

# QUARTERLY ACTIVITIES REPORT For the quarter ended 31 December 2022

# **Highlights**

# **Duketon Gold Project**

- Assays received for a soil geochemical survey to the south of the Southern Star mineralisation zone, defining a 700m long gold-in-soil anomaly and a very coherent 1.7km long gold pathfinder element anomaly
- A detailed structural interpretation of GSN's northern tenure, containing the Amy Clarke and Golden Boulder prospects, has identified five new high priority gold targets
- GSN has planned several high impact drilling programs at the Southern Star, Amy Clarke and Golden Boulder prospects commencing from the March Quarter 2023, incorporating:
  - Reverse Circulation (RC) and Aircore (AC) drilling to expand upon known mineralisation at Southern Star
  - RC and AC drilling at both the Amy Clarke and Golden Boulder prospects, following up and expanding upon previously identified high grade gold mineralisation

# East Laverton Nickel Project

- Three holes drilled into previously defined electromagnetic (EM) conductors within the 7km thick Diorite Hill intrusive complex identified favourable mafic/ultramafic geology and widely dispersed trace sulphides. Assays results are pending and follow-up exploration is being planned.
- Plans advanced to commence ground based moving loop EM (MLEM) surveys over 14km of the Rotorua and Granite Well ultramafic trends, which are considered prospective for Kambalda style nickel mineralisation

# Corporate

- Shortfall offer relating to the Entitlement offer of July 2022 raised A\$1.2 million in October 2022
- Completion of a purchase and sale agreement with Revolver Resources Holdings Ltd (ASX:RRR) on the Company's 100% owned Palmer River Project for combined cash and scrip compensation of A\$1m

Suite 4, 213 Balcatta Road, Balcatta, WA 6021 Australia T (08) 9240 4111 E admin@gsml.com.au www.gsml.com.au

ACN: 148 168 825 ABN: 37 148 168 825



# Duketon Gold Project, Western Australia (100% GSN)

Great Southern Mining holds Exploration Licences totalling 265km<sup>2</sup> in the Duketon Greenstone Belt located to the north of the town of Laverton in Western Australia. The Company shares the belt with gold producer Regis Resources Limited (ASX:RRL), which has been successful in the identification of +8Moz of gold resources (refer to RRL website). It is interpreted that the three primary mineralised corridors in the belt continue into GSN's tenure, incorporating ~8km of the Erlistoun Trend, ~7km of the Garden Well Trend and ~11km of the Rosemont-Ben Hur Trend. The Company is exploring primarily for gold with three advanced exploration areas including Southern Star, Amy Clarke and Golden Boulder (Figure 1).

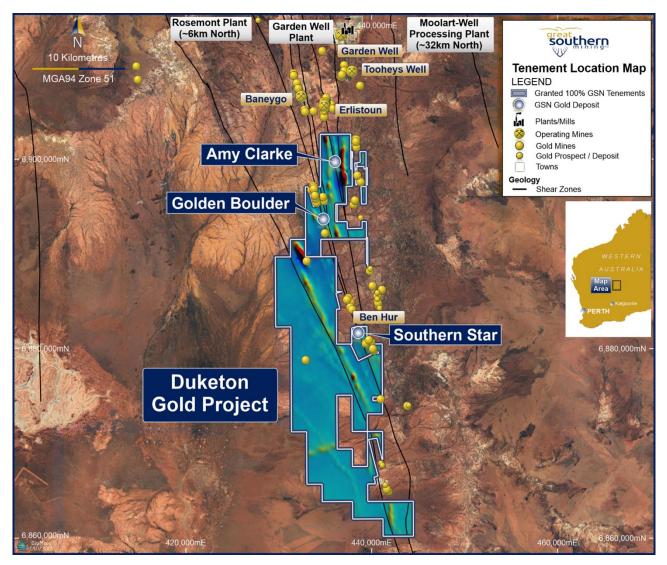


Figure 1 – Map of GSN Duketon Gold Project showing existing prospects and known gold occurrences, deposits and mines.



# **Southern Star**

During the quarter, assay results were received for a soil geochemical survey conducted to the south of the Southern Star prospect<sup>1</sup>. A total of 497 samples were collected on a 100m wide line spacing, 25m apart over a 4km strike of the prospective quartz dolerite geology (Figure 2).

Assay results indicate a strong 700m long gold-in-soil anomaly in the southern portion of the survey area with a peak gold assay of 158 ppb. Other key pathfinder elements, including arsenic and antimony, form a very coherent trend over a 1.7km strike, which also correlates with the position of the favourable sheared quartz dolerite geology. This rock type is interpreted to be the primary host of high-grade mineralisation at Southern Star.

Sulphur values are also of interest and have been used as an effective tool in ranking and identifying targets due to the high sulphide content of Duketon gold mineralisation. High-grade mineralisation at Southern Star is associated with strong to intense quartz-albite-carbonate  $\pm$  sericite alteration, quartz veining and disseminated sulphides (pyrite/pyrrhotite >3%). An area of highly anomalous sulphur (+0.1%) was noted around the core of the aforementioned high arsenic-antimony trend.

The correlation of favourable soil geochemistry overlying the favourable quartz dolerite unit forms a compelling drill target in an area that has seen little to no historical drilling.

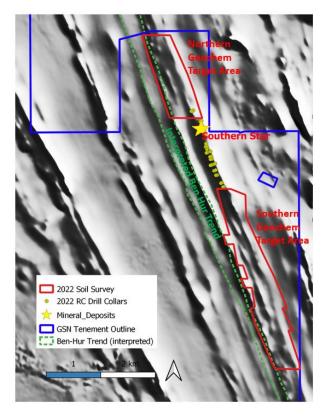


Figure 2 – Map showing the area covered by the recent geochemical survey to the south along strike from Southern Star.

<sup>&</sup>lt;sup>1</sup> ASX Announcement 8 November 2022 – Duketon Gold Project Exploration Update



# Next steps

The Company is planning follow up RC and AC drill programs from the March Quarter 2023 to test newly identified geochemical targets along strike from the main mineralised zone of Southern Star. This includes the four targets previously identified along strike to the north<sup>2</sup>. RC drilling is also planned to test depth extensions to known mineralisation at Southern Star and a parallel zone to the west, which GSN interprets to be on the same trend as RRL's Ben Hur deposit to the north.

# Amy Clarke Prospect

During the quarter, Great Southern completed a soil geochemical survey at Amy Clarke with the objective of extending the already extensive gold anomaly defined over a 3.6km strike based on previous shallow aircore drilling and soil surveys<sup>1</sup>. The new survey covered a 1.8km strike extension, incorporating 298 samples.

Results show the Amy Clarke gold-in-soil anomaly extending by a further 1.4km to the south, with the gold anomalism now defined over a 5km strike length (Figure 3). The scale of this anomaly bodes well for a large underlying mineralised gold system at Amy Clarke.

Similar to the Southern Star soil geochemistry, arsenic and antinomy correlate exceptionally well with gold at Amy Clarke. The highest gold-arsenic-antimony anomaly is also coincident with a prominent north-south shear zone evident in outcropping geology. Gold association with pathfinder elements such as bismuth and antimony indicate that the source of the anomalies is less likely to be transported, as these elements are less mobile within the weathering regime.

Analysis of the geochemical data shows a strong relationship between gold, bismuth and antimony. Collectively, these element associations generate a compelling target that warrants drill testing.

#### Next Steps

GSN is planning follow up RC and AC drilling in early 2023. The aim of this drilling is to infill around areas with higher grade drill intercepts and stronger soil anomalism and to extend AC drill lines into the newly defined anomalism to the south.

Of particular interest is a zone of higher-grade gold anomalism in the south, which is coincident with a porphyritic rock unit. RRL' Erlistoun pit (containing ~320Koz gold), which is located directly north of Amy Clarke on the same structural trend, also shows an association of gold mineralisation with porphyritic rocks.

<sup>&</sup>lt;sup>2</sup> ASX Announcement 8 September 2022 – New gold targets identified along strike of Southern Star



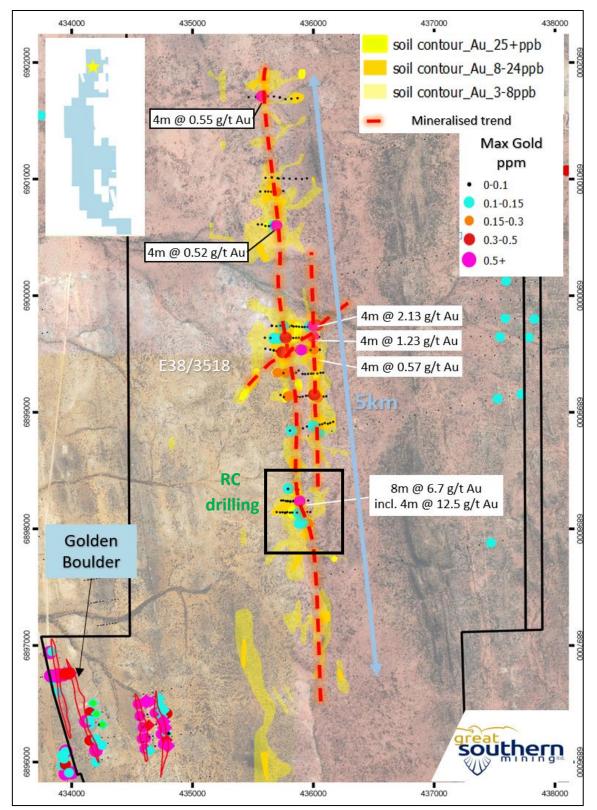


Figure 3 - Amy Clarke area showing previous aircore drill intercepts, RC drill target area.



# **Golden Boulder Area**

Golden Boulder contains multiple stacked and parallel gold trends with numerous historic workings over a 3-4km strike. Historic drilling is sparce and shallow (average depth just 40m) and, in some areas, is deemed to be ineffective due to a hard ferricrete crust.

RC drilling in 2021 returned excellent results, such as 5m @ 3.3g/t Au from 49m, including 1m @ 12.3g/t Au and 8m @ 2.1g/t Au from 32m, including 4m @ 3.7g/t Au (Figure 4).

Surface sampling and mapping has identified multiple parallel quartz lodes, with surface sampling returning results up to 241g/t Au and 103g/t Au.

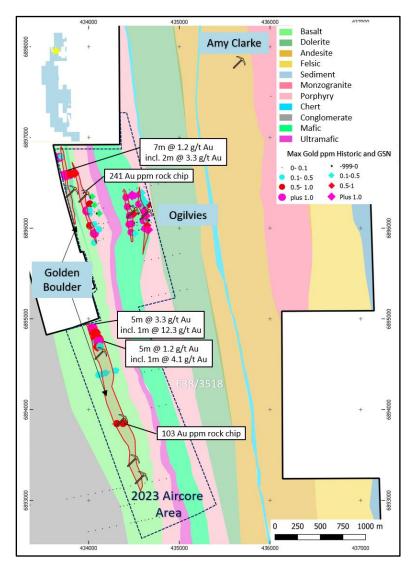


Figure 4 - Geology and high-grade results from the Golden Boulder prospect, highlighting the planned 2023 aircore area (dashed blue polygon).



# Next Steps

Given the prospectivity for narrow, high grade gold open pit and underground potential, the Company has pattern AC drilling planned over ~3km of prospective strike to vector in on zones of high grade and continuity.

# New High Priority Targets

Late in the December Quarter, GSN completed a detailed structural geology interpretation of the northern portion of the Duketon Gold Project<sup>3</sup>. This interpretation was completed by consulting structural geology expert and Technical Consultant, Marcus Willson, and compiled using high resolution geophysical data, field mapping, existing drilling and publicly available studies on the Duketon Belt. The foundation to this structural interpretation is an orogenic reconstruction of the belt to define deep seated structures and gold bearing lineaments.

Consequential to this interpretation was the delineation of five new, high priority gold target areas (Figure 5). All of these targets sit along mineralised trends which host gold deposits to the north within RRLs' Duketon Gold Mining project.

# Structural target 1

Southern and eastern extension of the Golden Boulder prospect which hosts approximately 3km of historic gold working. Gold bearing reactivated faults (inversion faults) are interpreted to plunge to the south. The onset of a hard iron laterite crust over the southern portion of this target area is interpreted to geochemically mask potential underlying gold anomalism and to have impeded historic gold prospecting.

# Structural Target 2

Located on the Garden Well Trend. Aeromagnetic images show major north-south structures being offset by later NNW-SSE structures creating an interpreted analogous structural setting to RRLs' +3Moz Garden Well gold deposit to the north. Limited historic drilling is considered to be well south of the area of interest, therefore key structures remain untested.

# Structural Target 3

This target is located to the south of the existing Amy Clarke prospect along the Erlistoun Trend (host to the 320koz Erlistoun gold deposit to the north). It is interpreted to be on the hanging wall position to a major, shallow dipping thrust fault with an underlying deep intrusive centre which interacts with multiple north-south and northeast trending structures.

# Structural Target 4

Interpreted to be a "pop-up" structure incorporating hanging wall anticlines and shallow thrust faults with evidence of underlying granites. Historical workings line a ridge running through this area on an

<sup>&</sup>lt;sup>3</sup> ASX Announcement 18 January 2023 – New high priority gold targets identified at Duketon Gold Project



interpreted back-thrust fault. There is limited historic drilling and previous surface geochemistry is considered ineffective due to transported cover.

### Structural Target 5

This target is located on the interpreted hanging wall to a shallow thrust, which to the north is understood to be the controlling structure of the Garden Well deposit. Focus in the area will be on cross-cutting NNW-SSE fault structures.

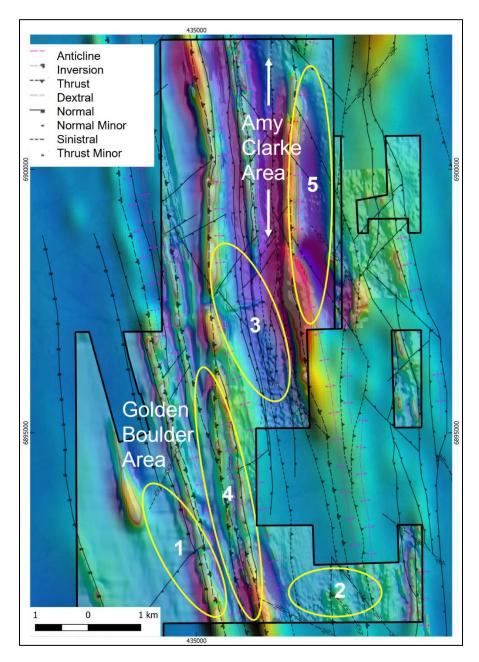


Figure 5 - Structural interpretation of GSN's northern tenure incorporating the Golden Boulder and Amy Clarke prospects and five newly identified target areas. Underlain by aeromagnetic imagery.



# East Laverton Nickel Project, Western Australia (100% GSN)

The East Laverton Nickel Project comprises four granted exploration licences covering an area of 405km<sup>2</sup>, located approximately 35km from the town of Laverton (Figure 6). The Diorite Hill layered magmatic intrusion (Diorite Hill) is a prominent geological feature in the region covering an area of 110km<sup>2</sup> and comprising ~7,000m of cumulate mafic and ultramafic intrusive rocks. It is considered prospective for intrusive style nickel-copper-PGE mineralisation, similar to IGO Group's Nova-Bollinger nickel-copper-cobalt deposit in the Fraser Range, Western Australia. In addition, the Company's tenure incorporates ~14km of interpreted ultramafic stratigraphy within the Granite Well and Rotorua trends. These trends are considered prospective for Kambalda style komatilitic nickel mineralisation. East Laverton is also prospective for orogenic gold, with intercepts such as 9m @ 2.4 g/t Au including 5m @ 4.2 g/t from 48m (EIC001, WAMEX A48007) reported from historic drilling.

During the December quarter, drilling was completed on a three-hole program designed to test two bedrock EM conductors within the Diorite Hill Complex, namely Conductor L076 and Conductor L124 (Figure 6)<sup>4,5</sup>.

While drilling did not intercept significant quantities of nickel or copper sulphides, the Diorite Hill Complex has been proven to contain prospective mafic-ultramafic geology with no internal graphitic or sedimentary shale units (being potential sources of false-positive conductors). All three holes contained widely dispersed trace sulphides highlighting the fertile nature of the complex. Assays for precious metals are pending. The deepest of the three holes (hole 22ELRCD0001 drilled to 579.6m downhole) intercepted remobilised pyrrhotite (iron sulphide) and trace chalcopyrite (copper sulphide), however the concentration of these sulphides was not considered high enough to explain the conductor (Figure 7). Downhole EM (DHEM) was only completed to a depth of 211m due to a blockage in the hole, however it did reconfirm the presence of a deeper unexplained conductive source. GSN plans to unblock this hole and redo the DHEM.

<sup>&</sup>lt;sup>4</sup> ASX Announcement 15 November 2022 – Drilling underway at East Laverton Nickel Project

<sup>&</sup>lt;sup>5</sup> ASX Announcement 13 December 2022 – East Laverton Nickel Exploration Update



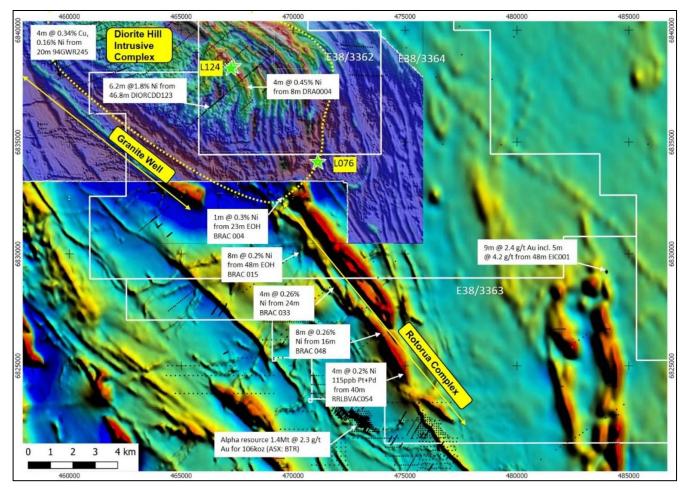


Figure 6 - Diorite Hill Intrusive Complex showing the location of EM plate drillhole positions (green stars) underlain by aeromagnetics. Conductor L076 sits on the interpreted margin of the instruction (yellow dashed line), while conductor L124 lies along on the lower contact of stratigraphy with a high magnetic response, interpreted to be an internal mafic / ultramafic contact.



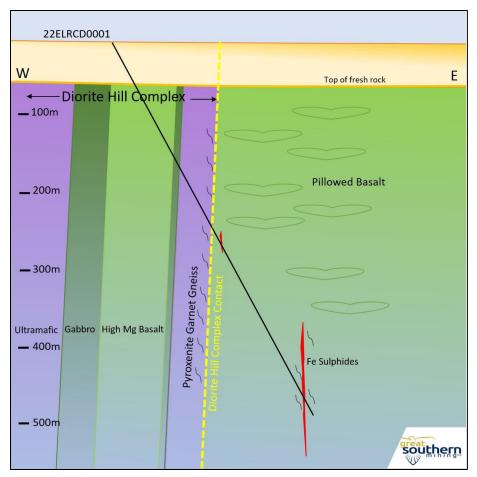


Figure 7 - Cross section 6834100mN highlighting the Diorite Hill Complex contact and sulphides intersected downhole (red).

# Next Steps

The Company is planning to undertake surface MLEM surveys over 14km of strike length on the Rotorua and Granite Well ultramafic trends in 2023. These units have had very little nickel exploration historically, however intercepts recorded in limited shallow drilling to the west of the Rotorua trend by gold explorer Newmont demonstrated the fertility of this unit. Anomalous nickel grading 0.2% to 0.4% was recorded in the last hole of each drill line leading up to the ultramafic stratigraphy (see Figure 6 above).

# Edinburgh Park Project, North Queensland (100% GSN)

The Edinburgh Park Project is a belt scale opportunity prospective for copper-gold porphyry systems and both high a low epithermal gold systems. The project encompasses an area of ~1,750km<sup>2</sup> surrounding Navarre Minerals' (ASX:NML) high sulphuration epithermal Mt Carlton gold-silver-copper mine. The project is located approximately 100km south-east of Townsville in Queensland (Figure 8).



During the quarter, a detailed geological and structural review of the Edinburgh Park Project was completed. This work, along with previous ground exploration and hyperspectral analysis, has identified 29 priority targets within GSN's Edinburgh Park tenure. Refinement and ranking of the targets has confirmed high priority targets at Molongle, Mt Dillion, Fish Creek and Edinburgh Castle.

#### Next Steps

Drilling is planned to commence in 2023 after the north Queensland wet season (March/April). The Company is also assessing whether to continue sole funding exploration at Edinburgh Park or bring in a joint venture partner that will allow the Company to focus exploration funding into its WA projects.

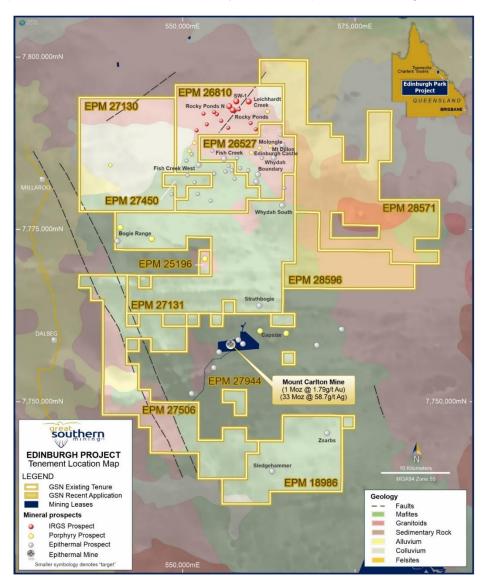


Figure 8 - GSN's Edinburgh Park Project highlighting proximity to Mt Carlton Mine and showing intrusion related gold system (IRGS) epithermal and porphyry targets.



# CORPORATE

# Shortfall Placement

During the Quarter, the Company advised that it had successfully completed the placement of shortfall shares in relation to the entitlement offer undertaken by the Company that closed on 25 July 2022 ("Shortfall Offer").

The Shortfall Offer was made pursuant to an entitlement offer prospectus dated 6 July 2022. A total of 34,989,737 shortfall shares were issued at \$0.035 each, raising \$1.2 million (before costs). Shortfall shares rank equally with existing shares on issue.

# Completion of Palmer River Project Divestment

In July, the Company announced the sale of its 100% owned subsidiary, Mt Bennett Exploration Pty Ltd, comprising the Palmer River Project on EPM 27305 and EPM 27921 in north Queensland, to ASX listed company, Revolver Resources Holdings Limited ("**RRR**").

The sale was completed in October 2022<sup>6</sup> with the balance of the consideration for the sale of Mt Bennett Exploration Pty Ltd as follows:

- 1. Under the Sale and Purchase Agreement, RRR has paid GSN \$150,000 cash consideration; and
- 2. GSN issued \$750,000 of RRR shares, calculated on a 10-day Volume Weighted Average Price (VWAP), with the shares subject to a voluntary escrow deed for 12 months from the date of issue of the RRR shares.

# Capital Structure and cash balance

As at 31 December 2022, GSN had 580,090,413 shares on issue, which increased to 591,756,981 following the post-quarter issue of shares to an entity related to Non-Executive Director, Matthew Blake, who participated in the aforementioned Shortfall Offer<sup>7</sup>. The Company also has 34.7 million unlisted options at an average exercise price of \$0.10 and 17 million employee performance rights<sup>8</sup>. On 31 December 2022, 600,000 Unlisted Options with an exercise price of \$0.05 expired.

At 31 December 2022, cash on hand was A\$0.695m. Post quarter end a A\$0.102m cash refund was received from the Western Australia Government in relation to Exploration Incentive Scheme (EIS) funding for the three holes drilled into the Diorite Hill Complex at GSN's East Laverton Project. The Company would like to thank the Western Australian Government for its support.

<sup>&</sup>lt;sup>6</sup> ASX Announcement 18 October 2022 – GSN completes Palmer River transaction

<sup>&</sup>lt;sup>7</sup> ASX Announcements 19 October 2022 and 23 January 2023 – Completion of Shortfall Offer and Results of General Meeting

<sup>&</sup>lt;sup>8</sup> ASX Announcements 20 September 2022 – Issue of securities to Managing Director Matthew Keane



# Additional disclosures pursuant to Listing Rule 5.3.3 Project Summary: refer to Table 2 below.

# Mining tenements acquired/disposed of during the quarter:

On 18 October 2022, the Company announced the completion of the sale of its 100% owned subsidiary, Mt Bennett Exploration Pty Ltd, comprising the Palmer River Project on EPM 27305 and EPM 27921 in north Queensland, to ASX listed company, Revolver Resources Holdings Limited (ASX:RRR). Refer to the commentary above for further details on the transaction and consideration received.

Beneficial percentage interests held in farm-in or farm-out agreements at the end of the quarter: Nil

Beneficial percentage interests held in farm-in or farm-out agreements acquired or disposed during the quarter: Nil



Project	Tenement	% Interest	Grant date	Expiry date	Tenement Area km <sup>2</sup>
WESTERN AUSTRALIA					
	M38/1256	100%	03/09/12	02/09/33	0.6
	E38/2829	100%	23/12/13	22/12/23	1
Mon Ami	G38/38	100%	01/07/21	08/07/42	0.1
	L38/349	100%	19/04/21	18/04/42	0.2
	L38/328	100%	18/11/20	17/11/41	0.04
	E38/3501	100%	17/02/21	16/02/26	210
	M38/1299	100%	11/04/22	10/04/43	0.6
	E38/3476*	100%	10/09/20	09/09/25	1
	P38/4523*	100%	04/03/21	03/03/25	1
Duketon Project	P38/4524*	100%	23/02/21	22/02/25	1
-	P38/4525*	100%	04/03/21	03/03/25	1
	P38/4542*	100%		Pending gr	ant
	E38/3723	100%		Pending gr	ant
	E38/3518*	100%	17/02/21	16/02/25	54
	E38/3362	100%	28/04/21	28/04/26	60
	E38/3363	100%	03/07/19	02/07/24	135
East Laverton	E38/3364	100%	28/04/21	28/04/26	210
	E38/3662	100%	12/04/22	11/04/27	2
	E38/3801	100%	Pending grant		ant
QUEENSLAND					
Edinburgh Park Project					
Johnnycake	EPM 18986	100%	13/12/12	11/12/22	150
Mc Area	EPM 25196	100%	03/03/14	01/03/23	9
Johnnycake North	EPM 26527	100%	23/08/17	21/08/22	89
Beaks Mountain	EPM 26810	100%	17/07/18	15/07/23	185
Reedy Range	EPM 27130	100%	24/09/19	22/09/24	227
Stretchable	EPM 27131	100%	24/09/19	22/09/24	317
King Creek	EPM 27506	100%	30/11/20	28/11/25	233
Bogie Range	EPM 27450	100%	03/06/21	01/06/26	121
Strathalbyn South	EPM 27944	100%	06/04/22	05/04/27	25
Mt Abbott	EPM 28571	100%	Pending grant		ant
Abbott Creek	EPM 28596	100%	Pending grant		
Tablelands Project					
Driscolls Hill	EPM 27460	100%	30/09/20	28/09/25	320

\* Tenement held by East Laverton Exploration Pty Ltd, a wholly owned subsidiary of Great Southern Mining Ltd.

The release of this ASX announcement was authorised by the Managing Director on behalf of the Board of Directors of the Company.

For Further Information Contact:

Matthew Keane

Managing Director

admin@gsml.com.au

+61 8 9240 4111



# About Great Southern Mining

Great Southern Mining Limited is a leading Australian listed exploration company. With significant land holdings in the world-renowned districts of Laverton in Western Australia and Mt Carlton in North Queensland, all projects are located within 25km of operating mills and major operations.

The East Laverton Nickel Project is located 15km east from the town of Laverton in Western Australia where GSN maintains an exploration base to service its significant exploration portfolio in the region, including the Southern Star Gold Deposit.

# **Competent Person's Statement**

The information in this report that relates to exploration results at the East Laverton Nickel Project is based on, and fairly represents, information and supporting documentation compiled by Simon Buswell-Smith. Mr. Buswell-Smith is a full-time employee of Great Southern Mining Limited. He has sufficient experience relevant to the style of mineralization and type of deposit under consideration. Mr. Buswell-Smith is a Member of the Australian Institute of Geoscientists and as such, is a Competent Person for the Reporting of Exploration Results, Mineral Resources and Ore Reserves under the JORC Code (2012). Mr. Buswell-Smith consents to the inclusion in the report of the matters based on his information in the form and context in which they occur.

# **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 contemplated.



# JORC Code 2012 Edition – Table 1

#### Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	N/A
Drilling techniques	N/A
Drill sample recovery	N/A
Logging	Logging of geology, weathering, colour, veining was reported in various forms from various companies. Spinifex texture was logged by Regis Resources (WAMEX A report A801062)
Sub-sampling techniques and sample preparation	N/A
Quality of assay data and laboratory tests	Quality of drillhole assay data unknown, industry standard assumed.
Verification of sampling and assaying	
Location of data points	All sites are in MGA94 – Zone 51 grid coordinates Handheld GPS was used for location. Topographic control in nominal.
Data spacing and distribution	N/A
Orientation of data in relation to geological structure	N/A
Sample security	N/A
Audits or reviews	

# Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	Tenement E38/3663 was granted 27/7/2020 in the name of East Laverton Exploration Pty Ltd, a 100% owned subsidiary of Great Southern Mining Limited. The tenement is in good standing.
	Tenements E38/3664 and E38/3662 was granted 29/04/2021 in the name of Great Southern Mining Limited. The tenements are in good standing.
Exploration done by other parties	In 1990 Aberfoyle conducted three RAB drilling programmes totalling 4,629m in 119 holes (DHRB001 – 119) across the Diorite Hill Complex aimed at assessing the PGE potential. Bottom of hole and near surface lateritic samples were collected from drill holes DHRB001 to 83 and bottom of hole samples only from DHBR084 to 119. (WAMEX A report A33246). Aberfoyle followed up on their PGE prospective ultramafic – mafic contact zone at diorite hill with a four (4) hole RC pre-collar diamond program in 1992 (DIORCDD 120, 121, 122, 123) for a combined 525m of drilling. (WAMEX A report A35358 and A35364).



Criteria	Commentary
	A conclusion from the work was that the hole intersected too high in the layered complex to be prospective for PGE mineralisation, however no further work was undertaken. The potential for primary Ni sulphide mineralisation was not discussed.
	CRA explored the Granite Well area between 1993-95 a 76 RAB program was completed in 1994 for 2158m (94GWRseries) for gold exploration along the granite ultramafic contact. Holes were assayed for Au, Co, Cr, Cu, Fe, Ni, Pt and Pd. (WAMEX A report A45588).
	Follow-up drilling by Ni-West in 2002 on Aberfoyles best intersections consisted of 15 vertical aircore programs for 534m (DRA0001 – 0005, KNA001 – 002, DCAC0001 – 13). Holes were drilled to recognisable bedrock, were generally low anomalism and included a best 'standout' intercept of 8m at 0.98% Ni and 0.18% Co from 32m (DRAC0008) and 4m at 0.45% Ni from 8m (DRAC0004) (WAMEX A64129).
	Placer Dome Asia Pacific ("Placer") farmed into the Diorite Hill Project in late 2002 and initially completed a high-resolution airborne EM and magnetic survey. Work completed by Placer during the following year included follow up soil sampling (452 samples), RAB and minor aircore drilling totalling 7,224 metres in 171 drill holes, and two diamond drill holes for 599.5 metres (including 78.7 metres in pre-collars). (WAMEX A68301).
	The drilling programme was designed to map basement geology beneath the transported cover, test soil and geophysical anomalies and locate PGM-bearing sulfide and chromite layers. Holes were sited to give broad coverage across the entire width of the intrusive body, both augmenting and infilling the earlier Aberfoyle RAB drilling, and targeting the zones/layers interpreted to be the most prospective from both the magnetics and the earlier drilling.
	In 2006, Southern Geoscience consultants ("SGC") were contracted by A1 Minerals to re- process and interpret aeromagnetic data collected as part of the Diorite Hill Hoistem helicopter EM survey flown by Placer Dome.
	Gold exploration aircore drilling (BRAC series) by Newmont in 2005 WAMEX open file report WAMEX A69883.
	A small 2 hole RC program was completed by Placer in 1996 over the Curra area (East Ida) best intersection of 9m @ 2.4 g/t Au including 5m @ 4.2 g/t from 48m (EIC001, WAMEX A48007)
	Regional Aircore drilling was completed at Rotorua for total of 59 AC holes for 3598m were drilled on by Regis Resources RRLBVAC series (WAMEX A report A801062).
Geology	The East Laverton project incorporates the southern portion of the Diorite Hill Layered Ultramafic Complex, a NW-SE trending body, about 7000m wide and delineated by an aeromagnetic anomaly. The interpreted feeder conduit to the layered complex has been classified as the Rotorua Ultramafic unit.
	The Diorite Hill Layered Intrusive Complex was originally interpreted as an east facing, steeply dipping sequence, but was subsequently interpreted as a shallow dipping, west facing sequence complicated by thrusting with remnants of hornfels grade country rock. There is a complex inter- fingering of cross-cutting coarse pyroxenite in fine magnetic recrystallised dolerite/peridotite, as well as xenoliths of the finer grained lithology in foliated pyroxenite.
	The geology is poorly understood, with previous workers interpreting a layered sill complex comprising alternating layers of olivine-rich cumulates, pyroxenites, gabbros and even anorthosites. A mafic-ultramafic hornfels has been interpreted along the granite contact to the



Criteria	Commentary
	east, and it appears as if abundant hornfels xenoliths may have been caught up in the layered pyroxenite and gabbro units. A basaltic rock sequence defines the western margin. Recrystallised dolerite has also been interpreted from certain outcrops.
The topography is generally flat to slightly undulating with occasional low hills of or lateritic residuum. Outcrop in the area is poor (5–10%), restricted to the north easter the body, with the remainder covered by transported alluvium, laterite and minor calc	
	Sediments have been mapped in the eastern portion of the tenement.
Drill hole Information	No new drillhole information reported historic drillholes by Newmont
	No material information has been excluded drillholes with low nickel values are also displayed
Data aggregation methods	N/A
Relationship between mineralisation widths and intercept lengths	relationship is unknown due to limited data
Diagrams	Relevant Diagrams are included in the body of this report.
Balanced reporting	
Other substantive exploration data	N/A
Further work	Future exploration is included in next steps of the body of the report

# Appendix 5B

# Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity	
GREAT SOUTHERN MINING LIMITED	
ABN	Quarter ended ("current quarter")
37 148 168 825	31 December 2022

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	-	-
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(28)	(68)
	(e) administration and corporate costs	(343)	(694)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	-	1
1.5	Interest and other costs of finance paid	(3)	(6)
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	-	-
1.9	Net cash from / (used in) operating activities	(374)	(767)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) exploration & evaluation	(520)	(1,190)
	(e) investments	-	-
	(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	150	212
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Divestment of Cox's Find	-	-
2.6	Net cash from / (used in) investing activities	(370)	(978)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	1,225	1,570
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(41)	(41)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Director Loan	-	-
3.9	Interest on Director Loan	-	(6)
3.10	Net cash from / (used in) financing activities	1,184	1,523

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	257	918
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(374)	(767)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(371)	(978)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	1,183	1,523
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	695	695

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	695	257
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	695	257

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	(113)
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
	f any amounts are shown in items 6.1 or 6.2, your quarterly activity report must includ ation for, such payments.	le a description of, and an

Item 6.1 includes payment of Director fees and superannuation and also includes payments made to a Director related entity for the lease of office premises.

7.	<b>Financing facilities</b> Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000	
7.1	Loan facilities	49	52	
7.2	Credit standby arrangements	-	-	
7.3	Director Loan Facility	-	-	
7.4	Total financing facilities	49	52	
7.5	Unused financing facilities available at quarter end		-	
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.			
	At quarter end, the Company has a finance facility over a vehicle used for field operations. The facility is secured with the vehicle used as collateral / security. The remaining term of the facility is one year with interest being 3.32% pa.			
	Note: During the quarter, an entity related to			

of the Shortfall Offer (refer ASX announcement, 19/10/22) equating to 11,428,571 shortfall shares. At December 31, 2022 the shares had not been issued. These shares were issued following shareholder approval at the Extraordinary General Meeting held 23 January 2022.

8.	Estimated cash available for future operating activities	\$A'000	
8.1	Net cash from / (used in) operating activities (item 1.9)	(374)	
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))		
8.3	Total relevant outgoings (item 8.1 + item 8.2) (8		
8.4	Cash and cash equivalents at quarter end (item 4.6)		
8.5	Unused finance facilities available at quarter end (item 7.5)		
8.6	Total available funding (item 8.4 + item 8.5)	695	
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	0.78	
	Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.		
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:		
	8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?		
	Answer: No. The Company has completed the Entitlement Issue and placement of the Shortfall Shares as announced on 19 October 2022. Exploration activity for the coming quarter is being planned with outflows not expected to be consistent with prior quarters.		

С	las the entity taken any steps, or does it propose to take any steps, to raise further ash to fund its operations and, if so, what are those steps and how likely does it elieve that they will be successful?
Answer:	In addition to the cash on hand at the date of this Appendix 5B, the Company maintains its ability to raise capital in accordance with Listing Rules 7.1/7.1A and to revise exploration expenditure and operating overheads further in order to maintain sufficient cash reserves.
	Does the entity expect to be able to continue its operations and to meet its business bjectives and, if so, on what basis?
Answer: `	Yes. Refer to commentary in 8.8.2 above.
Note: where	e item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

# **Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

#### 31 January 2023

Date:

#### By the Board of Directors

Authorised by: (Name of body or officer authorising release – see note 4)

#### Notes

- This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.