

GEOCHEMICAL SURVEY FORTIFIES NEAR-MINE GOLD TARGETS AT COX'S FIND PROJECT, WESTERN AUSTRALIA.

ASX ANNOUNCEMENT 22 April 2020

BOARD OF DIRECTORS

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Great Southern Mining Limited (ASX: GSN) (the "Company" or "GSN") is pleased to provide an update on exploration activities at the Company's 100%-owned Cox's Find Gold Project in Laverton, Western Australia, following results from its recent RAB geochemistry program.

KEY POINTS

- Three major anomalous gold bearing geochemical signatures with dimensions of 1,100m by 250m extent, were discovered within key structural corridors.
- Results support previously identified structural targets and near-mine prospectivity.
- Anomalous gold concentrations up to 1,010 parts per billion (1g/t) recorded.
- Additional, unknown anomalies identified along parallel shear zones.
- Substantial correlation exists between gold, pathfinder elements and associated structural zones.
- The results generated will be used in the design of the near-mine target drilling program; which will focus on testing near-mine priority targets.

GSN's Executive Chairman John Terpu commented that

"Knowing the history of this Project, we are excited to be revealing more through our disciplined, staged exploration efforts. These results are not only encouraging but will be highly beneficial for future exploration at Cox's Find. The Project is advancing well considering GSN only commenced exploration in late 2019.

We are looking for more of these high-grade systems and potentially another high grade 22g/t Cox's Find deposit."

Background

The Cox's Find Gold Project (Cox's Find) is a shear hosted Archaean orogenic gold deposit located in the Duketon Greenstone Belt, located along strike from, and within 12kms of, Regis multi-million-ounce Garden Well. The mine was operated by Western Mining Corporation's (WMC) for a short period between 1937 and 1942 producing approximately 77,000 ounces of gold at a reported head grade of ~22 g/t from a narrow vein stope operation.

The objectives of the recently completed exploration program was to geochemically survey prospective terrain around the Cox's Find deposit and identify alteration footprints associated with Cox's Find-style orogenic gold mineralization through similar pathfinder geochemical signature.

Our objectives were achieved through a geochemical program comprising 1,150m of shallow Rotary Air Blast (RAB) drilling in 350 holes on a 100 by 50 metre grid, over most of the project area. Samples were taken at 3m depth to ensure it was deep soil profile, free of any potential surface contamination and sufficiently below the cover material and lateritic hardpan.

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Results

The results were successful in identifying a number of geochemically anomalous zones (labeled A to H in Figure 1 and Figure 2) exhibiting significant associations with gold and associated key pathfinder elements (As-Cu-Zn-Bi-Se); many of which correspond with prospective shear zones.

Trace elements directly related to alteration at Cox's Find (e.g., As, Cu, Zn, Bi, Se, W) show a metal enrichment in the saprolite above the orebody, interpreted to have resulted from dispersion from the underlying mineralization. A focus of the survey was on testing for a number of shear-related preliminary targets that may indicate 'blind' mineralization at depth (see ASX announcement dated 27 February 2020).

Anomaly A (refer Figure 1) is a 1,000-metre-long anomalous zone centered around the Cox's Find historical mine, extending along the major Cox's Find Shear, to the north and south. This corresponds with the N-S trending lithology in which the known mine ore body is currently hosted.

Anomaly B is another long zone coincident along and between two closely bounding major shear structures within host lithology. Anomaly C is positioned at confluence of two shears, as is E and F. Anomaly D is located south east of the mine, along another major shear which converges with the Cox's Find shear to the north of the mine. Additional anomalies are present and will be fully evaluated during future exploration programs.

The geochemical anomalism (90th percentile) is indicative of broader alteration zones for orogenic gold containing high concentrations of As (180 – 707 ppm), Cu (280 – 971 ppm), Zn (169 – 851 ppm). Gold ranges in abundance from 5ppb to 1,010 ppb, with a number of statistically significant gold anomalies correlating with pathfinder elements and associated structural zones (Figure 1).

Previously understood observations from the geology exposed in the pit strongly suggest that the ore shoots are localised in fold hinge dilations and therefore display 'pinch-and-swell' geometry along strike within the preferred host chert-shale horizon, with some localised control exerted by the presence through-going shear planes. These geological controls manifest as narrow (10's of metres) steeply to moderately plunging high-grade ore shoots.

The Shear Zones are interpreted to be the primary control on mineralisation at Cox's Find, acting as both the conduits of gold bearing hydrothermal fluid into the deposit and imparting (dextral) shear or drag on the Cox's Find formation, leading to dilation and veining.

The geochemical results support significant potential for extensions to the current mineralization at Cox's Find and also the prospect of additional near-mine gold discoveries within 'blind' targets that have little to no exploration drilling to date. These results reinforce the interpreted current structural model and controlling shear zones within the mine area.

Future Exploration

GSN is continuing to build up geological, structural and mineralization knowledge of the project area.

Following integration of all the geological/geophysical/geochemical inputs detailed above, drill programs will be designed to test a number of high priority targets.

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The release of this ASX announcement was authorized by the Board of Directors of the Company.

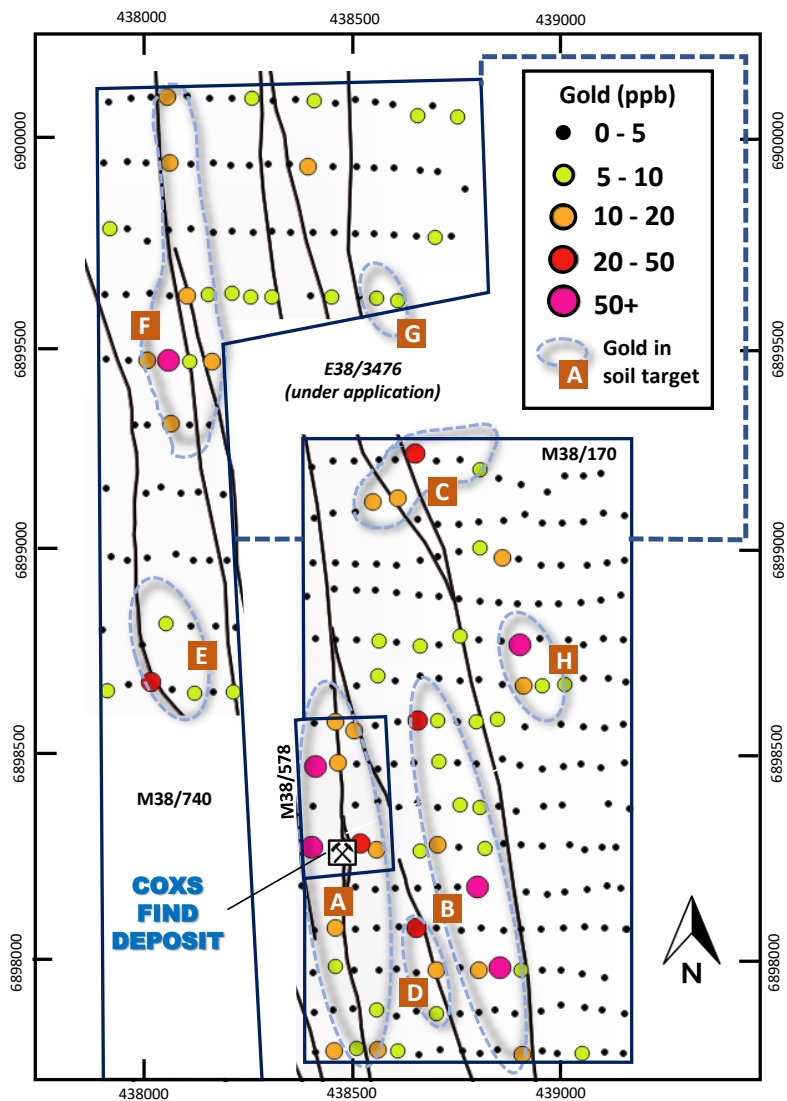


Figure 1: Gold in soil plot showing key structural features and defined anomalous zones

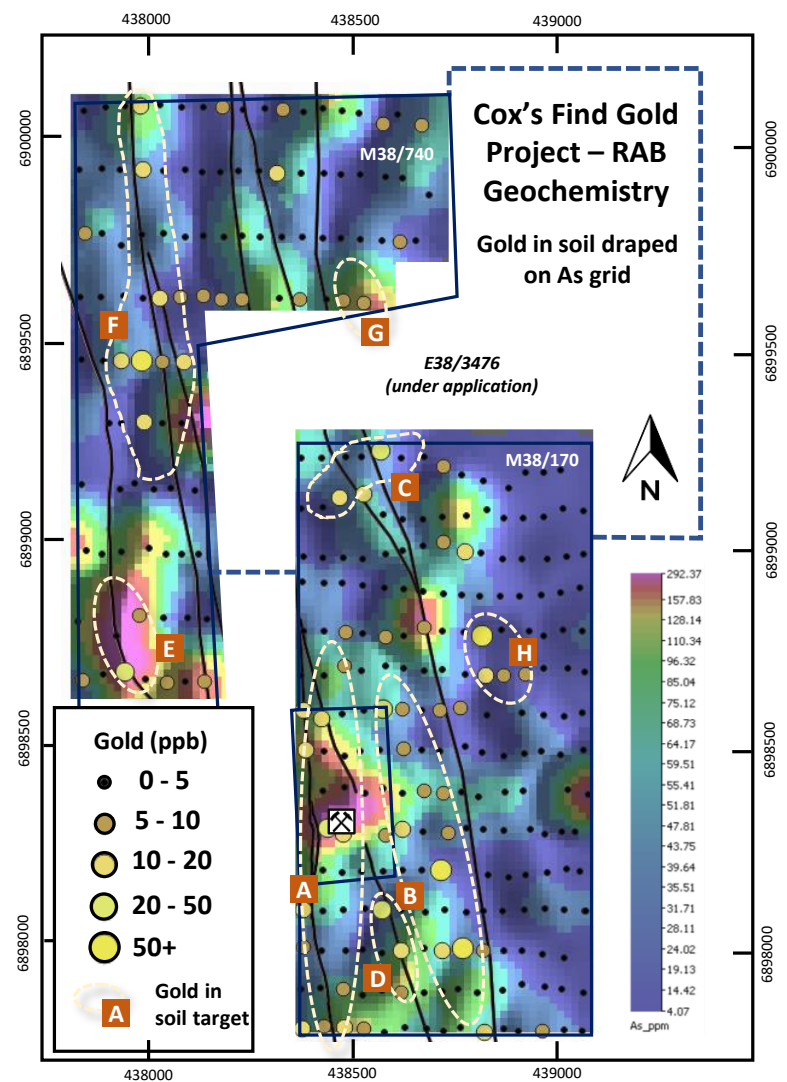


Figure 2: Gold in soil plot draped on a gridded lot of Arsenic (As) in soil for the same sample showing key structural features and defined anomalous Au zones.

ABOUT GREAT SOUTHERN MINING LIMITED

Great Southern Mining Limited is a Western Australian based Company listed on the ASX. Its aim is to become a leading gold exploration Company in Australia. With significant land holdings in the world-renowned gold districts of Laverton in Western Australia and the Mt Carlton Region of North Queensland, all projects are located within 25km of operating gold mills and major gold operations.

The Company's focus is on creating and capturing shareholder wealth through efficient exploration programs and strategic acquisitions of projects that complement the Company's existing portfolio of quality assets.

For further information regarding Great Southern Mining Limited please visit the ASX platform (ASX: GSN) or the Company's website www.gsml.com.au.

Competent Person's Statement

The information in this report that relates to Exploration Results on M38/578, M38/170 and M38/740 is based on information compiled by Dr Bryce Healy, a Competent Person who is a Member of the Australian Institute of Geoscientists. Dr Healy is employed by Noventum Group Pty Ltd (ACN 624 875 323) and has been engaged by Great Southern Mining Limited as Head of Exploration. Dr Healy 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Healy consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward Looking Statements

Forward- looking statements are only predictions and are not guaranteed. They are subject to known and unknown risks, uncertainties and assumptions, some of which are outside the control of the Company. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. The occurrence of events in the future are subject to risks, uncertainties and other factors that may cause the Company's actual results, performance or achievements to differ from those referred to in this announcement. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements. Any forward- looking statements in this announcement speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and the ASX Listing Rules, the Company, its directors, officers, employees and agents do not give any assurance or guarantee that the occurrence of the events referred to in this announcement will occur as contemplate.

APPENDIX A - JORC Code, 2012 Edition – Table 1 COXS FIND RAB GEOCHEMISTRY SURVEY

The following information follows the requirements of the JORC 2012 Table 1 Sections 1 and 2 for ASX release related to the Cox's Find Project geochemical survey and results.

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	Great Southern Mining Ltd (ASX: GSN) is reporting a new geochemistry survey conducted in March 2020 at the Company's Cox's Find Project RAB Survey March 2020 The RAB soil (and supplementary rock chip) samples were collected over a grid at 50m intervals along east-west oriented drill lines spaced 100 m apart. Each sample was taken from the bottom of each hole at depths ranging from 2 – 3 m and represents a sample from the deep soil profile free of any potential surface contamination from historic workings and existing mineralised stockpiled material, and sufficiently below the thin veneer of cover material and hard lateritic profile. Approximately 2-3 kg of dry sample was collected at each sample site and then sent off for laboratory analysis unsplit. The sample density and sample preparation of the soil samples was deemed appropriate by the competent person. Where sample points were inaccessible to the rig, a small amount of rock chip samples (approximately 3 – 4 kg of sample) was collected at the sample site. All samples were collected and stored in a numbered calico bag. The samples were submitted to ALS laboratory in Perth where they were weighed, crushed and pulverised and split (PREP31B, CRU21). Gold was analysed by 25 gm aqua regia digestion with ICP-MS finish for 1ppb detection limit (method AU-TL43). If the sample returned >1 ppm, the sample was then analysed via aqua regia digestion (method Au-AROR43). The pulps were then submitted to RSC in Perth for further analysis. Multi-element analysis (39 element suite: Mg, Al, Si, P, S, K, Ca, Ti, W, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Rb, Sr, Y, Zr, Nb, Mo, Ag, Cd, Sn, Sb, Ba, La, Ce, Pr, Nd, W, Hg, Pb, Bi, Th, U) of soil chemical data were collected on the ALS pulps by RSC in a laboratory environment using an Olympus Vanta VCR pXRF instrument, operating in geochem mode. These data were collected in accordance with industry best-practice and the instrument was calibrated using OREAS45f, OREAS24c, OREAS60d, OREAS165 and OREAS36. SOPs for all work were used to safeguard representivity of the sampling and drilling, which was carried out using best and standard practice.
Drilling techniques	The drilling operation was undertaken by experienced drilling contractor Topdrive Drilling. Rotary Air Blast (RAB) drilling was conducted with a modern truck mounted Aircore/RAB drill rig (Hydco DR6). RAB samples were obtained using 3 inch diameter face bit. The RAB set-up was necessary to penetrate the ferruginous (or calcrete/silcrete) hard pan that is variably developed.

Criteria	Commentary
<i>Drill sample recovery</i>	RAB sample recoveries were logged with a visual estimate of the actual recovery. Very few samples were recorded with recoveries of less than 80%. All samples returned were dry.
<i>Logging</i>	All drilling was logged at the rig by an experienced geologist.
<i>Sub-sampling techniques and sample preparation</i>	All samples were prepared using standard laboratory sample preparation methods (PREP31B, CRU21). No sub-sampling techniques were undertaken.
<i>Quality of assay data and laboratory tests</i>	Industry Standard analytical methods undertaken by ALS, Perth, Western Australia. Gold assays – aqua regia digestion with ICP-MS finish (method Au-TL43). The determination of gold in soils by aqua regia digest offers a very low detection limit (1ppb) making it attractive for geochemical orientation surveys. Aqua regia effectively dissolves both native gold as well as gold bound in sulphide ore minerals. Multi-element analysis was performed on sample pulps by RSC Mining and Mineral Exploration using pXRF instrument, operating in geochem mode in a laboratory setting. QC by laboratory included check assays, duplicate sub-sampling, blanks and standards. In addition, GSN inserted Standards, Blanks and Duplicates will into the sample stream at a rate of one QC, one duplicate and one replicate every 20 pulp samples. In the opinion of the competent person the QC results show acceptable accuracy and precision
<i>Verification of sampling and assaying</i>	Sample collection and submission for analysis was undertaken by GSN personnel. Primary data was recorded using paper sample sheet and transferred to excel. The information was then imported into IOGAS software for plotting and verification. All documentation of sample locations and sample descriptions, sample handling and storage was undertaken by GSN personnel. No adjustments or calibrations were made to any of the data used in this report.
<i>Location of data points</i>	Grid system used was GDA94, Zone 51S. The soil and rock chip sample sites were located using a hand-held Garmin GPS Unit. GPS accuracy is +/- 5m for easting and northing coordinates. This is considered appropriate for this stage of exploration by the competent person. Good topographic control is available.
<i>Data spacing and distribution</i>	Data spacing is sufficient for reconnaissance stage exploration sampling programs. Data spacing / density for the soil sampling is considered appropriate by the competent person to produce the element in soil anomaly maps as presented in this announcement. There has been no sample compositing. Sample grids are produced in IOGAS Software which is specialist software for displaying geochemical data of this nature.
<i>Orientation of data in relation to geological structure</i>	The orientation of samples is not likely to bias the assay results and is not relevant given the early stages of exploration.
<i>Sample security</i>	Samples packed into polyweave sacks, sealed by cable ties and transported to Toll in Laverton by GSN senior personnel. Toll transported samples to ALS in Perth Australia via road freight, where upon receipt the samples are officially checked in and appropriate chain of custody documentation received.

Criteria	Commentary
	Following analysis at ALS, the sample pulps were picked up by GSN personnel and delivered to RSC offices in Perth for further analysis. All sample information is kept in paper and digital form. Digital data is backed up onto the Company server regularly and then externally backed up daily.
Audits or reviews	No audits or reviews were undertaken.

Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	The results reported in this report are on three (3) granted Mining Leases covering 290 ha, namely M38/170, M38/578 and M38/740 being 100% owned by Great Southern Mining Limited. At the time of reporting the tenements is in good standing.
Exploration done by other parties	Relevant exploration done by other parties are outlined in the body of this report.
Geology	Gold mineralisation is 'orogenic-style' and found within vitreous bluish grey to black vuggy quartz which occurs as strata bound reef in interflow sediments between two mafic volcanic units. This dark quartz is cut by a network of white quartz veinlets which also contain gold. The ore shoots have developed with a morphology like the drag folds. A gold mineralisation halo extends away from the ore shoot either vertically, laterally or in both directions. There are also some areas in which there is a sharp contact between the ore shoots and barren quartz where no mineralised halo has developed. Secondary gold enrichment has occurred in cross fractures above the water table A second form of gold mineralisation is associated with shear zones. The Laverton lineament is a major deformation zone consisting of many individual shear zones which are discontinuous both vertically and laterally and display an interlacing morphology.
Drill hole Information	NA
Data aggregation methods	No data aggregation has been undertaken
Relationship between mineralisation widths and intercept lengths	No relevant program was undertaken
Diagrams	Appropriate diagrams of the geology are presented in the body of this report
Balanced reporting	The Competent Person (CP) believes the results reported diagrammatically are considered a balanced reporting of the understanding of the exploration results and potential this report to be a balanced representation of exploration undertaken.
Other substantive exploration data	No other exploration data that has been collected is considered meaningful and material to this report.
Further work	Future exploration includes additional infill drilling program to more accurately define the anomalous geochemistry and preliminary drilling around a number of combined structural/geochemical targets focusing on discovery of the high grade reef style mineralisation in line with Cox's Find deposit.