ASX Announcement

24 June 2024

ASSAYS FROM LATEST HOLE RECEIVED, DISTINCT MINERALISED ZONE DEFINED AT GOORNONG PROSPECT, GREATER FOSTERVILLE PROJECT

Key Points

- **Assays received for the second (SFVD0008) of two follow-up diamond drill holes at the Goornong prospect, Greater Fosterville**
- **Several intervals of gold mineralisation intersected**
- **Distinct mineralised surface dubbed the Blackadder fault identified in four holes**
- **The Blackadder fault is open up and down dip and along strike and represents a discrete drill target for future follow up**

S2 Resources Ltd ("S2" or the "Company") advises that its wholly owned subsidiary, Southern Star Exploration Pty Ltd ("Southern Star"), has received assay results for the second of two follow-up holes at the Goornong prospect, on its 100% owned Greater Fosterville project in Victoria, Australia.

Hole SFVD0008 was the second of two follow up holes designed to test the northern strike position of mineralised intercepts in SFVD0005 and SFVD0006 but in a position 25-50 metres east of the axial plane tested by the earlier holes, to allow an assessment of not only any along strike continuity of mineralised structures, but importantly their persistence up/down dip to the east as they passed into the eastern limb of the primary anticline.

The new intercepts in hole SFVD0008 include:

- 0.6 metres @ 1.7g/t gold from 163.9 metres
- 3.4 metres @ 1.0g/t gold from 181 metres
- 3.5 metres @ 2.4g/t gold from 358.2 metres
- 0.55 metres @ 1.2g/t gold from 377.25 metres
- 0.55 metres @ 1.8g/t gold from 380.7 metres

Detailed logging of all eight holes drilled to date together with one historical hole has enabled the Company to identify what it believes is the same structure in four different holes, and these intercepts define a consistent plane comprising a fault zone dubbed the Blackadder Fault (see Figure 1).

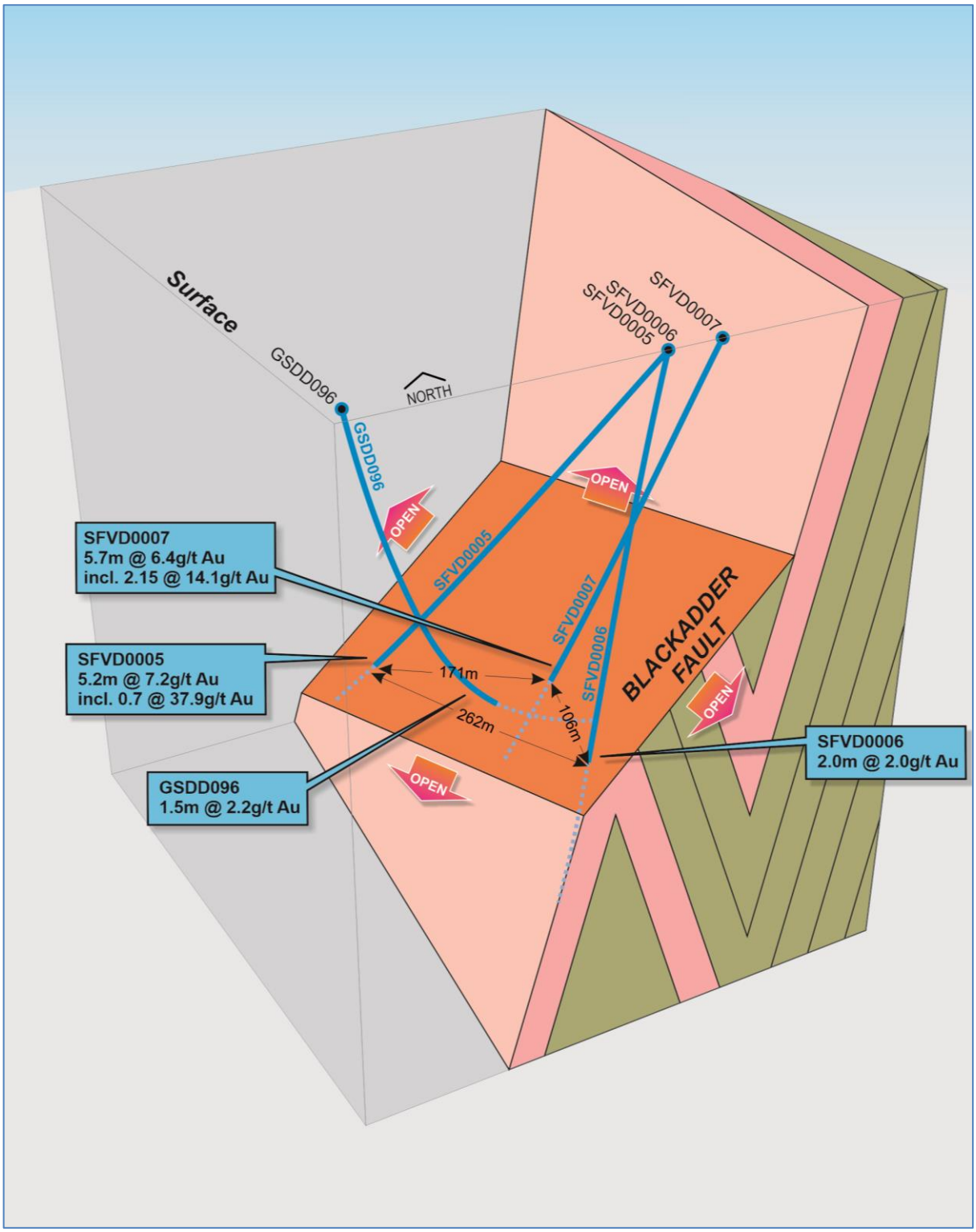

Figure 1. Isometric block diagram looking north-northeast showing drillhole collars at surface and pierce points on the Blackadder Fault with associated gold intercepts at depth. The fault surface is assumed to extend up and down dip to adjacent fold limbs where it may steepen and becomes parallel with stratigraphic units. The orange coloured part is the flatter part which is considered more likely to dilate and thicken.

The gold intercepts associated with the Blackadder Fault comprise:

- **5.2 metres @ 7.2g/t gold** from 490 metres in SFVD0005 including **0.7 metres @ 37.9g/t gold** from 492.8 metres
- 2.0 metres @ 2.0g/t gold from 309 metres in SFVD0006
- **5.7 metres @ 6.4g/t gold** from 344 metres in SFVD0007 including **2.15 metres @ 14.1g/t gold** from 347.55 metres
- 1.5 metres @ 2.2g/t gold from 414 metres in GSDD096

Most other gold intercepts to date (see S2 ASX announcements of 6 May 2024, 26 March 2024, 15 February 2024 and 30 October 2023) appear to occur within or in the hangingwall of this structure. The Blackadder Fault has a north-northeasterly strike, dips moderately to the west and plunges gently to the north, and has so far been defined over a strike length of 260 metres and a dip extent of 45 metres (see Figures 1 and 2). Importantly, it is open both up and down dip, along strike, and down plunge.

Most of the other zones of gold mineralisation intersected in the holes drilled to date appear to be confined to the hangingwall of the Blackadder Fault. The initial reconnaissance diamond drilling has succeeded in its objective of defining a specific target structure, which appears to plunge in an opposite sense to initial expectations. Future drilling at Goornong will aim to test the strike and dip extents of this zone.

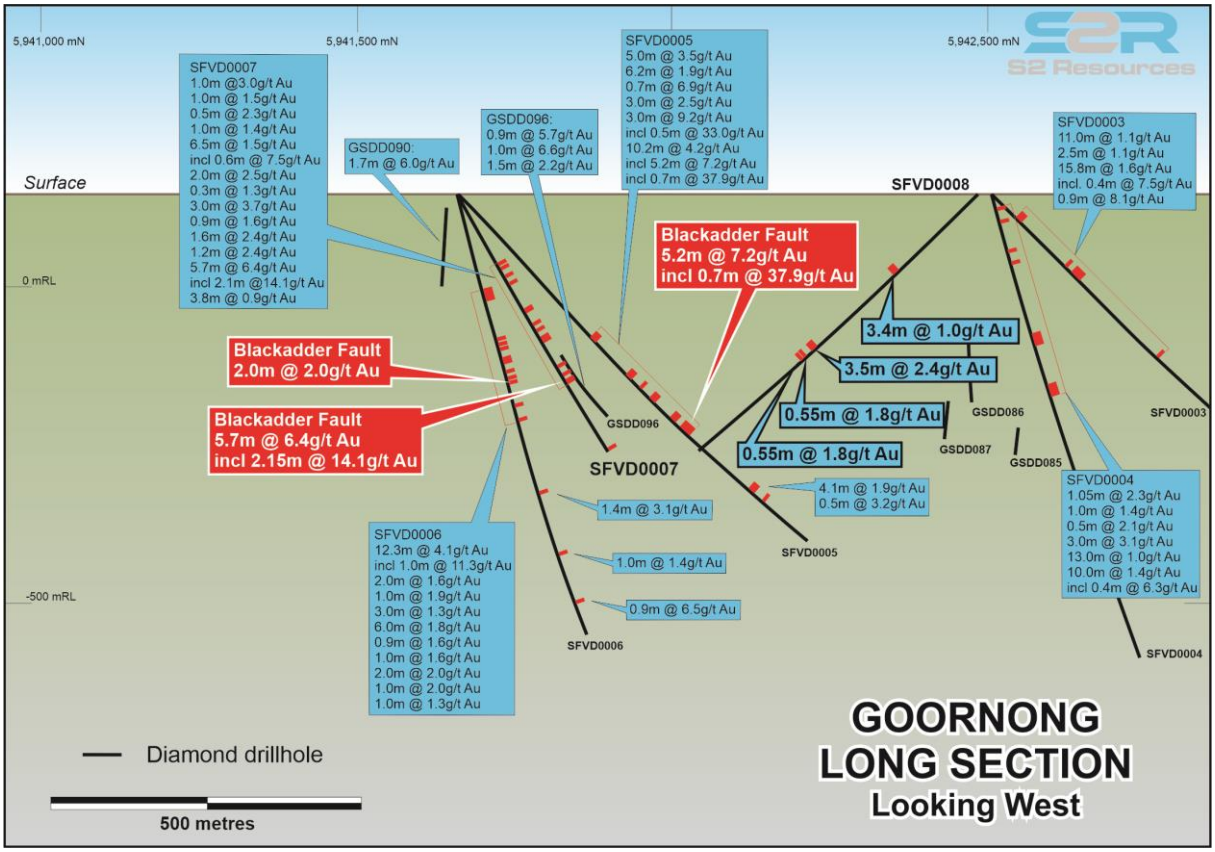

Figure 2. Long projection of the Goornong area showing the six holes drilled parallel to the axial plane of the fold with the Blackadder Fault intercepts highlighted.

Goornong prospect background

Previous exploration has identified a strongly mineralised corridor centred on the Goornong South prospect where drilling during the 1990's intersected significant oxide gold mineralisation. During the last year that the exploration licence was held by Kirkland Lake (now Agnico Eagle) a series of diamond drill holes were completed to the south along strike of the historic oxide mineralisation. S2 Resources has been able to relog the Kirkland Lake core holes and use the information to interpret the stratigraphic and structural architecture of what is now interpreted to be the next parallel structure to the east of the O'Dwyers and Fosterville trends, which host the orebodies being mined by Agnico Eagle. This first drill program by S2 Resources, is testing immediately beneath and down plunge to the south of the Goornong South oxide mineralisation, testing multiple structures where they cross the main anticline that is interpreted to be the focus for mineralised fluids. Along the favourable anticline corridor any mineralised structure could refract into a favourable dilation position with the potential to form a significant high-grade trap for gold mineralisation akin to the Swan Zone (the Swan Zone, located along the Fosterville trend, had an initial Mineral Ore Reserve of 2.34Moz of gold at a grade of 49.6g/t, refer to the NI 43-101 Report dated 31 December 2018).

To effectively test for significant mineralisation along the Goornong South anticline trend S2 Resources is undertaking a combination of conventional across strike holes in the shallower part of the system and unconventional strike parallel holes down the axial plane of the target anticline corridor that test multiple structural positions that cross the anticline (see Figure 3). The axial plane holes are designed to test positions down plunge to the south of the oxide gold mineralisation as well as numerous other mineralised structures intersected by the historic diamond drilling completed by Kirkland Lake, anyone which could yield a significant discovery where they refract and dilate across the fold corridor.

The strike parallel holes drilling down the axial plane will continue to 800 metres depth. This will allow these drill holes to test for multiple structural levels within the anticline corridor. It is interpreted that favourable geometry for significant mineralisation will be where structures refract into relatively flat positions across strike, where they pass through the hinge zone. Current interpretations provide for south plunging anticline hinge zones and a parallel plunge to mineralised fault intersections. Drilling is angled towards the north to provide the optimal intersection angle for south plunging shoots, with angled drilling enabling core orientation and detailed structural measurements which are vital to interpreting the three-dimensional position of structures relative to local stratigraphy and the overall architecture, such that any near misses can be interpreted for later drill follow-up.

The first pass drill program is designed to deliver a more detailed understanding of the structural and stratigraphic architecture of the Goornong South trend. The shallow drill holes beneath the oxide gold mineralisation will provide the first oriented core holes across the entire width of the anticline corridor, proximal to significant gold mineralisation so as to provide critical information on the orientation and continuity of gold mineralised structures at this location. The deeper axial plane parallel drill holes are spaced to provide a better understanding of the distribution of alteration, the validity of the overall south plunging fold model, and the potential to identify a larger mineralised shoot early in the exploration program. Drilling will be a direct test of some specific target positions interpreted from previous drilling, as well as providing new information with which to vector towards targets in subsequent follow-up drill campaigns.

The broad spacing of these holes is tailored to finding a large gold deposit, so it is important to not be mesmerised by narrow high grade intercepts and to not drill too close too soon – a situation that can

result in over-drilling and overspending for too few ounces defined. As previously stated, it is important to first understand the overall three dimensional stratigraphic and structural architecture before attempting to zero in on sweet spots.

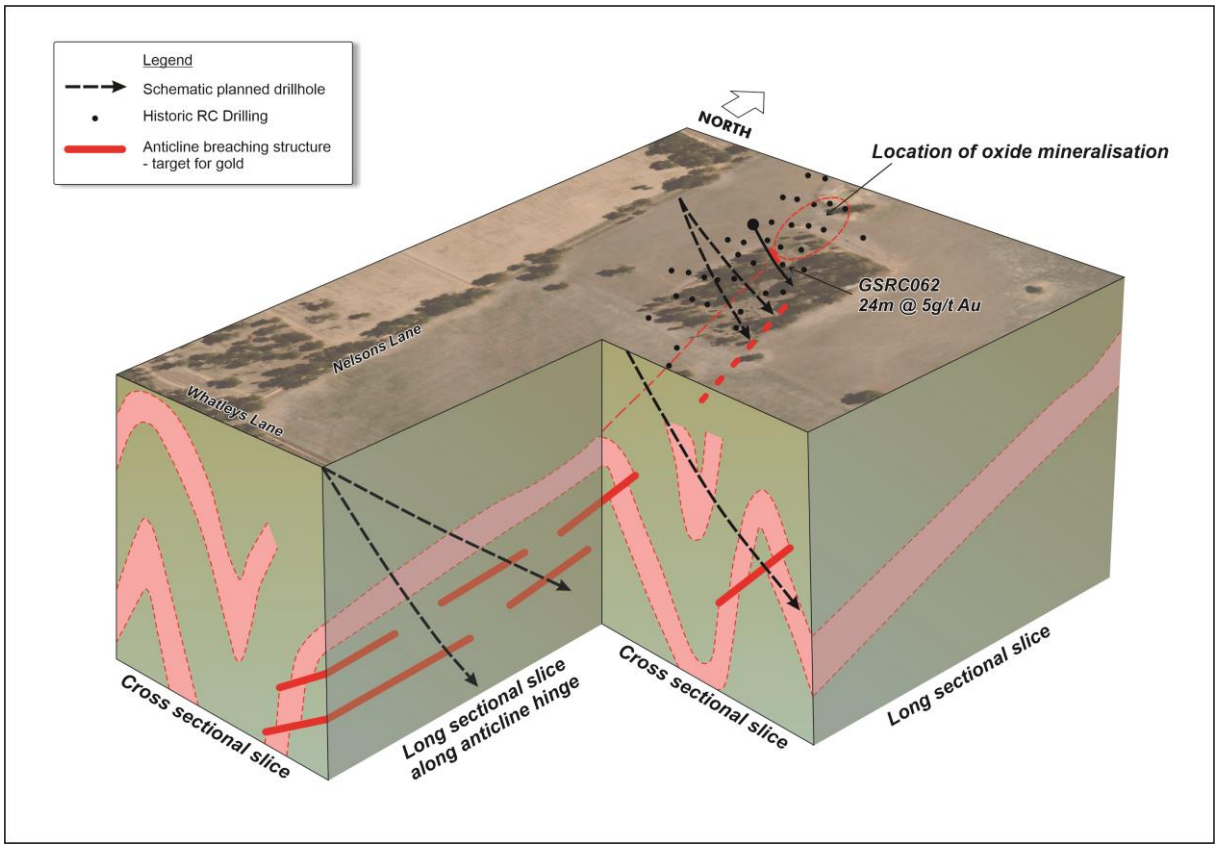

Figure 3. Schematic block model of the Goornong area showing the south plunging fold structures and the targeted fault structures intersecting anticlines. Drilling will include both across strike (conventional) testing of mineralised structures (as shown in the cross sectional slices) and along strike (non-conventional) testing of multiple structural positions within the favourable Goornong anticline trend (as shown in the long sectional slices). Drillhole positions are illustrative only and locations may vary.

Project background

S2's 100% owned subsidiary, Southern Star Exploration Pty Ltd, was announced as the winner of the highly competitive tender for the sole right to apply for an Exploration Licence (EL) over the ground surrounding Agnico Eagle's (Agnico) world class Fosterville gold mine in October 2021 (see S2 ASX announcement of 29th October 2021). The EL application was submitted in late 2021, and various Traditional Owner-related preconditions were satisfied recently (see S2 ASX announcement of 4th July 2023). The ground was granted as Exploration Licence 7795 (EL7795) in early October (see S2 ASX announcement of 4th October 2023), and covers an area of 394 square kilometres, extending 55 kilometres north to south, and abuts and surrounds Agnico Eagle's Fosterville mine lease. By virtue of its position, its size, and its inherent prospectivity, EL7795 is a highly strategic asset. EL7795 has a minimum expenditure commitment of A$10.4 million over the first five year term of the licence, inclusive of a minimum A$2.1 million commitment in the first two years.

As winners of the tender, S2 has also inherited a substantial amount of data acquired by previous explorers over the area, including the relatively recent exploration work undertaken by Kirkland Lake Gold (the owner of Fosterville prior to its acquisition by Agnico) on the tenement before it expired.

This data includes extensive and high quality geophysical and geochemical surveys such as gravity, induced polarisation (IP), electromagnetic (EM), seismic, magnetic and LIDAR surveys, which are being used to generate drill targets. The inheritance of such a significant amount of data represents a huge saving for the Company in terms of time and money that would otherwise be required to get it to the point of having drill ready targets for testing.

It also includes drilling data and drill core from holes drilled immediately prior to the expiry of the previous tenement, which although widely spaced and/or shallow and/or highly localised, have identified gold mineralisation in several locations. As a consequence, the Company has a range of targets at various stages of definition from early stage reconnaissance up to and including defined prospects simply requiring further drilling to determine the extent and quality of gold mineralisation at those locations.

These targets are located on a mix of Crown Land, freehold land (both broadacre farms and smaller blocks), and road reserves, which require the Company to obtain land access agreements and other relevant permits, as well as heritage clearances, before commencing exploration[1].

[1] Until such time as access consents are obtained there is no guarantee that the Company will be able to access freehold property, but a substantial amount of drilling can be undertaken from roadsides.

This announcement has been provided to the ASX under the authorisation of the S2 Board.

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Past Exploration results reported in this announcement have been previously prepared and disclosed by S2 Resources Ltd in accordance with JORC 2012. The Company confirms that it is not aware of any new information or data that materially affects the information included in these market announcements. The Company confirms that the form and content in which the Competent Person's findings are presented here have not been materially modified from the original market announcement. Refer to www.s2resources.com.au for details on past exploration results.

Competent Persons statement

Information in this report that relates to Exploration Results from Victoria is based on information compiled by Rohan Worland, who is an employee and equity holder of the Company. Mr Worland is a member of the Australian Institute of Geoscientists (AIG) and has sufficient experience of relevance to the style of mineralization and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore

Reserves. Mr Worland consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

Information in this report that relates to Exploration Results from Western Australia, New South Wales and Finland is based on information compiled by John Bartlett, who is an employee and equity holder of the Company. Mr Bartlett is a member of the Australian Institute of Mining and Metallurgy (MAusIMM) and has sufficient experience of relevance to the style of mineralization and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Bartlett consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

Table 1: S2 Drill Collars

Hole ID	Easting (MGA)	Northing (MGA)	Elevation (m)	Dip	Azimuth	Depth (m)	Drill Type
SFVD0001	278,054	5,943,150	146.0	-40	92	411.9	DD
SFVD0002	278,644	5,942,479	147.0	-45	86	484.6	DD
SFVD0003	278,425	5,942,519	147.8	-42	346	664.1	DD
SFVD0004	278,425	5,942,519	147.8	-75	350	776.5	DD
SFVD0005	278,467	5,941,672	148.2	-45	356	784.3	DD
SFVD0006	278,467	5,941,672	148.2	-75	002	730.2	DD
SFVD0007	278,500	5,941,672	148.2	-60	002	477.8	DD
SFVD0008	278,454	5,942,503	147.7	-45	174	601.9	DD

Table 2: S2 Drill Assays (>5g/t gold grades shown in bold)

Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)
SFVD0001	235.10	236.75	1.65	4.5	SFVD0006	156.7	169.0	12.30	4.1
SFVD0001	240.8	241.3	**0.50**	**5.3**	including	159	160	**1.00**	**11.3**
SFVD0002	170	170.7	0.70	1.3	SFVD0006	239	241	2.00	1.6
SFVD0002	445.1	447.2	2.10	2.1	SFVD0006	248	249	1.00	1.9
SFVD0003	54	65	11.00	1.1	SFVD0006	254	257	3.00	1.3
SFVD0003	173.5	176	2.50	1.5	SFVD0006	270	276	6.00	1.8
SFVD0003	184.00	199.80	15.80	1.6	SFVD0006	292.8	293.7	0.90	1.6
including	193.4	193.8	**0.40**	**7.5**	SFVD0006	305	306	1.00	1.6
SFVD0003	378.9	379.8	**0.90**	**8.1**	SFVD0006	309	311	2.00	2.0
SFVD0003	604	606	2.00	1.3	SFVD0006	348	349	1.00	2.0
SFVD0003	627	628	1.00	1.2	SFVD0006	373	374	1.00	1.3
SFVD0004	30.6	31.65	1.05	2.3	SFVD0006	493.6	495	1.40	3.1
SFVD0004	41	42	1.00	1.4	SFVD0006	596.3	597.3	1.0	1.4
SFVD0004	96.8	97.3	0.50	2.1	SFVD0006	678	678.9	**0.90**	**6.5**
SFVD0004	113	116	3.00	3.1	SFVD0007	130.1	131.1	1	3
SFVD0004	234	247	13.00	1.0	SFVD0007	138.35	139.3	0.95	1.5
SFVD0004	320	330	10.00	1.4	SFVD0007	152.9	153.45	0.55	2.3
including	324.7	325.1	**0.40**	**6.3**	SFVD0007	166	167	1	1.4
SFVD0005	319	324	5.00	3.5	SFVD0007	214.5	221	6.5	1.5
SFVD0005	395	401.2	6.20	1.9	including	215.4	216	**0.6**	**7.5**
SFVD0005	409.6	410.3	**0.70**	**6.9**	SFVD0007	241	243	2	2.5
SFVD0005	430	433	3.00	2.5	SFVD0007	252.6	252.9	0.3	1.3
SFVD0005	453	457	4.00	1.3	SFVD0007	266	269	3	3.7
SFVD0005	465	466	1.00	1.1	SFVD0007	272.6	273.5	0.9	1.6
SFVD0005	477	480	**3.00**	**9.2**	SFVD0007	319.4	321	1.6	2.4
including	477.60	478.10	**0.50**	**33.0**	SFVD0007	334.3	335.5	1.2	2.4
SFVD0005	485	495.2	10.20	4.2	SFVD0007	344	349.7	**5.7**	**6.4**
including	490	495.2	**5.2**	**7.2**	including	347.55	349.7	**2.15**	**14.1**
including	492.8	493.5	**0.70**	**37.9**	SFVD0007	472.2	476	3.8	0.9
SFVD0005	641	645.1	4.10	1.9	SFVD0008	163.9	164.5	0.6	1.7
					SFVD0008	181	184.4	3.4	1
					SFVD0008	358.2	361.7	3.5	2.4
					SFVD0008	377.25	377.8	0.55	1.2
					SFVD0008	380.7	381.25	0.55	1.8

Table 3: Historic Drill Collars

Hole ID	Easting (MGA)	Northing (MGA)	Elevation (m)	Dip	Azimuth	Depth (m)	Drill Type
GSDD073	278,265	5,943,281	147.7	- 84.0	258.1	69	DD
GSDD081	278,070	5,943,280	146.2	- 40.0	99.5	246.8	DD
GSDD082	278,069	5,943,279	146.2	- 55.0	99.5	261.1	DD
GSDD083	278,068	5,943,279	146.2	- 73.0	99.5	192.5	DD
GSDD084	278,049	5,943,104	146.3	- 40.0	99.5	305.6	DD
GSDD085	278,056	5,942,555	147.1	- 60.0	99.5	526.7	DD
GSDD086	278,628	5,942,481	147.5	- 51.7	261.2	443.4	DD
GSDD087	278,628	5,942,481	147.5	- 45.7	252.1	455.7	DD
GSDD088	278,630	5,942,482	147.4	- 79.2	73.2	533.4	DD
GSDD089	278,572	5,941,643	148.9	- 46.0	81.2	650	DD
GSDD090	278,568	5,941,645	148.9	- 50.7	259.2	434.2	DD
GSDD091	277,165	5,940,959	149.0	- 50.5	69.4	16.7	DD
GSDD091A	277,163	5,940,959	149.0	- 48.6	78.2	402	DD
GSDD094	278,630	5,942,482	147.4	- 64.5	73.0	590.5	DD
GSDD096	278,288	5,941,689	148.2	- 55.3	39.8	1178.6	DD
GSRC014	278,233	5,943,321	146.8	- 50.0	79.1	54	RC
GSRC028	278,217	5,943,367	146.5	- 49.0	79.1	60	RC
GSRC031	278,259	5,943,480	147.1	- 50.0	253.1	78	RC
GSRC032	278,208	5,943,315	146.7	- 48.0	80.1	75	RC
GSRC033	278,236	5,943,284	147.0	- 49.0	79.1	67	RC
GSRC038	278,185	5,943,696	147.0	- 49.0	81.1	60	RC
GSRC051	278,253	5,943,098	147.6	- 50.0	78.1	74	RC
GSRC058	278,216	5,943,269	146.9	- 50.0	78.1	86	RC
GSRC062	278,184	5,943,313	146.7	- 50.0	78.1	98	RC

Table 4: Historic Drill Assays (>5g/t gold grades shown in bold)

Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)
GSDD073	24	36	12.0	2.5
including	24	30	6.0	4.6
including	28	30	**2.0**	**9.3**
GSDD081	191.9	198.2	6.3	0.7
GSDD082	103.85	126.3	22.5	2.1
GSDD082	196	203	7.0	0.3
GSDD082	256.3	256.65	0.3	2.1
GSDD084	251.5	255	**3.5**	**6.8**
including	251.95	254	**2.1**	**11.2**
GSDD084	281.55	286	4.5	1.6
including	281.55	284	2.5	2.6
including	281.55	282.4	**0.8**	**5.2**
GSDD088	213.1	217	3.9	1.5
including	213.1	215	1.9	3.0
GSDD088	213.1	214	**0.9**	**5.0**
GSDD088	448.9	451	2.1	2.3
including	449.9	450.6	**0.7**	**5.9**
GSDD090	80.2	87.7	7.5	2.3
including	84.8	86.5	**1.7**	**6.0**
GSDD090	207.1	212.8	5.7	2.2
Including	211.05	211.6	**0.5**	**7.9**
GSDD094	437	461.5	24.5	1.3
including	438.7	444.4	5.7	2.0
and	454	461.5	7.5	2.2
including	460.1	461	**0.9**	**6.7**
GSDD094	576.5	576.95	**0.5**	**6.9**
GSDD096	350.2	363.8	13.6	1.5
including	357.4	363.2	5.8	3.2
including	360.55	361.45	**0.9**	**5.7**
GSDD096	383.65	404.85	21.2	0.9
including	399.2	404.85	5.7	2.1
including	403.85	404.85	**1.0**	**6.6**
GSDD096	414	415.5	**1.5**	**2.2**
GSRC014	50	54	4.0	2.3
including	50	52	2.0	4.6
GSRC028	4	26	22.0	2.1
including	6	18	12.0	3.7
including	12	14	**2.0**	**16.3**
GSRC031	12	40	28.0	1.9
including	32	36	**4.0**	**11.0**
including	32	34	**2.0**	**17.2**
GSRC032	60	75	15.0	1.4
including	72	75	3.0	4.1
including	72	74	**2.0**	**5.7**
GSRC033	14	50	36.0	1.6
including	38	46	**8.0**	**5.6**
including	40	44	**4.0**	**7.5**
GSRC038	18	28	10.0	2.5
GSRC051	32	38	6.0	2.7
GSRC058	14	34	20.0	2.2
and	16	18	**2.0**	**7.9**
GSRC058	56	74	18.0	1.8
including	64	72	8.0	3.6
GSRC062	52	66	14.0	1.0
including	52	56	4.0	3.3
GSRC062	70	94	**24.0**	**5.0**
including	88	90	**2.0**	**29.4**

The following Tables are provided to ensure compliance with the JORC code (2012) edition requirements for the reporting of exploration results.

SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	Historic drilling from surface includes diamond core and Reverse Circulation (RC). All historical drilling data has been obtained from open file reporting, the majority which was compiled and reported by Kirland Lake Gold in the EL3539 Final Relinquishment Report (2019). Data has been reviewed, appraised and integrated into a database. Data is of sufficient quality, relevance and applicability. All 2023-24 drilling was diamond core drilling from surface completed by Deepcore Australia Pty Ltd, based out of Bendigo, Victoria.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	No information about the historic QAQC procedures have been compiled. All 2023-24 core is split in half by core saw for external laboratory preparation and analysis.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information	Historic sampling intervals were typically 0.3 to 2.0m for core and 1 to 4m for RC. Core was typically split in half by core saw. All samples were sent to an external laboratory for preparation and analysis. Based on the distribution of mineralisation the sample size is considered adequate for representative sampling. Based on the distribution of mineralisation the core sample size is considered adequate for representative sampling.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	Historic drilling from surface includes diamond core and Reverse Circulation (RC). Diamond core is oriented. No details about hole diameter have been compiled. All 2023-24 drilling was diamond core from surface, HQ and NQ3 size. NQ3 core is triple tube wireline. Core orientation uses the Axis Camp Ori tool.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	Historic core recoveries have been compiled. No information about historic chip sample recoveries has been compiled. 2023-24 drilling methods are selected to ensure maximum recovery possible.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	No historic information about maximising sample recovery has been compiled. 2023-24 core recovery is collected in a set of standard Excel templates then transferred to the digital database.
	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.	A link between sample recovery and grade is not apparent.

Criteria	JORC Code explanation	Commentary
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	The compilation of historic diamond core and RC drilling includes records of lithology, alteration, structure and recovery. All 2023-24 diamond core undergoes geotechnical and geological logging to a level of detail (quantitative and qualitative) sufficient to support use of the data in all categories of Mineral Resource estimation. Diamond core logging includes records of lithology, alteration, veining, structure and recovery.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	The compilation of historic diamond core and RC logging is quantitative and qualitative. Core photography is available. All 2023-24 core is photographed.
	The total length and percentage of the relevant intersections logged	The compilation of historic diamond core and RC logging is comprehensive for all exploration results reported. S2R geologists and consultants have been able to relog 80% of the core for the Goornong South prospect. All 2023-24 drill holes are logged in full.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Core is split in half by core saw and one-half sampled and submitted to the laboratory for analysis.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	No non-core sampling was compiled.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Historic samples were submitted to reputable commercial laboratories (OSLS Bendigo and Bureau Veritas Adelaide) that used standard industry preparation techniques. 2023-24 core samples are submitted to On Site Laboratory Services (OSLS, Bendigo) and undergo standard industry procedure sample preparation (crush, pulverise and split) appropriate to the sample type and mineralisation style.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Historic reports note QAQC protocols but no data has been compiled to assess the QAQC results. Full QAQC system is in place for 2023-24 core assays to determine accuracy and precision of assays.
	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.	No information regarding the representativity of the historic sampling has been compiled. 2023-24 core is cut to achieve non-biased samples. No duplicate samples have been collected at this stage.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are appropriate to the grain size of the material being sampled.

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	Historic core and RC samples were analysed for Au by OSLS (Bendigo) using a 25g fire assay with AAS finish (PE01S) or by Bureau Veritas (Adelaide) using a 40g fire assay with AAS finish (FA001). Historic core and RC samples were analysed for a variable suite of multi-elements by OSLS (Bendigo) using method B010 (aqua regia digest and ICP-AES finish) or by Bureau Veritas (Adelaide) by technique MA101/102 (four acid digest and ICP-AES/MS finish). Historic assay for Au is considered total. Multi-element assay four acid digest are considered near-total for all but the most resistive minerals (not of relevance). Aqua-regia digestion is considered partial depending on element and minerals present, but sulphide minerals as seen on the project are readily and completely digestible. Core samples are submitted to OSLS (Bendigo) for analysis. Au is assayed using a 25g fire assay with AAS finish (PE01S). A multi-element suite of 32 elements is assayed by technique BM020/ICP050 (1g charge by four acid digest and ICP-MS finish). The nature and quality of the analytical technique is deemed appropriate for the mineralisation style. Fire assay for Au is considered total. Multi-element assay four acid digest are considered near-total for all but the most resistive minerals (not of relevance).
	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.	No geophysical tools were used to determine any element concentrations.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Historic reports note QAQC protocols, but no data has been compiled to assess the QAQC results. Full QAQC system is in place for 2023-24 core sample assays including blanks and standards (relevant certified reference material).
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	All assay results are checked and verified by alternative company personnel or independent consultants. Significant assay results prompt a visual review of relevant reference core for validation purposes.
	The use of twinned holes.	No twin holes are reported.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All historical drilling data has been obtained from open file reporting, the majority which was compiled and reported by Kirland Lake Gold in the EL3539 Final Relinquishment Report (2019). Data has been reviewed, appraised and integrated into S2's central database. For 2023-24 drilling the primary sampling data is collected in a set of standard Excel templates. The information is managed by S2's database manager for validation and compilation into S2's central database.
	Discuss any adjustment to assay data.	No adjustments made.

Criteria	JORC Code explanation	Commentary
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Most historic drill collar locations were recorded using a handheld GPS with a small number of drill collars recorded using a differential GPS. All 2023-24 diamond drill holes are surveyed by handheld GPS in the first instance. All 2023-24 diamond drill holes are surveyed downhole using the Axis Champ Gyro at approximately 12m intervals to determine accurate drill trace locations. There is no magnetic interference with respect to downhole surveys.
	Specification of the grid system used.	The grid system is MGA GDA94 (Zone 55). Local easting and northing are in MGA.
	Quality and adequacy of topographic control.	Topographic control is provided by a high-resolution LiDAR survey DEM. The accuracy of the DEM is +/-1m.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Data spacing (drill holes) is variable and appropriate to the geology.
	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.	No Mineral Resource or Ore Reserve estimation is reported.
	Whether sample compositing has been applied.	No sample compositing has been applied.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	The drill holes may not necessarily be perpendicular to the orientation of the intersected mineralisation. Mineralised structures have multiple orientations. Some of the mineralised structures are intersected at low angles to the drill holes resulting in multiple intersections of the same mineralised structure, though for the majority of drilling there is no significant orientation-based sampling bias. Reported intersections are down-hole intervals and not true widths.
	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.	Where the drilling orientation intersects a mineralised structure at a low angle appropriate commentary is provided in the body of the report.
Sample security	*The measures taken to ensure sample security.*	No information regarding the historic sample security has been compiled. Chain of custody is managed by S2 personnel. Drill core is visually checked at the drill rig and then transported to S2's Bendigo facility where it is cut and sampled before being secured in bags with a security seal. Bagged samples are transported to the OSLS laboratory in Bendigo by S2 personnel.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No records of any audits or reviews of historic sampling have been compiled to date. No audits or reviews have been conducted for 2023-24 drilling activities.

SECTION 2: REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Greater Fosterville Project consists of two granted exploration licences (EL7795 & EL8074) and two deferred exploration licence applications (EL8166 & EL8167) in the State of Victoria. The tenements are owned by Southern Star Exploration Pty Ltd (SSE), a wholly owned subsidiary of S2 Resources Ltd. The Greater Fosterville Project is located within Recognition and Settlement Agreement Areas held by the Dja Dja Wurrung Clans Aboriginal Corporation (DJAARA) and the Taungurung Land and Waters Council Aboriginal Corporation (TLaWC) under the Traditional Owner Settlement Act 2010 (Vic). Access and compensation agreements are required to conduct work on freehold land and while it is hoped that landowners will agree to these there is no guarantee that they will be forthcoming.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	EL7795 & EL8074 are current and in good standing. EL8166 & EL8167 are deferred applications following a competitive assessment that resulted in the government selecting an alternate preferred applicant. EL8166 & EL8167 will remain in abeyance until the highest ranked application is either granted or refused.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Greater Fosterville Project has seen exploration conducted by the various owners of the Fosterville Gold Mine that has included Perseverance Exploration Company Ltd, Northgate Minerals, AuRico Gold, Crocodile Gold, Newmarket and Kirkland Lake Gold over the period 1989-2019. Historic exploration has also included work by Planet Mining Company Pty Ltd (1965-70), Lone Star Exploration NL (1973-74), Noranda Australia Ltd (1974-76), Brunswick NL (1989-92), Bendigo Gold Associates (1989-92), BHP Minerals Ltd (1986-90), Western Mining Corporation Limited (1978-89) and Rio Tinto Exploration Pty Ltd (1980-1988). All historical work has been obtained from open file reporting, the majority which was compiled and reported by Kirland Lake Gold in the EL3539 Final Relinquishment Report (2019). Data has been reviewed, appraised and integrated into a database. Data is of sufficient quality, relevance and applicability.
Geology	Deposit type, geological setting and style of mineralisation.	The deposit style sought is orogenic gold mineralisation located in the Bendigo Zone of the Victorian Gold Province. The Fosterville Goldfield is hosted by Lower Ordovician turbidites within the Castlemaine Group rocks. The sequence is metamorphosed to sub-greenschist facies. Gold mineralisation is typically hosted by quartz reefs located in fold and fault structures related to multiple compression events that formed upright chevron style fold geometry.

Criteria	JORC Code explanation	Commentary
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length.	A table of completed drill hole collar information for exploration results presented here is provided below.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	All Exploration Results reported are downhole weighted means.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	A table of significant intercepts presented here is provided below.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are reported.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	The relationship between mineralization and drill hole angle is not fully understood, therefore the down hole mineralized and composited lengths are shown. A true width is not known at this time.
Diagram	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Appropriate maps, sections and tables are included in the body of the report.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Maps showing individual sample locations are included in the report. All results considered significant are reported.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Previous exploration data reported include historic dipole-dipole IP-resistivity surveys (ASX Announcement 17 February 2023), historic RC and diamond drilling (ASX Announcement 20 October 2023) and earlier diamond drilling from the current program (ASX Announcements 27 December 2023 & 15 February 2024). Other historical exploration data has not yet been compiled to a level where it can be reported. Further compilation of such data will be reviewed and reported when considered material.

Criteria	JORC Code explanation	Commentary
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	The initial diamond drilling program to test targets defined by historical data at Goornong South has been completed, with the overall folding and fault architecture still being interpreted to aid in understanding the potential connectivity of the mineralised zones. A further program of holes will be planned to infill key areas to test the outcomes of this interpretation. Broader surface exploration activities including IP-resistivity to generate new targets have commenced.