

## SXG DRILLS FIRST HOLE UNDER GOLDEN DYKE: 48.9 m @ 3.0 g/t AuEq NEW ZONE FROM YET ANOTHER STEP OUT AT SUNDAY CREEK

20 OCTOBER 2022

**Melbourne, Australia — Southern Cross Gold Ltd (“SXG” or the “Company”) (ASX: SXG)** is pleased to announce further high-grade drill results from the 100%-owned Sunday Creek project in Victoria (Figure 1).

Drillhole SDDSC049, drilled below old workings at Golden Dyke for the first time, intersected **48.9 m @ 3.0 g/t AuEq** (2.0 g/t Au, 0.64% Sb) from 182 m (no lower cut) in a new shoot with wide zones of mineralisation and seven high-grade intersections (>10 g/t AuEq) grading up to 38.2 g/t AuEq (34.0 g/t Au and 2.67% Sb) and with abundant visible gold (Photos 1- 3).

This is an extremely significant result as it demonstrates both a new area beneath the Golden Dyke historic mine area and that multiple mineralised areas have now been drilled by SXG over a 700 m strike at Sunday Creek. **This follows drill hole SDDSC045<sup>1</sup> (89.5m @ 1.9 g/t AuEq including 3.8 m @ 28.9 g/t AuEq) reported by the Company on Monday 17 October, which was located 525 metres east at Apollo.** Two drillholes are reported here (SDDSC047/49).

### HIGHLIGHTS

- Drill hole SDDSC049, a 550 m step out along strike to the west of Apollo and 210 m from Rising Sun, and one of the first holes to drill under the most productive historic mining areas (Golden Dyke) at Sunday Creek intersected **48.9 m @ 3.0g/t AuEq** (2.0 g/t Au, 0.64% Sb) from 182 m (no lower cut) (Figure 3). Higher grade zones included:
  - **1.4 m @ 6.8 g/t AuEq** (0.3 g/t Au, 4.09% Sb) from 195.8 m, including
    - **0.4 m @ 22.97 g/t AuEq** (0.7 g/t Au, 14.10% Sb) from 195.8 m
  - **13.7 m @ 9.4 g/t AuEq** (6.6 g/t Au, 1.79% Sb) from 201.3 m, including
    - **2.7 m @ 20.9 g/t AuEq** (10.4 g/t Au, 6.59% Sb) from 204.4 m
    - **2.3 m @ 27.9 g/t AuEq** (24.7 g/t Au, 2.01% Sb) from 211.0 m
- Drill hole SDDSC047, drilled 30 m east of SDDSC049 intersected lower grade mineralisation (Figure 3):
  - **10.2 m @ 0.9 g/t AuEq** (0.9 g/t Au, 0.01% Sb) from 192.8 m, including
    - **0.3 m @ 5.1 g/t AuEq** (5.1 g/t Au, 0.02% Sb) from 197.8 m
- SXG is drilling three areas along a 700 m strike of known surface mineralisation, with the deepest drilling to date undertaken, and has two hole pending assays and two holes in progress. Of particular interest is drill hole SDDSC050, designed to drill the Rising Sun shoot in a previously untested west to east orientation.
- Michael Hudson, MD of SXG introduces these results in the video which can be found on the company home page [www.southerncrossgold.com.au](http://www.southerncrossgold.com.au).

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 Issued Capital: 156.2M fully paid shares

**SXG's Managing Director, Michael Hudson says,** *"Over the last two weeks we have tripled the extent of high-grade zones drilled at Sunday Creek and SDDSC049 delivers yet another >100 g/t x m AuEq, with 19 drillholes now exceeding this threshold on the project – an exceptional hit rate.*

*"Sunday Creek keeps on beating expectations with high grade mineralisation now identified in our first drilling under the most productive historic mine on the project at Golden Dyke. With three high grade areas now drilled over a 700 m strike at Golden Dyke, Rising Sun and Apollo we are witnessing the unveiling of a significant mineral system that keeps on delivering grade, scale and width in spades."*

## Drill Hole Discussion

This was SXG's first drill test under the most productive historic mining area (Golden Dyke) at Sunday Creek. This is an extremely significant result as it demonstrates that multiple mineralised areas exist over a 700 m strike, including:

- Golden Dyke drill hole SDDSC049 reported here: **48.9 m @ 3.0g/t AuEq** (2.0 g/t Au, 0.64% Sb) from 182 m (no lower cut) including **13.7 m @ 9.4 g/t AuEq** (6.6 g/t Au, 1.79% Sb) from 201.3 m.
- **Rising Sun**, drill hole SDDSC046<sup>1</sup> located 210 m east from SDDSC049: 21.5 m @ 15.0 g/t AuEq (12.2 g/t Au and 1.7% Sb), and
- **Apollo**, drill hole SDDSC033<sup>1</sup> located 550 m east from SDDSC049: 119.2 m @ 3.2 g/t Au and 0.4% Sb (3.9 g/t AuEq).

Historic drilling extends mineralisation 500 m west of Golden Dyke to the historic Christina mine and completely undrilled areas 10 km NE through historic mining areas at Leviathan, Consols, Aftermath and Tonal, all held within SXG 100% exploration tenure (Figure 2).

SDDSC049<sup>1</sup> was drilled 35 m beneath historic workings at Golden Dyke and 160 m below shallow historic drill hole CRC020<sup>1</sup> **54.0 m @ 1.9 g/t AuEq** (1.5 g/t Au, 0.3% Sb) from 0 m, including **3.0 m @ 17.9 g/t AuEq** (16.2 g/t Au and 1.1% Sb).

SDDSC047 drilled 30 m east of SDDSC049 and also reported here, demonstrates a wide zone of arsenic anomalism from 177.6 m to 206 m (28.4m), with lower grade gold including **10.2 m @ 0.9 g/t AuEq** (0.9 g/t Au, 0.01% Sb) from 192.8 m, including **0.3 m @ 5.1 g/t AuEq** (5.1 g/t Au, 0.02% Sb) from 197.8 m and is considered a near miss.

Mineralised shoots at Sunday Creek are formed at the intersection of the sub-vertical to shallower dipping 330 degree striking mineralised veins and a steep east-west striking, north dipping structure hosting dioritic dykes and related intrusive breccias. The dimensions of each shoot will be uncovered with further drilling, but typically:

- In the down plunge orientation (80 degrees towards trend of 020 degrees), high grades show a linear continuity to at least 400 m from surface and remain open.
- **20 m to 30 m** wide in the up-dip/down-dip orientation but can blow out to be wider (i.e. around SDDSC033), and;
- A true thickness of up to 50 m, with higher grades between **20 m and 40 m** in the cross section of the shoot but further drilling will be required to establish a more accurate average.

## Update on Current Drilling

Drilling with two rigs continues at Sunday Creek at Apollo and Rising Sun (located 400 m to the west of Apollo). Further drilling will now be prioritised at Golden Dyke (located 700 m west of Apollo). Two holes (SDDSC048A/51) are being geologically processed and analysed, with two holes (SDDSC050/52) remaining in drill progress (Figure 3).

Of particular interest is drill hole SDDSC050, designed to drill the Rising Sun shoot in a previously untested west to east orientation. A preliminary visual geological log of SDDSC050 indicates the Rising Sun shoot was intersected around 350 m with multiple zones of mineralisation occurring from 393 to 590 m with visible gold noted in certain restricted zones. This appears to be the thickest intersection of mineralisation seen to date, pending assays. The hole remains in progress.

Figures 1-4 show project location and plan, longitudinal and cross section views of drill results reported here and Tables 1–3 provide collar and assay data. The true thickness of the mineralised intervals is interpreted to be approximately 60 % - 70 % of the sampled thickness of high-grade mineralisation. All drill results quoted have a lower cut of 0.3 g/t Au cut over a 3.0 m width, with higher grades reported with a 5 g/t Au cut over 1.0 m, unless otherwise indicated.

### **Geological and Scale Comparison to Other Victorian Epizonal Deposits**

The Company considers Sunday Creek to have the potential to be a truly significant exploration discovery in Victoria with nineteen (19) >100 cumulative grade x metres (“AuEq g/t x m”) holes now intersected.

Sunday Creek has a 10 km mineralised trend that extends beyond the drill area and is defined by historic workings and soil sampling which have yet to receive any exploration drilling and offers potential future upside.

The Sunday Creek epizonal-style gold project is located 60 km north of Melbourne within 19,365 hectares of granted exploration tenements. SXG is also the freehold landholder of 132.64 hectares that forms the key portion in and around the drilled area at the Sunday Creek Project.

Geologically, the project is located within the Melbourne Structural Zone in the Lachlan Fold Belt. The regional host to the Sunday Creek mineralisation is an interbedded turbidite sequence of siltstones, minor sandstones metamorphosed to sub-greenschist facies and folded into a set of open NW trending folds. Mineralisation at Sunday Creek is controlled by veining, stibnite-gold-matrix breccias and brittle faults. The immediate host for mineralisation is a zone of intensely altered white mica-pyritic siltstones, and white mica-pyrite-carbonate altered dyke rocks.

As is typical for epizonal deposits like Fosterville and Costerfield, gold (locally visible) at Sunday Creek is hosted in quartz and carbonate veins, with a later intense stibnite-bearing vein and breccia overprint. A larger arsenic anomaly is associated with the gold mineralisation, mostly represented by arsenian-pyrite but developing to arsenopyrite-bearing zones with a clear spatial relationship to high-grade gold.

### **Further Discussion**

A video interview with Michael Hudson, Managing Director, introducing results presented here and a recent two-part video compilation by Dr Nick Cook, SXG’s Research Associate exploring the geology of SXG’s Sunday Creek tenement and analysis using LeapFrog 3D modelling software are available as presentations and videos on the [SXG website](#).

### **Critical Metal Epizonal Gold-Antimony Deposits**

Sunday Creek (Figure 1) is an epizonal gold-antimony deposit formed in the late Devonian (like Fosterville, Costerfield, Redcastle and Whroo), 60 million years later than mesozonal gold systems formed in Victoria (for example Ballarat and Bendigo). Epizonal deposits are a form of orogenic gold deposit classified according to their depth of formation: epizonal (<6 km), mesozonal (6-12 km) and hypozonal (>12 km).

Epizonal deposits in Victoria often have associated high levels of the metal, antimony, and Sunday Creek is no exception. Geoscience Australia reported that as at 2019, antimony is a critical metal where China and Russia combined produce approximately 82% of the antimony raw material supply. Antimony features highly on the critical minerals lists of many countries including Australia, the United States of America, Canada, Japan and the European Union. Australia ranks seventh for antimony production despite all production

coming from a single mine at Costerfield in Victoria, located nearby to all SXG projects. Antimony alloys with lead and tin which results in improved properties for solders, munitions, bearings and batteries. Antimony is a prominent additive for halogen-containing flame retardants. Adequate supplies of antimony are critical to the world's energy transition, and to the high-tech industry, especially the semi-conductor and defence sectors. For example, antimony is a critical element in the manufacture of lithium-ion batteries and to the next generation of liquid metal batteries that lead to scalable energy storage for wind and solar power.

### Gold Equivalent Calculation

SXG considers that both gold and antimony that are included in the gold equivalent calculation ("AuEq") have reasonable potential to be recovered at Sunday Creek, given current geochemical understanding, historic production statistics and geologically analogous mining operations. Historically, ore from Sunday Creek was treated onsite or shipped to the Costerfield mine, located 54 km to the northwest of the project, for processing during WW1. The Costerfield mine corridor, now owned by Mandalay Resources Ltd contains 2 million ounces of equivalent gold (Mandalay Q3 2021 Results), and in 2020 was the sixth highest-grade global underground mine and a top five global producer of antimony.

SXG considers that it is appropriate to adopt the same gold equivalent variables as Mandalay Resources Ltd in its Mandalay Technical Report, 2022 dated 25 March 2022. The gold equivalence formula used by Mandalay Resources was calculated using recoveries achieved at the Costerfield Property Brunswick Processing Plant during 2020, using a gold price of US\$1,700 per ounce, an antimony price of US\$8,500 per tonne and 2021 total year metal recoveries of 93% for gold and 95% for antimony, and is as follows: ***AuEq = Au (g/t) + 1.58 × Sb (%)***.

Based on the latest Costerfield calculation and given the similar geological styles and historic toll treatment of Sunday Creek mineralisation at Costerfield, SXG considers that a ***AuEq = Au (g/t) + 1.58 × Sb (%)*** is appropriate to use for the initial exploration targeting of gold-antimony mineralisation at Sunday Creek.

- Ends -

This announcement has been approved for release by the Board of Southern Cross Gold Ltd.

### Competent Person Statement

Information in this announcement that relates to new exploration results contained in this report is based on information compiled by Mr Michael Hudson, a Fellow of the Australasian Institute of Mining and Metallurgy. He is MD for Southern Cross Gold Ltd. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity being undertaking 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 (the JORC Code). Michael Hudson has consented to the inclusion in this report of the matters based on this information in the form and context in which it appears.

Certain information in this announcement that relates to prior exploration results is extracted from the Independent Geologist's Report dated 16 March 2022 which was issued with the consent of the Competent Person, Mr Terry C. Lees. The report is included the Company's prospectus dated 17 March 2022 which was released as an announcement to ASX on 12 May 2022 and is available at [www2.asx.com.au](http://www2.asx.com.au) under code "SXG". The Company confirms that it is not aware of any new information or data that materially affects the information related to exploration results included in the original market announcement. The Company confirms that the form and context of the Competent Persons' findings in relation to the report have not been materially modified from the original market announcement.

Previously reported drill results<sup>1</sup> can be accessed from the follows:

- <https://wcsecure.weblink.com.au/pdf/SXG/02526261.pdf>
- [https://uploads-ssl.webflow.com/6164f987875e87a4dbb1404e/626f5bb404af2a844fec9702\\_Southern%20Cross%20Prospectus%20-%2017%20March%202022%20Final%20Version.pdf](https://uploads-ssl.webflow.com/6164f987875e87a4dbb1404e/626f5bb404af2a844fec9702_Southern%20Cross%20Prospectus%20-%2017%20March%202022%20Final%20Version.pdf)
- <https://wcsecure.weblink.com.au/pdf/SXG/02577304.pdf>
- <https://wcsecure.weblink.com.au/pdf/SXG/02582938.pdf>



### About Southern Cross Gold Ltd



The Southern Cross Gold corporate branding embodies important characteristics of the new entity. The blue lettering acknowledges the state colour of Victoria, and the gold recognises the Victorian goldfields. The Southern Cross is a constellation also represented on the Australian flag which provides a strong cultural significance to all Australians. The main 7-pointed star represents the unity of the six states and the territories of the Commonwealth of Australia and the

addition of a miner's pickaxe within the body of the star reflects the central place that mineral exploration has in Australia and, of course, to Southern Cross Gold.

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Figure 1: Location of the Sunday Creek project, along with SXG's other Victoria projects.

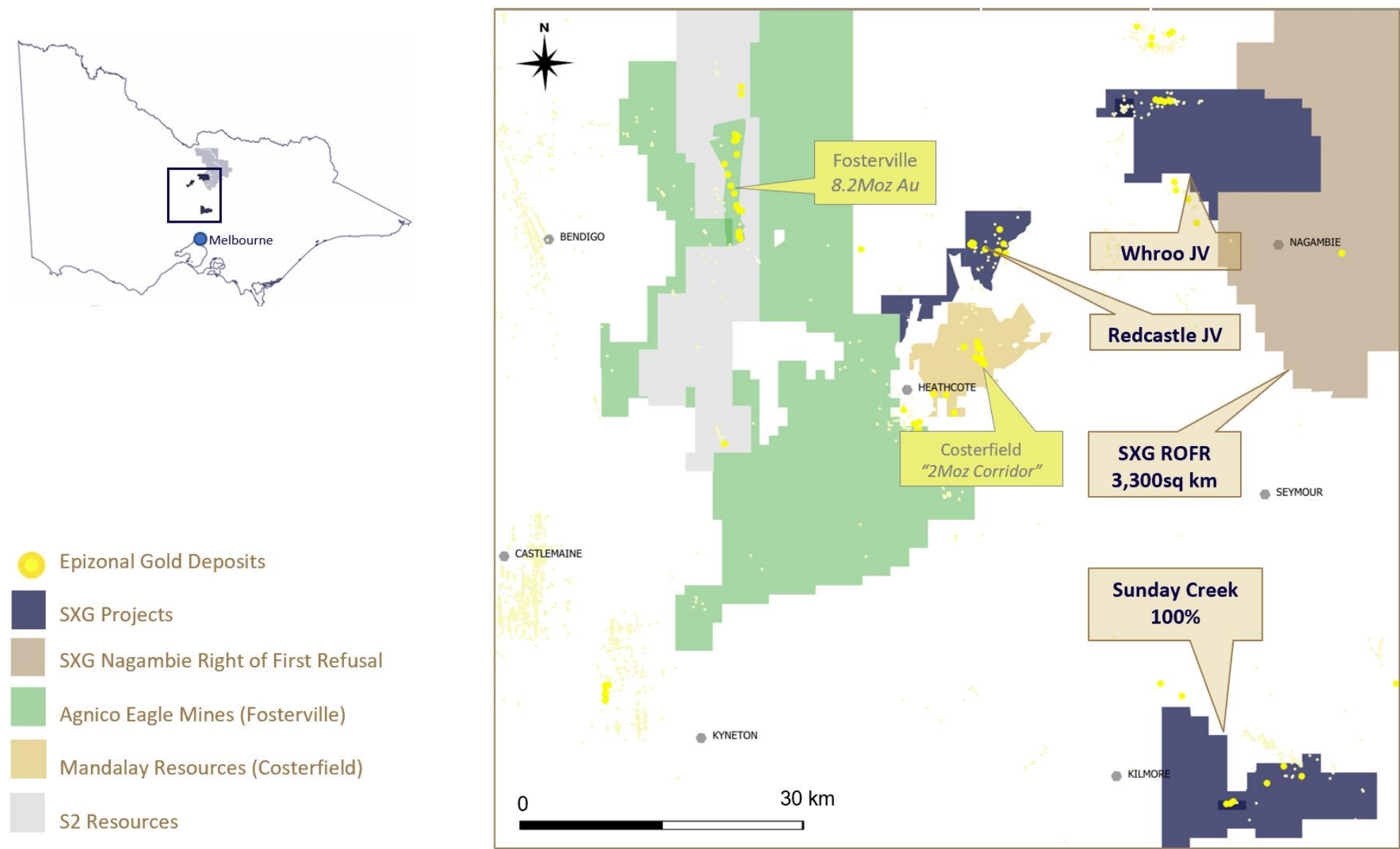


Figure 2: Location of the Sunday Creek drill area at Golden Dyke – Rising Sun -Apollo, showing undrilled 10 km extension to the north-east with historic mines and gridded gold in soil geochemistry.

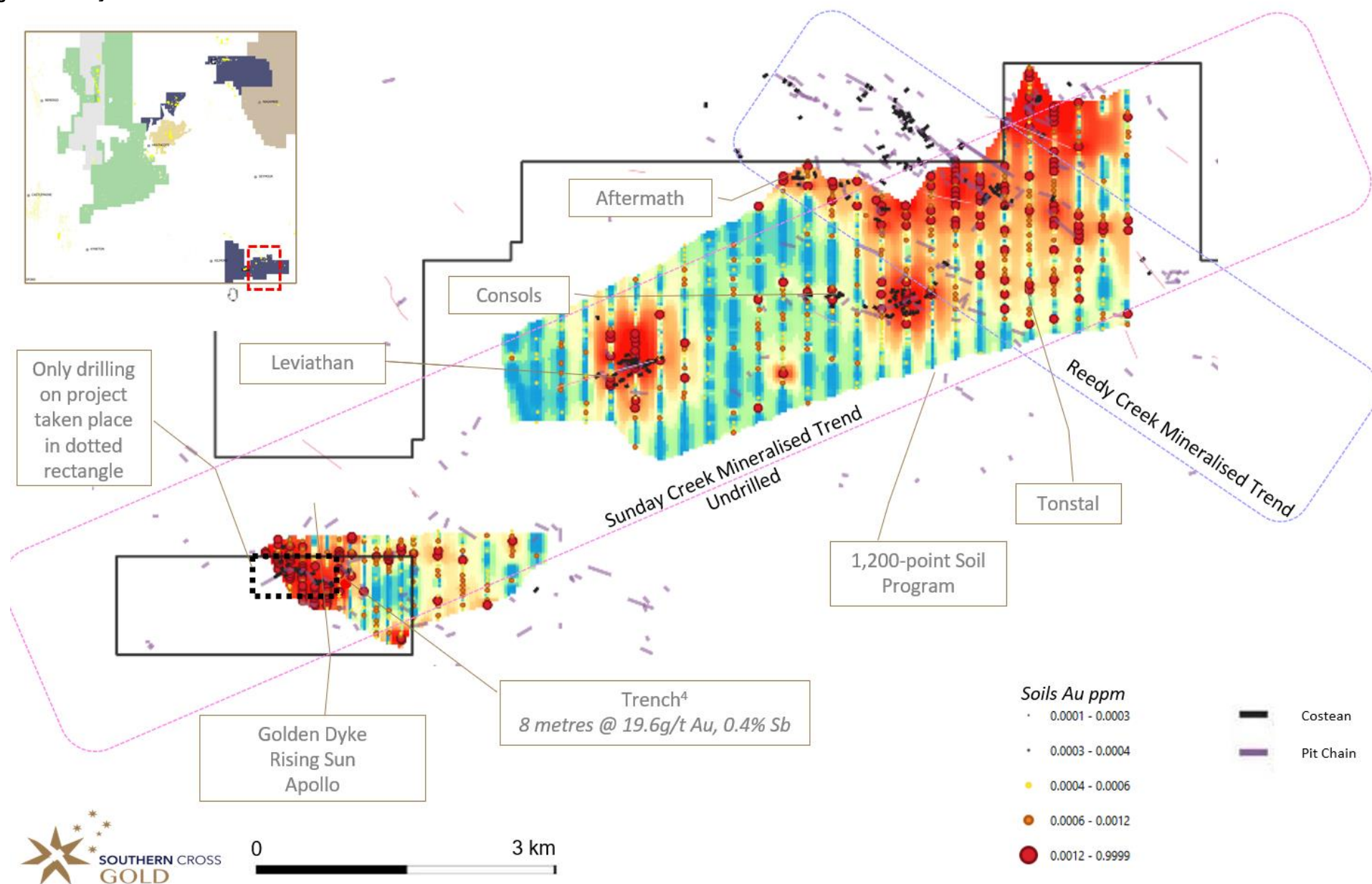


Figure 3: Sunday Creek plan view showing drillholes for results reported in this announcement, prior reported drill holes<sup>1</sup> and pending holes.

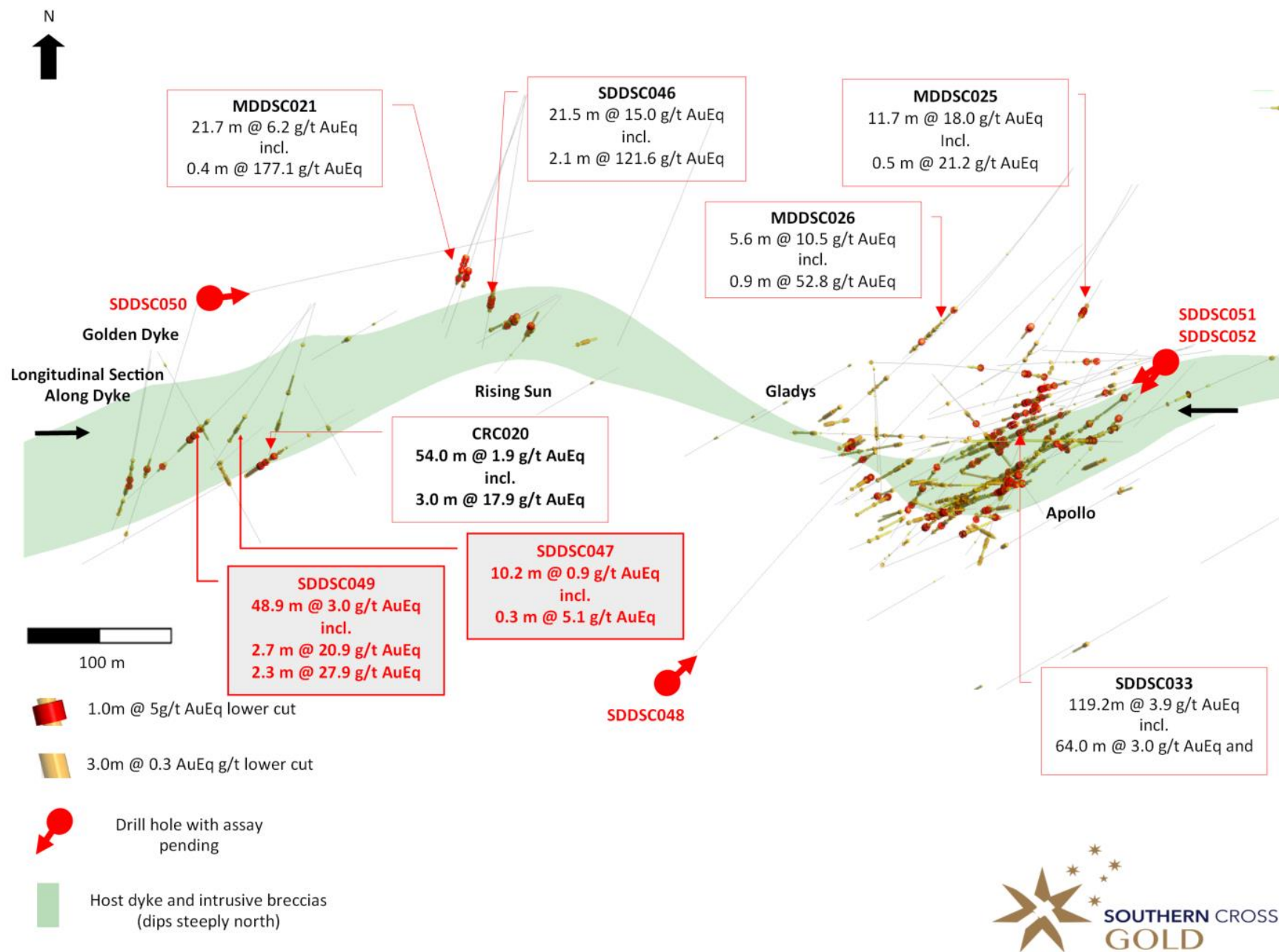
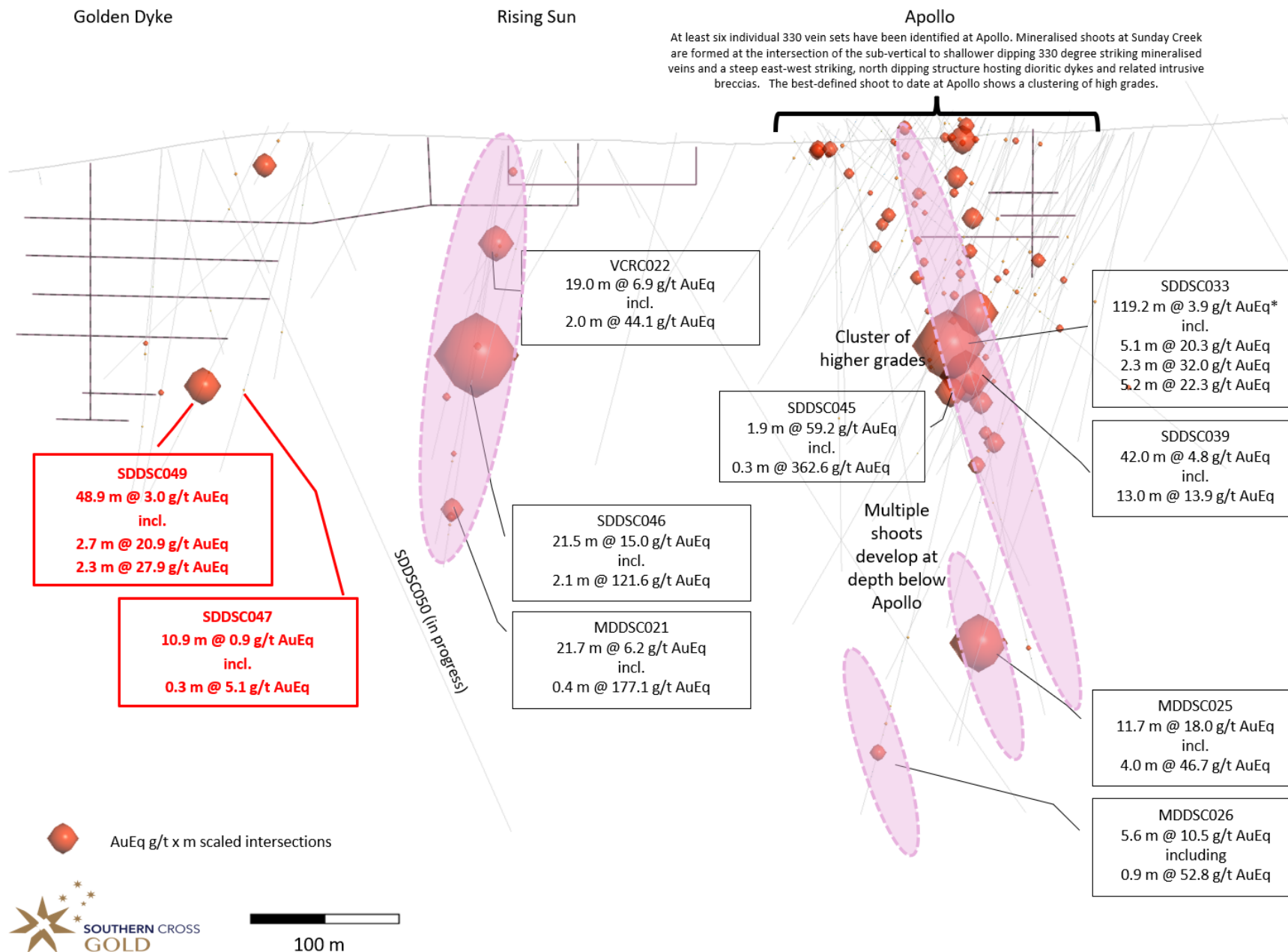


Figure 4: Sunday Creek east-west longitudinal section looking towards 000, along the trend of the dyke/structure showing individual shoots defined to date. Also, prior reported drillholes shown<sup>1</sup>.



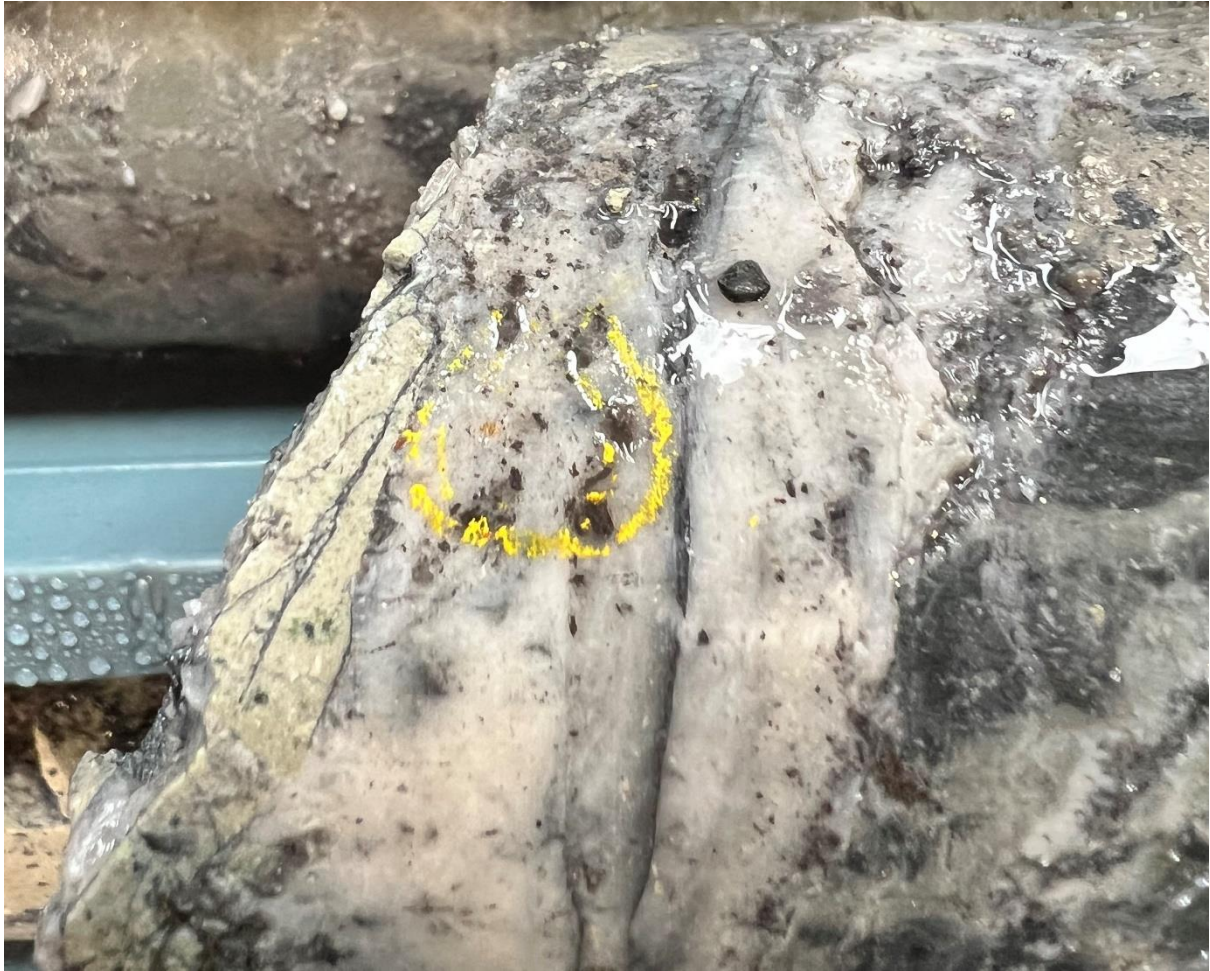
**Photo 1: SDDSC049 211.35m, field of view 60mm, showing visible gold in yellow circles within quartz, carbonate and stibnite vein in altered metasediment.**



**Photo 2: SDDSC049 211.9m, field of view 20mm, with visible gold within quartz.**



**Photo 3: SDDSC049 212.4m, field of view 60mm, showing visible gold in yellow circles within quartz, carbonate and stibnite vein with altered dioritic dyke on margin of vein.**



**Table 1: Drill collar summary table for recent drillholes or those reported in this announcement and in progress.**

Hole_ID	Hole Size	Depth (m)	Prospect	East GDA94_Z55	North GDA94_Z55	Elevation	Azimuth	Plunge
SDDSC041	HQ	174.0	Rising Sun	330776.9	5867890.5	295.4	221.0	-67.0
SDDSC042	HQ	250.5	Apollo	331019.3	5867839.9	299.3	137.5	-61.6
SDDSC043	HQ	323.4	Rising Sun	330753.0	5868022.7	294.5	198.0	-61.6
SDDSC044	HQ	338.9	Apollo	330977.0	5867847.6	296.7	91.6	-63.9
SDDSC045	HQ	237.3	Apollo	331019.0	5867840.2	299.4	139.0	-69.8
SDDSC046	HQ	240.0	Rising Sun	330753.4	5868022.0	294.6	188.6	-47.2
SDDSC047	HQ	260.8	Golden Dyke	330613.1	5867886.0	300.0	209.1	-60.7
SDDSC048	HQ	62.6	Apollo	330814.3	5867599.0	295.7	36.8	-49.4
SDDSC048A	HQ	645	Apollo	330814.3	5867599.0	295.7	39.9	-46.4
SDDSC049	HQ	308	Golden Dyke	330615.8	5867886.4	300.2	218.4	-54.6
SDDSC050	HQ	In progress Plan 650 m	Rising Sun	330538.6	5867885.4	295.5	77	-63.5
SDDSC051	HQ	263.5 m	Apollo	331191.4	5867848	307.4	226.5	-74.5
SDDSC052	HQ	In progress Plan 235 m	Apollo	331191.4	5867848	307.4	246.8	-67.4

**Table 2: Tables of mineralised drill hole intersections reported in this announcement using two cut-off criteria. Lower grades cut at 0.3 g/t lower cutoff over a maximum of 3 m with higher grades cut at 5.0 g/t AuEq cutoff over a maximum of 1 m.**

Drill Hole	From (m)	To (m)	Width (m)	Au g/t	Sb %	AuEq g/t
SDDSC047	177.0	178.6	1.6	0.4	0.02	0.4
SDDSC047	183.2	183.8	0.7	0.3	0.03	0.3
SDDSC047	192.8	203.0	10.2	0.9	0.01	0.9
including	197.8	198.0	0.3	5.1	0.02	5.1
SDDSC047	215.0	216.9	1.9	0.5	0.00	0.5
SDDSC049	182.0	186.0	4.0	0.4	0.10	0.6
SDDSC049	190.1	191.0	0.9	0.2	0.06	0.3
SDDSC049	195.8	197.2	1.4	0.3	4.09	6.8
including	195.8	196.2	0.4	0.7	14.10	23.0
SDDSC049	201.3	215.0	13.7	6.6	1.79	9.4
including	204.4	207.1	2.7	10.4	6.59	20.9
including	211.0	213.3	2.3	24.7	2.01	27.9
SDDSC049	218.4	219.3	0.9	1.5	0.13	1.7
SDDSC049	251.0	252.0	1.0	3.9	0.02	3.9
SDDSC049	255.6	256.0	0.4	2.0	3.85	8.1
including	255.6	256.0	0.4	2.0	3.85	8.1

**Table 3: All individual assays reported from SDDSC042/45 in this announcement >0.1g/t AuEq.**

Drill Hole	From (m)	To (m)	Width (m)	Au g/t	Sb %	AuEq g/t
SDDSC047	177.0	177.6	0.6	0.4	0.00	0.4
SDDSC047	177.6	178.6	1.0	0.3	0.02	0.3
SDDSC047	180.0	180.6	0.6	0.1	0.05	0.1
SDDSC047	181.5	182.3	0.8	0.1	0.01	0.1
SDDSC047	182.3	183.2	0.8	0.1	0.06	0.2
SDDSC047	183.2	183.8	0.7	0.3	0.03	0.3
SDDSC047	184.6	185.7	1.1	0.0	0.02	0.1
SDDSC047	185.7	186.6	0.9	0.1	0.01	0.1
SDDSC047	186.6	188.0	1.4	0.1	0.00	0.1
SDDSC047	189.8	191.0	1.2	0.1	0.00	0.1
SDDSC047	191.0	191.9	0.8	0.1	0.01	0.1
SDDSC047	191.9	192.8	1.0	0.3	0.00	0.3
SDDSC047	192.8	193.6	0.8	1.4	0.01	1.4
SDDSC047	193.6	194.0	0.4	1.0	0.00	1.0
SDDSC047	194.0	194.5	0.6	1.3	0.01	1.3
SDDSC047	194.5	195.4	0.9	0.7	0.01	0.7
SDDSC047	195.4	196.4	0.9	1.7	0.01	1.7
SDDSC047	196.4	196.7	0.3	0.6	0.00	0.6
SDDSC047	196.7	197.1	0.4	0.2	0.01	0.2
SDDSC047	197.1	197.8	0.7	0.4	0.01	0.4
SDDSC047	197.8	198.0	0.3	5.1	0.02	5.1
SDDSC047	198.0	198.6	0.6	0.1	0.01	0.1
SDDSC047	198.6	199.6	1.0	1.3	0.01	1.3
SDDSC047	199.6	200.8	1.2	0.8	0.01	0.8
SDDSC047	200.8	201.3	0.5	0.4	0.00	0.4
SDDSC047	201.3	202.0	0.7	0.6	0.00	0.6
SDDSC047	202.0	203.0	1.0	0.4	0.00	0.4
SDDSC047	203.0	204.1	1.1	0.2	0.00	0.2
SDDSC047	204.1	205.0	0.9	0.1	0.00	0.1
SDDSC047	205.0	206.0	1.0	0.0	0.02	0.1
SDDSC047	211.0	212.0	1.0	0.1	0.00	0.1
SDDSC047	215.0	216.3	1.3	0.5	0.00	0.5
SDDSC047	216.3	216.9	0.7	0.4	0.01	0.4
SDDSC047	217.3	218.0	0.7	0.1	0.00	0.1
SDDSC049	182.0	183.0	1.0	0.5	0.00	0.5
SDDSC049	184.0	185.0	1.0	0.5	0.01	0.5
SDDSC049	185.0	186.0	1.0	0.8	0.39	1.4
SDDSC049	187.0	188.0	1.0	0.1	0.04	0.2
SDDSC049	190.1	191.0	0.9	0.2	0.06	0.3
SDDSC049	192.0	192.9	0.9	0.1	0.01	0.1
SDDSC049	194.1	195.3	1.2	0.0	0.03	0.1
SDDSC049	195.8	196.2	0.4	0.7	14.10	23.0

SDDSC049	196.2	196.5	0.3	0.0	0.22	0.4
SDDSC049	196.5	196.9	0.4	0.2	0.03	0.3
SDDSC049	196.9	197.2	0.3	0.3	0.05	0.4
SDDSC049	197.2	197.6	0.4	0.1	0.01	0.1
SDDSC049	197.6	198.0	0.4	0.1	0.01	0.1
SDDSC049	199.0	200.4	1.4	0.1	0.00	0.1
SDDSC049	200.4	201.3	0.9	0.1	0.01	0.1
SDDSC049	201.3	202.0	0.7	0.4	0.07	0.5
SDDSC049	202.0	203.0	1.0	0.1	0.02	0.2
SDDSC049	203.0	204.0	1.0	0.3	0.01	0.3
SDDSC049	204.0	204.4	0.4	0.1	0.01	0.2
SDDSC049	204.4	204.7	0.3	34.0	2.67	38.2
SDDSC049	204.7	206.1	1.4	11.7	9.56	26.8
SDDSC049	206.1	206.5	0.4	1.6	5.66	10.5
SDDSC049	206.5	207.1	0.6	1.6	2.24	5.1
SDDSC049	207.1	208.1	1.0	0.2	0.08	0.3
SDDSC049	208.1	208.8	0.7	1.0	0.78	2.2
SDDSC049	208.8	209.7	0.9	0.3	0.04	0.4
SDDSC049	209.7	210.3	0.6	2.0	0.06	2.1
SDDSC049	210.3	210.8	0.4	1.3	0.48	2.0
SDDSC049	210.8	211.0	0.3	0.4	1.59	3.0
SDDSC049	211.0	211.8	0.8	30.2	4.29	37.0
SDDSC049	211.8	212.4	0.6	27.6	0.39	28.2
SDDSC049	212.4	213.3	0.9	17.8	1.07	19.5
SDDSC049	213.3	214.0	0.7	1.3	0.88	2.7
SDDSC049	214.0	215.0	1.0	0.7	0.08	0.8
SDDSC049	215.0	216.0	1.0	0.2	0.03	0.2
SDDSC049	216.0	217.0	1.0	0.1	0.00	0.1
SDDSC049	218.4	219.3	0.9	1.5	0.13	1.7
SDDSC049	219.3	220.3	1.0	0.1	0.02	0.2
SDDSC049	223.1	224.2	1.1	0.1	0.00	0.1
SDDSC049	224.2	225.0	0.8	0.0	0.05	0.1
SDDSC049	225.0	225.7	0.7	0.0	0.08	0.1
SDDSC049	226.3	226.8	0.5	0.0	0.02	0.1
SDDSC049	226.8	227.8	1.0	0.0	0.12	0.2
SDDSC049	227.8	228.9	1.1	0.1	0.01	0.1
SDDSC049	229.9	230.9	1.0	0.1	0.03	0.1
SDDSC049	251.0	252.0	1.0	3.9	0.02	3.9
SDDSC049	255.0	255.6	0.6	0.0	0.02	0.1
SDDSC049	255.6	256.0	0.4	2.0	3.85	8.1
SDDSC049	256.0	257.0	1.0	0.0	0.14	0.2
SDDSC049	257.0	258.0	1.0	0.1	0.01	0.1
SDDSC049	262.6	262.9	0.3	0.0	0.09	0.2

## JORC Table 1

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (eg 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.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>Sampling has been conducted on drill core (half core for &gt;90 % and quarter core for check samples), grab samples (field samples of in-situ bedrock and boulders; including duplicate samples), trench samples (rock chips, including duplicates) and soil samples (including duplicate samples). Locations of field samples were obtained by using a GPS, generally to an accuracy of within 5 metres. Drill hole and trench locations have been confirmed to &lt;1 metre using a differential GPS. Samples locations have also been verified by plotting locations on the high-resolution Lidar maps</li> <li>Drill core is marked for cutting at the Nagambie core shed and sent by commercial transport to an automated diamond saw used by Company staff in Bendigo. Samples are bagged at the core saw and transported to the nearby OnSite Laboratory for assay. At OnSite samples are crushed using a jaw crusher combined with a rotary splitter and a 1 kg split is separated for pulverising (LM5) and assay.</li> <li>Standard fire assay techniques are used for gold assay on a 30 g charge by experienced staff (used to dealing with high sulphide and stibnite-rich charges). OnSite gold method by fire assay code PE01S.</li> <li>Screen fire assay is used to understand gold grain-size distribution where coarse gold is evident.</li> <li>ICP-OES is used to analyse the aqua regia digested pulp for an additional 12 elements (method BM011) and over-range antimony is measured using flame AAS (method known as B050).</li> <li>Soil samples were sieved in the field and an 80 mesh sample bagged and transported to ALS Global laboratories in Brisbane for super-low level gold analysis on a 50 g samples by method ST44 (using aqua regia and ICP-MS).</li> <li>Grab and rock chip samples are generally submitted to OnSite Laboratories for standard fire assay and 12 element ICP-OES as described above.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li><i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	<ul style="list-style-type: none"> <li>HQ diameter diamond drill core, oriented using Boart Longyear TruCore orientation tool with the orientation line marked on the base of the drill core by the driller/offsider. A standard 3 metre core barrel has been found to be most effective in both the hard and soft rocks in the project.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Core recoveries were maximised using HQ diamond drill core with careful control over water pressure to maintain soft-rock integrity and prevent loss of fines from soft drill core. Recoveries are determined on a metre-by-metre basis in the core shed using a tape measure against marked up drill core checking against driller's core blocks.</li> <li>Plots of grade versus recovery and RQD (described below) show no trends relating to loss of drill core, or fines.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Geotechnical logging of the drill core takes place on racks in the company core shed. Core orientations marked at the drill rig are checked for consistency, and base of core orientation lines are marked on core where two or more orientations match within 10 degrees. Core recoveries are measured for each metre RQD measurements (cumulative quantity of core sticks &gt; 10 cm in a metre) are made on a metre by metre basis.</li> <li>Each tray of drill core is photographed (wet and dry) after it is fully marked up for sampling and cutting.</li> <li>The ½ core cutting line is placed approximately 10 degrees above the orientation line so the orientation line is retained in the core tray for future work.</li> <li>Geological logging of drill core includes the following parameters: Rock types, lithology Alteration Structural information (orientations of veins, bedding, fractures using standard alpha-beta measurements from orientation line; or, in the case of un-oriented parts of the core, the alpha angles are measured) Veining (quartz, carbonate, stibnite) Key minerals (visible under hand lens, e.g. gold, stibnite)</li> <li>100 % of drill core is logged for all components described above into the company MX logging database.</li> <li>Logging is fully quantitative, although the description of lithology and alteration relies on visible observations by trained geologists.</li> <li>Each tray of drill core is photographed (wet and dry) after it is fully marked up for sampling and cutting.</li> <li>Logging is considered to be at an appropriate quantitative standard to use in future studies.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>Drill core is typically sampled using half of the HD diameter. The drill core orientation line is retained.</li> <li>Quarter core is used when taking sampling duplicates (termed FDUP in the database).</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sampling representivity is maximised by always taking the same side of the drill core (whenever oriented), and consistently drawing a cut line on the core where orientation is not possible. The field technician draws these lines.</li> <li>• Sample sizes are maximised for coarse gold by using half core, and using quarter core and half core splits (laboratory duplicates) allows an estimation of nugget effect.</li> <li>• In mineralised rock the company uses approximately 10% of ¼ core duplicates, certified reference materials (suitable OREAS materials), laboratory sample duplicates and instrument repeats.</li> <li>• In the soil sampling program duplicates were obtained every 20<sup>th</sup> sample and the laboratory inserted low-level gold standards regularly into the sample flow.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>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.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The fire assay technique for gold used by OnSite is a globally recognised method, and over-range follow-ups including gravimetric finish and screen fire assay are standard. Of significance at the OnSite laboratory is the presence of fire assay personnel who are experienced in dealing with high sulphide charges (especially those with high stibnite contents) – this substantially reduces the risk of inaccurate reporting in complex sulphide-gold charges.</li> <li>• The ICP-OES technique is a standard analytical technique for assessing elemental concentrations. The digest used (aqua regia) is excellent for the dissolution of sulphides (in this case generally stibnite, pyrite and trace arsenopyrite), but other silicate-hosted elements, in particular vanadium (V), may only be partially dissolved. These silicate-hosted elements are not important in the determination of the quantity of gold, antimony, arsenic or sulphur.</li> <li>• A portable XRF has been used in a qualitative manner on drill core to ensure appropriate core samples have been taken (no pXRF data are reported or included in the MX database).</li> <li>• Acceptable levels of accuracy and precision have been established using the following methods  <i>¼ duplicates</i> – half core is split into quarters and given separate sample numbers (commonly in mineralised core) – low to medium gold grades indicate strong correlation, dropping as the gold grade increases over 40 g/t Au.  <i>Blanks</i> – blanks are inserted after visible gold and in strongly mineralised rocks to confirm that the crushing and pulping are not affected by gold smearing onto the crusher and LM5 swing mill surfaces. Results are excellent, generally below detection limit and a single sample at 0.03 g/t Au.  <i>Certified Reference Materials</i> – OREAS CRMs have been used throughout the project including blanks, low (&lt;1 g/t Au), medium (up to 5 g/t Au) and high-grade gold samples (&gt; 5 g/t Au). Results are automatically checked on</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>data import into the MX database to fall within 2 standard deviations of the expected value.</p> <p><i>Laboratory splits</i> – OnSite conducts splits of both coarse crush and pulp duplicates as quality control and reports all data. In particular, high Au samples have the most repeats.</p> <p><i>Laboratory CRMs</i> – OnSite regularly inserts their own CRM materials into the process flow and reports all data</p> <p><i>Laboratory precision</i> – duplicate measurements of solutions (both Au from fire assay and other elements from the aqua regia digests) are made regularly by the laboratory and reported.</p> <ul style="list-style-type: none"> <li>• <i>Accuracy and precision</i> have been determined carefully by using the sampling and measurement techniques described above during the sampling (accuracy) and laboratory (accuracy and precision) stages of the analysis.</li> <li>• <i>Soil sample</i> company duplicates and laboratory certified reference materials all fall within expected ranges.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Independent Geologist has visited Sunday Creek drill sites and inspected drill core held at the Nagambie core shed.</li> <li>• Visual inspection of drill intersections matches the both the geological descriptions in the database and the expected assay data (for example, gold and stibnite visible in drill core is matched by high Au and Sb results in assays).</li> <li>• In addition, on receipt of results Company geologists assess the gold, antimony and arsenic results to verify that the intersections returned expected data.</li> <li>• The electronic data storage in the MX database is of a high standard. Primary logging data are entered directly by the geologists and field technicians and the assay data are electronically matched against sample number on return from the laboratory.</li> <li>• Certified reference materials, ¼ core field duplicates (FDUP), laboratory splits and duplicates and instrument repeats are all recorded in the database.</li> <li>• Exports of data have the option of including all primary data, or a subset with average field duplicates for some reporting.</li> <li>• Adjustments to assay data are recorded by MX, and none are present (or required).</li> <li>• Twinned drill holes are not available at this stage of the project.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Differential GPS used to locate drill collars, trenches and some workings</li> <li>• Standard GPS for some field locations (grab and soils samples), verified against Lidar data.</li> <li>• The grid system used throughout is Geocentric datum of Australia 1994; Map Grid Zone 55 (GDA94_Z55), also referred to as ELSG 28355.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Topographic control is excellent owing to sub 10 cm accuracy from Lidar data.</li> <li>• The data spacing is suitable for reporting of exploration results – evidence for this is based on the improving predictability of high grade gold-antimony intersections.</li> <li>• At this time the data spacing and distribution are not sufficient for the reporting of Mineral Resource Estimates. This however may change as knowledge of grade controls increase with future drill programs.</li> <li>• Sample compositing has not been applied to the reporting of any drill results.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The true thickness of the mineralised interval reported is interpreted to be approximately 60-70% of the sampled thickness.</li> <li>• Drilling is oriented in an optimum direction when considering the combination of host rock orientation and apparent vein control on gold and antimony grade. The steep nature of some of the veins may give increases in apparent thickness of some intersections, but more drilling is required to quantify.</li> <li>• A sampling bias is not evident from the data collected to date (drill holes cut across mineralised structures at a moderate angle).</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill core is delivered to the Nagambie core logging shed by either the drill contractor or company field staff. Samples are marked up by company staff at the Nagambie core shed, loaded onto strapped secured pallets and trucked by commercial transport to Bendigo where they are cut by company staff in an automated diamond saw and bagged before submission to the laboratory. There is no evidence in any stage of the process, or in the data for any sample security issues.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Continuous monitoring of CRM results, blanks and duplicates is undertaken by geologists and the company data geologist.</li> </ul>