



### Matilda Copper Project - Exploration results confirm project potential

Serabi Gold plc (AIM: SRB, TSX: SBI), the Brazilian-focused gold mining and development company, is pleased to provide an exploration update from its activities on the Matilda Copper Prospect ("Matilda") in the Tapajos region of Para State, Northern Brazil. Matilda is being explored as part of the Exploration Alliance between Serabi and Vale SA

#### Highlights

- The 2023 drilling programme in the Matilda district commenced in April and was completed in November with a total of 7,597.21 meters drilled from 21 holes and was completed in two phases. The first phase comprised drill holes 23-MT-001 to 23-MT-010 and the second phase drill holes 23-MT-011 to 23-MT-021(figure 1).
- Drilling focussed on the main Matilda soil geochemistry anomaly, which was initially tested in 2022 with three exploration holes.
- To date the company has received results from 19 of the 21 drill holes executed at Matilda, 12 of which have returned encouraging grades above 0.2% Copper ("Cu") over downhole intervals greater than 10m.
- Significant intercepts from the second phase of drilling include.
  - Hole 23-MT-010 21.45m @ 0.40% Cu and 0.11 g/t gold ("Au") from 95.55m
  - Hole 23-MT-015 25.00m @ 0.34% Cu and 0.09 g/t Au from 107.00m
  - Hole 23-MT-016 34.00m @ 0.34% Cu and 0.10 g/t Au from 142.00m
- The drilling to date has delineated a shallow mineralised zone with an exploration target with a potential range of between 21 million tonnes ("Mt") @ 0.40% Cu up to 81Mt @ 0.28% Cu. In addition to this zone, the system is open to the NW, SE and at depth. This potential volume and grade is however, conceptual in nature as insufficient exploration has been completed to define a mineral resource and it is uncertain if a mineral resource estimate will be delineated.
- In addition to Matilda, the Company continues to investigate other copper/gold systems in the same geological environment with anomalies and positive results derived from exploration, particularly in Ganso and Cinderela targets (see news release 2 November 2023).
- In November 2023, a 26 kilometre terrestrial geophysics Induced Polarisation (IP) Pole-Dipole survey was completed over Matilda as part of geological investigation. Serabi is currently processing, integrating, and interpreting the data which will be used for drillhole targeting in the 2024 programme.

#### Mike Hodgson CEO commented.

"We are excited about the positive results we have received from the Matilda prospect and to intersect porphyry mineralisation in 12 out of 19 holes is a very encouraging indeed. The drilling has continued to expand our geological understanding of the system.

"We believe that the Matilda prospect is still in its infancy and has much more to deliver. Typically, first stage drilling into porphyry systems would be in the region of 15,000-20,000 metres, so we are delighted with these results after just 7,500 metres. The drilling indicates the copper potential remains open along the strike and at depth, especially because of results received for the recent holes MT-018 and MT-012. Matilda's geological characterisation as an Alkalic Porphyry style system helps guide our exploration strategy and suggests that further results can come from deeper drilling.







"Additionally, the discovery of new potential porphyry systems at Ganso and Cinderela, in addition to the other discoveries in the region, are advancing the Tapajos province as an emerging copper province in the north of Brazil, and Serabi's land package and quality data puts us in an ideal position to take advantage of this. The Company's exposure to base metal demand through the Vale alliance as well as its growth in gold production primarily at Coringa positions the company well, and we look forward to an exciting year in 2024."



Figure 1: Location of drill holes executed in the 2022 and 2023 drill programmes at Matilda To access an image of Figure 1 please use the following link - <u>https://bit.ly/48p8Eim</u>





#### **Detailed Results and Technical Discussion**

The Phase 2 drilling programme focussed on evaluating the extents of the mineralised system at the Matilda Prospect as well as identifying key exploration vectors that can be used to target higher grade mineralisation.

The results obtained to date are from the shallowest part of the system, clustered within a large surface geochemistry footprint measuring 4,000 metres by 2,500 metres. Holes 23-MT-011, 23-MT-012 and 23-MT-18 suggest potential to extend to the ENE and WSW, whilst the mineralisation also remains open at depth,

Drillholes 23-MT-010, 23-MT-011 and 23-MT-012 stepped out to the north of the known mineralisation and all returned grades of over 0.35% Cu within intervals greater than 10m, indicating the system is open to the north and north-west.

Drillholes 23-MT-015, 23-MT-016, 23-MT-017 and 23-MT-019 were drilled to test the lateral extents of the highergrade core intercepted in drillholes 23-MT-004 and 23-MT-006, drilled during the first phase of drilling. All four drillholes intercepted zones over 20m of 0.34% Cu including discrete zones of up to 1.3% Cu, indicating that the higher-grade zone is consistently mineralised. 23-MT-021 was drilled beneath holes 23-MT-004 and 23-MT-006 to test the zone at depth and is pending assay results.

Drillhole 23-MT-018 stepped out to the east of known mineralisation and returned grades of up to 0.33% Cu over 16m, indicating that the system is open to the east.

These new results have extended mineralisation to over 1 kilometre along a WNW-ENE trending de-magnetised zone. The system remains open to west, east, north, and at depth (figure 2), and drilling has not yet delineated the size of the system.



Figure 2: Drill hole locations over magnetic image showing 1200 metres long, northwest orientated demagnetisation trend. To access an image of Figure 2 please use the following link - <u>https://bit.ly/47kemBb</u>



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Drilling has intercepted narrow zones of high-grade copper mineralisation related to potassic (K-feldspar, biotite) and overprinting chlorite ± epidote, K-feldspar, albite, scapolite alteration, as well as porphyry style quartz veinlets and magnetite breccias. Strong "red rock" (hematite dusting of feldspar) alteration commonly forms a halo to mineralised zones. These styles of alteration and mineralisation share many characteristics with silica-saturated alkalic porphyries such as in Canada (e.g. Mount Milligan, B.C.) and Australia (e.g. NorthPark's, NSW). These alkalic systems typically have complex alteration assemblages and small surface footprints, however, are often vertically extensive, with high grade Cu-Au cores. They are also, typically associated with breccias and multiple dyke like orebodies rather than single stocks as commonly seen in typical calc-alkaline porphyry systems.

The mineralisation intersected has been interpreted as alteration "offshoots" that lie above and laterally to the main porphyry core which is believed to be at depth. Porphyry style veinlets and alteration have been intercepted in every drillhole, even the drillholes without significant intercepts, which indicates the scale of the system. The results from the 2023 programme, combined with the scale of the surface geochemical anomaly indicates the potential for high grade core zones with multiple "offshoots" within a broad, alteration halo.

To date, the causative intrusion(s) have not been intercepted in drilling and remain a key exploration target for large volumes of economic grade mineralisation. The 2024 drilling programme will aim to integrate all existing data and test deeper parts of the system, where the narrow mineralisation "offshoots" are interpreted to coalesce. It will also aim to continue evaluating the extents and scale of the system and test the multiple intrusive centres within the Matilda District indicated by the geophysics and soil geochemistry, thereby increasing the drill target pipeline.

Evaluation of the core by both Serabi's and Vale's geologists and geological consultants has provided a consensus that the setting and mineralisation style is consistent with a silica-saturated alkalic porphyry-like system, and modelling of the actual copper intercepts. The assumptions and premises of this geological model are being used by the exploration team to integrate and model the exploration data. Modelling of mineralisation intercepts by the Vale's exploration team suggests an exploration target for potential for mineralisation with volume of up to approximately 81Mt @ 0.28% Cu (figure 3 and 4). This potential volume and grade is however conceptual in nature as insufficient exploration has been completed to define a mineral resource and it is uncertain if a mineral resource estimate will be delineated.



# Figure 3: Drill section with 23-MT-001, 004 & 006 and copper results plotted over the magnetic susceptibility model. Drill hole 21 is pending results, but core logging indicates anomalous sulphides in the zone.

To access an image of Figure 3 please use the following link - https://bit.ly/3vbjHwW



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Figure 4: Mineralisation envelopes modelled for Matilda totalling approximately 81Mt @ 0.28% Cu. Modelling uses 0.15% Cu cut-off for composites, minimum true width of 10m and maximum internal waste of 15m.



The Matilda pole-dipole induced polarisation (IP) geophysical survey completed 6 lines totaling 26 kilometres, in an approximate grid of 400m x 200m (figure 5). The IP geophysics has been processed and integrated with the magnetic susceptibility, geological and geochemical data available. This will provide a basis to plan the 2024 exploration drilling campaign aiming for the extensions of the current mineralization zones and their potential source.



To access an image of Figure 5 please use the following link - https://bit.ly/3RNnyt4



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The Company continues to investigate the potential for other porphyry copper and epithermal gold systems within Serabi's large exploration license portfolio, and further prospective targets have been identified. Initial drilling at Ganso, located 13 kilometres NE from Matilda intersected a thick zone of advanced argillic alteration. On going drilling at Ganso has intersected hematitic breccias with phyllic alteration and porphyry style B-veins. This potentially suggests a porphyry type system at depth. Drilling is in progress and news is expected in Q1 of 2024. Soil sampling at Leticia has indicated a very large intrusive center in a similar structural setting to Matilda. An initial field visit indicated outcrops like those seen at Ganso, associated with the zone of advanced argillic alteration. On the southern flank of this intrusive centre, there is a 4km long, WNW trending soil gold anomaly just north of a sub-parallel drainage with extensive garimpeiro workings. Just to the south, the soil sampling program has delineated a series of small intrusive stocks associated with magnetic anomalies. One of these is associated with a Copper-Molybdenum anomaly. The Company will look to undertake further reviews of all of these targets as part its 2024 exploration program (figure 6).



Figure 6: showing the location of Cinderela related to São Chico base camp and Matilda porphyry system.

To access an image of Figure 6 please use the following link - https://bit.ly/48rajE1



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#### Matilda Drill Results: Intersections included in mineralisation wireframes to model the copper potential.

HOLE_ID	EAST (UTM SAD69)	NORTH (UTM SAD69)	RL	DEPTH (m)	DIP/Azm (°/°UTM)	Obs	From	То	Interval (m)	True Intersect Lenght (m)	Copper Grade (Cu %)	Gold Grade (Au g / t)
23-MT-001	609314	9291988	292	548,8	60 / 180 incl.		122,6	133,15	10,55	5,28	0,37	0,12
						and	148,25	179,5	31,25	15,63	0,21	0,06
23-MT-002	609004	9291497	265	359,37	60 / 000 incl.						NSI	NSI
23-MT-003	608289	9291882	237	149,44	60 / 000 incl.						NSI	NSI
23-MT-004	609332	9292162	237	398,58	60 / 180 incl.		29,85	165,05	135,2	67,60	0,33	0,09
						and	217	305	88	44,00	0,36	0,09
23-MT-005	609002	9291696	299	404,69	60 / 000 incl.		43	60	17	8,50	0,23	0,08
23-MT-006	609332	9292162	261	443,49	60 / 000 incl.		31,65	143	111,35	55 <i>,</i> 68	0,20	0,05
						and	183,2	216,9	33,7	16,85	0,33	0,07
23-MT-007	608978	9292372	283	350,91	60 / 180 incl.		22	68	46	23,00	0,20	0,06
23-MT-008	608626	9289542	267	398,62	60 / 000 incl.						NSI	NSI
23-MT-009	608598	9289763	249	150,46	60 / 180 incl.						NSI	NSI
23-MT-010	609313	9292614	242	404,78	60 / 180 incl.		95 <i>,</i> 55	117	21,45	10,73	0,40	0,11
						and	215	233	18	9,00	0,38	0,03
23-MT-011	609025	9292819	232	426,01	60 / 180 incl.		238	248	10	5,00	0,37	0,14
23-MT-012	609039	9292648	263	401,89	60 / 180 incl.		104	148	44	22,00	0,22	0,06
						and	192	202	10	5,00	0,29	0,15
23-MT-013	609000	9291920	299	410,58	60 / 000 incl.						NSI	NSI
23-MT-014	609002	9291295	233	434,13	60 / 000 incl.						NSI	NSI
23-MT-015	609267	9292080	282	150,21	45 / 000 incl.		41	150	109	77,07	0,25	0,07
23-MT-016	609267	9292080	282	219,97	60 / 000 incl.		30	40	10	5,00	0,26	0,06
						and	52	62	10	5,00	0,23	0,06
						and	78	204	126	63,00	0,30	0,09
23-MT-017	609367	9292065	280	142,84	45 / 000 incl.		102	122	20	14,14	0,35	0,09
23-MT-018	609667	9291960	267	395,02	60 / 000 incl.		26	50	24	12,00	0,27	0,08
						and	230	252	22	11,00	0,22	0,06
23-MT-019	609367	9292065	280	229,43	60 / 000 incl.		149	179	30	15,00	0,32	0,08
23-MT-020	609002	9291295	233	550,22	70 / 180 incl.						NSI	NSI
23-MT-021	609303	9292320	252	627,77	65 / 180 incl.						NSI	NSI
22-MT-001	609071.42	9292164.65	299	234.2	60 / 90 incl.		56	201,6	145,6	72,80	0,20	0,06
						and	215,12	232,8	17,68	8,84	0,42	0,14
22-MT-002	608976.11	9292462.98	282	210.57	60 / 173 incl.		38,25	81,75	43,5	21,75	0,21	0,07
						and	176,55	196,6	20,05	10,03	0,24	0,11
22-MT-003	609120.0	9292222.0	226	250.78	60 / 180 incl.		44,3	80,45	36,15	18,08	0,22	0,08
						and	127,1	153	25,9	12,95	0,33	0,11





Reported intercepts calculated based on a minimum weighted average grade using a minimum true mineralization width of xm, lower cut of 0.20% Cu and a maximum internal waste interval of 15.0m. Analyses were performed by ALS Laboratories a Certified geochemical laboratory. \* Note: Geometries of the mineralization model, and changes to the minimum mineralization width and internal wate parameters used for 3D modelling has generated differences in the results presented in the previous press release "*Matilda Copper Project – exploration update from September 7th, 2023"* due to the new results received, geological knowledge acquired and modelling applied. *All results are correct based on the parameters used and* geological knowledge at the time.

NSI – No Significant Intersection.

The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014 as it forms part of UK Domestic Law by virtue of the European Union (Withdrawal) Act 2018.

The person who arranged for the release of this announcement on behalf of the Company was Clive Line, Director.

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#### **GLOSSARY OF TERMS**

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The following is a glossary of technical terms:

"actinolite"	amphibole silicate mineral commonly found in metamorphic rocks, including those surrounding
	cooled intrusive igneous rocks
"Ag"	means silver.
"Alkalic porphyry"	A class of copper-porphyry mineral deposits characterised by disseminated mineralisation within and immediately adjacent to silica-saturated to silica-undersaturated alkalic intrusive centres and being copper/gold/molybdenum-rich.
"albite"	is a plagioclase feldspar mineral
"aplite"	An intrusive igneous rock in which the mineral composition is the same as granite, but in which the grains are much finer
"argillic alteration"	is hydrothermal alteration of wall rock which introduces clay minerals including kaolinite, smectite and illite
"Au"	means gold.
"assay"	in economic geology, means to analyse the proportions of metal in a rock or overburden sample; to test an ore or mineral for composition, purity, weight, or other properties of commercial interest.
"biotite"	A phyllosilicate mineral composed of a silicate of iron, magnesium, potassium, and aluminum found in crystalline rocks and as an alteration mineral.
"brecciation"	Describes the process where large angular broken fragments of minerals or rocks become cemented together by a fine-grained matrix.

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"CIM"	means the Canadian Institute of Mining, Metallurgy and Petroleum.
"chalcopyrite"	is a sulphide of copper and iron.
"Cu"	means copper.
"cut-off grade"	the lowest grade of mineralised material that qualifies as ore in each deposit; rock of the lowest assay included in an ore estimate.
"Dacite porphyry intrusive"	a silica-rich igneous rock with larger phenocrysts (crystals) within a fine-grained matrix
"deposit"	is a mineralised body which has been physically delineated by sufficient drilling, trenching, and/or underground work, and found to contain a sufficient average grade of metal or metals to warrant further exploration and/or development expenditures; such a deposit does not qualify as a commercially mineable ore body or as containing ore reserves, until final legal, technical, and economic factors have been resolved.
"electromagnetics"	is a geophysical technique tool measuring the magnetic field generated by subjecting the sub- surface to electrical currents.
"epidote"	is a calcium aluminium iron sorosilicate mineral
"garimpo"	is a local artisanal mining operation
"garimpeiro"	is a local artisanal miner.
"geochemical"	refers to geological information using measurements derived from chemical analysis.
"geophysical"	refers to geological information using measurements derived from the use of magnetic and electrical readings.
"Geophysical techniques"	include the exploration of an area by exploiting differences in physical properties of different rock types. Geophysical methods include seismic, magnetic, gravity, induced polarisation and other techniques; geophysical surveys can be undertaken from the ground or from the air.
"gossan"	is an iron-bearing weathered product that overlies a sulphide deposit.
"grade"	is the concentration of mineral within the host rock typically quoted as grams per tonne (g/t), parts per million (ppm) or parts per billion (ppb).
"g/t"	means grams per tonne.
"granodiorite"	is an igneous intrusive rock like granite.
"hectare" or a "ha"	is a unit of measurement equal to 10,000 square metres.
"hematite"	is a common iron oxide compound
"igneous"	is a rock that has solidified from molten material or magma.
"IP"	refers to induced polarisation, a geophysical technique whereby an electric current is induced into the sub-surface and the conductivity of the sub-surface is recorded.
"intrusive"	is a body of rock that invades older rocks.
"mineralisation"	the concentration of metals and their chemical compounds within a body of rock.
"mineralised"	refers to rock which contains minerals e.g. iron, copper, gold.
"Mo-Bi-As-Te-W- Sn"	Molybdenum-Bismuth-Arsenic-Tellurium-Tungsten-Tin
"magnetite"	Magnetic mineral composed of iron oxide found in intrusive rocks and as an alteration mineral.
"monzodiorite"	Is an intrusive rock formed by slow cooling of underground magma.
"monzogranite"	a biotite rich granite, often part of the later-stage emplacement of a larger granite body.
"mt"	means million tonnes.
"ore"	means a metal or mineral or a combination of these of sufficient value as to quality and quantity to enable it to be mined at a profit.
"oxides"	are near surface bed-rock which has been weathered and oxidised by long term exposure to the effects of water and air.
"paragenesis"	Is a term used to describe the sequence on relative phases of origination of igneous and metamorphic rocks and the deposition of ore minerals and rock alteration.
"ppm"	means parts per million.

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"phyllic alteration"	is a hydrothermal alteration zone in a permeable rock that has been affected by circulation of hydrothermal fluids
"proterozoic"	means the geological eon (period) 2.5 billion years ago to 541 million years ago
"saprolite"	is a weathered or decomposed clay-rich rock.
"scapolites"	are a group of rock-forming silicate minerals composed of aluminium, calcium, and sodium silicate with chlorine, carbonate and sulfate
"sulphide"	refers to minerals consisting of a chemical combination of sulphur with a metal.
"vein"	is a generic term to describe an occurrence of mineralised rock within an area of non-mineralised rock.
"VTEM"	refers to versa time domain electromagnetic, a particular variant of time-domain electromagnetic geophysical survey to prospect for conductive bodies below surface.

#### Assay Results

Assay results reported within this release include those provided by the Company's own on-site laboratory facilities at Palito and have not yet been independently verified. Serabi closely monitors the performance of its own facility against results from independent laboratory analysis for quality control purpose. As a matter of normal practice, the Company sends duplicate samples derived from a variety of the Company's activities to accredited laboratory facilities for independent verification. Since mid-2019, over 10,000 exploration drill core samples have been assayed at both the Palito laboratory and certified external laboratory, in most cases the ALS laboratory in Belo Horizonte, Brazil. When comparing significant assays with grades exceeding 1 g/t gold, comparison between Palito versus external results record an average over-estimation by the Palito laboratory of 6.7% over this period. Based on the results of this work, the Company's management are satisfied that the Company's own facility shows sufficiently good correlation with independent laboratory facilities for exploration drill samples. The Company would expect that in the preparation of any future independent Reserve/Resource statement undertaken in compliance with a recognised standard, the independent authors of such a statement would not use Palito assay results without sufficient duplicates from an appropriately certificated laboratory.

#### Forward-looking statements

Certain statements in this announcement are, or may be deemed to be, forward looking statements. Forward looking statements are identified by their use of terms and phrases such as "believe", "could", "should" "envisage", "estimate", "intend", "may", "plan", "will" or the negative of those, variations, or comparable expressions, including references to assumptions. These forward-looking statements are not based on historical facts but rather on the Directors' current expectations and assumptions regarding the Company's future growth, results of operations, performance, future capital, and other expenditures (including the amount, nature, and sources of funding thereof), competitive advantages, business prospects and opportunities. Such forward looking statements reflect the Directors' current beliefs and assumptions and are based on information currently available to the Directors. Several factors could cause actual results to differ materially from the results discussed in the forward-looking statements including risks associated with vulnerability to general economic and business conditions, competition, environmental and other regulatory changes, actions by governmental authorities, the availability of capital markets, reliance on key personnel, uninsured and underinsured losses, and other factors, many of which are beyond the control of the Company. Although any forwardlooking statements contained in this announcement are based upon what the Directors believe to be reasonable assumptions, the Company cannot assure investors that actual results will be consistent with such forward looking statements.

#### **Qualified Persons Statement**

The scientific and technical information contained within this announcement has been reviewed and approved by Michael Hodgson, a Director of the Company. Mr Hodgson is an Economic Geologist by training with over 30 years' experience in the mining industry. He holds a BSc (Hons) Geology, University of London, a MSc Mining Geology, University of Leicester and is a Fellow of the Institute of Materials, Minerals and Mining and a Chartered Engineer of the Engineering Council of UK, recognizing him as both a Qualified Person for the purposes of Canadian National Instrument 43-101 and by the AIM Guidance Note on Mining and Oil & Gas Companies dated June 2009.

Neither the Toronto Stock Exchange, nor any other securities regulatory authority, has approved or disapproved of the contents of this news release