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## ASX Release

21 March 2023

### Shallow, High Grade Titov Cu-Mo Exploration Target Ravenswood West (100%)

#### Highlights

 The first drilling at Titov in 50 years has resulted in a robust JORC 2012 Exploration Target ("Exploration Target") of 5 - 8Mt @ 0.07% - 0.12% molybdenum (Mo) and 0.28% - 0.44% copper (Cu). Features of the Exploration Target include:

- a porphyry Cu-Mo system with known mineralisation extending for  $\sim$ 500m of strike to  $\sim$ 350m depth and with a local thickness up to  $\sim$ 80m;

- based on 27 RC holes (2021-2022) and one diamond hole (2021) to complement and validate 20 holes drilled pre-1970;

- focussed on open pit mineralisation and excludes mineralisation at >100m depth leaving substantial growth potential; and

- excludes nearby mineralised Cu-Mo prospects (Smiths, Gagarin, Keans, Bank) with similar geological characteristics.

- Preliminary metallurgical testwork returned peak recoveries of <u>91.9% Mo</u> and concentrate grading up to <u>58.3% Mo</u>.
- Both Cu and Mo are critical for global decarbonisation and supply chain security. Mo is a London Metal Exchange Electric Vehicle metal and currently priced at ~US\$70,000t ie >8x Cu at ~US\$8,500t.
- Mo is hosted in a distinct quartz lode and ore sorting trials and Mining Lease applications are planned.

# Sunshine Gold Limited (ASX:SHN, "Sunshine") has confirmed an Exploration Target and highlighted next steps at Titov Cu-Mo Prospect, Ravenswood West Project.

Sunshine Managing Director, Dr Damien Keys, commented "Titov is a significant Cu-Mo deposit. Our new geological model of the system has led to the confirmation of Titov as a robust Exploration Target. With the Mo price at greater than 8 times that of Cu and strong EV demand from Tier 1 jurisdictions, we will be advancing the shallow, high-grade Titov deposit during 2023. Bulk ore sorting trials will be undertaken to further upgrade the coarse molybdenite, associated with abundant quartz veining and hence to minimise capital. A Mining Lease application will also be made."



Figure 1: Quartz vein with abundant molybdenite, chalcopyrite and pyrite from 21TVDD001 (338.1m).



#### **Cautionary Statement**

The Exploration Target has been prepared and reported in accordance with the 2012 JORC Code. The potential quality and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a JORC 2012 Mineral Resource ("Resource") for the Exploration Target. It is uncertain if further exploration will result in the estimation of a Resource.

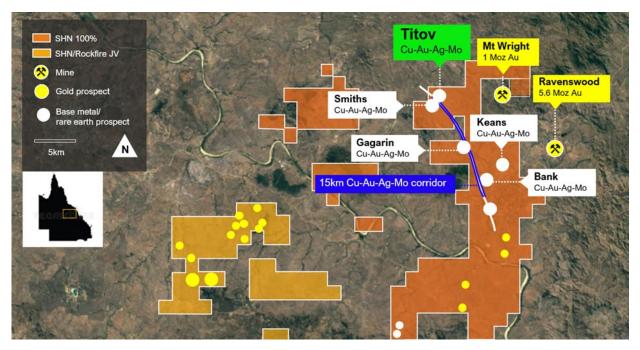


Figure 2: Ravenswood West Project showing the highly prospective, 15km long porphyry Cu-Mo corridor.

#### Titov Cu-Mo Porphyry Exploration Target (EPM 26152: SHN 100%)

Titov is a Cu-Mo prospect located within the Charters Towers Province, ~17km northwest of the operating Ravenswood Gold Mine. Titov is hosted within Silurian granodiorites of the Ravenswood Batholith. The majority of mineralisation is hosted within a structural zone comprising of massive quartz veins with coarse molybdenite and chalcopyrite within a sericite-chlorite altered granodiorite. On the peripheries of the vein zone the granodiorite is locally "red rock" altered consisting of albite with a fine haematite overprint. This red rock zone can be mineralised, particularly within the hangingwall, and typically consists of disseminated chalcopyrite and molybdenite.

Titov outcrops at surface and forms a small topographic rise which is devoid of trees, owing to the elevated Cu content in soil. The vein zone extends for >500m of strike and is mineralised to a depth of ~350m with a thickness locally up to of 80m.

Small scale, historic mining occurred at Titov, likely pre-1940s, with the first exploration undertaken in the late 1950s with 3 holes drilled for Mo and subsequently re-assayed for Cu in the 1960s, reporting a best intersection of 25.9m @ 0.37 % Cu and 0.02% Mo (*Company Report*)



#1838). Soil geochemical and induced polarisation (IP) surveys were completed over Titov in 1968 and lead to a further 9 diamond holes being drilled, again only assaying for Cu and Mo (significant intercepts, Table 1). There was no further work on Titov until 1993 when a high-resolution IP survey was completed. Despite delineating a large chargeability anomaly coincident with outcropping mineralisation, only 3 shallow holes were drilled at Titov South in 1995.

Sunshine has recently undertaken prospect-scale IP surveys and has drilled 27 RC holes and 1 diamond hole. Drilling successfully intercepted broad zones of Cu-Mo mineralisation, confirming the historical intercepts and extending the mineralised zone along strike and at depth. Sunshine has subsequently developed the first geological model of Titov which forms the basis of the Exploration Target. The Exploration Target is based on a number of key assumptions including:

- **Tonnage of 5 8Mt** which reflects the geologically modelled dimensions of the Morich, sericite-altered, quartz vein domain. The modelling is based on geological mapping and logging of Sunshine's drill holes from surface to 100m vertical depth (open pit focus).
- **Mo Grade of 0.07 0.12%** estimated using +/- 25% around the mean Mo grade within the Mo-rich, sericite-altered, quartz vein domain based on Sunshine's drill holes.
- **Cu Grade of 0.27 0.44%** estimated using +/- 25% around the mean Cu grade within the Mo-rich, sericite-altered, quartz vein domain based on Sunshine's drill holes.

Mineralisation characterisation and preliminary metallurgical testwork was completed in April 2022. The testwork demonstrated excellent Mo recoveries via simple flotation, with pre-float tests reporting up to 85% recoveries and further flotation upgrading to 91.9%. Mineralisation characterisation showed that molybdenite ( $MoS_2$ ) is the host mineral of the Mo and is liberated well in all size fractions (+212µm, +106µm, +38 µm and +9µm). The dominant Cu mineral is chalcopyrite (CuFeS<sub>2</sub>), and further studies will review Cu recoveries in a Mo-optimised circuit.



*Figure 3:* Sieve of quartz and molybdenite from RC drilling at Titov (21TVRC004, 74-75m).



Hole ID	From	То	Width	Mo (%)	Cu (%)	Ag (g/t)
21TVRC004	26	92	66	0.42	0.38	2.22
Incl.	70	76	6	3.02	0.42	3.94
21TVRC001	1	122	121	0.11	0.35	1.99
21TVRC008	0	112	112	0.08	0.44	2.48
Incl.	50	67	17	0.21	0.58	3.34
21TVRC007	0	158	158	0.07	0.37	2.25
Incl.	38	56	18	0.12	0.50	2.89
And.	128	145	17	0.15	0.65	4.00
DDH5 (1969)	0	112	112	0.09	0.35	-
Incl.*	40	46	6	0.18	0.67	2.80
And*	94	96	2	1.12	1.52	6.30
And*	97	101	4	0.18	1.55	8.28
And*	110	112	2	0.37	0.83	3.70

 Table 1. Best intersections at the Titov Cu-Mo prospect. \* indicates quarter core resampling

 completed by Sunshine in 2022.

#### Snapshot – Titov Cu-Mo-Ag-Au Porphyry

High-grade Mo, small footprint

• Largely sourced from low-grade porphyry Cu deposits, Mo grades of over 0.05% (or 500ppm) are typically considered high-grade. Titov represents a discrete, high-grade style of porphyry-related Mo deposit.

#### High Value, New Economy Minerals

• Titov shows a typical porphyry system metal assemblage comprising of Mo, Cu and Ag, all of which are considered "new economy minerals" in Queensland. Mo is also a London Metal Exchange Electric Vehicle metal.

#### **Depth Potential**

• The Titov mineralisation has been intercepted 350m down dip and remains open at depth.

#### Mineralisation from surface

- The Exploration Target focusses solely on mineralisation within the top 100m from surface that could be amenable to low-cost, open pit mining.
- An ore sorting trial will assess whether the Mo can be effectively separated (and upgraded) from the host quartz veining before any further processing occurs.

#### Positive Metallurgy

- Initial metallurgical testwork has performed well for Mo with recoveries up to 91.9%.
- Concentrate grades of up to 58.3% Mo were also achieved during these preliminary tests.
- Future metallurgical testwork will focus on Mo optimisation and upgraded Cu recoveries.

Regional Scale Potential

• Titov is just one of at five identified Cu-Mo prospects (Smiths, Gagarin, Keans, Bank) within a 15km corridor.



#### Next Steps at Titov Cu-Mo Porphyry

Ore sorting trials are planned to separate Mo from the distinct sericite-altered, quartz vein network.



Figure 4: Quartz veining and sericite alteration (light colour) in 21TVRC001 RC chips.



Figure 5: Outcropping quartz veining at Titov.

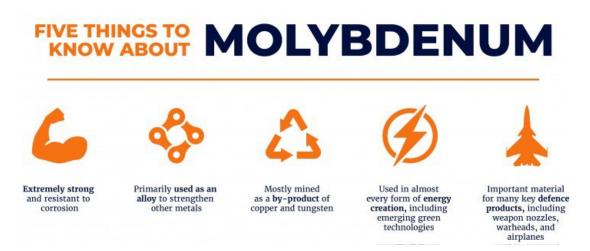


#### About Mo

Both Cu and Mo are critical for global decarbonisation and supply chain security. Mo is a London Metal Exchange Electric Vehicle metal and is currently priced at ~US\$70,000t ie >8x Cu at ~US\$8,500t.

Mo is a silvery metal with the sixth-highest melting point of any element, can withstand extremely high temperatures without softening and has powerful anti-corrosive properties — meaning it can be used to make important alloys. In steel, for example, Mo can increase strength, hardness, resistance to corrosion, and electrical conductivity. The strength of the metal also makes it crucial in military equipment and defence products.

Mo is typically mined as by-product material from large Cu porphyries, typically at grades of  $\sim$ 0.005% - 0.25%. Newcrest Mining Ltd. has recently installed a Mo circuit to treat 0.0083% Mo as a by-product from the Cadia East underground mine.



*Figure 6:* Quartz Mo Infographic (source: The Market Herald, <u>Holy moly: Molybdenum demand on</u> <u>the rise – The Market Herald</u>)

#### Planned activities.

- Mar 2023: Update fieldwork, Ravenswood West
- Mar 2023: Extensional drilling commences, Triumph Au
- June 2023 quarter: Assay results from extensional drilling, Triumph Au
- June 2023 quarter: RC drilling various prospects, Ravenswood West

#### Attending:

• 22-23 March 2023: Brisbane Mining Conference, Brisbane



#### Sunshine's Board has authorised the release of this announcement to the market.

For more information, please contact:

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#### **Competent Person's Statement**

The information in this report that relates to Exploration Results is based on, and fairly represents, information compiled by Mr Matt Price, a Competent Person who is a Member of the Australian Institute of Geoscientists (AIG) and the Australian Institute of Mining and Metallurgy (AusIMM). Mr Price has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Price consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



#### **About Sunshine Gold**

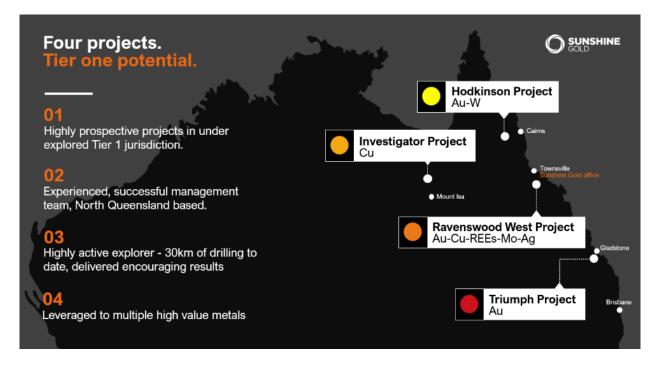
**Four projects. Tier one potential.** Sunshine Gold is developing four projects with tier one potential in north Queensland over 1,000km<sup>2</sup> in proven districts with high prospectivity for gold, copper, molybdenum, and rare earths elements:

*Triumph Project* (Au) – More than 85% of Triumph's Inferred Resource of 118,000 ounces @ 2.03g/t Au<sup>1</sup> is less than 100m deep and largely located within 1.25km of strike within a 6km long trend called the Southern Corridor. Recent drilling has confirmed the project's intrusion-related gold system is characteristic of larger mines and deposits in the area including the Mt Morgan Mine and Evolution Mining's Mt Rawdon Mine.

*Ravenswood West Project* (Au-Cu-REEs-Mo-Ag) – Adjacent to Queensland's largest gold mine, Ravenswood, jointly owned by EMR Capital and SGL listed Gold Energy and Resources. The Ravenswood Mine hosts a 9.8Moz resource within a district that has produced over 20Moz of gold historically.

*Investigator Project* (Cu) - The project is located 100km north of the Mt Isa, home to rich copper-lead-zinc mines that have been worked for almost a century. Investigator is hosted in the same stratigraphy and a similar fault architecture as the Capricorn Copper Mine which is located 12km to the north.

*Hodgkinson Project* (Au-W) - The project is situated between the Palmer River alluvial gold field (1.35 Moz Au) and the historic Hodgkinson gold field (0.3 Moz Au) and incorporates the Elephant Creek Gold, Peninsula Gold-Copper and Campbell Creek Gold prospects.



<sup>&</sup>lt;sup>1</sup> SHN ASX Release, 31st March 2022, "Robust Maiden Resource at Triumph Gold Project". No new information has been collected and all material assumptions remain unchanged.



#### Section 1 - Sampling Techniques and Data

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

Criteria	Explanation	Commentary
Sampling techniques		DRILLING SHN – Reverse circulation (RC) drilling was used to obtain samples for geological logging and assaying in 27 holes. All RC holes were assayed in their entirety as individual 1m samples. Individual samples were collected from the cyclone using an 87.5/12.5 rig-mounted splitter. Once received by the laboratory, sample preparation consisted of the drying of the sample, the entire sample being crushed to 70% passing 6mm and pulverised to 85% passing 75 microns in a ring and puck pulveriser. One diamond core hole (21TVDD001) was drilled using PQ and HQ sized core. It was sampled in its entirety. Cutting and sampling was outsourced to ALS Global (ALS) due to SHN not possessing its own sampling facility at the time. Sample length averaged 1 m but was adjusted by the Geologist due to notable geological contacts, structures or due to core loss. ALS were provided with a simplified version of the cut sheet, which showed all sample intervals and location and type (STD, Dup, Blank) of QAQC samples (but not the specific STD information pertaining to its identification). Calico bags stamped with the corresponding sample IDs were provided to ALS. Historical drill hole DDH5 was cut and sampled by Technicians at the Exploration Data Centre at Zillmere, QLD. A sampling sheet was provided by the SHN Geologist. All samples were assayed for gold by 50g fire assay with AAS finish and multielement analysis was completed using an 4AD ICP-MS (Drill holes prefixed 21TV*) or ICP-AES analysis (drill holes 22TV*).
		METALLURGICAL WORK
		- Samples were sourced from speared "green bag" samples following RC drilling.
		- 21TVRC001 samples were sourced from 30 x 1m intervals between 30m and 60m depth.
		- 21TVRC004 samples were sourced from 25 x 1m intervals between 55m and 80m depth.
		- The samples were blended into a single composite sample for metallurgical studies.
		- Samples were screened at 1.18mm and screen oversize stage rolls crushed to 100% passing 1.18mm. The combined crushed ore was rotary split to lots for cold storage.
		- Samples of fine ore (100% passing 1.18mm) were assessed by batch grinding to establish a curve for discharge p80 versus grind time for the grind conditions required for further testing.
		- Copper molybdenite rougher and cleaner flotation tests were performed under the following conditions:
		- Ore was dry jaw and rolls crushed to 100% passing 1.18mm.
		- Grind at 66% solids in an open mild steel ball mill and charge to P80 of 75µm.
		- Prefloat and rougher float were performed in a 2.7L Agitair style laboratory cell.
		- Dilute reagents were added and conditioned for two minutes prior to flotation.



Criteria	Explanation	Commentary
	Drill time (a group reverse size dation open halo berring	<ul> <li>Air rate and time were recorded for each concentrate.</li> <li>Rougher concentrates was then stirred milled to some 20um.</li> <li>0.5L cleaner floats were then performed to produce concentrates and tails.</li> <li>Products were wet weighed, filtered and dried for weight and analysis.</li> </ul>
Drilling techniques	Drill type (e.g. 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.).	<b>DRILLING</b> SHN – All RC holes were collared using an 8" bit open hole to 10m, and then collared using 150mm PVC and drilled utilising a 5.5" face sampling RC hammer. SHN drill hole 21TVDD001 collared in PQ sized core (85mm) to a depth of 14.6m. The hole was then cased off and drilled to completion as standard tube HQ sized core (63.5mm). SHN drill core was oriented using an industry-standard Reflex orientation tool. Historical drill hole DDH5 was drilled as NQ sized core (47.6mm) in its entirety. It is not believed the core was oriented.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<b>DRILLING</b> SHN – For RC sample recoveries interpreted to be of less than approximately 80% are noted in the geological/sampling log. No such samples were recorded during this drill program. Wet samples are also recorded in the geological/sampling log. Any significant wet zones (>6m) were to be flagged; however, no such zones were identified in the drilling. No relationship has been observed between sample recovery and grade.
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<b>DRILLING</b> SHN – All drill holes are geologically logged in full. Geology logs include lithology, alteration, mineralisation, veining and weathering types, styles and intensities. All RC chip trays and diamond core trays are photographed.
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> </ul>	<ul> <li>DRILLING</li> <li>SHN – The 1m primary RC samples were obtained using a cyclone mounted 87.5:12.5 riffle splitter. Compressed air was used to clean the splitter after each drill rod. Duplicate samples were taken routinely using a second split off the main cyclone for the selected interval. Samples are recorded if dry or wet when collected from the cyclone. QAQC samples (Standards, Duplicates, Blanks) were submitted at a frequency of at least 1 in 10. Sample sizes and preparation techniques are considered appropriate. The sample sizes are considered appropriate for the nature of mineralisation within the project area.</li> <li>For diamond core, a sample cut sheet was created by the for each drillhole prior to dispatch to ALS. The cut sheet listed the Hole ID, a sample interval (From and To), a sample ID, insert points of QA/QC samples and any further comments, such as if core loss was present within the sample. SHN sampling protocols ensure that samples were to be a minimum of 0.5 m length to a maximum of 1.5 m, and that one QA/QC sample (Blank, Duplicate or Standard) is entered into the sample sequence every</li> </ul>



Criteria	Explanation	Commentary
	Whether sample sizes are appropriate to the grain size of the material being sampled.	10th sample. These QA/QC samples were placed into calico bags prior to dispatch. 21TVDD001 was sampled as half core; with duplicate samples sampled as an additional quarter core.
		Selective sampling by SHN of historical drill hole DDH5 followed the same sampling and sub-sampling procedures, with the sampling undertaken by the Technicians at the Exploration Data Centre, Brisbane. Sampling for these intervals was quarter core.
		Historical – Sampling and sub-sampling procedures of the original historical drill core is not well documented, although it is recorded to have been originally sampled as half core.
Quality of assay data and Laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	DRILLING SHN – All samples were assayed for gold by 50g fire assay with AAS finish and multielement analysis was completed using an 4AD ICP-MS (Drill holes prefixed 21TV*) or ICP-AES analysis (drill holes 22TV*). No geophysical tools, spectrometers or handheld XRF instruments have been used to determine assay results for any elements. Monitoring of results of blanks and standards is conducted regularly. QAQC data is further reviewed for bias prior to inclusion in any subsequent Mineral Resource estimate.
Verification of	The verification of significant intersections by either independent or alternative company personnel.	DRILLING
sampling and assaying	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	Significant intersections are routinely monitored through review of drill chip and by site visits and procedural review by the Exploration Manager. Data is verified and checked in Leapfrog software. No drill holes were twinned. Primary data is collected via hard copy documentation and subsequently entered into spreadsheet format. This is then validated and uploaded to a secure external database, which in turn has further validation checks. No adjustments have been applied to assay data and is loaded directly from the laboratory deliverable.
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.	<b>DRILLING</b> SHN – Drill hole collar locations are initially set out (and reported) using a hand-held GPS with a location error of +/- 3m. All completed holes are capped and marked and will be accurately surveyed via DGPS at a later date. The drill rig was aligned at the collar location by the site Geologist using a sighting compass. Down hole surveys were completed using a Reflex digital survey system routinely at intervals of 15m hole depth, 30m hole depth, and every 30m thereafter to end of hole. Measurements were taken as a pull back from the RC hammer at the midpoint of a non-magnetic stainless-steel rod. All drilling is conducted on MGA94 Zone 55 grid system. A topographic survey of the project area has partially been conducted using an in-house drone survey.
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	DRILLING Drillhole spacing is approximately 60 – 80m amongst SHN's RC drill holes with the SHN DD hole 21TVDD001 an approximate 180m step off the interpreted "down dip" of the Titov Main zone. Geological modelling has shown that the Titov Main zone seen



Criteria	Explanation	Commentary
	the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	in the RC drilling is likely the same zone seen from 303m in 21TVDD001. No sample compositing has been undertaken during the primary sampling process.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	DRILLING Drilling is designed to intersect interpreted veins as orthogonally (perpendicular) as possible. Structural measurements taken from diamond hole 21TVDD001 further validated the interpretation of the vein zone orientation. Future drilling is likely to include diamond core to further assess structural relationships. No orientation-based sampling bias has been recognised.
Sample security	The measures taken to ensure sample security.	DRILLING SHN – RC samples were collected daily in pre-numbered Calico sample bags by the on-site Field Technician and subsequently stored in sealed plastic bags. These were then transported to laboratory upon the completion of 2 – 5 drill holes via field staff. SHN DD Core trays were delivered from site to the SHN office via SHN personnel. Once all geotechnical work and mark-up was completed, were dispatched from the office via Followmont Transport to ALS Townsville for sample preparation and core photography. The gold fire assays were completed in Townsville and multi-element ICP was analysed at ALS Geochemistry, located in Stafford, Brisbane. The DDH5 core was prepared and assayed at ALS Brisbane, with golds analysed in Townsville.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Sunshine Gold: The sampling techniques are regularly reviewed during the program and further review will take place prior to future drilling.

#### Section 2 - Reporting of Exploration Results

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

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>are owned 100% by Ukalunda Pty Ltd or XXXX Gold Pty Ltd, both wholly owned subsidiaries of Sunshine Gold Limited.</li> <li>The tenements are in good standing and no known impediments exist.</li> </ul>



Criteria	Explanation	Commentary
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Numerous exploration companies have explored within the Ravenswood West Project area, namely North Broken Hill, New Consolidated Gold Fields, Noranda, Planet Metals, MAT, Nickel Mines Ltd, Minefields, Kennecott, Cormepar Minerals, Geopeko, Esso, Dampier Mining, IMC, CRA, Ravenswood Resources, Dalrymple Resource, BJ Hallt, Poseidon, Haoma Mining, Kitchener Mining, Placer, Goldfields, Carpentaria Gold, MIM, BHP, and Stavely Minerals.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	- The Ravenswood West Project area is located within open file 100k map sheet area 8257. The project is hosted within the Ravenswood Batholith of the Charters Towers Province, which consists primarily of Ordovician to Silurian granitoids and lesser sedimentary packages. The area is considered by SHN to be prospective for orogenic and intrusion-related gold deposits, as well as granitoid-related copper, molybdenum, silver and rare earth deposits. There also appears to be prospectivity for VMS deposits on the fringes of the tenement area. Any geological details pertinent to this release are located within the body of the text.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>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</li> </ul>	Information pertaining to the drilling program by SHN is provided in previous SHN ASX releases as listed below: 6 <sup>th</sup> December 2021 – Assays Confirm Large Cu-Ag-Mo System at Titov Updated 10 <sup>th</sup> January 2022 – Update on Diamond Drill Hole at Titov, Ravenswood West 11 <sup>th</sup> April 2022 – Diamond Holes & IP Survey Confirm Mineralised Zones at Titov 2 <sup>nd</sup> May 2022 – Excellent Recoveries from Metallurgical Test Work at Titov 11 <sup>th</sup> August 2022 – Broad Copper Zones Continue at Titov & The Bank Revised
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated</li> </ul>	<ul> <li>Historical drilling results are reported as previously reported in open file data.</li> <li>SHN samples are typically metre intervals only with only weighting calculations applied to irregular intervals located within 21TVDD001.</li> <li>Drillhole 21TVDD001 interval 303 – 379m uses no cut-off grade, due to it comprising two broad intervals using a 0.1% Cu cut-off with a 4m consecutive internal dilution.</li> <li>Cut-off grades for all other significant intercepts are reported at 0.1% Cu, where intervals can include a maximum of 3m consecutive dilution providing grade is carried.</li> <li>Higher grade intervals within the broader 0.1% Cu cut-off intervals use a 0.5% Cu cut-off.</li> <li>No metal equivalents are used in the reporting of intersections.</li> </ul>



Criteria	Explanation	Commentary
Relationship between mineralisation widths and intercept length Diagrams	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>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').</li> <li>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</li> </ul>	<ul> <li>The geometry of the mineralisation is subject to ongoing interpretation and as such intervals are reported in downhole length only. Initial review of oriented structures indicate the drill hole was successful in intercepting the Titov Main zone at an optimal angle.</li> <li>Intervals reported are downhole length only as true width has not been calculated.</li> <li>Refer JORC Table 1, Section 1.</li> </ul> All relevant diagrams are reported in the body of this report
Balanced reporting	sectional views. 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 results are provided within this report
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.	<ul> <li>No new drilling results are reported within this release. However, further details of previous drilling programs are outlined in the ASX announcements below (ASX:SHN):</li> <li>6<sup>th</sup> December 2021 – Assays Confirm Large Cu-Ag-Mo System at Titov Updated</li> <li>10<sup>th</sup> January 2022 – Update on Diamond Drill Hole at Titov, Ravenswood West</li> <li>11<sup>th</sup> April 2022 – Diamond Holes &amp; IP Survey Confirm Mineralised Zones at Titov</li> <li>2<sup>nd</sup> May 2022 – Excellent Recoveries from Metallurgical Test Work at Titov</li> <li>11<sup>th</sup> August 2022 – Broad Copper Zones Continue at Titov &amp; The Bank Revised</li> </ul>
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.	Future work is addressed in the body of this report.