

22 OCTOBER 2024

El Palmar Gold-Copper Project, Northern Ecuador

Initial Resource of 1.2Moz AuEq¹ plus large Exploration Target highlights scope for Tier-1 scale opportunity

The Resource and Exploration Target will form a key plank of the discussions underway with potential strategic partners

Key Points

- Maiden Mineral Resource estimate (MRE) of 1.2Moz AuEq¹ establishes strong platform on which to build a world-scale resource inventory at El Palmar
- The initial pit-constrained MRE is based solely on the outcropping T1 gold-copper porphyry deposit at El Palmar of 64Mt at 0.60g/t AuEq¹ for 1.2Moz AuEq¹ at a cut-off grade of 0.4g/t AuEq¹
- T1, which is at surface, is only one of several gold-copper porphyry deposits at El Palmar
- T1 has potential to be advanced as a large open pit opportunity before undertaking exploration and development of the deeper porphyry opportunities
 - Future mining would also benefit from significant copper by-product credits
- There remains immense potential to grow both the MRE and the Exploration Target
 - The T1 MRE is based on only 17,699 metres of drilling, highlighting the scope to rapidly grow the El Palmar resource base

Gold and copper Exploration Target of 15M - 45Moz AuEq¹

- The initial Exploration Target is between 1.0Bt to 1.2Bt at a grade between 0.3g/t to 0.7g/t gold and 0.1% to 0.3% copper for contained metal of between 10Moz and 27Moz gold and 1.0 to 3.7Mt copper; This is in addition to the maiden MRE
- The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Resource for the exploration target area reported.
 It is uncertain if further exploration will result in the estimation of a Resource
- The Exploration Target has been estimated from only three deposits, meaning there is still immense potential to grow at El Palmar

Sunstone Managing Director Patrick Duffy will provide an investor update at 11.30am (AEDT) today. The webinar can be accessed at: Click on Link

¹ The gold equivalent calculation formula is AuEq (g/t) = ((Au grade x Au price x Au recov / 31.1035) + (Ag grade x Ag price x Ag recov / 31.1035) + (Cu grade x Cu price x Cu recov / 100)) / (Au price x Au recov / 31.1035). The prices applied were US\$1,800/oz gold, US\$4.50/lb copper and US\$22/oz silver. Recoveries are estimated at 90% for gold, 78% for copper (excluded for oxide material), and 60% for silver based on metallurgical studies. In Sunstone's opinion, all the elements included in the metal equivalents calculation have reasonable potential to be recovered and sold.



Sunstone Managing Director Patrick Duffy said: "These results confirm that El Palmar is a major discovery with clear potential to host a Tier-1-scale inventory with an Exploration Target of 15Moz – 45Moz AuEq that is complemented by the maiden Mineral Resource.

"El Palmar is in the same belt as Solgold's +3Bt Cascabel Alpala deposit and Codelco's neighbouring +1Bt Llurimagua deposit and we fully expect the project to become a member of this globally significant Tier 1 deposit club.

"It is rewarding to be in a position to articulate just how important El Palmar is as a discovery. We are confident that ongoing drilling will continue to grow the size of both the Mineral Resource and Exploration Target.

"With the resource and exploration target at El Palmar on the table, gold at record prices above A\$4,000/oz and the fundamentals for copper being incredibly strong, we look forward to advancing our discussions with strategic partners who have the capacity to help us unlock the full value of our discoveries in a timely manner".

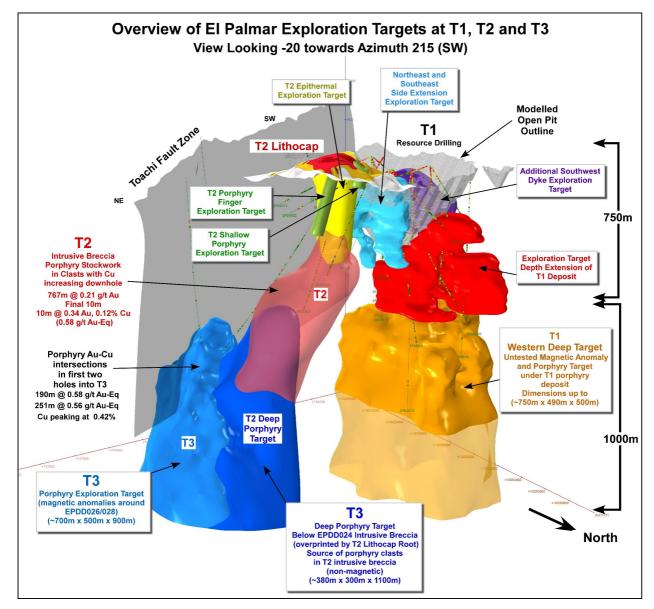


Figure 1: Overview of 9 of the 10 exploration targets defined on the El Palmar concession (see Table 3 for details). View is looking at -20 degrees towards azimuth 215°.



Sunstone Metals Ltd (ASX: STM) is pleased to announce the maiden MRE and an initial Exploration Target for the El Palmar gold-copper porphyry project in northern Ecuador.

1. Maiden El Palmar Mineral Resource estimate

The initial MRE, from the T1 target only, is 64Mt at 0.60g/t AuEq¹ (0.41g/t gold, 0.13% copper and 0.7g/t silver) for 1.2Mozs AuEq¹ at a cut-off grade of 0.4g/t AuEq¹ (reported in accordance with the JORC Code², see Table 1 below for more detail). Preliminary pit optimisation was applied to the deposit to constrain the MRE and demonstrate the potential to be mined economically by open pit methods (Figures 2 and 3). A very low strip ratio is implied by the block model geometry within the pit.

Table 1. El Palmar Mineral Resource estimate at a 0.40g/t AuEq cutoff grade - Geologically unconstrained by oxidation state and total (AuEq takes into account Ag and Cu) in Optimisation Shell

		Tannaga		Average Grade			Material Content				
Material	Category	ategory Tonnage Mt	AuEq (g/t)	Au (g/t)	Ag (g/t)	Cu (ppm)	Cu (%)	AuEq (Koz)	Au (Koz)	Ag (Koz)	Cu (Kt)
	Indicated	-	0.55	0.54	1.14	1,438	0.14	0	0	0	0
Oxide	Inferred	3	0.55	0.55	0.71	1,075	0.11	100	100	100	0
	TOTAL	3	0.55	0.54	0.75	1,109	0.11	100	100	100	0
	Indicated	5	0.64	0.42	0.79	1,457	0.15	100	100	100	7
Transitional and Fresh	Inferred	56	0.60	0.40	0.65	1,298	0.13	1,100	700	1,100	70
allu Flesii	TOTAL	61	0.60	0.40	0.66	1,311	0.13	1,200	800	1,300	80
	Indicated	5	0.63	0.42	0.81	1,456	0.15	100	100	100	7
ALL	Inferred	59	0.59	0.40	0.65	1,290	0.13	1,100	700	1,200	70
	TOTAL	64	0.60	0.41	0.66	1,301	0.13	1,200	800	1,300	80

Notes:

- Figures may not sum due to rounding.
- Significant figures do not imply an added level of precision.
- Reported at 0.40g/t AuEq cutoff grade criteria from Sunstone.
- $\bullet \qquad \textit{Model: EP_global_blank_okmodel_pass4_pdomALL_20x20x30_30x80x20_subblock_comb_subSG}$
- AuEq (g/t and ounces) accounts for Au (g/t), Cu (%) and Ag (g/t) value and AuEq (g/t and ounces) must not be totalled to Cu (% and/or lbs and/or tonnes) or Ag (g/t and/or ounces).
- Unconstrained pdoms estimates.
- In accordance with Sunstone metallurgical investigations the Au recovery is at 0.90, Ag recovery is at 0.60 and the Cu recovery is at 0.78 except for oxide where there is no copper recovery
- In accordance with Sunstone metal price investigations and projections, the Au price is set at US\$1800/oz, Ag price is set at US\$22/oz and Cu price is set at US\$4.50/lb (US\$9,921/t).

The MRE is based on 21 drill holes for 17,699m of drilling (18 drilled by Sunstone in the period August 2021 to July 2022 and 3 drilled by Codelco in 2012) and 1,498 linear metres of trenching in 5 trenches.

Sunstone engaged Spiers Geological Consultants (SGC), an independent consulting firm, to prepare the initial MRE for the T1 deposit at El Palmar.

² Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).



Early-stage metallurgical testwork has been completed on a range of mineralisation styles from the T1 gold-copper porphyry deposit. Studies were undertaken by Base Metallurgical Laboratories in Kamloops, British Columbia. The geology of other targets included in the Exploration Target demonstrates strong similarities to T1 (not uncommon in a clustered porphyry geological environment). It is considered valid to apply metallurgical testwork results to these other areas when deriving a metal equivalent value.

The preliminary metallurgical test work indicates that a combined flotation and leach circuit can achieve recoveries of 90% for gold and 78% for copper.

Further test work, including alternative reagent and grind size regimes, will focus on improving recovery responses in a flotation-only circuit configuration to determine whether that configuration is feasible. Additional optimisation testing of the current flotation-leach selection to further improve recoveries will also be conducted.

Table 2– El Palmar Mineral Resource estimate at various cut-off grades (Total as both Indicated and Inferred)

	Cutoff	T		A۱	erage Gra	nde			Material	Content	
Material	AuEq (g/t)	Tonnage Mt	AuEq (g/t)	Au (g/t)	Ag (g/t)	Cu (ppm)	Cu (%)	AuEq (Koz)	Au (Koz)	Ag (Koz)	Cu (Kt)
	0.10	12	0.30	0.29	0.56	793	0.08	100	100	200	0
	0.20	8	0.39	0.39	0.63	923	0.09	100	100	200	0
Ovida	0.30	5	0.48	0.48	0.71	1,036	0.10	100	100	100	0
Oxide	0.40	3	0.55	0.54	0.75	1,109	0.11	100	100	100	0
	0.50	2	0.65	0.64	0.84	1,138	0.11	0	0	0	0
	0.60	1	0.74	0.73	0.73	1,067	0.11	0	0	0	0
	0.10	119	0.43	0.28	0.51	984	0.10	1,600	1,600	1,000	120
	0.20	101	0.48	0.31	0.55	1,088	0.11	1,600	1,500	1,000	110
Transitional	0.30	80	0.54	0.36	0.61	1,203	0.12	1,400	1,300	900	100
and Fresh	0.40	61	0.60	0.40	0.66	1,311	0.13	1,200	1,100	800	80
	0.50	41	0.67	0.45	0.73	1,435	0.14	900	900	600	60
	0.60	25	0.75	0.51	0.82	1,566	0.16	600	600	400	40
	0.10	131	0.42	0.28	0.51	966	0.10	1,800	1,700	1,200	120
	0.20	109	0.47	0.32	0.55	1,076	0.11	1,700	1,600	1,200	110
	0.30	85	0.54	0.36	0.61	1,193	0.12	1,500	1,400	1,000	100
ALL	0.40	64	0.60	0.41	0.66	1,301	0.13	1,200	1,200	900	80
	0.50	43	0.67	0.46	0.74	1,424	0.14	900	900	600	60
	0.60	26	0.75	0.52	0.82	1,548	0.15	600	600	400	40

Notes:

- Figures may not sum due to rounding.
- Significant figures do not imply an added level of precision.
- Model: EP_global_blank_okmodel_pass4_pdomALL_20x20x30_30x80x20_subblock_comb_subSG
- AuEq (g/t and ounces) accounts for Au (g/t), Cu (%) and Ag (g/t) value and AuEq (g/t and ounces) must not be totalled to Cu (% and/or lbs and/or tonnes) or Ag (g/t and/or ounces).
- Unconstrained pdoms estimates.
- In accordance with Sunstone metallurgical investigations the Au recovery is at 0.90, Ag recovery is at 0.60 and the Cu recovery is at 0.78 except for oxide where there is no copper recovery.
- In accordance with Sunstone metal price investigations and projections the Au price is set at US\$1800/oz, Ag price is set at US\$22/oz and Cu price is set at US\$4.50/lb (US\$9,921/t).



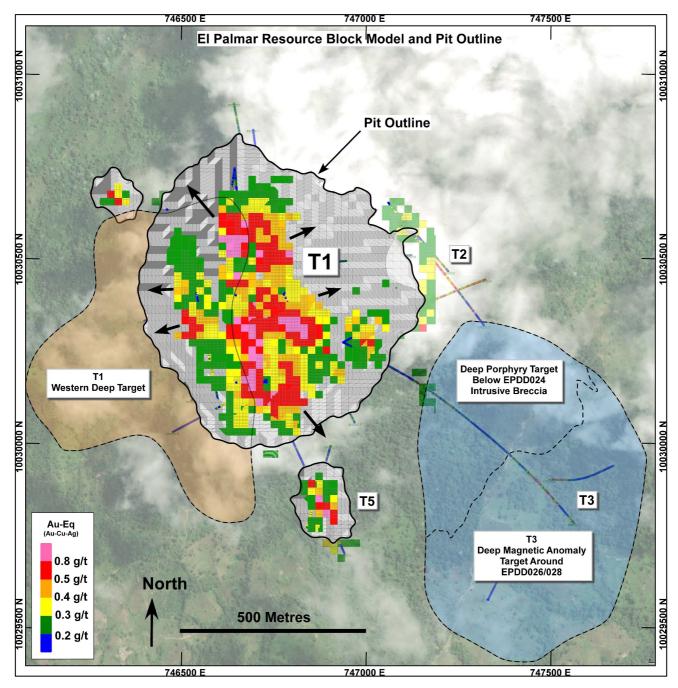


Figure 2: El Palmar T1 resource block model for grades >0.2 g/t Au-Eq¹ and pit outline. Nearby Exploration Target areas T1 Western Deep and T3 also shown.



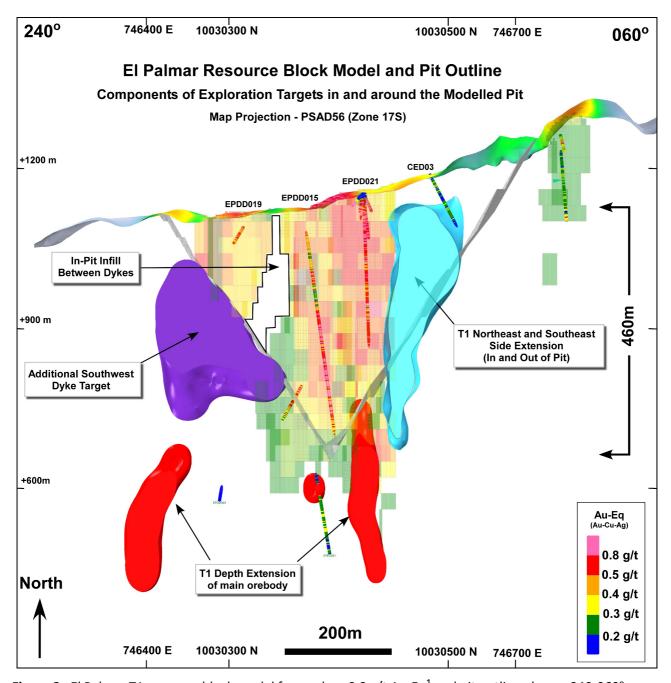


Figure 3: El Palmar T1 resource block model for grades >0.2 g/t Au-Eq¹ and pit outline along a 240-060° cross-section and showing the exploration targets which are located within, on the sides, and immediately below the modelled T1 open pit.



2. Initial El Palmar Exploration Target

The initial El Palmar Exploration Target is between approximately 1.0Bt and 1.2Bt at a grade between approximately 0.3g/t to 0.7g/t gold and approximately 0.1% to 0.3% copper for contained metal of between 10M ozs to 27Mozs gold and 1.0Mt to 3.7Mt copper (see Table 3). The Exploration Target range is in addition to the maiden MRE.

The Exploration Target has been reported in accordance with the JORC Code². The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource for the target area reported. It is uncertain if further exploration will result in the estimation of a Mineral Resource.

Table 3 summarises the Exploration Target components, which are further described in the section 'Exploration Target Methodology and Summary of Additional Material Information'. These comprise 'in-pit' material that does not have adequate drill density to be included in the MRE, extensions of the MRE domains laterally and to depth outside the pit, and new domains with limited drill support at this stage.

Table 3 – El Palmar Exploration Target

Target	Area	Tonnes Lower (Mt)	Tonnes Upper (Mt)	Gold Grade Range (g/t)	Copper Grade Range (%)	Туре
T1	Additional Southwest Dyke target	18	22	0.30-0.60	0.10-0.18	Porphyry
T1	Northeast and Southeast Side Extension (In and Out of Pit)	35	41	0.30-0.60	0.10-0.18	Porphyry
T1	In-Pit infill between Dykes	8	9	0.30-0.60	0.10-0.18	Porphyry
T1	Depth Extensions of Main Orebody	50	55	0.20-0.40	0.10-0.30	Porphyry
T1	Western Deep Target	300	340	0.30-0.60	0.10-0.20	Porphyry
Т2	Shallow Porphyry Mineralisation around Collars of EPDD022/023	1	2	0.20-0.40	0.1-0.2	Porphyry
Т2	Porphyry finger above/below EPDD022: 217-287m intersection	3	4	0.20-0.40	0.10-0.20	Porphyry
Т2	Vertical extents of epithermal domain above/below EPDD024	20	30	0.30-0.40	0.02-0.05	Epithermal
Т2	Deep Porphyry Target below EPDD024 intrusive breccia Magnetic anomalies around	200	225	0.30-0.70	0.10-0.30	Porphyry
Т3	EPDD026/028	400	500	0.30-0.70	0.10-0.30	Porphyry
	Subtotal	1035	1228	0.30-0.70	0.10-0.30	
					eighted + nded	
	Contained gold		7.6 Mozs			
	Contained copper		3.7 Mt			
	Contained gold-equivalent		15 – 45 Mozs			

Note: Figures may not sum due to rounding.

The Exploration Target comprises material from the T1, T2 and T3 targets at El Palmar and extends across an area of 1.6km x 1.1km. It includes near-surface mineralisation and deeper mineralisation to depths of 1,500m below surface (see more detailed explanatory notes below). The areas of mineralisation captured in the



Exploration Target are of high conviction, geologically robust domains consistent with high aspect ratio, clustered porphyry gold-copper deposits. There is potential for the copper content to increase in areas interpreted to be central to the porphyry systems.

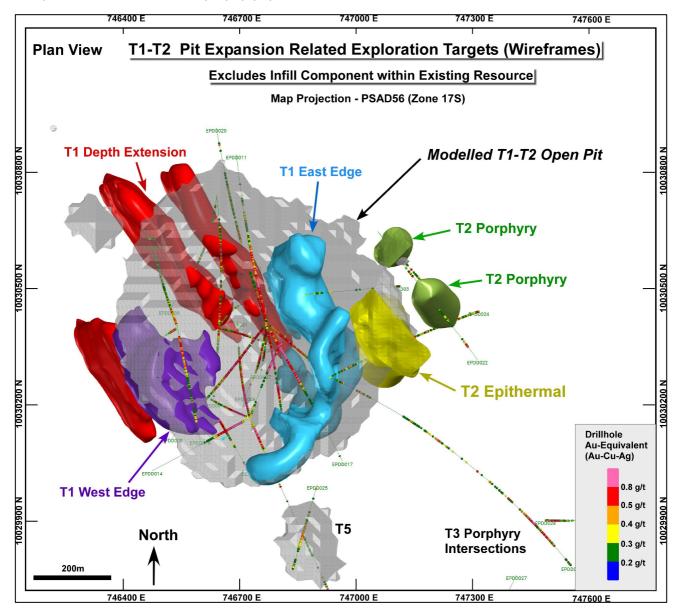


Figure 4: El Palmar Exploration Target domains below and marginal to the modelled T1 open-pit.



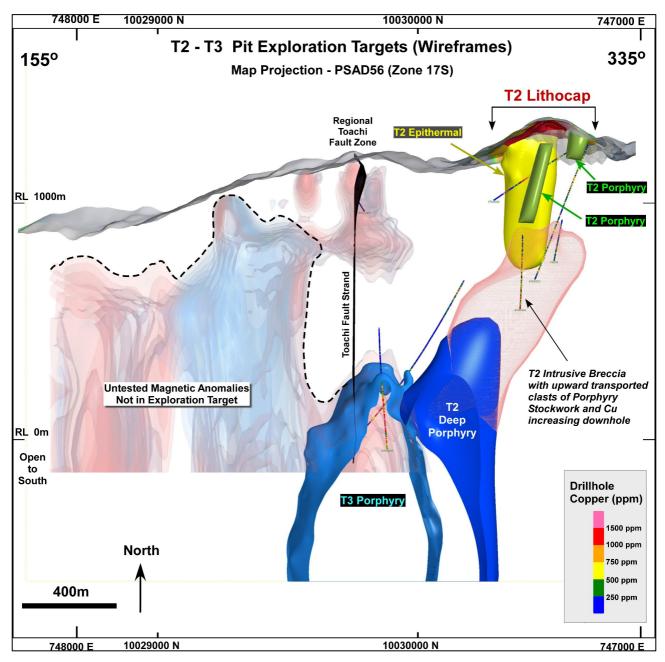


Figure 5: Cross section showing the T2-related Exploration Targets from surface extending to depth to the large T3 target. Note that the MRE and pit are located 'behind' this image to the west (refer to Figures 2 & 4).



3. Summary of Material Information – Mineral Resources

3.1. Geology and Geological Interpretation

The deposit styles within the resource estimate area include intrusion-related and stockwork-hosted porphyry gold-copper systems and much more locally distributed, silicified fault structures that contain disseminated epithermal gold. The geological setting is a volcanic arc with Eocene-age intrusions located near the trace of a major crustal-scale fault zone (the Toachi Fault). The district lies near the southwest margin of the younger Miocene-age Apuela Batholith.

At least six different intrusion phases exist in the deposit and span the entire mineralisation-alteration sequence. The main ore-bearing phases consist of bimodal quartz diorite dykes and syn-mineral diorite and quartz diorite intrusives.

The principal rock types are assigned to four broad units; (1) the pre-mineralisation wall-rocks which comprise a glomerocrystic quartz diorite intrusion; (2) two additional early-mineralisation intrusions of quartz diorite composition; (3) three syn-mineralisation porphyry intrusions of quartz diorite and diorite composition that span the alteration-mineralisation sequence; and (4) very minor mill-breccia dykes that cross-cut all the older lithologies.

Alteration is laterally zoned from the innermost strong potassic alteration within the mineralised dykes, outward to weaker potassic alteration, that in-turn, is transitional outward to high-temperature epidote-bearing propylitic alteration. Mineralisation occurs in the form of veins and veinlets, comprising dominantly quartz, magnetite, chalcopyrite and pyrite, with lesser quantities of chalcocite, bornite and covellite. Mineralisation also forms disseminations in the intrusive rocks between the stockwork veins.

3.2. Sampling and Sub-Sampling Techniques

Diamond core and trench sampling was adopted for the project.

For Sunstone holes, the routine sample procedure is to always take the half core to the right of the orientation line (looking down hole) or the cut line (in cases where the orientation line was not reliable). The drill core sampling was carried out using half core, generally at 1 to 2 m intervals.

Trench samples were collected at 1-2 m intervals using a portable cutting machine, hammer and chisel depending on the rock hardness, and then arranged in numbered plastic bags. Sampling intervals honour changes in lithology, weathering, alteration, mineralisation, and structural information.

Drill core and trench samples from El Palmar were sent to the LAC y Asociados Cia. Ltda. sample Preparation Facility in Cuenca. The pulps were sent to the MSA Analytical Laboratory in Vancouver for gold and base metal analysis. The standard sample preparation for drill core samples (Code PRP-910) involves drying the sample, crushing to size fraction 70% < 2mm and splitting the sample to a 250 g portion for trenches and 1000 g for drill core using a riffle or Boyd rotary splitter. The 250/1000g sample is then pulverised to >85% passing 75 microns and then split into two 50g pulp samples.

Quality control (QC) data demonstrates acceptable sampling precision has been achieved for all reported elements.

3.3. Drilling and Trenching Techniques

All drilling completed at the project is diamond core.

Drilling commenced in the project area in 2012 and has been carried out in two phases as follows:



- Codelco completed 3 diamond holes (CED01 03) during 2012.
- Sunstone completed 28 diamond holes (EPDD001 028) from August 2021 through to July 2023.

Sunstone holes account for most of the data that informs this MRE. Holes were drilled either using HTW (70.9mm) or NTW (56mm). Drill core was oriented using a Reflex ACT II tool. Diamond core recovery data was measured for each drill run and captured in a digital logging software package. The data has been reviewed and core recovery was approximately 100% throughout. The drill hole database contains 31 holes, however only 24 holes fall within the immediate area of the MRE.

Sunstone excavated five trenches from 2022 through 2024 using a combination of handheld tools (pick and shovel), with depths up to 2m and a minimum width of 0.5m. A supervising geologist oversaw the excavations.

3.4. Location of Data Points

The grid system used is Geocentric Datum of Ecuador PSAD56 Zone 17 South.

A topographic digital terrain model (DTM) was generated from DGPS data using the following equipment:

- 1x Sokkia 630RK Total Station with a precision of 6 seconds
- 3x Trimble R4 GNSS differential RTK with a precision of ± 2cm RTK.

Total Station methods were used for closed areas and GPS RTK for open areas.

All drill holes completed by Sunstone have been located (collars) using a DGPS. Downhole surveys were completed using a Reflex Gyro Sprint-IQ Gyroscope at 5m intervals. Validation consists of measuring differences between the input and output measurements. The measurement is within the acceptable range when the maximum difference does not exceed 1%.

Trenches have been surveyed using a DGPS.

Collar location for all Codelco holes were determined in the field and picked up by Sunstone utilising the DGPS methods.

3.5. Criteria used for Classification

Blocks were assigned block classification based on data density in conjunction with the estimation parameters employed with post processing utilising classification shells defined from search criteria iteration. This took into account the stage of evolution of the geological and mineralised model to inform the final resource classification (Rescat) field.

The classification of largely Inferred resources was obtained with minor Indicated resources obtained in the upper reaches of the block model where splayed drilling density was at a maximum.

3.6. Sample Analysis Method

Sunstone uses a Fire Assay gold technique for Au assays (FAS-111) and a four acid multi element technique (IMS-230) for a suite of 48 elements. FAS-111 involves Au by Fire Assay on a 30g aliquot, fusion and atomic absorption spectroscopy (AAS) at trace levels. IMS-230 is considered a near total four acid technique using a 20g aliquot followed by multielement analysis by ICP-AES/MS at ultra-trace levels.



3.7. Geological models for Resource estimation

Lithology and alteration models were created by initial interpretation of drilling data on level plans. Lithology and alteration outlines were then digitised into 2D polylines in Leapfrog, from which three-dimensional solids were created.

The weathering model was generated using Leapfrog Geo and follows the topography profile. Strongly weathered, moderately weathered and fresh zones were modelled.

In addition to the weathering model, an interpretation was made of the boundary between oxide and sulphide copper minerals, using the weathering model as a proxy. Oxide copper (mainly cuprite) is restricted to a shallow supergene blanket (~15-25m thick) in areas of mineralisation. This boundary allowed the removal of oxide material prior to resource reporting, given it is not likely to be recovered during processing.

3.8. Estimation Methodology

The Ordinary Kriging technique was employed for estimation purposes using third party software based on the low coefficient of variation between samples in the mineralised domain.

Grade interpolation and search ellipses were developed through variography and geometry modelling outcomes. Modelling was conducted in three passes with parent block sizes being 20.0 m E by 20.0 m N by 30.0 m RL. Block sub-celling size was selected for appropriate domain fill within the mineralisation wireframes.

In the first pass, data and octant criteria used were Minimum Data=12, maximum Data=32, Minimum Octants=4. Search radii were 30 mE by 80 mN by 20 mRL with rotations of Z=-50, Y=0 and X=88 according to the right-hand rule.

An expansion factor of 1 was applied, so in the second pass, the same data and octants criteria were seen with an expanded search to 60mE by 160mN by 40mRL.

The third pass saw Minimum Data=6, maximum Data=32, Minimum Octants=2. The search radii was 60mE by 160mN by 40mRL.

Top cutting was applied to domains and elements which displayed a very strongly skewed nature, in accordance with the prevailing coefficients of variation.

No dilution was expressly added to the model, however, domaining was largely driven by geological and grade domains which tends to incorporate the full population range in the geological domains and a constrained population range in the grade domains in-line with the grade domain constraints.

The interpretation or domain model was largely driven by the lithology/geology, oxidation state, and structural intervention and mineralised trends observed over the various project areas. Grade was used as a secondary domain driver for the definition of boundaries conditions where deemed appropriate.

The model was validated in third-party software using section and plan comparisons back to the original informing data as well as with the use of swath plots to assess local grade variability between the model and informing data.

3.9. Cut-off Grades

A cut-off grade of ≥ 0.4 g/t AuEq was applied inside the local interpretation solids by area with reference to local variability. This is regarded as a reasonable cut-off for an open pit proposition given probability plot curve inflexions and grade population distributions.



In order to apply constraints on reporting into an open pit, pit optimisation software was utilised to generate a pit shell where the mineral resource estimate is constrained to that pit shell. The optimisation parameters applied are listed below.

Parameter	Value	Unit
Au metal price	1,800	US\$/oz
Cu metal price	4.50	US\$/lb
Ag metal price	22	US\$/oz
Mining cost	2.00	US\$/t mined
Mining losses	0	%
Mining dilution	0	%
Processing cost	6.80	US\$/t ore
G&A	2.00	US\$/t ore
Transportation, Shipping, Smelting, Refining	2.00	US\$/t ore
Recovery – Copper (transition and fresh only, oxide not recovered)	78	%
Recovery - Gold	90	%
Recovery - Silver	60	%

3.10. Mining and Metallurgical Assumptions

Through the selected cut-off grade and parent cell size, it has been assumed that open pit methods will be used to develop the deposit.

Preliminary metallurgical test work was conducted at Base Metallurgical Laboratory, Kamloops Canada which demonstrates that good recovery can be expected for gold and copper utilising a flotation and gold leach recovery plant.

3.11. Assessment of Reasonable Prospects for Eventual Economic Extraction

Clause 20 of the JORC Code (2012) requires that all reports of Mineral Resources must have reasonable prospects for eventual economic extraction, regardless of the classification of the Mineral Resource. The Competent Person deems that there are reasonable prospects for eventual economic extraction of mineralisation on the following basis:

- Mineralisation at El Palmar is continuous and has been delineated by drilling over a strike length of approximately 0.6 km. Given the broad widths of mineralisation, strip ratios will be low and minimal dilution and ore loss are expected.
- Access to power infrastructure.
- Metallurgical test work results were encouraging. Furthermore, metallurgical head assays indicated no interference from deleterious elements.
- Preliminary pit optimisation results show that the deposit has the potential to be mined economically by open pit methods.
- There is significant potential for the discovery of additional Mineral Resources within the El Palmar concession. This will allow Sunstone to achieve economies of scale.



4. Exploration Target Methodology and Summary of Additional Material Information

The Exploration Target within the El Palmar concession is estimated from several areas (Figures 1-5) – refer to Table 3 – El Palmar Exploration Target.

The Exploration Target does not include interpreted or known porphyry mineralisation at the T4 and T5 target areas. It was decided to not include these areas because Sunstone has not yet completed any drilling at T4 and has conducted only minor drilling at T5. Further work in these areas will be undertaken and they are expected to contribute to an expanded Exploration Target in future.

4.1. Additional Southwest Dyke Target

This exploration target is based on both surface exploration results (ground magnetics along 50m spaced east-west lines; multi-element soil sampling on a 100x50m grid; multi-element rock chip and channel sampling; and diamond drilling of three holes that were drilled north, south and west from a single collar into the target environment).

Mineralisation at the T1 deposit that occurs immediately east of this target is associated with three sub-parallel, NW-striking bi-modal quartz diorite dykes with higher gold and copper grades within the dykes and lower grades in the surrounding wall rock. Gold and copper soil anomalies on the west side of the T1 deposit overlie mineralisation in the westernmost three drill holes EPDD005, EPDD018 and EPDD019. The lithology in these three western holes at T1 is dominated by the glomerocrystic quartz diorite wall rock that also surrounds and overlies the mineralised dykes further to the east. This target comprises a fourth mineralised dyke that is interpreted to underlie the surface geochemical anomalism and underlie the mineralisation intersected in the three western drillholes at T1. The target also coincides with a strong magnetic inversion model anomaly that underlies the western pit wall.

On a number of cross-sections across the T1 deposit, the block model has strong copper and gold grade that is open on the southwest side of T1. This target was wire-framed primarily on the extent of the 0.012 magnetic intensity iso-surface on 50m spaced level plans. The target lies on the external but adjoining west side of the T1 pit wall.

The upper limit of the tonnage range is equivalent to the volume of the wireframed exploration target around the 0.012 magnetic iso-surface in the area adjoining the pit with an assigned SG of 2.72 g/cc. The grade range (refer to Table 3) was selected to bracket the resource grade of the adjacent T1 deposit which has geological relationships similar to this target.

This is considered a low-moderate risk exploration target.

4.2. Northeast and Southeast Side Extension (In and Out of Pit)

This exploration target is based on both surface exploration results (ground magnetics along 50m spaced eastwest lines; multi-element soil sampling on a 100x50m grid; multi-element rock chip and channel sampling; and diamond drilling of eight holes that were drilled at variable close spacing on the western fringe of the target (CED01, EPDD002, 11, 20-21) and a wider and irregular spacing on the upper eastern fringe of the target (CED03, EPDD024 and EPDD026).

Drill holes along the northeast and southeast margin of T1 (EPDD011, 020-021 and CED01) are well mineralised, with porphyry mineralisation being open on the northeast and southeast sides of the T1 deposit. These areas contain modelled strong magnetic anomalies, which are interpreted to be associated with



magnetite associated with potassic alteration within a mineralised dyke and its eastern margin wall rocks. These magnetic anomalies extend eastward beyond the limit of the block model.

On a number of cross-sections across the T1 deposit, the block model has strong copper and gold grade that is open on the northeast and southeast side of T1. This target was wireframed from 50m spaced level plans (700-1150 mRL) that showed the extent of the block model and the extent of the modelled 0.008 magnetic isosurface. The target is well supported by copper and gold anomalies in soil samples, rock chips and trench samples at surface. Approximately half of this target lies within the easternmost part of the pit whilst the adjoining half lies immediately outside the northeast and southeast pit wall.

The upper limit of the tonnage range is equivalent to the volume of the wireframed exploration target around the 0.008 magnetic isosurface along the northeast and southeast fringe of the T1 mineralisation, with an assigned SG of 2.72 g/cc. The grade range (Table 3) was selected to bracket the resource grade of the adjacent T1 deposit, which has geological relationships similar to this target.

This is considered a low-risk exploration target.

4.3. In-Pit infill between Dykes

This exploration target is based primarily on diamond drilling within the T1 deposit, where three historical holes and 21 holes drilled by Sunstone Metals have been completed. The drill spacing is variable in this region and varies between 0 and around 150m. Other exploration work that has been completed at surface over this target area includes 50m-spaced ground magnetic survey lines, magnetic inversion modelling, soil orientation and 50x50m grid soil sampling, plus rockchip, channel and trench sampling.

The basis of this target are the gaps in the resource estimate block model, where some domains between the mineralised dykes and their mineralised wall rocks at T1, have not had an adequate drill density to enable reliable grade estimation. They occur within a number of NW-striking slivers or blocks that have not been adequately drilled, despite having abundant mineralised blocks estimated to their east and west. This target thus comprises multiple, narrow and sub-vertical domains within the T1 pit that occur as gaps within the existing resource. These target components are supported in a general sense by magnetic data and by the copper and gold anomalism and mineralisation in the surface soil, rock, channel and trench samples.

This target was estimated by reviewing the resource block model on sequential 40m-spaced cross-sections oriented 060 degrees azimuth perpendicular to the mineralised dykes. The dimensions of the gaps in the block model, where grade was not supported due to lack of drilling, were measured and collective volumes used to estimate the tonnage of the residual target by applying a specific gravity of 2.72 g/cc to the cubic meterage. This target was measured so as to lie entirely within the existing pit model.

The tonnage range was selected to narrowly bracket the tonnage estimated by the above method. The grade range (Table 3) was selected to bracket the resource grade of the T1 deposit within which the target components lie.

This is considered a low-risk exploration target.



4.4. Depth Extensions of Main Orebody

This exploration target is based primarily on diamond drilling within the T1 deposit, where three historical holes and 21 holes drilled by Sunstone Metals have been completed. The target comprises the depth extensions of two of the three mineralised porphyry dykes below the modelled pit, plus a third buried dyke target off the western side of the modelled pit.

Three of the deeper holes at the T1 deposit (EPDD012, 016 and 021), with a lateral spacing of around 60-200m, have intersected grades that are close to the grades of both the mineralised dykes and their adjacent wallrocks in the shallower parts of the deposit, but which are at greater depths of around 450-850m below surface. In these deeper parts of the T1 deposit, these few wide-spaced but steep drill holes have locally crossed the synmineral porphyry diorite dykes though they have mostly run proximal off the margins of the mineralised dykes.

The target is also based on a lithology model that was created to map the geometry of the mineralised porphyry dykes. Magnetic inversion modelling of ground magnetic data has locally identified some magnetic roots to the modelled dykes, particularly adjacent to the deeper western part of the T1 mineralised body.

This target was estimated by creating a series of 50m-spaced level plans from 450 to 900m RL on which were plotted the modelled pit where present, grade blocks of the resource block model which were below the modelled pit, and the lithology model of the mineralised dykes. A series of three sub-vertical dyke-like target domains were then interpreted as polylines on level plan, and these polylines were used to create the three 3D wireframe solid (volume) components of this target in Leapfrog software. The geometry of these three sub-target volumes was also guided by the grade and lithology intersected in the three deepest holes at T1 (EPDD012, 016 and 021).

Two of these target shapes represent downward continuation of known modelled porphyry dykes within the T1 pit. The third and western-most target shape was guided by a magnetic inversion model magnetic root that represents the steeply downward plunging extension of the "Additional Southwest Dyke" magnetic exploration target.

Two components of this target have vertical extents of 500m whilst the third component has a vertical extent of around 200m. These vertical distances are substantial and so are their depths. The reasonable prospects of economic extraction of the target material would require an underground bulk-mining technique with appropriate cut-off grades. There is evidence from holes EPDD016 and EPDD021 that these grades are present at similar depths as the defined targets.

The tonnage range was selected to narrowly bracket the tonnage of the three target shapes estimated by the above method after the application of a specific gravity of 2.72 g/cc. The grade range (refer to Table 3) was selected to reflect the slightly lower Au values but downward persisting Cu assays in the three deepest drill holes.

This is considered a moderate-risk exploration target.

4.5. Western Deep Target

This exploration target is based on a deep magnetic inversion anomaly modelled from ground magnetic data, and its spatial relationship to the T1 deposit.

At T1, the mineralised sequence is intimately associated with the magnetic mineral magnetite, which forms in the potassic-altered hot core of porphyry systems as part of a potassium-bearing mineral assemblage. Magnetic susceptibility readings of drill cores from T1 confirm the positive relationship between copper and



gold grade and the degree of magnetic susceptibility. Large porphyry copper-gold orebodies commonly have high-level dykes that intrude above the main deposit along active dilational fault zones. In some deposits, the Alpala deposit on the Cascabel property being an example, the main orebody is associated with a deeper underlying magnetic body below the level of surface-outcropping mineralised dykes. Consequently, the presence of a large magnetic body modelled under the western half of the T1 deposit presents an obvious exploration target.

This target was estimated by wireframing the 0.06 magnetic iso-surface with Leapfrog software and calculating its volume over a 500m tall vertical column of magnetic material commencing at around 700m below surface and extending to 1.2 km below surface. A specific gravity of 2.72 g/cc was applied to the volume estimate to derive a tonnage of modelled magnetic material. The grade profile of the target is assigned a value broadly equal to that assigned for the mineralised dyke targets in and around the T1 modelled pit.

This is considered a high-risk exploration target. Magnetics are increasingly difficult to model reliably at depths exceeding around 500m below surface, so the strength and position of the modelled deep magnetic anomaly at T1 is subject to considerably uncertainty. Nevertheless, the target is of high conceptual interest and will need to be drill tested after the shallower Southwest Dyke Target and Main Orebody Depth Extension targets have been better tested.

4.6. Shallow Porphyry Mineralisation around Collars of EPDD022/023

This exploration target comprises a $90m \times 70m \times 100m$ target block located around the collars of drill holes EPDD022 and EPDD023 at the T2 target.

A coincident gold and copper soil anomaly over a 90m x 70m lateral area coincident with this target block is defined from a 50m x 50m grid soil survey. A 220m-long by 25m-wide zone of strong porphyry stockwork veining has been mapped along a NE-striking channel that was cut around the northwest base of the T2 lithocap. The area of stockwork veining coincides with the soil gold and copper anomaly. Both historic rockchip sampling (94 samples), and rockchip plus channel sampling by Sunstone Metals (17 samples) over the surface area of this target has defined strong gold and copper mineralisation in surface rock samples, with elevated molybdenum. Historic gold assays in rock chips reach up to 2.04 g/t whilst historic copper assays reach up to 0.11%. The average Au assay value of the 111 surface rock samples is 0.38 g/t Au.

EPDD022 drilled under this soil anomaly at a low-angle to the surface mapped veins and intersected 75.7m grading 0.20 g/t Au, 0.10% Cu. Significant numbers of surface rockchip samples generated higher grades.

The area is interpreted to host a small but well-mineralised porphyry apophyse which has been assigned a conservative vertical extent of 100m.

This target domain was wire-framed in Leapfrog software and the volume multiplied by a specific gravity of 2.72 g/cc to yield the target tonnage which was narrowly bracketed in the exploration target range. The grade range was assigned values consistent with the EPDD022 drill intersection and which conservatively bracket the extensive Au-in-rock chip assays at surface.

This is considered a low-risk exploration target.

4.7. Porphyry finger above/below EPDD022: 217-287m intersection

This exploration target at the T2 target area comprises a 70m x 70m x 300m block that is centered on a mineralised body of porphyry gold-copper mineralisation intersected in drillhole EPDD022 between 217-



287m downhole. The target also lies directly below the T2 lithocap remnant (Figures 4 and 5). This interval of mineralisation was 70m long downhole and graded 0.26 g/t Au and 0.11% Cu. The target is modelled from the intersection depth half-way towards the surface (100m) and down plunge (200m) towards the likely source of the mineralised intrusion at the deep underlying T2/T3 target area (Figures 4 and 5).

The mineralisation in EPDD022 coincided with typical porphyry quartz B-vein stockworks. The mineralised diorite intrusion body is interpreted to define a porphyry apophyse that has ascended up from the underlying deep T2/T3 target area (refer to Figures 4 and 5).

This target domain was wire-framed in Leapfrog software and the volume multiplied by a specific gravity of 2.72 g/cc to yield the target tonnage which was narrowly bracketed in the exploration target range. The grade range was assigned values which bracket the EPDD022 drill intersection through the target domain.

This is considered a low-risk exploration target.

4.8. Vertical extents of epithermal domain above/below EPDD024

This exploration target at the T2 target area is based on existing exploration data. The target lies under the southwest part of the T2 lithocap.

The target comprises an approximate 220m (northwest-southeast) by 120m (northeast-southwest) by 400m tall block around a 217m long intersection of epithermal mineralisation in EPDD024. The target block extends 200-400m to surface above the intersection and 300-150m below the intersection. The average depth extent of the target is from surface to 520m below surface. The 213m long EPDD024 intersection from 204m to 417m graded 0.31 g/t Au.

Above the target zone there are coincident gold and copper soil anomalies obtained from a 50m by 50m grid soil survey. The main gold anomaly is an oblong-shaped anomaly that runs for 280m in the northwest direction and up to 120m in the northeast direction.

Trench sampling just off the southwest margin of the target yielded 13m grading 0.47 g/t gold and 8m grading 0.82 g/t Au within silicified epithermal structures that have orientations striking northwest and which dip steeply to the southwest. These lie within the current reported resource and are not part of this exploration target. These epithermal structures, however are the upper southwest-most part of a broad zone of multiple epithermal structures that collectively yielded an intersection in EPDD024 of 327m grading 0.31 g/t Au and which included 2m @ 3.20 g/t gold, 13.5m @ 1.10 g/t gold, 7.4m @ 0.91 g/t gold and 20m @ 0.62 g/t gold.

The bulk intersection of 327m @ 0.31 g/t Au indicates that the approach of defining a broad target is justified. This target domain was wire-framed in Leapfrog software and the volume multiplied by a specific gravity of 2.72 g/cc to yield the target tonnage. The tonnage range quoted for this exploration target was then conservatively reduced. The grade range was assigned values which bracket the bulk EPDD024 drill intersection through the target domain.

This is considered a low-moderate risk exploration target.

4.9. Deep Porphyry Target below EPDD024 intrusive breccia

This exploration target lies at a significant depth below the southern margin of the remnant T2 lithocap. This deep target is based on extensive exploration data collected at shallower levels in the system, and their construct into a cohesive predictive model for the T2 porphyry system. This existing exploration data



includes surface lithology and alteration mapping across T2, 50m x 50m grid soil sampling, extensive rock chip, channel and trench sampling, detailed ground magnetic surveying on 50m-spaced survey lines and subsequent 3D inversion modelling of this magnetic data, plus diamond drilling in the upper parts of the T2 target. The deepest of these drill holes spans the transition from the epithermal to porphyry levels of the T2 system.

The key parameters of this target model are:

- The upper part of the T2 prospect area comprises a remnant lithocap comprised of silicic argillic and argillic alteration with widespread gold, copper and molybdenum mineralisation in soil and rockchip samples and in three drill holes (EPDD022-023). In the upper 500m of the T2 system, as described for the three shallower exploration targets at T2, this shallow mineralisation comprises both epithermal structures and smaller porphyry intrusive bodies with porphyry stockwork veining. These features, including the lithocap remnant, collectively cover a lateral area of ~600m by ~450m in plan view.
- Lithocaps typically occur above or overlapping the margins of deep porphyry systems.
- Drillhole EPDD024, which drilled under the southern half of the remnant T2 lithocap, intersected epithermal mineralisation within the lithocap (see previous Exploration Target) and then drilled through a >500m tall column of intrusive breccia with a high abundance of clasts containing porphyry stockwork mineralisation. This breccia unit displayed consistently increasing copper content downhole that reflected the increase in upward-transported porphyry clasts with internal stockwork mineralisation. This is an indicator of a substantial body of porphyry mineralisation at depth below the southern margin of T2.
- The adjacent T3 target (see exploration target described in the next section) has yielded long intersections of porphyry gold-copper mineralisation in holes EPDD026 and EPDD028 associated with a deep magnetic anomaly centred on the Toachi Fault Zone.
- The key premise of this deep target at T2, is that the extensive intrusive breccias with porphyry clast mineralisation and increasing copper with depth in hole EPDD024 are sourced from a deeper porphyry system that represents the northern extension of the porphyry mineralisation intersected in holes EPDD026/028 at T3 (see Figure 5).
- This target is relatively non-magnetic as it is overprinted by the roots of the T2 lithocap.
- Extensive, high-level, peripheral D-vein porphyry stockworks (including some B-veins) have been mapped at surface over this target. In addition, high-level mineralised porphyry dykes have been intersected above this target in the central portions of hole EPDD026.

Based on the above, the geological framework is robust for the deep T2 target and consequently its exploration risk is deemed only moderate.

This target was estimated by wireframing a northern extension to the deep T3 target such that the target area underlies the intrusive breccias with porphyry clasts in EPDD024. The volume of this shape was calculated in Leapfrog software and multiplied by a specific gravity of 2.72 g/cc to obtain the tonnage of the target. This tonnage was used as the upper limit of the quoted tonnage range for this exploration target. The target is defined over a 900m vertical column, consistent with the vertical extent of mineralisation in typical porphyry systems. The grade profile of the target is assigned a value consistent with that used for the adjoining T3 target where two drill holes (EPDD026 and EPDD028) intersected long intervals of porphyry mineralisation.



4.10. Magnetic anomalies around EPDD026/028

This exploration target is centred on a deep magnetic anomaly generated by magnetic inversion modelling of highly detailed ground magnetic data that was acquired by Sunstone Metals along 50m-spaced survey lines.

The anomalous magnetic domain in 2D Reduced-To-Pole magnetic imagery has a similar areal extent as the T1 magnetic complex. Inversion modelling of the magnetic data identified a coherent deep magnetic anomaly centred on the regional Toachi Fault Zone, with the strongest part of the magnetic anomaly commencing at around 850m below the surface and extending to the base of the magnetic model at 1300m below the surface. The dimensions of this magnetic body at the base of the magnetic model are around 650m x 350m in lateral dimension, and 700m x 500m at the base of the exploration target when the magnetic anomaly is downward extrapolated 450m below the base of the magnetic model. The justification for doing this is the presence of a zoned weak conductivity anomaly (from a Spartan magnetotelluric survey) that coincides with the magnetic body but extends around 300m below the base of the magnetic model.

The upper northern part of this deep magnetic body was drilled by two holes – EPDD026 and EPDD028. Both holes intersected strong and persistent porphyry gold-copper mineralisation. Intersections in these two holes were: EPDD026 - 190m @ 0.40 g/t Au, 0.11% Cu, and EPDD028 – 250.90m @ 0.37 g/t Au, 0.12% Cu. Higher grade sub-intervals included 11.90m @ 0.97 g/t Au, 0.28% Cu in EPDD026 and 11m @ 0.99 g/t Au and 0.28% Cu in EPDD028, with individual assays up to 1.33 g/t Au and up to 0.40% Cu in EPDD026, and up to 1.92 g/t Au and up to 0.42% Cu in EPDD028. These drill holes confirmed extensive porphyry gold-copper mineralisation within the T3 magnetic anomaly and confirm it as a robust porphyry target. This also indirectly provides some confidence for the similar magnetic body at the T1 Western Deep Target.

This target was estimated by wireframing the 0.00369 magnetic iso-surface with Leapfrog software and calculating its volume over an approximate 900m tall vertical column, commencing at around 850m below surface and extending to 1750m below surface. A specific gravity of 2.72 g/cc was applied to the volume estimate to derive a tonnage of modelled magnetic material, which was used as the upper end of the exploration target range. The grade profile of this exploration target was chosen to bracket the gold and copper grades of the bulked intersections in EPDD026 and EPDD028, and may be conservative considering that the core (higher-grade) part of the system is likely to be deeper in this very large exploration target area.

This exploration target is considered to be only moderate-risk. The presence of significant porphyry mineralisation is clearly demonstrated by the first two completed drill holes, however, there is an element of risk in regard to the ultimate quantity of mineralisation that may be present, partly because magnetics are increasingly difficult to model completely reliably at depths exceeding around 500m below surface.

4.11. Exploration Target Planned Activities and Timeframe

The shallow exploration targets around the modelled T1 pit and at T2 have received sufficient surface exploration activity to date to enable siting of drill holes.

The three deepest exploration targets may be subject to further geophysical modelling of existing geophysical data to optimise siting of drill holes.



The next step in testing these targets is primarily diamond drill testing. The targets have been adequately defined, but drill programs still require detailed planning regarding the number of drill holes, their azimuths, dips, and final depths. Drilling of these targets will be undertaken over the next two years, subject to the company's funding availability.



Figure 6: Location of Sunstone's Bramaderos, El Palmar, and Verde Chico projects in Ecuador.



For further information, please visit www.sunstonemetals.com.au

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Mr Patrick Duffy, Managing Director of Sunstone Metals Ltd., has authorised this announcement to be lodged with the ASX.

About Sunstone Metals

Sunstone Metals Limited ("Sunstone" or "Company") is an ASX-listed mineral exploration company with two world-class gold and copper projects in Ecuador:

1. The Brama-Alba deposit, located within the Bramaderos concession in Southern Ecuador, contains an initial Mineral Resource estimate of 156Mt at 0.53g/t AuEq for 2.7Moz gold-equivalent^{3,4}.

JORC Classification	Tonnage (Mt)	Au (g/t)	Cu (%)	Ag (g/t)	AuEq (g/t)	AuEq ⁴ (Mozs)
Indicated	9	0.38	0.09	1.1	0.53	0.2
Inferred	147	0.35	0.11	1.3	0.53	2.5
Total	156	0.35	0.11	1.3	0.53	2.7

Additionally, the Bramaderos Project has a porphyry Exploration Target of between 3.3Moz and 8.6Moz AuEq within 255 to 360Mt at a grade between 0.40 and 0.74g/t AuEq⁴ (see ASX release dated 13 December 2022), and the Limon epithermal gold-silver exploration target of between 0.9 and 1.7Moz AuEq within 30 to 44Mt at a grade between 0.9 and 1.2g/t AuEq⁵ (see ASX release dated 5 February 2024)⁶.

2. The El Palmar Project is located in northern Ecuador, 60km north-west of Ecuador's capital Quito. The property sits on the regionally significant Toachi Fault Zone that hosts a number of world-class copper porphyry systems. The Project has both at-surface and deeper porphyry gold-copper systems and drilling to date has demonstrated a pathway to a large starter open pit development opportunity.

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³Refer ASX Announcement on 13 December 2023. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimate in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

⁴ The gold equivalent calculation formula for porphyry gold-copper-silver mineralisation at Bramaderos is AuEq(g/t) = (Au grade x Au price x Au recov / 31.1035) + (Ag grade x Ag price x Ag recov / 31.1035) + (Cu grade x Cu price x Cu recov / 100)) / (Au price x Au recov / 31.1035). The prices used were US\$1,800/oz gold and US\$9,500/t copper and US\$22/oz silver. Recoveries are estimated at 89% for gold, 85% for copper, and 60% for silver based on metallurgical studies.

⁵ The gold equivalent calculation formula for the Limon epithermal gold-silver mineralisation is AuEq(g/t) = Au(ppm) + (Ag (ppm)/82). The prices used were US\$1,800/oz gold and US\$22/oz silver. Recoveries are estimated at over 90% for gold and 90% for silver from metallurgical studies.

⁶ The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Resource for the exploration target area reported. It is uncertain if further exploration will result in the estimation of a Resource.



Strategy

The porphyry projects at Bramaderos and El Palmar have the potential to evolve into multi-decade gold-copper mining centres. At Bramaderos, the Limon epithermal deposit has been prioritised as a potential near-surface high-grade gold-silver development opportunity. This strategy allows for a scalable operation to be established first before developing the much larger porphyry gold-copper-silver opportunities at Bramaderos. The Company continues to evaluate potential new opportunities to continue to grow our business in Ecuador, where clear shareholder value can be demonstrated. It is also evaluating potential partnerships for its projects where this may maximise the value of the portfolio.

Track Record

The team at Sunstone has been involved in significant discoveries of porphyry and epithermal copper-gold mineralisation at Tujuh Bukit in Indonesia and Cascabel in Ecuador, and the successful development of the King of the Hills Gold Mine in Western Australia and Koniambo Nickel Mine and Smelter in New Caledonia. The Company continues to attract specialist resources executives and is well-placed to repeat that success at Bramaderos and El Palmar.

Excellent infrastructure

All projects are supported by established infrastructure close to power, road and rail infrastructure and ports.

Community support

The Board and Management Team take their responsibilities to the host communities seriously and have endeavoured to implement the highest ESG standards throughout our business. Sunstone released its inaugural Sustainability Report in 2023, which details the level of support and engagement with local communities and project stakeholders.

Competent Persons Statement

The information in this report that relates to Mineral Resources is based on information compiled by Mr Rob Spiers. Mr Rob Spiers is a full-time employee of Spiers Geological Consultants (SGC), and is a Member of the Australasian Institute of Geoscientists (AIG). Mr Rob Spiers has sufficient experience 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 the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Rob Spiers consents to the disclosure of the information in this report in the form and context in which it appears.

Exploration Target Competent Person

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.



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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.	 The drill core sampling was carried out using half core, from PQW, HQW and NQW diameter core generally at 1 to 2m intervals. New results are based on visual assessment of drill core.
	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	Core recovery was good, and core aligned prior to splitting and sampling. Diamond drilling, rock chip and channel sampling
	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.	points have been guided by geological mapping. The drill samples from El Palmar were dried, crushed to 70% passing 2mm, Split 1000g and pulverised to 85% passing 75microns. A 20g portion of this sample was used for multi-element analysis (IMS-230) and a 30g sample for Fire Assay Au (FAS-111).
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).	 The EI Palmar target areas have been drilled with diamond core of PQW, HQW and NQW diameters with triple tube core recovery configurations and surface trenching with channel sampling. Drill core is oriented using a Reflex ACT II tool for bottom of hole.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Diamond drill core recoveries were assessed using the standard industry (best) practice which involves removing the core from core trays; reassembling multiple core runs in a v-rail; measuring core lengths with a tape measure, assessing recovery against core block depth measurements and recording any measured core loss for each core run.
	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.	Core recovery at El Palmar was good. No relationship between sample recovery and grade has been established.
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.	Drill samples were logged for lithology, weathering, structure, mineralogy, mineralisation, colour, and other features. Recent logging and sampling for the El Palmar project were carried out according to Sunstone's internal protocols and QAQC procedures which comply with industry standards.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	 Drill samples are logged for lithology, weathering, structure, mineralogy, mineralisation, colour, and other features.



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Criteria	JORC Code explanation	Commentary
		 Where drill core has been successfully oriented, the orientation of structures and geotechnical features are also routinely measured. Both wet and dry core photos are taken after core has been logged and marked-up but before drill core has been cut.
	The total length and percentage of the relevant intersections logged.	The drill holes have been logged in full. Drill hole lengths are included in the text of the announcement.
Sub-sampling techniques and sample	If core, whether cut or sawn and whether quarter, half or all core taken.	Half core was used to provide the samples that were submitted for assay from the El Palmar drilling.
preparation	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	This announcement relates to drill core logging.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	 Historical drill core samples from El Palmar (drilled by Codelco) were analysed by ACME Labs in Vancouver. Samples were crushed and split with 250 grams pulverized to 200 mesh (Method - R200-250). Analysis on drill core was undertaken on a sample split (Method - VAN split pulp). Surface rocks at El Palmar are historical and were collected by 3 different companies. GOEX S.A. samples were analysed at Bureau Veritas Laboratories in Peru. Lowell Mineral Exploration rocks were analysed by ALS Minerals, with sample preparation involving fine crushing 70% passing 2mm (Method CRU-31), crushed sample split (Method SPL-21) and pulverise 1000g to 85% passing 75um (Method PUL-32). Codelco surface rock samples were analysed by ACME Labs in Vancouver. Samples were crushed and split with 250 grams pulverized to 200 mesh (Method - R200-250) The sample preparation for the current phase of drilling is carried out according to industry standard practices using highly appropriate sample preparation techniques.
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	 Sunstone used an industry standard QAQC programme involving Certified Reference Materials "standards" and blank samples, which were introduced in the assay batches. Standards (Certified Reference Materials) or analytical blanks were submitted at a rate of 1 in 28 samples. Field duplicates were also taken at a rate of approximately 1 in 28 samples. The check or duplicate assay results are reported along with the sample assay values in the final analysis report.
	Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field	For diamond core, the routine sample procedure is to always take the half/quarter core to the right of the orientation line (looking down hole) or the



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Criteria	JORC Code explanation	Commentary
	duplicate/second-half sampling.	 cut line (in cases where the orientation line was not reliable). Once assay results are received the results from duplicate samples are compared with the corresponding routine sample to ascertain whether the sampling is representative.
	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.	 Sunstone uses a fire assay gold technique for Au assays (FAS-111) and a four acid multi element technique (IMS-230) for a suite of 48 elements. FAS-111 involves Au by Fire Assay on a 30-gram aliquot, fusion and atomic absorption spectroscopy (AAS) at trace levels. IMS-230 is considered a near total 4 acid technique using a 20g aliquot followed by multi-element analysis by ICP-AES/MS at ultra-trace levels. This analysis technique is considered suitable for this style of mineralisation.
	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.	A handheld pXRF instrument is used on site for verification of anomalous metal values and to assist with the geological logging and mineral identification. No specific data from this instrument are referenced in this announcement.
	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.	 Standards, blanks and duplicates are inserted ~1/28 samples. 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. The check sampling results are monitored, and performance issues are communicated to the laboratory if necessary.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Procedure checks have been completed by the Competent Person for exploration results for this announcement.
	The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Twin holes have not been drilled in these areas. Sunstone sampling data were imported and validated using Excel.
	Discuss any adjustment to assay data.	Assay data were not adjusted. Core loss intervals are assigned assay values of zero where present.
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 and DGPS for trench samples measured along the length of the trench.
	Specification of the grid system used.	Ecuador projection parameters: Parameter Value
		Reference Ellipsoid International 1924



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Criteria	JORC Code explanation	Commentary	
		Semi Major Axis	
		Inverse Flattening (1/f)	
		Type of Projection UTM Zone -17S (Datum PSAD56)	
		Central Meridian: -81.0000	
		Latitude of Origin 0.0000	
		Scale on Central 0.9996	
		False Northing 10000000	
		False Easting 500000	
	Quality and adequacy of topographic control.	The topographic control was compared again published maps and satellite imagery and found be good quality.	
Data spacing and	Data spacing for reporting of Exploration Results.	The drill core samples reported were collected fro	
distribution		diamond drill holes from the El Palmar targets, ar with sample length generally ranging between 0. 2m.	
	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.	The data from these samples is sufficient establish the degree of geological and grad continuity for the current mineral resourcestimate, utilising statistics outlined in section combined with geological interpretations.	de ce
Orientation of	Whether sample compositing has been applied. Whether the orientation of sampling achieves	No sample compositing was done. • Drilling orientations were appropriate for the sample composition of the sample composition of the sample composition was done.	ho.
data in relation to geological structure	unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	 Drilling orientations were appropriate for the interpreted geology providing representative samples. Trench orientations and rock chip locations we appropriate for the interpreted geology providing representative samples. 	ve
	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.	No sampling bias is expected at this stage.	
Sample security	The measures taken to ensure sample security.	 Sunstone sampling procedures indical individual samples were given due attention. Sample security was managed through sealed individual samples and sealed bags of multiple samples for secure delivery to the laboratory leading permanent staff of the joint venture. MS Analytical is an internationally accredited laboratory that has all its internal procedure heavily scrutinised in order to maintain the accreditation. MS Analytical is accredited ISO/IEC 17025 2005 Accredited Methods. 	ed ble by ed es eir to
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	 Sunstone's sampling techniques and data have been audited multiple times by independe mining consultants during various project assessments. These audits have concluded the the sampling techniques and data manageme are to industry standards. 	nt ect at



Criteria	JORC Code explanation	Commentary
		All historical data has been validated to the best degree possible and migrated into a database.

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 security of the tenure held at the time of reporting along with any known impediments to	 The El Palmar property is located in Imbabura province and is held by an Ecuadorian registered company 'GOEX'. Due diligence to date show that 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. Sunstone and GOEX have entered into a Staged Acquisition Agreement where Sunstone may earn up to 100% based on defined milestones. The El Palmar exploration concession was granted in 2003 and is held 100% by GOEX.
Exploration done by other parties	obtaining a licence to operate in the area. Acknowledgment and appraisal of exploration by other parties.	Sunstone owns 74.5% of GOEX. The historic exploration at El Palmar was completed by various groups over the period 1990's, 2007-2008, 2011-2012 and GOEX (2012 to 2020). 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, some local soil sampling, channel sampling and limited diamond drilling (3 holes).
Geology	Deposit type, geological setting and style of mineralisation.	The deposit style being explored for includes intrusion-related and stockwork hosted porphyry gold-copper systems plus epithermal gold-silver-polymetallic veins. The setting at El Palmar is a volcanic arc setting of Eocene age intrusions.
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: a. easting and northing of the drill hole collar b. elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar c. dip and azimuth of the hole d. down hole length and interception depth e. hole length.	 Details of the samples discussed in this announcement are in the body of the text. See Figures 1-5 for the location of previous drilling at El Palmar.
	Suppose 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. In that case, the Competent Person should clearly explain why this is the case.	Information included in announcement.



Criteria	JORC Code explanation	Commentary
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. 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.	 Weighted averages were calculated over reported intervals according to sample length. No grade cut-offs were applied. Aggregating of intervals represents broad intervals consistent with porphyry gold-copper mineralised systems.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	 The gold equivalent calculation formula is AuEq (g/t) = ((Au grade x Au price x Au recov / 31.1035) + (Ag grade x Ag price x Ag recov / 31.1035) + (Cu grade x Cu price x Cu recov / 100)) / (Au price x Au recov / 31.1035). The prices applied were US\$1,800/oz gold, US\$9,921/t copper and US\$22/oz silver. Recoveries are estimated at 90% for gold, 78% for copper (excluded for oxide material), and 60% for silver based on metallurgical studies. In Sunstone's opinion, all the elements included in the metal equivalents calculation have reasonable potential to be recovered and sold.
Relationship between mineralisation	If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be	The geometry of the mineralisation relative to the drill holes is not completely known at this stage of
widths and intercept lengths	reported. 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').	exploration. True widths of mineralised lodes are not known at this stage.
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.	See Figures 1-5 for maps showing distribution of samples.
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.	Figures 1-5 above show the current interpretations of geology.
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.	Figures 1-5 above show various datasets that are being used to identify target areas and guide current and future drilling.
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.



Criteria	JORC Code explanation	Commentary
	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 Figures 1-5, which show areas for further exploration.

<u>TABLE 1 – Section 3 Estimation and Reporting of Mineral Resources</u>

Criteria	JORC Code explanation	Commentary
Database integrity	Measures are taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and use for Mineral Resource estimation purposes.	The database is managed using Geobank software. Data is logged directly into a Microsoft Excel sheet logging system with drop down field lists. Validation checks are written into the importing program assured that all data is of high quality. Digital assay data is obtained from the Laboratory, QA/QC checked and imported. Results are exported to CSV files and imported directly to the Micromine software used for the MRE.
	Data validation procedures used.	The combined database was provided for the MRE. Validation of the data import includes checks for the following: o Duplicate drill hole or trench names, e.g: One or more drill hole collar or trench coordinates missing in the collar file, FROM or TO missing or absent in the assay file, FROM > TO in the assay file, Sample intervals overlap in the assay file, The first sample is not equal to 0 m in the assay file, The first depth is not equal to 0 m in the survey file, Several downhole survey records exist for the same depth, Azimuth is not between 0 and 360° in the survey file, Dip is not between 0 and 90° in the survey file, Azimuth or dip is missing in the survey file, Total depth of the holes is less than the depth of the last sample, Total length of trenches is less than the total length of all samples. Negative sample grades.
		No logical errors were identified in the analytical data.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken, indicate why this is the case.	No site visit was conducted by the Competent Person at the time of the resource estimate due to travel restrictions at the time in Ecuador. It is planned that a site visit will be undertaken as the project develops further.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	Geological data has been collected in a consistent manner that has allowed the development of



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Criteria Jo	ORC Code explanation	Commentary
		geological models to support the Mineral Resource estimate. Gold and Copper mineralisation is controlled in timing by Intrusive Syn-Mineral Diorite and Quartz Diorite Porphyry and related structurally controlled Syn-Mineral Bi-Modal Quartz Diorite.
	Nature of the data used and of any assumptions made.	 Solid geological models were generated in Leapfrog using the following methodology Composite copper and gold grades to 2m intervals Define cut-offs using changes in slope of histograms and cumulative log plots Create raw grade shells for these using implicit numeric modelling Define the main dividing features/structures between populations (clusters of grades) Build these structures in detail using grade, lithology, and structural information For each compartment/fault block Group the main lithologies into "like units" Build geological shapes from these units Re-build the grade shells within each compartment using information from the geological shapes to help constrain the grade shapes Once each compartment was built, they were assessed in context with each other and refined so that the models made geological sense.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	Alternative interpretations are likely to moderately impact on the Mineral Resource estimate on a local, but not global, basis.
	The use of geology in guiding and controlling Mineral Resource estimation.	Geological interpretation and wire-framing were based on sampling results of drill holes and trenches, which were sampled at 2m intervals (average, tied to lithological boundaries during logging). The geological interpretation is considered robust, and alternative interpretations are not considered to have a material effect on the Mineral Resource. No alternate interpretations are proposed as geological confidence in the model is moderate to high. As additional geological data is collected from additional drilling, the geological interpretation will be continually updated.
	The factors affecting continuity both of grade and neology.	The factors affecting continuity both of grade and geology are most likely to be associated with structural controls and local complexity, the knowledge of which is considered at a moderate level with the current spacing of information. The broad approach to mineralisation modelling is an attempt to model an unbiased interpretation.
Dimensions T	The extent and variability of the Mineral Resource	The Mineral Resource at El Palmar T1 is contained



Criteria	JORC Code explanation	Commentary
	expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	within an area defined by a strike length of 1,200 m and depth extent of 400 m.
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	Ordinary Kriging technique was employed using third party software based on low coefficient of variation between samples in the mineralised domain.
		Grade interpolation and search ellipses were based on variography and geometry modelling outcomes.
		Modelling was conducted in three passes with block sizes being 20.0 m E by 20.0 m N by 30.0 m RL; discretisation was 5x5x2 for all project areas
		In the first pass data and octant criteria used were, Minimum Data=12, maximum Data=32, Minimum Octants=4. Search radii was 30 mE by 80 mN by 20 mRL with rotations of Z=-50, Y=0 and X=88 according to the right-hand rule.
		An expansion factor of 1 was applied so in the second pass saw the same data and octants criteria with an expanded search to 60mE by 160mN by 40mRL.
		The third pass saw Minimum Data=6, maximum Data=32, Minimum Octants=2. Search radii was 60mE by 160mN by 40mRL.
		Top cutting was applied to domains and elements which displayed a very strongly skewed nature as summarise in the report reference and in accordance with the prevailing coefficients of variation.
		Secondary attributes including the modelling of density which was also modelled on three passes (as above) which included the same data and octant criteria as above.
		No dilution was expressly added to the SGC model. However, domaining was largely driven by geological and grade domains created by STM and provided to SGC which tends to incorporate the full population range in the geological domains and a constrained population range in the grade domains in-line with the grade domain constraints.
		No assumptions were made by SGC regarding the recovery of by-products.
		Gold, silver and copper were modelled as elements.
		The interpretation or domain model was largely driven by the lithology / geology, oxidation state, and structural intervention and mineralised trends observed over the various project areas. Grade was used as a secondary domain driver for the definition
		of boundaries conditions where deemed appropriate by the STM resource team.
		The model was validated in a third-party software using section and plan comparisons back to original informing data as well as with the use of swath plots



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Criteria	JORC Code explanation	Commentary
		to assess local grade variability between the model and informing data.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	To the best of SGC's knowledge, no previous Mineral Resource estimates reported in accordance with the JORC Code were available for comparison.
		To the best of SGC's knowledge, no previous mining has taken place at the project, and production data is not available to reconcile against the block model estimates.
	The assumptions made regarding recovery of by-products.	Sunstone Metals Ltd representative portrayed to SGC that metallurgical studies have indicated no issues are likely with deleterious elements No assumptions have been made regarding the
	Estimation of deleterious elements or other non- grade variables of economic significance (eg. sulphur for acid mine drainage characterisation).	recovery of by-products. Sunstone has represented that metallurgical studies have indicated no issues are likely with deleterious elements.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	A 20 m E x 20 m N x 30 m RL parent cell size was used with sub-celling to 4mE x 4mN x 6mRL to honour wireframe boundaries.
	Any assumptions behind modelling of selective mining units.	An assumption was made that the smallest mining unit is 4m x 4m x 6m
	Any assumptions about correlation between variables.	No assumptions were made regarding the correlation between variables.
	Description of how geological interpretation was used to control the resource estimates.	The lithological, alteration and structural controls were considered when interpreting the mineralisation model. Six geological domains were identified and through the analysis of the lithological controls over the grade distributions, it was determined that soft boundary conditions were required in accordance with boundary conditions represented by Sunstone.
	Discussion of basis for using or not using grade cutting or capping.	Top cuts were selected following statistical analysis through the rate of change of the upper deciles of the lognormal probability plot to indicate breaks in populations in conjunction with the ongoing assessment of the coefficients of variation by primary domain.
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	Drillhole grades were initially visually compared with block model grades. Domain drillhole and block model statistics were compared. Swath plots were then created to compare drillhole grades with block model grades for easting, northing and elevation slices throughout the deposit. The block model reflected the tenor of the grades in the drillhole samples both globally and locally.
Moisture	Whether the tonnages are estimated on a dry basis	Tonnages are estimated on a dry basis.



Criteria	JORC Code explanation	Commentary
	or with natural moisture, and the method of determination of the moisture content.	
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	Mineralised domain interpreted on grade ≥ 0.4g/t AuEq inside the local interpretation solids by area with reference to local variability.
		This is assumed to be a reasonable cut-off for an open pit proposition, given probability plot curve inflexions and grade population distributions.
		Resources estimated at a range of cut-offs and started reported at a 0.1g/t AuEq cut-off grade for open pit for public reporting and increased at a 0.1g/t increment.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution.	It was assumed that open pit mining methods will be employed. This is reasonable given the mineralisation is close to the surface. The parent cell block size is 20mx20mx30m and was deemed by Sunstone as appropriate for the size of operation contemplated. No external dilution was applied.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	No metallurgical factors or assumptions used to restrict or modify the resource estimation were employed by SGC during the construction of the model. Metallurgical recovery was not modelled as an attribute of the model but was incorporated into the formula for the calculation of AuEq which as modelled as an attribute of the resource model. Recent early level metallurgical test-work conducted at Base Metallurgical Laboratories in Kamloops, Canada during May 2023 to June 2023 (pre-Mineral Resource Estimation) has indicated that gold recoveries across oxide, transition and fresh of 90% are achievable for gold, and an overall recovery of 78% for copper across transition and fresh. No copper was assumed to be recovered in oxide and therefore is not reported. SGC have been provided with summary metallurgical outcomes by the Client. In accordance with the previous paragraph, to the best of SGC's knowledge no further work has been conducted in regard to metallurgical recovery which would indicate anything to the contrary of the recovery numbers put forth by Sunstone Metals Ltd.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options.	No environmental factors or assumptions were used to restrict or modify the resource estimation.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	Bulk density was estimated into block models and post processed on the basis of data analysis by primary domain and oxidation to assign missing values with average density values. In all 2,762 bulk density measurements were taken



Criteria	JORC Code explanation	Commentary
		from non-specified drilling samples by STM site representatives during the period 3 August 2021 through to 15 July 2023 drilling program.
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.	No wax was applied to the sample segments selected from competent rock with no visible fractures, while porous and weathered samples were coated with wax. 200 full diamond core segments were coated with wax while. 2562 samples were not waxed. Very limited voids exist hence the data is considered accurate
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Density values were interpolated into the oxide, transition and fresh domain of the mineralised block model cells using ordinary kriging.
		Composited density values were used for the interpolation.
		Variogram models and parameters determined from geometry modelling were used to guide the density interpolation process.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	The resource classification was based on drilling density (and the availability of data to present to the search neighbourhood, geological modelling, oxidation and, density and recovery data as well as data quality considerations and was post process resolved using classification shells predicated on and taking into consideration all of the aforementioned inputs. The classification criteria are deemed appropriate by SGC.
	Whether appropriate account has been taken of all relevant factors (i.e., relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	Appropriate account has been taken of all relevant criteria including data quality, sample spacing, mineralisation continuity, confidence in the geological interpretations, quality of the grade estimations and metallurgical processing knowledge.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The Mineral Resource appropriately reflects the Competent Person's views of the deposit
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	The current model has not been audited by an independent third-party.
Discussion of relative accuracy/confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and	Outlines of resource classifications were reviewed against drill-hole data density and assays results and each block in the model has a resource classification which indicates the relative (block to block) confidence level. Mineral resource estimate technique was deemed appropriate by an internal peer review by SGC as were the estimates themselves. The total mineral resource estimate is based on



Criteria	JORC Code explanation	Commentary
	confidence of the estimate.	No production data was available at the time the estimates were undertaken.
		The block model was produced to represent global estimates; however, the model honours the local grade distributions appropriately given the drilling data provided and the domaining strategy employed.
		The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code.
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to	The Mineral Resource statement relates to a global tonnage and grade estimate. Grade estimates have been made for each block in the block model.
	technical and economic evaluation. Documentation should include assumptions made and the procedures used.	All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this table.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	No previous mining has taken place at the project, and production data is not available to reconcile against the block model estimates.