

12th June 2024

ANOMALOUS OUTCROP AT SURFACE DISCOVERED ~1.2km FROM RESOURCE ALONG TREND

Fieldwork commenced at Maverick Springs

Highlights:

- Field work has commenced at Maverick Springs.
- Initial rock chip sampling targeting the high-priority northern section of the property has returned positive arsenic (As) readings of up to 201ppm, within silicified and oxidised outcrops at surface.
- Arsenic is the key pathfinder element utilised in the exploration of Silver and Gold in the Carlin trend.
- All rock chips which have returned elevated readings sit outside the current pit constrained resource shell with the furthest sample lying ~ 1.2km from projected pit constrained Resource shell boundary.
- Fieldwork and rock chip sampling will continue across the property with results being sent for laboratory analysis.
- Geophysical gravity survey works have been awarded to Zonge International who are expected to mobilise to site in the coming weeks.
- All drill tenders have been received and are under assessment for maiden drill programme.

Sun Silver Limited (ASX Code: "SS1") ("Sun Silver" or "the Company") is pleased to advise that initial field work programmes at the Company's flagship Maverick Springs Silver-Gold Project in Nevada ("Maverick Springs Project" or "the Project") are underway, with initial results supporting the potential to expand the existing Mineral Resource inventory.

Maverick Springs hosts an Inferred Mineral Resource of 292 million ounces of contained silver equivalent at an average grade of 72.4g/t AgEq¹, making it one of the most significant silver resources on the ASX.

Sun Silver geologists have mobilised to site and are currently in the process of traversing the northern section of the property which has been identified as a high priority area for exploration. As part of the initial reconnaissance a number of highly prospective rock chips were taken and assessed via pXRF analysis.

These have returned elevated As readings of up to 201ppm. Arsenic is a key pathfinder element utilised in the exploration of silver and gold prospects. All results are from locations outside of the current pit constrained Resource shell with the furthest sample being collected ~1.2km from the resource shell boundary.

¹ Refer to the Company's Replacement Prospectus dated 17 April 2024.



Three pXRF readings are taken from each rock chip sample with the average calculated to maximise representative sampling. The readings are not replacements for laboratory assays and local calibration between the two methods is ongoing. Continual analysis of data is being undertaken to determine the relationship between arsenic and silver mineralisation at the deposit. Further works will continue with current and future samples being sent for laboratory analysis.

Sun Silver is also pleased to advise it has awarded a contract for geophysical gravity survey work to Zonge International who are expected to mobilise to site in the coming weeks. The survey will consist of ~546 gravity stations being captured on a 100m x 100m grid across the current pit constrained Resource shell and extensional prospects to define geological structures in the region, structural context of the deposit specifically targeting the identification of feeder zones and post mineralisation offsets.

Sun Silver has also completed the tender period for its maiden drill programme. All tenders have been received and are now under assessment such that mobilisation to site can be accelerated.

Sun Silver Executive Director, Gerard O'Donovan, said:

"Our exploration team is making significant progress at Maverick Springs, with our first phase of field work leading to the discovery of an exciting new zone beyond the current Resource boundary. Confirmation of elevated pathfinder elements such as arsenic - which returned readings of up to 201ppm with anomalous values extending up to 1.2km away from the resource boundary, instil confidence in the expansion potential."

"We plan to continue these fieldwork programmes to refine drill targeting and conduct further sampling across the property.

"Additionally, we eagerly anticipate the mobilisation of Zonge International in the coming weeks to carry out gravity surveys across the property which will provide an important insight into the prospective geology."



Figure 1 - Sun Silver Exploration Manager assessing Rock Chips utilising pXRF technology



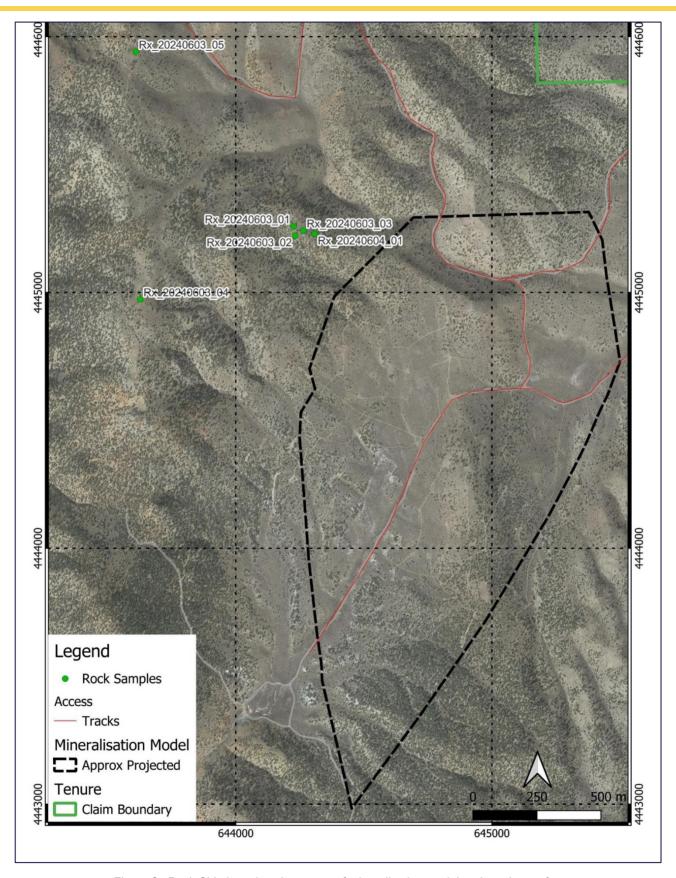


Figure 2 - Rock Chip Locations in context of mineralisation model projected to surface





Figure 3 - SS1 team in the field carrying out field works.

Maverick Springs Project - Background

Sun Silver's cornerstone asset, the Maverick Springs Project, is located 85km from the fully serviced mining town of Elko in Nevada and is surrounded by several world-class gold and silver mining operations including Barrick's Carlin Mine.

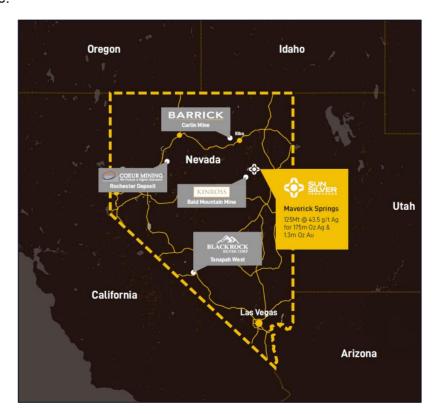


Figure 4 – Sun Sliver's Maverick Springs asset location and surrounding operators.



Nevada is a globally recognised mining jurisdiction which was rated as the number 1 mining jurisdiction in the world by the Fraser Institute in 2022.

The Project, which is located in the prolific Carlin Trend, hosts a JORC Inferred Mineral Resource of 125.4Mt grading 43.5g/t Ag and 0.34g/t Au for 175.7Moz of contained silver and 1.37Moz of contained gold (292Moz of contained silver equivalent).

A total of ~200 holes for ~60,000 metres of drilling has been completed at the Project to date, covering an area representing only ~20% of the property.

The deposit itself remains open along strike and at depth, with multiple mineralised intercepts located outside of the current Resource-constrained model².

This announcement is authorised for release by the Board of Sun Silver Limited.

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Forward-looking statements

This announcement may contain certain forward-looking statements, guidance, forecasts, estimates or projections in relation to future matters (Forward Statements) that involve risks and uncertainties, and which are provided as a general guide only. Forward Statements can generally be identified by the use of forward-looking words such as "anticipate", "estimate", "will", "should", "could", "may", "expects", "plans", "forecast", "target" or similar expressions and include, but are not limited to, indications of, or guidance or outlook on, future earnings or financial position or performance of the Company. The Company can give no assurance that these expectations will prove to be correct. You are cautioned not to place undue reliance on any forward-looking statements. None of the Company, its directors, employees, agents or advisers represent or warrant that such Forward Statements will be achieved or prove to be correct or gives any warranty, express or implied, as to the accuracy, completeness, likelihood of achievement or reasonableness of any Forward Statement contained in this announcement. Actual results may differ materially from those anticipated in these forward-looking statements due to many important factors, risks and uncertainties. The Company does not undertake any obligation to release publicly any revisions to any "forward-looking statement" to reflect events or circumstances after the date of this announcement, except as may be required under applicable laws.

Competent Person Statement

The Exploration Results reported in this announcement are based on, and fairly represent, information and supporting documentation reviewed, and approved by Mr Brodie Box, MAIG. Mr Box is a geologist and has adequate professional experience with the exploration and geology of the style of mineralisation and types of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Box consents to the form and context in which the Exploration Results are presented in this announcement.

Competent Person Statement - Previous Results

The information in this announcement that relates to exploration results or estimates of mineral resources at the Maverick Springs Project is extracted from the Company's Replacement Prospectus dated 17 April 2024 (**Prospectus**). The Company confirms that it is not aware of any new information or data that materially affects the information contained in the Prospectus and, in the case of estimates of mineral resources, that all material assumptions and technical parameters underpinning the estimates in the Prospectus continue to apply and have not materially changed.

² Refer to the Company's Replacement Prospectus dated 17 April 2024.



ASX: \$\\$1X: SS1

Appendix 1 Sample Locations

Sample ID	Sample	Eastin	Northin	Lithology	As_pp	Sb_p	Fe_	S_pp	Ва_рр	Mn_pp	Ca_	Mg_	Si_	K	Assays
	Type	g	g	Littlology	m	m	%	m	m	m	%	%	%	_%	Assays
Rx_20240603_0	Rock Chip outcrop	644422 5	4445259	Silicified Carbonat e	20		0.29	1179.0 0	1275	43	0.32	0.98	68.7 1	0.40	Approx. 8-12 weeks
Rx_20240603_0 2	Rock Chip outcrop	644232	4445222	Silicified Carbonat e	25		0.43		6930	418	0.43	0.49	45.6 7	0.34	Approx. 8-12 weeks
	Rock-chip float	644264	4445242	Silicified Carbonat e	13		0.09		1184	18	10.91	0.57	40.7 6	0.16	Approx. 8-12 weeks
Rx_20240603_0 3	Rock-chip float	644264	4445242	Silicified Carbonat e	201	61	0.83			36	1.14	0.65	44.0 7	0.39	Approx. 8-12 weeks
	Rock-chip outcrop	644264	4445242	Silicified Carbonat e	13		0.55			163	0.71	0.66	33.7 7	0.46	Approx. 8-12 weeks
Rx_20240603_0	Rock-chip outcrop	642627	4444973	Silicified Carbonat e	0		0.06			16	0.22	0.34	71.5 6	0.16	Approx. 8-12 weeks
4	Rock-chip outcrop	642627	4444973	Silicified Carbonat e	14		0.16			74	0.43	0.31	66.7 3	0.24	Approx. 8-12 weeks
Rx_20240603_0 5	Rock-chip outcrop	643609	4445941	Silicified Carbonat e	17		0.18			120	2.13	0.79	77.1 6	0.27	Approx. 8-12 weeks
	Rock-chip outcrop	643609	4445941	Silicified Carbonat e	29		0.39			288	1.11	0.40	59.5 9	0.22	Approx. 8-12 weeks
Rx_20240604_0	Rock Chip float	644308	4445229	Silicified Carbonat e	103	93	1.03		6168	310	0.42	0.78	43.8 6	0.51	Approx. 8-12 weeks

^{*}All XRF results are an average of 3 readings from the same sample. Blank spaces equate to no analysis from the XRF.

Grid: NAD 83 UTM



JORC Code, 2012 - Table 1

Section 1 Sampling Techniques and Data – Maverick Springs Silver Gold Project

(Criteria in this section apply to all succeeding sections.)

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 down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (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. 	 Investigative style rock chip sampling taken opportunistically from outcrop is currently being undertaken. Samples have not been finalised and are awaiting dispatch with no results at this point. Outcrop represents samples chipped off from in-situ material, whereas float represents material found loose on the surface. A handheld pXRF detector has been used for selective spot analysis of minerals in rock chips. The arsenic values indicate potential for silver gold mineralisation but do not accurately represent quantitative analysis. The pXRF (SciAps X-505) analyser is new and was calibrated daily. Mining mode analysis involved 2 beam readings of 30 seconds each for each reading.
Drilling techniques	 Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	In connection to this announcement no drilling has been conducted yet and no drill assays are being reported.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	In connection to this announcement no drilling has been conducted yet and no drill assays are being reported.

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Criteria	JORC Code explanation	Commentary
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	In connection to this announcement no drilling has been conducted yet and logging completed.
Subsampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all subsampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Sample collection is ongoing and has not yet been finalised at time of writing with locations reported to demonstrate the latest observations in the field Samples highlighted in the report are used as representative examples of new observations and discoveries.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established. 	 Rock chips are proposed to be dispatched to the selected laboratory in Reno for analysis. A SciAps X-505 pXRF device has been used for spot sample readings of minerals of interest. The device is calibrated each day, and standards analysed every 10 readings and between high-grade readings for consistency checks. Readings times are approximately 3 to 5 seconds and are standard for the device. The device is calibrated to a standard profile supplied by SciAps prior to use. Handheld p-XRF is expected to differ from laboratory assay results and can read above theoretical maximum values. They should not be used to replace assays or indicate whole rock grade.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 All data generated from the mapping of the mineralised rock chips has been uploaded into the company's data storage and been checked by two personnel. pXRF readings have been downloaded directly from the device. pXRF results do not represent assay data however results reported are an average of three readings taken from each sample to increase representative sampling.

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Criteria	JORC Code explanation	Commentary
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 All field data being taken at this stage will utilise a handheld GPS, which is a standard tool for reconnaissance style sampling with accuracy to within 5m. Grid NAD 83 UTM Zone 11.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	 Not Applicable for investigative nature of sampling. At this stage no effort was made to illustrate geological or grade continuity between sample points.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	Not Applicable at this stage of reporting with sampling ongoing.
Sample security	The measures taken to ensure sample security.	 All samples collected are being held on site at the company's and sample storage facility in Elko, Nevada. All samples are stored within number coded sealed bags and labelled by the company's field personnel. Once finalised samples will be transported to the appropriated laboratory within Nevada for testing.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or review have been undertaken.

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Section 2 Reporting of Exploration Results – Maverick Springs Silver Gold Project

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

Criteria	JORC Code explanation	Commentary						
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 The Maverick Springs property is in northeast Nevada, USA, ~85 km SE of the town of Elko, Nevada. The property currently consists of 247 Maverick, Willow and NMS unpatented lode mining claims registered with the US Department of the Interior Bureau of Land Management ("BLM") with a total area of approximately 4800 acres. The tenements are held in the name of Artemis Exploration Company ("AEC"). Sun Silver has exercised a binding option agreement with Element79 to acquire a 100% interest in the Maverick Springs Project properties. Gold and Silver Net Smelter Royalties (NSR) to tenement owner AEC of 5.9% which include ongoing advance royalty payments, and to Maverix Metals of 1.5 is reported by SGS, 2022 and assumed to still be relevant. Additional NSR of 2.9% exists for all other metals. All claims are in good standing and have been legally validated by a US based lawyer specialising in the field 						
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 Gold exploration at the Project area has been carried out by three previous explorers – Angst, Inc from 1986-1992, Harrison Western Mining L.L.(Harrison) C in 1996, Newmont in 2001, Vista Gold Corp (Vista) and Silver Standard in 2002-2016. Angst undertook first stage exploration with geochemical surveys, mapping, and drilling 128 drill holes for 39,625m outlining initial mineralisation at the project. Harrison drilled 2 exploration holes in 1998 for 247m. Vista advanced the project significantly drilling 54, mostly deep, RC holes over several years until 2006 which equated to ~15,267m. Silver Standard completed 5 deep diamond drill holes for 1,625m in 2008. Reviews of the historic exploration show it was carried out to industry standards to produce data sufficient for mineral resource calculations. 						
Geology	Deposit type, geological setting and style of mineralisation.	Previous Technical Reports have identified the Maverick Springs mineralisation as a Carlin-type or sediment/carbonate hosted disseminated silver-gold deposit. However, the 2022 review by						



Criteria	JORC Code explanation	Commentary
		SGS is of the opinion that the deposit has more affinity with a low-sulphidation, epithermal Au-Ag deposit. The definition may be in conjecture, but the geological setting remains the same. The mineralisation is hosted in Permian sediments (limestones, dolomites). The sediments have been intruded locally by Cretaceous acidic to intermediate igneous rocks and overlain by Tertiary volcanics, tuffs and sediments and underlain by Paleozoic sediments. • Mineralisation in the silty limestones and calcareous clastic sediments is characterised by pervasive decalcification, weak to intense silicification and weak alunitic argillisation alteration, dominated by micron-sized silver and gold with related pyrite, stibnite and arsenic sulphides associated with intense fracturing and brecciation. • The mineralisation has formed a large sub-horizontal gently folded (antiformal) shaped zone with a shallow plunge to the south with the limbs of the arch dipping shallowly to moderately at 10-30° to the east and west.
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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case 	No drilling activities have been undertaken as part of these activities.
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. The assumptions used for any reporting of metal equivalent values should be clearly stated 	No drilling activities have been undertaken as part of these activities.



Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known'). 	No drilling activities have been undertaken as part of these activities.
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.	Appropriate maps and figures have been included in this announcement.
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	All relevant and material exploration data for the target areas discussed, have been reported or referenced.
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	All relevant and material exploration data for the target areas discussed, have been reported or referenced.
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). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	Further work will include but not limited to systematic geological mapping, channel and rock chip sampling, soil sampling, pXRF and/or LIBS measurements, geophysics, structural interpretation and drilling to identify suitable host rock geology and structural architecture for silver/gold mineralisation