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ASX Release

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Drilling starts at Wilbur's Hill Prospect, Ravenswood West. Large-scale, Mt Wright-style, breccia gold target to be tested.

Highlights

- Three diamond drill holes to test the Mt Wright (1 Moz Au) and Mt Leyshon (3.5 Moz Au) breccia pipe gold analogue at Wilbur's Hill Prospect.
- Wilbur's Hill target has been defined from strong geophysical anomaly underlying a soil geochemical anomaly.
- The diamond drilling program is the first drill test of Wilbur's Hill.

Sunshine Gold Limited (ASX:SHN) has started diamond drilling at its wholly owned Ravenswood West Project near Townsville to test a breccia pipe gold target analogous to nearby major gold mines.

Defined from encouraging mapping, sampling and geophysical campaigns, the target at the Wilbur's Hill Prospect is located 10km west of the 1-million-ounce Mt Wright Gold Mine, part of Queensland's largest gold mine at Ravenswood. The prospect is located on the Boori Lineament, a highly prospective gold corridor which extends from Mt Wright to the Mt Leyshon Gold Mine (3.5 Moz Au).

Sunshine Gold Managing Director, Dr Damien Keys, said he was excited by Wilbur's Hill strong prospectivity which was the culmination of 12 months of systematic exploration.

"It is rare that you get to be the first to drill test such a compelling target," Dr Keys said.

"We have worked Wilbur's Hill up from a concept based on broad spaced soil data, to a multilayered target with the right host rocks, right soil chemistry and a strong geophysical anomaly below. The target is located at 100-150m depth which is likely why it has been untested.



"Drilling will take about five weeks and we look forward to providing updates from the program throughout November and December 2022," he said.

Deep sensing geophysical survey defines drill ready target.

The Titan Induced Polarisation – Magnetotelluric (IP-MT) survey has defined a pipe-like target that is $300m \times 250m$ in dimension and defined to depths of > 800m (from MT).

Strong chargeability responses from IP are typically indicative of high sulphide contents. Ore at the Mt Wright and Mt Leyshon gold mines contained abundant sulphides (pyrite ± marcasite) which displayed a moderate-strong IP response.

MT data gives resolution to greater depths and has identified a low resistive anomaly extending further beneath the IP chargeable anomaly. The alignment of anomalism across the two independent geophysical datasets provides an excellent target.



Figure 1. Wilbur's Hill is located on the Boori Lineament (yellow) which extends from Mt Leyshon (3.5 Moz Au) to Mt Wright (1 Moz Au). Ravenswood West Project (red) showing Wilbur's Hill in close proximity to Queensland's largest gold mine, Ravenswood and the Mt Wright gold mine.





Figure 2. Geochemical and geophysical anomalism define a drill target ~600m long and 250m wide. Diamond drill collars and planned traces are displayed.

Breccia pipe gold systems have large-scale potential.

Wilbur's Hill sits on the Boori Lineament, a terrane-spanning trend that contains the 3.5 Moz Mt Leyshon Gold Mine (in the west) and the 1.0 Moz Mt Wright Gold Mine (in the east). Wilbur's Hill shares several geological affinities with both Mt Leyshon and Mt Wright.

- Host Rocks brecciated Permian-Carboniferous aged rhyolites intruded into older granites or granodiorites.
- **Surface Geochemistry** soil samples elevated in gold, bismuth, tellurium and copper seen proximal to deposits. Distal assemblages elevated in lead, zinc and antimony.
- *Mineral Assemblages* sulphide rich assemblages that display in geophysics as strong IP chargeable zones and deep resistivity lows.
- **Topography** all form prominent topographic highs

Bulk mining methods (sub-level caving) were used at Mt Wright which allowed the extraction of 0.9 – 1.5 million tonnes of ore per annum between 2008 and 2017. Gold production for the period ranged between 82koz Au and 153koz Au per annum.



Drilling is anticipated to take five weeks to complete.

Three diamond holes (~1,800m drilling) are planned in the initial drill program. Holes are designed to intersect the strongest zone of anomalism in the IP- MT survey.



Figure 3. Cross section showing an MT Resistivity anomaly beneath an IP chargeable anomaly (purple).

Planned activities

- Nov 2022: Aircore drill transect of Elphinstone Creek REE Prospect (Ravenswood West)
- Nov Dec 2022: Assay results for Wilbur's Hill and Elphinstone drill programs (Ravenswood West)
- 2 4 Nov 2022: Attending IMARC, Sydney
- 11 Nov 2022: Annual General Meeting
- Jan Feb 2023: Extensional drilling Triumph Au



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

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About Sunshine Gold

Four projects. Tier one potential. Sunshine Gold is developing four projects with tier one potential in north Queensland over 1,000km² 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 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.





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). 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.



Section 1 - Sampling Techniques and Data

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

Criteria	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. 	 GEOCHEMICAL SAMPLING Sunshine Gold Soil Samples: Samples were collected from between 5 – 15cm below existing surface and sieved to -80 mesh size. Approximately 100g of sample was transported by SHN to the laboratory for assay. GEOPHYSICS The geophysical survey utilised the Quantec Geoscience proprietary TITAN-24 DCIP-MT configuration. Transmitter stations were read at 100m intervals along each line. Receivers were spaced 100m with a 100m offset north and south of the transmitter line.
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.).	N/A
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.	N/A



Criteria	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. 	GEOCHEMICAL SAMPLING Sunshine Gold Soils: No geological information has been logged whilst directly taking the soil sample. All samples are ensured they are not collected on top of infrastructure (e.g. historical workings) or from alluvial sources (e.g. creeks).
Sub-sampling 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 sub-sampling 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. 	GEOCHEMICAL SAMPLING Sunshine Gold Soils: Approximately 100g of -80 mesh sample is collected. This is deemed representative of the B- Horizon soil as a point location. Laboratory in-house QAQC protocols are solely used.
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. 	 GEOCHEMICAL SAMPLING Sunshine Gold Soils: Soils were assayed using a 25g charge for Au followed by an aqua regia digestion and analysis using ICP-MS/OES, which is considered appropriate for this style of mineralisation and sample type (Au-TL43). All other elements were assayed using a four-acid digest and ICP-MS/OES finish. GEOPHYSICS The geophysical survey utilised the Quantec Geoscience proprietary TITAN-24 DCIP-MT configuration. Transmitter stations were read at 100m intervals along each line. Twelve transmitter lines were completed (spaced 200m). Receivers were spaced 100m, approximately 1.6km long and with a 100m offset north and south of the transmitter line. Transmitter wires were 6mm size and utilised a GDD TX4 transmitter with a Honda EU65i generator. For the IP, current was injected at one side of the survey and all dipoles simultaneously read the response. This occurred throughout the surveyed line as the current was moved along the transmission line. As the current moved all dipoles in front and behind the survey were read, which helped in eliminating biased responses seen in conventional methods. MT surveying was typically completed at night due to lower solar magnetic disturbance. QAQC of data was reviewed daily by the on-site geophysical crew, as well as by off-site geophysical consultants. Any QAQC failures in the raw data resulted in recollection of the data.



Criteria	Explanation	Commentary
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 	GEOCHEMICAL SAMPLING Historical data has been collected as per the open file reports, namely CR15685 for Wilbur's Hill, CR73252 for Titov North. Sunshine Gold Soils: Some soils from the program will be collected near historical data and will be compared in due course.
		GEOPHYSICS
		Geophysical data has been handled and reviewed by the survey company and third-party consultants.
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.	GEOCHEMICAL SAMPLING Historical soils for Wilbur's Hill by Stavely Minerals are located as points provided in GDA94, Zone 55 format. Historical rock chips were utilised from the GSQ open-file database. All historical data points should be considered as approximations only. Sunshine Gold Soils: Sample locations are located as points using handheld GPS in GDA94, Zone 55 format.
		GEOPHYSICS
		Survey was designed in GDA94, Zone 55 by a third-party consultant and undertaken by the survey company.
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.	GEOCHEMICAL SAMPLING Sunshine Gold Soils: A nominal 100m x 100m grid was used for the soil sampling area. GEOPHYSICS Transmitter stations were read at 100m intervals along each line which ran east-west. Twelve transmitter lines were completed (spaced 200m). Receivers were spaced 100m, approximately 1.6km long and with a 100m offset north and south of the transmitter line.
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 mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	GEOCHEMICAL SAMPLING Historical & Sunshine Gold Rock Chips – Samples are considered point samples only and no orientation is derived from the individual sample. GEOPHYSICS The survey was designed as twelve transmitter lines which ran east-west, perpendicular to the lithological trend of the area where the target intrusive is interpreted to strike roughly north-south.



Criteria	Explanation	Commentary
Sample security	The measures taken to ensure sample security.	GEOCHEMICAL SAMPLING Samples were pre-numbered prior to collection. Samples are sieved when collected and placed immediately into a paper geochemical bag marked with the sample ID. The paper bags are then placed in boxes or calicos with a numbered range. The samples are then transported by SHN to the laboratory. No third party was involved with the handling of the sample between collection and drop off.
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	 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 Ravenswood West Project consists of EPMs 26041, 26152, 26303, 26404, 27824 and 27825. All EPMs are owned 100% by Ukalunda Pty Ltd or XXXX Gold Pty Ltd, both wholly owned subsidiaries of Sunshine Gold Limited. EPMAs 28237 and 28240 are owned 100% by XXXX Gold Pty Ltd, a wholly owned subsidiary of Sunshine Gold Limited. The tenements are in good standing and no known impediments exist. Two current, third party Mining Leases exist on EPM 26041 – named ML 10243 (Delour) and ML 10315 (Podosky). One further current, third party Mining Lease exists partially on EPM 26152 – named ML 1529 (Waterloo). All of EPM 26303 and part of EPM 26041 are situated within the Burdekin Falls Dam catchment area
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 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.
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



Criteria	Explanation	Commentary
		intrusion-related gold deposits, as well as granitoid-related copper, molybdenum, silver and rare earth deposits. There also appears to be prospectivity for MVT deposits on the fringes of the tenement area.
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: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth 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	N/A
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 	N/A
Relationship between mineralisation widths and intercept length	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').	The geometry of the mineralisation is subject to ongoing interpretation and as such intervals are reported in downhole length only.
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.	All relevant diagrams are reported in the body of this report



Criteria	Explanation	Commentary
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	N/A
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.	Relevant data is reported in the body of the report
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 is addressed in the body of this report and dependent on results from the commenced geophysical programs.