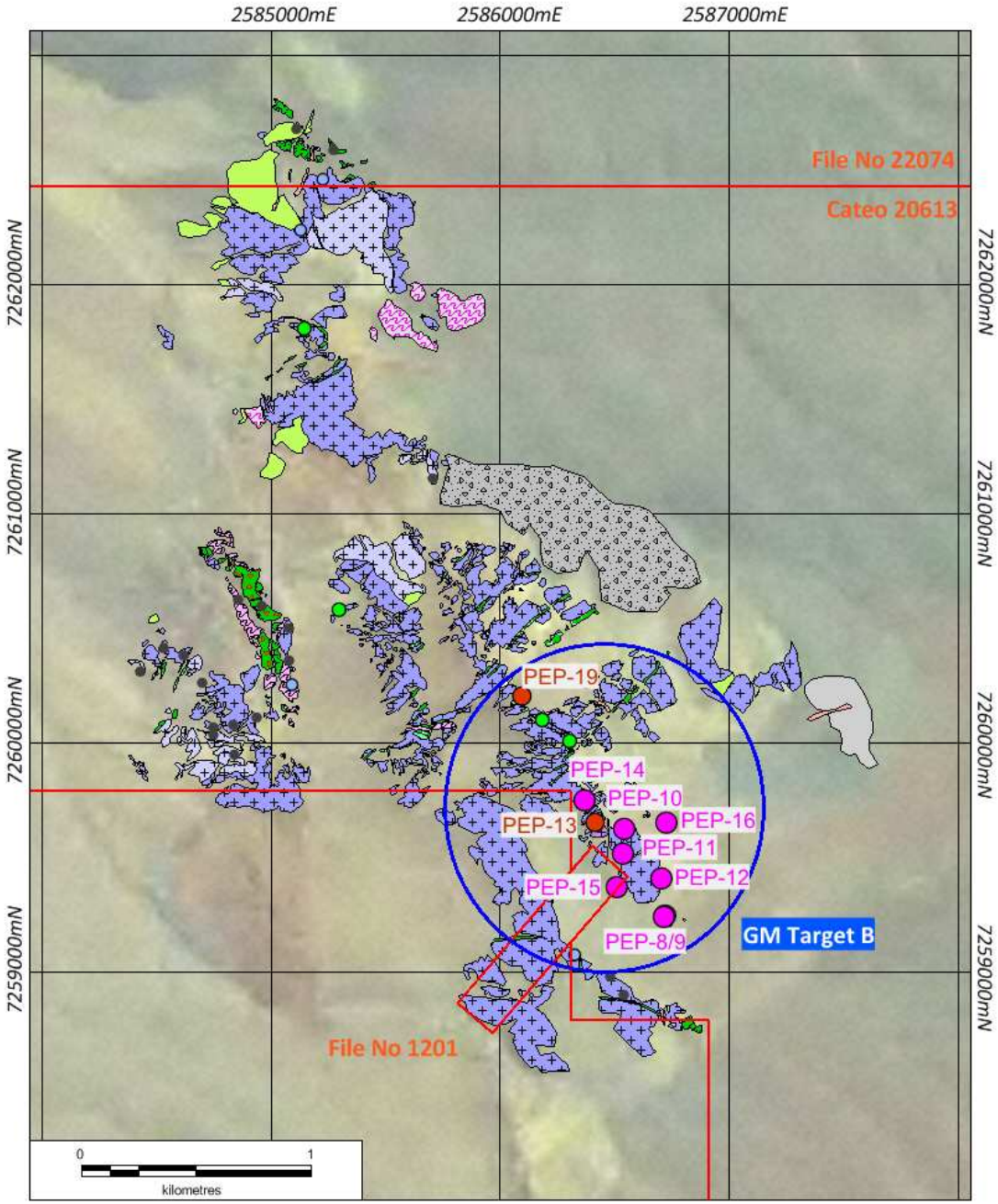

Santa Ines Project
Detailed Geological Mapping

Stratigraphic Legend

Post - Santa Ines Volcanic Complex deposits

- Mine dump material
- Unconsolidated, mainly volcanogenic deposits (block and ash deposts, bedded sediments)
- Monzonite/trachyte dykes - porphyritic
- Basalt - lava to hypabyssal intrusions
- Fault zone, probably also with movement syn-Santa Ines Volcanic Complex deposition

Santa Ines Volcanic Complex (Eocene?)

- Rhyolite - dykes and lavas (some may be younger than Santa Ines Volcanic Complex)
- Dacite - dykes and high level plugs
- Andesite - intrusions, mainly dykes
- Andesite lava, massive porphyritic or flow-banded
- Andesite volcanic breccias (polymict)
- Mafic Breccia - grade from shear zones to fluidized breccias (age? post-granite, pre-andesite)

Llullaillaco Plutonic Complex (Permo-Triassic)

- Leucogranite
- Granite
- Foliated granite

Tenure Boundary

GM Target Area

Rock Chip Samples
Cu Results

0.5% to 3.3% Cu	(8)
0.1% to 0.5% Cu	(2)
100ppm to 0.1% Cu	(5)
50ppm to 100ppm Cu	(4)
< 50ppm Cu	(19)

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Mapsheet: Socompa 2569-II (1:250,000)
Coords: Argentina Gauss-Kruger - Zone 2
Projection: Argentina Gauss-Kruger - Zone 2

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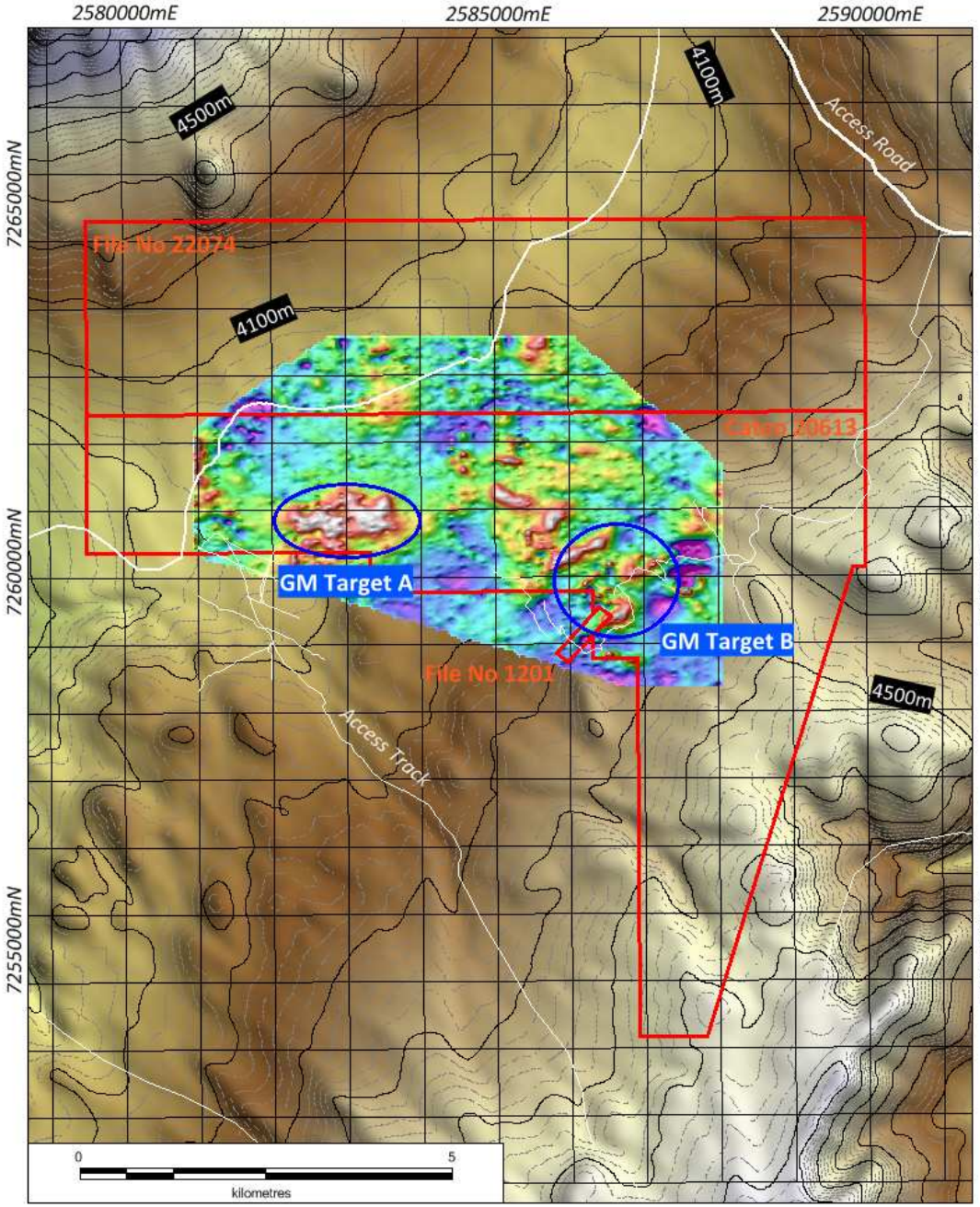
Figure 4



Santa Ines Project
Ground Magnetics

Geofisica Argentina (Local Geophysical Contractor)
Ground Magnetics (~180 line km)
Acquired December 2013
Line Spacing 150m
Line Orientation N-S

GM Image = TMI (Reduced to Pole)

Preliminary Target Areas

Background Image - Digital Elevation Model & Contours

100m Contour

20m Contour

Tenure Boundaries

Mapsheet: Socompa 2569-II (1:250,000)
Coords: Argentina Gauss-Kruger - Zone 2
Projection: Argentina Gauss-Kruger - Zone 2

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JORC Code, 2012 Edition – Table 1 Santa Ines Project, Salta Province, Argentina

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Grab and rock chip samples from outcrop and historical mining dumps have been collected for both geochemistry and hyperspectral analysis during the course of reconnaissance field mapping. Sampling has not been designed to estimate mineralised grades as this is the first stage of exploration activity on the property.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• No drilling undertaken due to early stage of exploration.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Not applicable as no drilling has been completed.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Not applicable as no drilling has been completed.
Sub-	• *If core, whether cut or sawn and whether quarter, half or all core*	• Rock samples weighing up to 1 kg were passed through a jaw

Criteria	JORC Code explanation	Commentary
sampling techniques and sample preparation	*taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	crusher to reduce the grain size to a nominal 80% less than 2 mm. The sample size is considered adequate for sampling of secondary copper mineralization in fine grained intrusive rocks. A 200 to 250 g split was then pulverized to a nominal 85% less than 75 microns. A 30 g charge was used for Au fire assay and is considered suitable for the style of mineralization. A 0.25 g split was used for multi-element analysis and is also considered appropriate. • A batch of 37 rock samples was accompanied by one preparation (crusher) duplicate and five pulp duplicates. No field duplicate samples were collected at this stage of the exploration program as the samples were only designed to assess the surface geochemistry and will not be used in resource estimation.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Gold was determined by lead-collection fire assay (total analysis) and the remaining multi-element suite was analysed using a multi-acid digestion, which will be total for the base metals but near-total for those elements found in refractory minerals. The digestion and analytical methods used are considered appropriate for oxidised Cu-Au mineralization. • The samples were analysed with a total of 26 internal multi-element certified reference materials, blanks and quartz washes and a single external standard reference material. The results have been compared to certificates and acceptable levels of accuracy have been obtained. The data indicate acceptable reproducibility but are insufficient to quantify precision.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• No drilling was undertaken. • Data entry for this early stage exploration program was through the use of data capture directly into GIS software on a handheld Trimble Nomad. Merging of field and assay data was done in an Excel spreadsheet. • The data has not been adjusted.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Argentina Gauss Kruger Zone 2 - Campo Inchauspe datum. • Sample locations were collected using handheld GPS.
Data spacing and	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and*	• Sampling was not designed to constrain resources.

Criteria	JORC Code explanation	Commentary
distribution	*classifications applied.* • *Whether sample compositing has been applied.*	
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Rock samples for geochemistry were focused on mineralised structures to determine the presence or absence of Cu-Au mineralisation. • Sampling for hyperspectral analysis is more widely spaced. • The ground magnetic survey was designed to cover most areas of exposed Palaeozoic, Mesozoic and Cainozoic bedrock.
Sample security	• *The measures taken to ensure sample security.*	• Samples were delivered to the AcmeLabs preparation facility in Mendoza, Argentina by the contractors engaged to carry out the field program.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• None undertaken at this early stage.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• Mina Santa Ines (File 1201), Mina Santa Ines VIII (22074) and Cateo 20613 (Santa Ines) held 100% by PepinNini SA, a wholly owned subsidiary of PepinNini Minerals Ltd. Ownership has not been independently verified by the Competent Person. • Surface rights for the tenements are held by Salta Province (i.e. crown land). • An approved environmental impact report (approval resolution Nº 006/14) is in place to allow exploration activities to take place.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Historical artisanal mining has taken place but there are no records of production or previous exploration on the tenements.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Cu-Au-Mo mineralisation of either porphyry-Cu or iron oxide copper gold (IOCG) style in a Cainozoic Andean magmatic arc setting.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*	• Not applicable as no drilling was undertaken.

Criteria	JORC Code explanation	Commentary
	o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Not applicable as no weighted averages, aggregates or metal equivalents have been used at this early stage of exploration.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Not applicable as no drilling has been undertaken nor has systematic channel sampling of surface workings been carried out.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Geological map with significant grab sample results provided.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Cu grades vary from a low of 4.1 ppm to a high of 32,560 ppm. • Au grades vary from a low of <2 ppb to a high of 635 ppb. • Ag grades vary from below detection to a high of 12.5 ppm. • Mo grades vary from a low of 0.4 ppm to a high of 91.1 ppm.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential*	• A preliminary interpretation of hydrothermal alteration from hyperspectral analysis of Aster satellite data and hand samples, as well as from geochemical analyses, has been undertaken. • The results of ground magnetics survey are also presented.

Criteria	JORC Code explanation	Commentary
	deleterious or contaminating substances.	
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further field work to complete mapping of the property and to conduct additional geochemical sampling is planned in the near future.