

5 MARCH 2018

# Large Drilling Targets Identified by Magnetics at the Bramaderos Gold-Copper Project in Ecuador

## HIGHLIGHTS

- 1. 3-D modelling of new heli-magnetic data has defined large targets at the Bramaderos Main and Porotillo prospects within the Bramaderos Project
- 2. 3-D processing of magnetics data over Limon and West Zone targets at Bramaderos now underway
- 3. The 3-D modelling further strengthens the definition of targets and has greatly enhanced the quality of the Porotillo target in particular

Sunstone Metals Limited (ASX:STM) is pleased to report more highly promising exploration results from its Bramaderos gold-copper project in Ecuador, with 3-D modelling of heli-magnetic data defining very large drilling targets.

The first 3-D modelling of a subset of the recently collected heli-magnetic data over the Bramaderos Main and nearby targets reveals that these targets have considerable vertical extent (Figure 1). The 3-D modelling of the Limon and West Zone targets is now underway with results expected shortly.

At Bramaderos Main, a large magnetic body has been modelled with a vertical depth of 1km and a surface expression that coincides with the areas of best historical drilling and significant gold anomalism defined in the recent trenching program.

A cross section through the 3-D magnetic model (Figure 3) depicts the Bramaderos Main anomaly area in relation to historical drill hole CURI03, and recent trench BM02, that both intersected significant widths of gold and copper mineralisation.

Importantly, the model indicates the main magnetic area has not been drill tested and occurs just beyond the highest assay results from historical hole CURI03, which included 30.2m at 0.8g/t gold and 0.2% copper at the bottom of the hole.

This modelling has also significantly enhanced the Porotillo target by providing context for areas of significant gold-in-soil anomalies, and historical drilling which it appears may have been drilled on the periphery of the magnetic target zone.

The Porotillo target, located 1.5km south of Bramaderos Main, was previously considered a lower-ranked target due to historical drilling that delivered sporadic gold mineralisation. However, this 3-D modelling has defined a large magnetic body, which evolves near surface into a cluster of magnetic bodies (figure 1), with a vertical extent exceeding 1.7km and coinciding at surface with anomalous soil sampling results. This magnetic pattern is seen in other porphyry systems.

Figure 2 shows the locations of historical drilling at Porotillo. It can be seen that this drilling was located on, and to the north of, the margin of the magnetic bodies and was therefore not an adequate test of the target.

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Sunstone Managing Director Malcolm Norris said:

"The 3-D modelling results provide more strong evidence of the huge potential of the Bramaderos Main and Porotillo targets. The modelled magnetic bodies sit adjacent to, and extend below, the drill holes which intersected copper and gold, and are located below the extensive gold anomaly we have outlined.

"This work increases our confidence yet again in the robustness of the targets and starts to deliver a sense of scale to these targets.

"Additional 3-D modelling is currently underway over the Limon and West Zone targets."

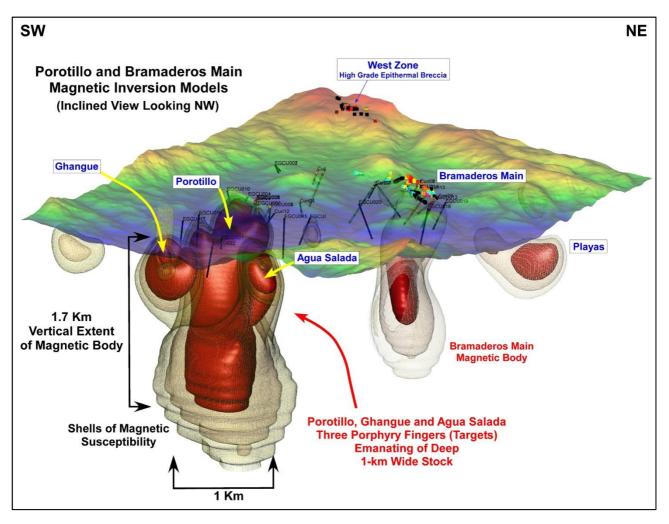


Figure 1: 3-D view looking towards the NW (towards West Zone) of the Bramaderos Main and Porotillo targets. Gold in trenches shown at Bramaderos Main and West Zone.



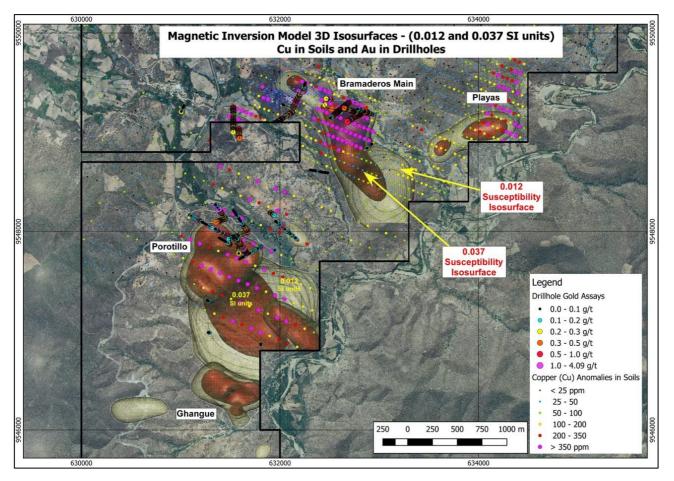


Figure 2: Plan view showing the large Bramaderos Main and Porotillo targets with copper-in-soil results. The image also shows locations of historical drilling, and it can be seen that historical drilling at Porotillo was located on, and to the north of, the margin of the magnetic body and was therefore not an adequate test.



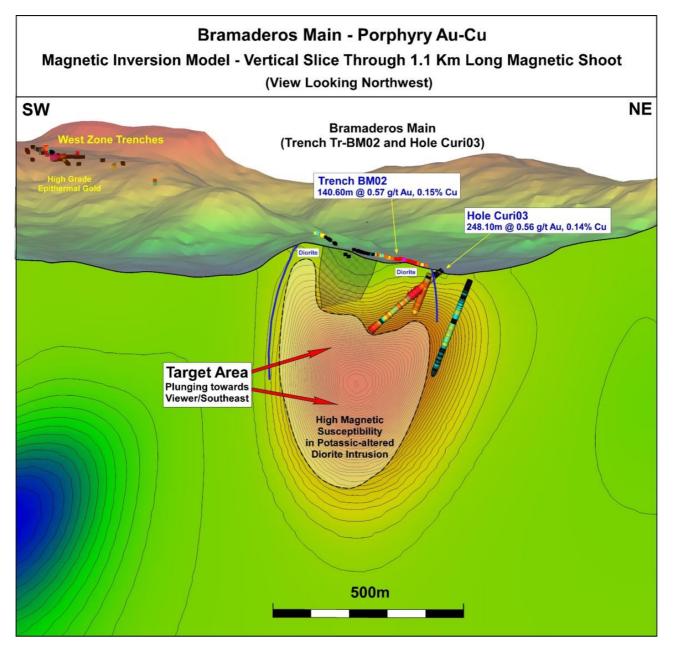


Figure 3: Cross section through the 3-D magnetic model showing the main anomaly area in relation to historical drilling in CURI03, and in trench BM02. The main magnetic area has not been drill tested and occurs just beyond the highest assay results from historical hole CURI03, which included 30.2m at 0.8g/t gold and 0.2% copper at the end of hole (i.e. mineralisation open at depth from this drill hole).

#### **About Sunstone Metals**

Sunstone has an advanced portfolio of exploration and development projects in Scandinavia and Ecuador. The portfolio comprises:

- 1. The Bramaderos Gold-Copper Project where Sunstone has signed an earn-in agreement with TSXV listed Cornerstone Capital Resources (see ASX announcement dated 10<sup>th</sup> April 2017). The Bramaderos gold-copper project is located in Loja province, southern Ecuador, and is considered to be highly prospective for the discovery of large gold-copper systems. Historical results from drilling at Bramaderos include wide intervals such as in CURI03, 248m at 0.56g/t Au and 0.14% Cu, including 30m at 0.8g/t Au and 0.2%Cu at the bottom of hole. Trenching results by Sunstone from Bramaderos Main prospect include 140.6m at 0.57g/t Au and 0.15% Cu. Trenching results by Sunstone at the West Zone breccia prospect include intersections of up to 30m at 3.6g/t Au. These results, together with the distribution of alteration, and large coincident gold-copper-molybdenum surface anomalies indicate multiple fertile mineralised systems with significant discovery potential.
- The Viscaria Copper Project in northern Sweden has a completed Scoping Study (see ASX announcements dated 16<sup>th</sup> December 2015 and 5<sup>th</sup> April 2016) and is moving towards PFS and permitting to allow for mine development. Considerable exploration upside exists and low technical risk drill targets continue to be tested.
- 3. The Southern Finland Gold Project, includes the Satulinmäki gold prospect. Shallow diamond drilling was completed by the Geological Survey of Finland (GTK) during the period 2000-2005 and this was followed by a 7-hole diamond drilling program by Sunstone Metals in 2016. Intersections from GTK include 18m @ 4.1g/t Au from 50m downhole, including 3m @ 9.3g/t Au, and 4m @ 10.3g/t Au in drill hole R391. Intersections by Sunstone include 23.5m at 3.3g/t in SMDD007 and 2m at 10.5g/t in SMDD005. The Satulinmäki gold prospect is part of an earn-in JV with Canadian company Nortec Minerals, where Sunstone can earn up to an 80% interest (see ASX announcement dated 19th May 2016). Sunstone has already earned a 51% interest, and has also acquired a significant land position, in its own right, in the district.
- 4. **The Scandinavian Lithium Project**, includes the Kietyönmäki lithium prospect. Drilling by Sunstone has delivered 24.2m at 1.4% Li<sub>2</sub>O in a spodumene bearing pegmatite. Additional earlier stage lithium opportunities are held in Sweden and Finland.

#### **Competent Persons Statement**

The information in this report that relates to exploration results is based upon information reviewed by Dr Bruce Rohrlach who is a Member of the Australasian Institute of Mining and Metallurgy. Dr Rohrlach is a full-time employee of Sunstone Metals Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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". Dr Rohrlach 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 visit www.sunstonemetals.com.au Mr Malcolm Norris Managing Director Sunstone Metals Ltd Tel: 07 3368 9888 Email: mnorris@sunstonemetals.com.au

#### APPENDIX 1

The following Table and Sections are provided to ensure compliance with the JORC Code (2012 Edition)

#### TABLE 1 – Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	<ul> <li>The surface results announced here are from soil samples.</li> <li>Additional imagery is provided for processed heli- magnetics data.</li> </ul>
	• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	• Samples were taken by hand-operated auger drill. As much as possible, care was taken to sample the same soil horizon in each sample.
	• 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.	• Soil samples were collected on a grid with the soil sampling site located by GPS, Low-detection limits were applied during analysis of the soils, commensurate with the levels expected in the soil samples.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).	• Drilling has not yet been undertaken by the Sunstone-Cornerstone JV.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed.	• Drilling has not yet been undertaken by the Sunstone- Cornerstone JV.
	• Measures taken to maximise sample recovery and ensure representative nature of the samples.	• Drilling has not yet been undertaken by the Sunstone- Cornerstone JV.
	• 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.	• Drilling has not yet been undertaken by the Sunstone- Cornerstone JV.
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.	<ul> <li>Drilling has not yet been undertaken by the Sunstone-Cornerstone JV.</li> <li>Soil samples were logged for parameters such as slope, moisture, contamination, colour, origin, composition and depth. The data were recorded in an Excel database.</li> </ul>
	• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	• Drilling has not yet been undertaken by the Sunstone- Cornerstone JV.
	• The total length and percentage of the relevant intersections logged.	• Drilling has not yet been undertaken by the Sunstone- Cornerstone JV. All channel samples were logged.
Sub-sampling techniques and	• If core, whether cut or sawn and whether quarter, half or all core taken.	• Drilling has not yet been undertaken by the Sunstone- Cornerstone JV.
sample preparation	• If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	• Soil samples were collected (dry) as a whole-soil sample (unsieved), and weighed between 0.3kg and 0.6kg. These were then sent to the sample preparation laboratory for processing as described below.



Criteria	JORC Code explanation	Commentary
	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	<ul> <li>Samples were sent to the LAC y Asociados Cia. Ltda. Sample Preparation Facility in Cuenca, Ecuador for sample preparation. The standard sample preparation for soil samples (Code PRP-757) is: Drying the sample, screening 500 grams to 80 mesh with the oversize fraction being discarded. The screened samples were sent to the MS Analytical Laboratory in Vancouver (Unit 1, 20120 102nd Avenue, Langley, BC V1M 4B4, Canada) for gold, base metal, minor and trace element analysis.</li> <li>The sample preparation is carried out according to industry standard practices using highly appropriate sample preparation techniques.</li> </ul>
	• Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	<ul> <li>Sunstone used an industry standard QAQC programme involving Certified Reference Materials "standards" and blank samples, which were introduced in the assay batches.</li> <li>Standards (Certified Reference Materials) and analytical blanks were each submitted at a rate of around 1 in 45 samples. Analytical duplicate (or check) assays were conducted.</li> <li>The check or duplicate assay results are reported along</li> </ul>
	• 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.	<ul> <li>with the sample assay values in the final analysis report.</li> <li>Samples were collected in a manner that provided representative samples from each sample site, and zones of different rock types or alteration were well represented by the grid-nature of the soil sampling programs. Once assay results are received the results from duplicate samples are compared with the corresponding routine sample to ascertain whether the sampling is representative.</li> </ul>
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	• Sample sizes are considered to be appropriate for the style of sampling undertaken and the grainsize of the material, and correctly represent the style and type of mineralisation at the exploration stage.
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.	<ul> <li>Sunstone used assay method FAS-415 for gold with gravimetric finish for over-limit samples.IMS-136-15g was used for a suite of 37 elements (including gold). FAS-415 involves Au by Fire Assay on a 30-gram aliquot, fusion and atomic absorption spectroscopy (AAS) at trace levels. IMS-136-15g involves Aqua regia digestion of a 15g aliquot followed by multi-element analysis by ICP-ES/MS at ultra-trace levels.</li> <li>This analysis technique is considered suitable for this style of sample.</li> </ul>
	• 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.	<ul> <li>The helicopter-borne magnetic and radiometric survey was flown by MPX International using a chartered AS350B2 model helicopter.</li> <li>Instrumentation used was a Scintrex CS-3 high resolution cesium split-beam total field magnetometer on a fixed boom mount. Sampling rate was 20 times per second equating to magnetometer measurements every 1.8m along the survey line.</li> <li>Geophysical, navigation and altimeter data were recorded by an AGIS data acquisition system at rates ranging from 20Hz to 1 Hz.</li> <li>A Terra TRA3000/TRI-40 radar altimeter system recorded ground clearance.</li> <li>Survey data positioning and flight line navigation was derived using SBAS real time DGPS giving sub-metric precision.</li> </ul>



Criteria	JORC Code explanation	Commentary
	• Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	<ul> <li>Radiometric data were collected using the Exploranium GR-820 spectrometer system with 256 channels of summed data from one, two or three crystal packs. The spectrometer employed automatic gain control to ensure stable peak positioning and to eliminate spectral drift.</li> <li>A Gem Systems GSM-19TW magnetometer base station was used.</li> <li>Instrumentation checks, tests and calibrations included manoeuvre noise, magnetic heading effect, lag tests, altimeter calibration checks, gamma-ray spectrometer altitude attenuation coefficient checks, and cosmic window calibrations.</li> <li>Flight lines or portions thereof were re-flown if the magnetic diurnal exceeded 12 nT in a straight-line chord over 5 minutes.</li> <li>Sampling rates were: Total Field Magnetometer – 1 channel (0.05 / sec). Gamma-ray Spectrometer – 256 channels + U, Th, K, TC and Cosmic windows (1.0 / sec). LASER / Radar Altimeter – 1 channel (0.1 / second). Temperature and relative humidity – 2 channels (1.0 / sec). Barometric Altimeter – 1 channel (0.1 / sec). DGPS Navigation – 3 channels (1.0 / sec). Billingsley Fluxgate Magnetometer – 3 channels (0.1 / sec).</li> <li>The values of the standards range from low to high grade and are considered appropriate to monitor performance of values near cut-off and near the mean grade of the deposit.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> </ul>	<ul> <li>Procedure checks have been completed by the Competent Person for exploration results for this announcement.</li> <li>Drilling has not yet been undertaken by the Sunstone-</li> </ul>
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	<ul> <li>Cornerstone JV.</li> <li>Sunstone sampling data were imported and validated using Excel.</li> </ul>
	<ul> <li>Discuss any adjustment to assay data.</li> </ul>	• Assay data were not adjusted. Plots of gridded soil values (Figures 2 and 3) involve levelled data, wherein Sunstone data and historical data were levelled prior to plotting as a single data-set.
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.	• Sample co-ordinates are located by GPS.
	• Specification of the grid system used.	Southern Ecuador projection parameters:
		Parameter Value
		Reference Ellipsoid International 1924
		Semi Major Axis
		Inverse Flattening (1/f)
		Type of Projection UTM Zone -17S (Datum
		PSAD56)
		PSAD56)       Central Meridian:     -81.0000



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Criteria	JORC Code explanation	Commentary	
		Scale on Central Meridian	0.9996
		False Northing	1000000
		False Easting	500000
	• Quality and adequacy of topographic control.		ol was compared against lite imagery and found to be
Data spacing and distribution	• Data spacing for reporting of Exploration Results.	The samples were collecte Most samples were collecter	ed over various grid spacings. ed on a 100m by 50m grid.
	<ul> <li>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 classifications applied.</li> </ul>	The data from these samp resource estimate nor imp	les does not contribute to any lies any grade continuity.
	• Whether sample compositing has been applied.	No sample compositing wa	as done.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	from each sample site. The respect to geology and any	b get a representative sample ne samples are unbiased with potential structures. undertaken by the Sunstone-
Sample security	• The measures taken to ensure sample security.	<ul> <li>Sunstone sampling procedures indicate individual samples were given due attention.</li> <li>Sample security was managed through sealed individual samples and sealed bags of multiple samples for secure delivery to the laboratory by permanent staff of the joint-venture.</li> <li>MS Analytical is an internationally accredited laboratory that has all its internal procedures heavily scrutinised in order to maintain their accreditation. MS Analytical is accredited to ISO/IEC 17025 2005 Accredited Methods.</li> </ul>	
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	data have been audited mu mining consultants during These audits have concluct techniques and data mana standards.	gement are to industry n validated to the best degree

#### TABLE 1 – Section 2: Exploration Results

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 Bramaderos Exploration Concession is located in the Loja Province of southern Ecuador. The concession was granted to La Plata Minerales S.A. ("PLAMIN") in January 2017. PLAMIN is a subsidiary of Cornerstone Capital Resources Inc ("Cornerstone"). The concession is subject to a Joint Venture between Cornerstone Capital Resources Inc. and Sunstone Metals Ltd. There are no wilderness areas or national parks or areas of environmental significance within or adjoining the concession area. There are no native title interests.



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Criteria	JORC Code explanation	Commentary
	• 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.	<ul> <li>The Bramaderos Exploration Concession was granted to La Plata Minerales S.A. ("PLAMIN") in January 2017.</li> <li>PLAMIN is a subsidiary of Cornerstone Capital Resources Inc ("Cornerstone"). The Bramaderos Concession is subject to a Joint Venture between Sunstone Metals and Cornerstone.</li> </ul>
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The historic exploration was completed by various groups over the period 1970-1984, 2001-2002 and 2004-2007. Most of the readily available historic data has been acquired and compiled into databases and a GIS project. Exploration by other parties has included stream sediment surveys, geological mapping, rock chip sampling (888 samples) and grid-based soil sampling (1324 samples), trenching and channel sampling (17 trenches), ground magnetic surveys (31 line kilometres), electrical IP surveys and diamond drilling (10426m).
Geology	• Deposit type, geological setting and style of mineralisation.	• The deposit style being explored for includes intrusion- related and stockwork hosted porphyry Au-Cu systems plus low sulphidation epithermal veins and bulk- tonnage breccia-hosted epithermal gold mineralisation. The setting is a volcanic arc setting of Cretaceous age overprinted by Miocene age intrusions.
Drill hole Information	<ul> <li>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:         <ul> <li>a. easting and northing of the drill hole collar</li> <li>b. elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>c. dip and azimuth of the hole</li> <li>d. down hole length and interception depth</li> <li>e. hole length.</li> </ul> </li> </ul>	• Details of the samples discussed in this announcement are in the body of the text.
	• 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.	• Information included in announcement.
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	<ul> <li>No weighting averaging techniques were used and no sampling intervals were calculated or reported.</li> <li>No grade cut-offs were applied.</li> </ul>
	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.	No sampling intervals were calculated or reported.
	• The assumptions used for any reporting of metal equivalent values should be clearly stated.	• Metal equivalents have not been applied.
Relationship between mineralisation widths and intercept lengths	<ul> <li>If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>Drilling has not yet been undertaken by the Sunstone-Cornerstone JV</li> <li>Drilling has not yet been undertaken by the Sunstone-Cornerstone JV</li> </ul>
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.	<ul> <li>See Figure 1 for map showing distribution of soil samples.</li> <li>See Figures 2 &amp; 3 for imagery generated from magnetics and radiometrics data.</li> </ul>



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Criteria	JORC Code explanation	Commentary
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.	• Figure 1 above shows the distribution of the soil sampling programs (both historical and by Sunstone Metals combined)
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 deleterious or contaminating substances.	• Figure 1 above shows the distribution of the soil sampling programs (both historical and by Sunstone Metals combined).
Further work	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	• The planned exploration program is outlined in the announcement.
	• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• See Figure 1 which shows areas for further exploration. Soil sampling is planned to cover the entire concession area.