ASX ANNOUNCEMENT
12 April 2023

Antimony-Gold Modelling, Exploration Decline Design and Regional Exploration

Highlights

- **Mining Plus has commenced modelling the Costerfield-Mine-style antimony-gold (Sb/Au) vein systems at Nagambie's 100%-owned Nagambie Mine. The grade distribution within the currently defined high-grade lodes shows the mineralisation is not highly-nuggety / highly-variable.**
- **Nagambie considers that it has discovered one of the highest-grade antimony orebodies in the western world, being aware of only one Russian Sb/Au mine complex[1] in the world with higher grades.**
- **Mining Plus has designed the exploration decline and exploration ore drives at 105m and 125m vertically below surface. The designs will form part of Nagambie's Work Plan Variation application under its Mining Licence MIN5412.**
- **Nagambie's Sb/Au exploration tenements exceed 3,000 sq km in the Waranga Domain of the Melbourne Zone and cover ground that Nagambie considers to be highly prospective for less-geologically-complex Sb/Au orebodies, such as the Fosterville, Costerfield and Nagambie mines.**

Antimony Orebody Modelling

Mining Plus, a global mining services provider, with input from Nagambie's principal geological consultant, has commenced modelling the N-striking antimony lodes (or vein systems) being discovered and progressively drilled out at the Nagambie Mine. Sufficient assay data has been received to date for Mining Plus to model the C1 E and C1 W lodes based on a 0.8% antimony (Sb) composite cut off (refer the long section views in Figures 1 and 2 respectively). A plan view, showing the location of the C1 E and C1 W lodes under the West Pit, is shown in Figure 7. A cross section view, illustrating the sub-vertical dips of the C1 E and C1 W lodes, is shown in Figure 8.

For the first nine intercepts of the C1 E Sb lode, weighted only for downhole sample lengths, the average grade is 8.6% Sb and the equivalent figure for the C1 W Sb lode (seven intercepts) is 7.5% Sb. New assay data awaited will add to the C1 E and C1 W Sb lodes and allow the development of Sb models for the C2 E and C2 W Sb lodes.

The Sb grades above don't allow for any required mining dilution external to the composites, nor are they weighted for sample bulk densities. The associated gold grades also do not allow for gold-rich samples external to the Sb composites considered. As such, the Mining Plus grades are not directly comparable to the average mineable grades reported by Nagambie Resources to the ASX on 23 March 2023 (refer Table 1) for the first 22 waste-diluted mineable intersections (average of 16.3 g/t gold equivalent (AuEq), comprising 6.1% Sb plus 4.8 g/t Au).

Nagambie Resources considers that it has discovered one of the highest-grade antimony orebodies in the western world, being aware of only one Russian antimony-gold mine complex[1] in the world with higher grades.

[1] As at 1 January 2019, the Sentachan (Zvezda) and Sarylakh-Surma underground Sb/Au mines in north-eastern Russia had JORC Probable Reserves that graded 10.5% Sb and 5.9% Sb respectively.

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In the Australian context, at circa 6% Sb mineable grade, the proposed Nagambie underground mine could be three times the remaining mineable grade of the Costerfield Mine[1] in Victoria, currently Australia's only antimony mine, and five times the grade of the Hillgrove Mine[2] (operations ceased in 2015) in NSW (refer Figure 9 for the current and previous relevance, respectively, of Costerfield and Hillgrove to world Sb supply chain dynamics).

Figure 1 Mining Plus Antimony Model for the C1 E Lode – Long Section View looking East

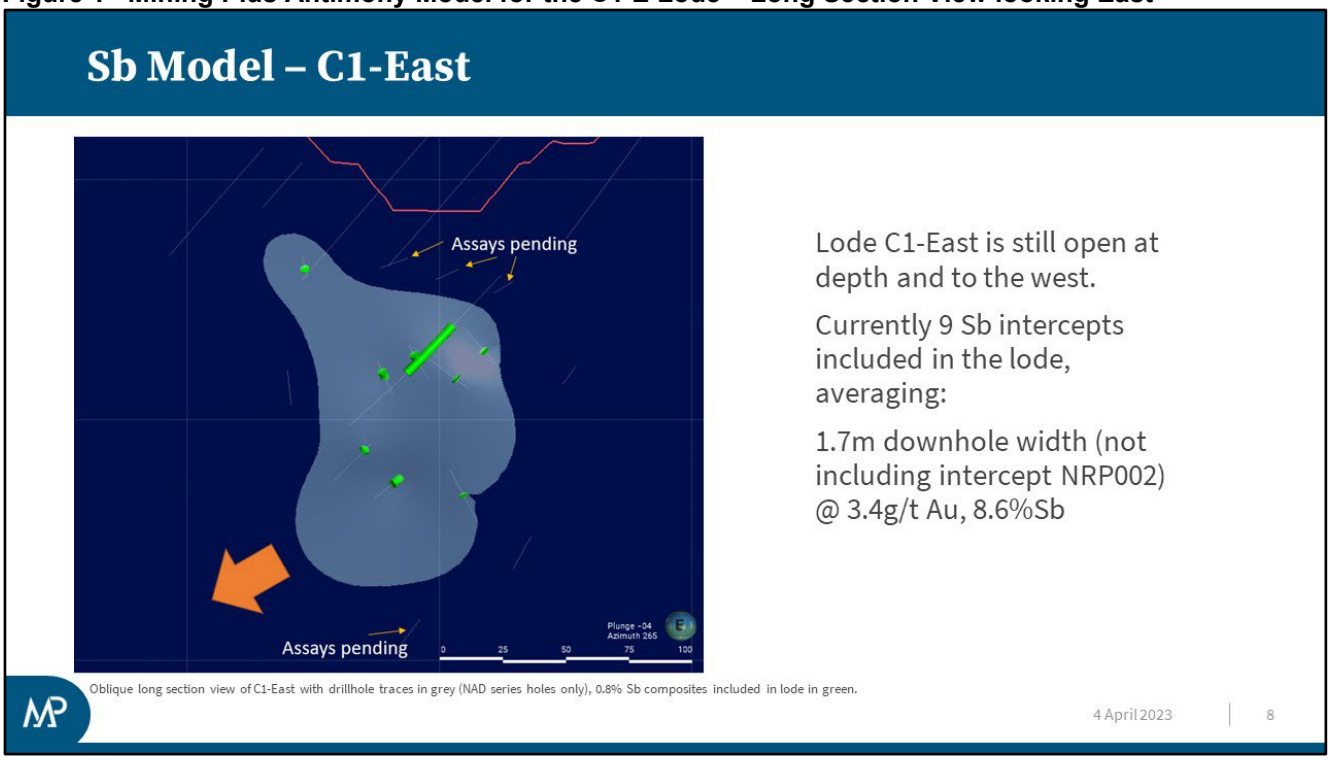
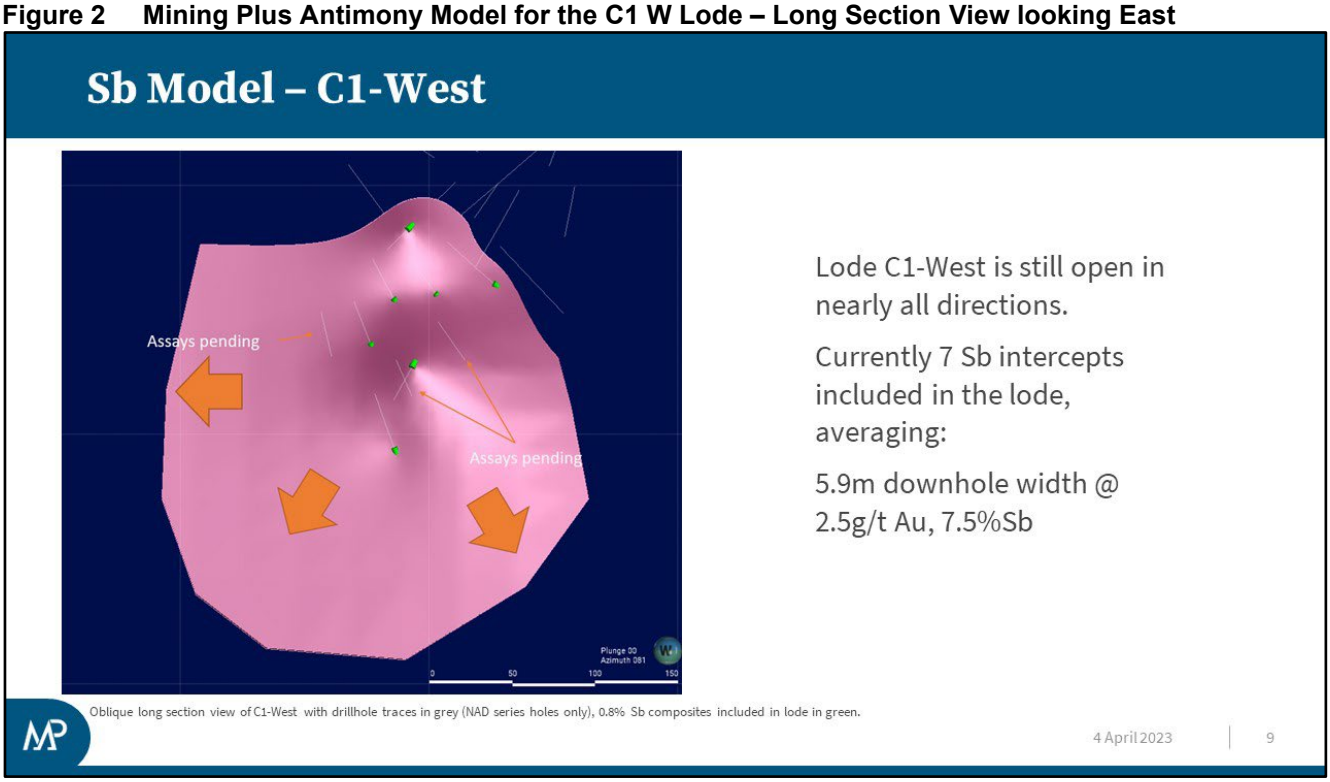


Figure 2 Mining Plus Antimony Model for the C1 W Lode – Long Section View looking East



[1] The Costerfield Mine is 100%-owned by Mandalay Resources Corporation. Total Measured and Indicated Resources at Costerfield, as of 31 December 2021, averaged 2.8% Sb and Inferred Resources averaged 1.3% Sb.
(source: page 6, https://mandalayresources.com/site/assets/files/3408/mnd_costerfield_ni-43_101_technical_report_2022.pdf)

[2] The suspended Hillgrove Mine is 100%-owned by Red River Resources Limited (Administrators Appointed). Hillgrove has a JORC 2012 Mineral Resource of 7.23 Mt @ 4.5 g/t Au & 1.2% Sb.

As above, the average mineable grade reported by Nagambie Resources to the ASX on 23 March 2023 (refer Table 1) for the first 22 waste-diluted mineable intersections was 16.3 g/t gold equivalent (AuEq), comprising 6.1% Sb plus 4.8 g/t Au. The mineable cut-off grade (MCOG) adopted by Nagambie of 3.0 g/t AuEq (the same as for the Costerfield Mine) is less than the average mineable gold grade to date of 4.8 g/t Au. That is, Nagambie considers that Au revenue from the proposed mine could more than cover all mine operating costs and that the cost of producing Sb concentrates (for shipment to overseas Sb refineries) could be negative.

A review of the grade distribution within the currently defined high-grade Sb lodes by Mining Plus suggests medium variability in both Au and Sb grades and shows that the mineralisation is not highly-nuggety / highly variable. As such, a very narrow drill spacing is not required. An initial drilling grid of approximately 50m x 50m would provide sufficient information to understand the scale of any mineralised lodes and provide information to create a JORC (2012) Inferred Resource. Infill drilling to approximately 25m x 25m, although at a substantial cost, could be sufficient to provide a JORC (2012) Indicated Resource.

Nagambie Resources has determined that it should explore from underground as soon as possible in order to:

1) develop strike drives on the C1 & C2 lodes, on at least two vertical levels, to prove the continuity of the vein systems; and
2) develop suitably-sited underground diamond drill cuddies to carry out close-patterned stope-definition drilling and deeper wider-spaced depth-extension drilling.

Exploration Decline and Exploration Ore Drives Design

Mining Plus has designed the proposed underground exploration development. The designs, some of which are shown in Figures 3, 4, 5 and 6, will form part of Nagambie's Work Plan Variation application to carry out the underground exploration work, under its Mining Licence MIN5412, to Victoria's Earth Resources Regulation.

The decline box-cut (refer Figures 3 and 4) is to be excavated to the south of the East Pit, entirely in outcropping solid basement rocks (sandstones and siltstones). Likewise, the decline and underground development is to be excavated entirely in the basement rocks, well away from the surface water aquifer that commences to the west of the East Pit.

The proposed exploration ore drives for the C1 & C2 vein systems are approximately 105m (RL 25) and 125m (RL 5) vertically below the surface (RL 130) at the West Pit (refer Figures 3 and 4). The deepest part of the West Pit is around 50m below surface (80m RL). The surface aquifer commences around 8m below surface at the eastern end of the West Pit and deepens to the west, being around 25m below surface at the western end of the West Pit. Hence the proposed exploration drives are at least 55m and 75m below the floor of the West Pit and at least 80m and 100m below the surface aquifer in the West Pit..

Figure 3 Mining Plus Exploration Decline and initial Ore Drives for the C1 & C2 Vein Systems

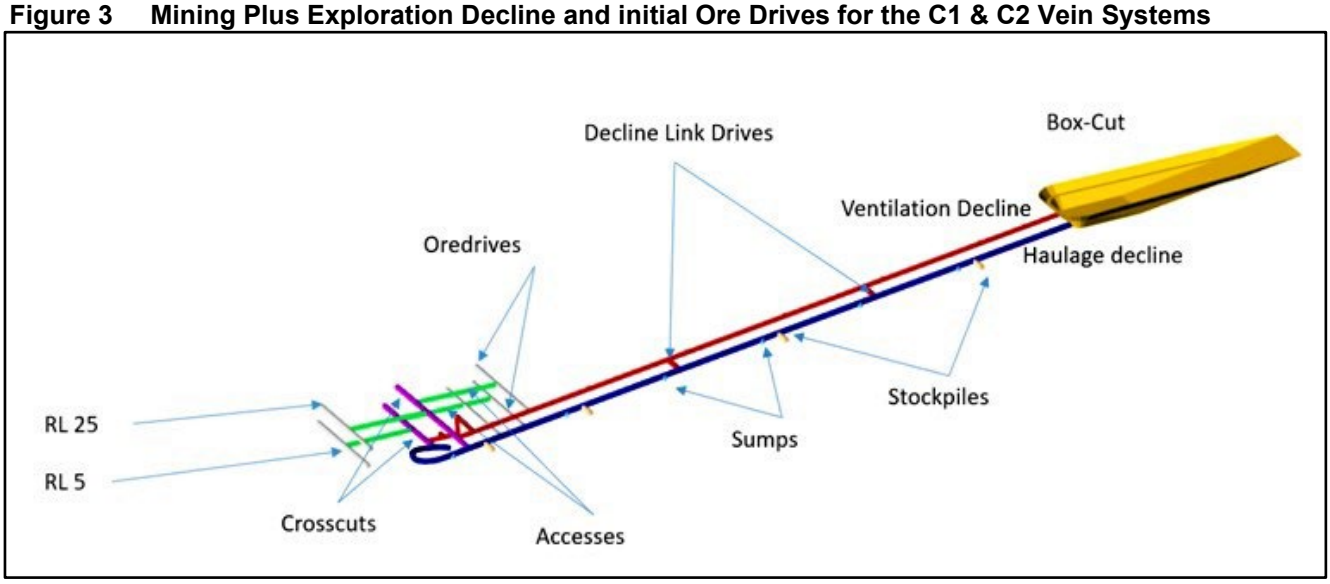
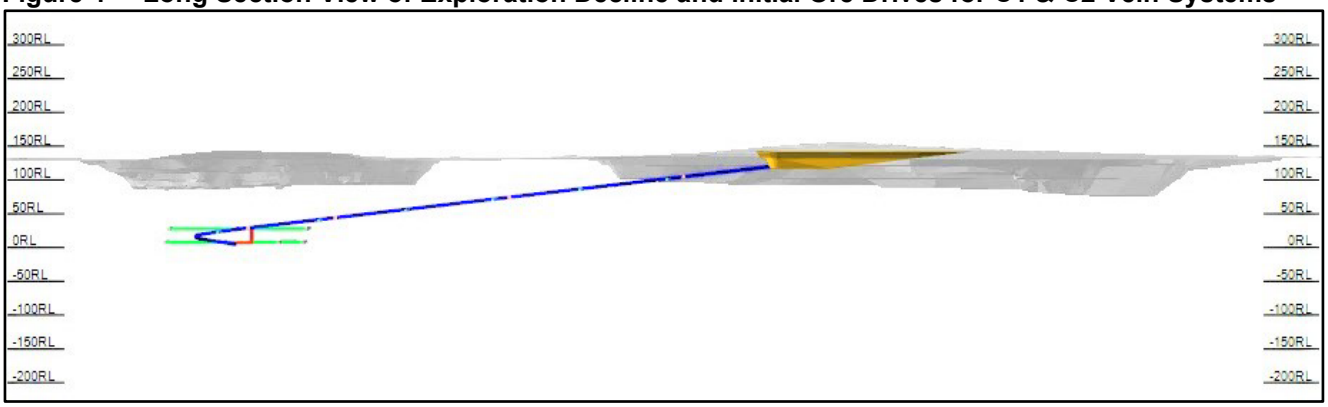


Figure 4 Long Section View of Exploration Decline and initial Ore Drives for C1 & C2 Vein Systems



In Figure 5, the ore drives, shown in grey, include the top exploration ore drives and additional mine ore drives below those – illustrating the dip to the west of the C1 & C2 vein systems.

Figure 5 Plan View of Exploration Decline and Ore Drives for the C1 & C2 Vein Systems

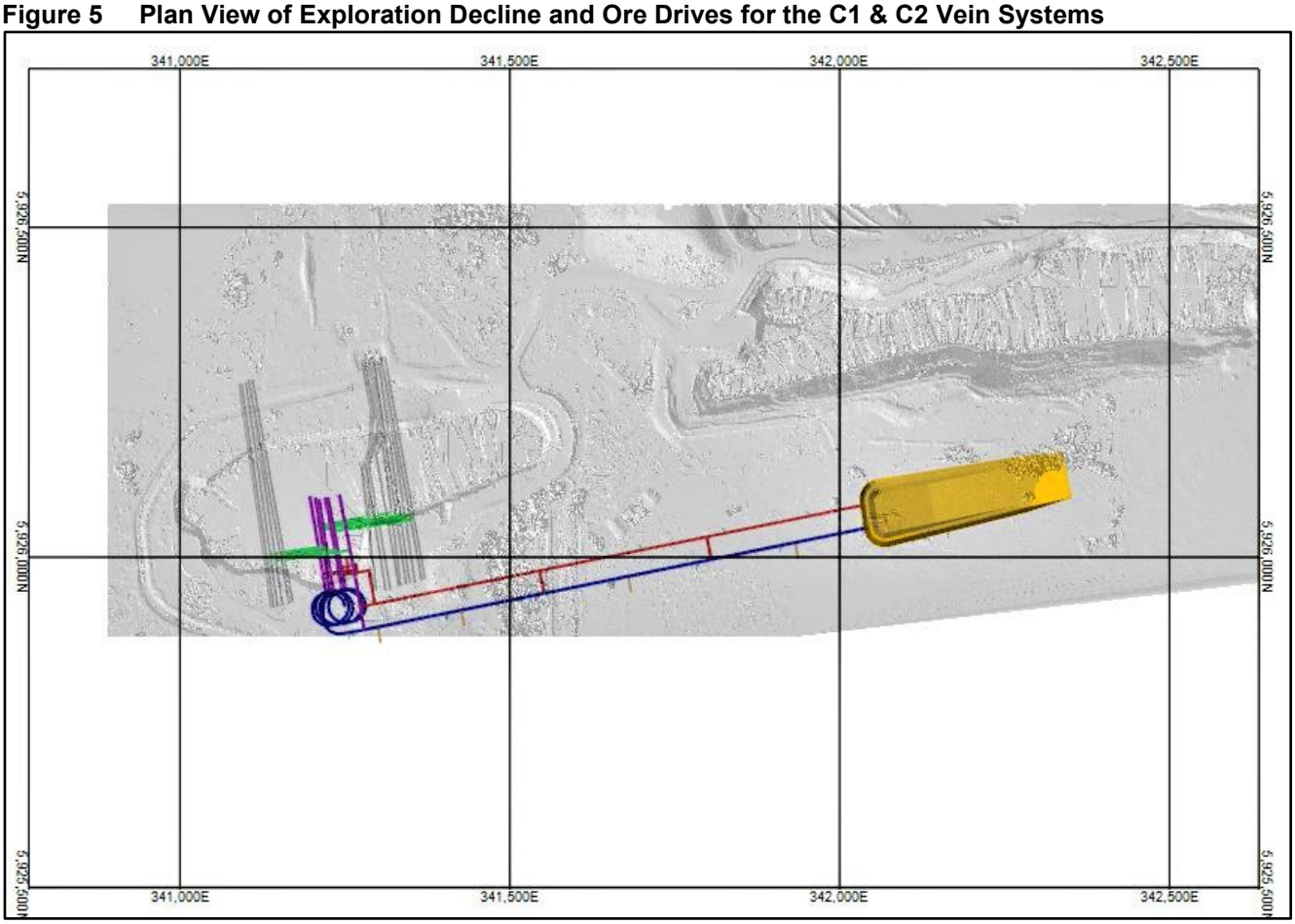


Figure 6 3-D View of Exploration Decline and initial Ore Drives for the C1 & C2 Vein Systems

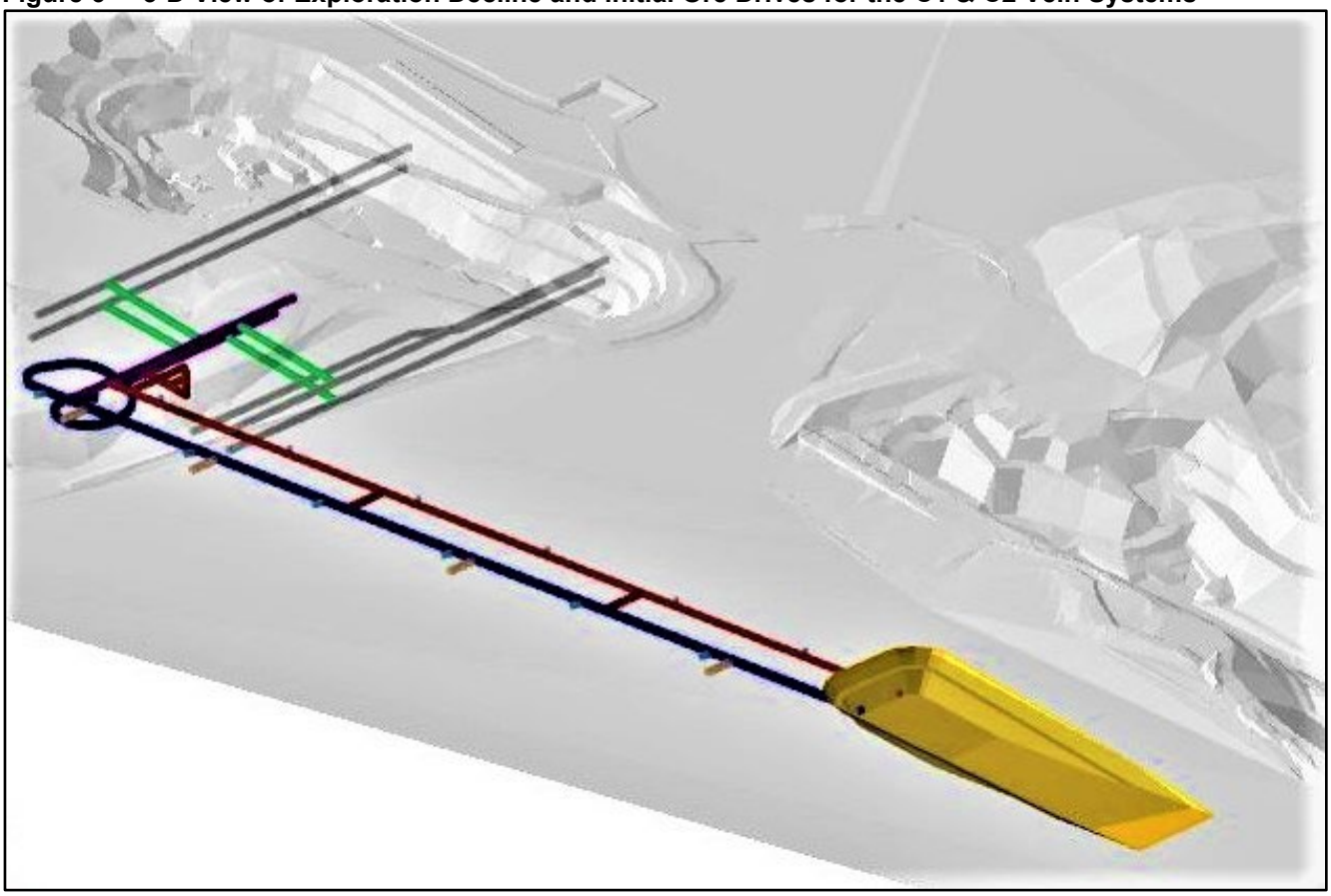


Table 1 All 22 waste-diluted MCOG Intersections to date: EHT => 1.2m and AuEq => 3.0 g/t

				BD of unmineralised waste: 2.74					EHT and BD Weighting			
				BD of pure Stibnite: 4.56								
Mineable Intersection (Potential Stope)	From (m)	To (m)	Downhole Length L (m)	EHT (m)	Au Assay (g/t)	Sb Assay (Sb %)	AuEq (g/t)	BD based on Sb%	EHT & BD Weighted Au	EHT & BD Weighted Sb	EHT & BD Weighted AuEq	AuEq Times MCOG
NRP002 C1 E&W (PR)	109.00	136.10	27.10	2.50	4.84	7.51	19.18	2.89	5.42	9.15	22.90	7.6
NAD008 C1 E (PR)	178.20	180.00	1.80	1.20	3.51	3.05	9.34	2.79	3.55	3.26	9.77	3.3
NAD009 C1 E (PR)	172.34	174.20	1.86	1.20	0.08	2.36	4.59	2.78	0.08	2.52	4.89	1.6
NAD009 C1 W (PR)	200.00	207.30	7.30	4.70	4.86	4.20	12.88	2.81	5.32	4.74	14.37	4.8
NAD010 C1 E (PR)	160.00	161.78	1.78	1.20	13.38	16.14	44.21	3.05	13.56	18.44	48.79	16.3
NAD010 C1 W (PR)	163.56	165.35	1.79	1.20	0.19	2.81	5.56	2.79	0.21	3.05	6.03	2.0
NAD011 C1 E (PR)	214.30	217.80	3.50	1.20	0.10	1.47	2.91	2.77	0.10	1.61	3.18	1.1
NAD011 C1 W (PR)	270,7	276.00	5.30	2.25	1.46	10.38	21.29	2.94	1.52	12.01	24.45	8.2
NAD012 C1 W (PR)	130.86	132.20	1.34	1.20	1.67	1.66	4.84	2.77	1.75	1.83	5.24	1.7
NAD012 C2 E (PR)	401.40	404.80	3.40	2.62	6.72	2.54	11.57	2.78	6.68	2.57	11.59	3.9
NAD012 C2 M (PR)	416.00	420.00	4.00	1.98	6.27	3.78	13.50	2.80	6.30	3.89	13.72	4.6
NAD012 C2 W (PR)	423.00	428.00	5.00	2.42	8.70	5.49	19.19	2.84	9.30	6.17	21.08	7.0
NAD013 C1 E (PR)	167.30	171.10	3.80	2.70	3.61	10.02	22.74	2.93	4.32	11.75	26.77	8.9
NAD013 C1 W (PR)	238.00	240.30	2.30	1.40	7.13	0.05	7.23	2.74	7.13	0.05	7.23	2.4
NAD016 C1 W/HW (PR)	180.50	188.00	7.50	2.36	3.12	2.37	7.64	2.78	3.12	2.69	8.26	2.8
NAD016 C1 W/HW (PR)	174.50	177.00	2.50	1.27	9.37	1.67	12.55	2.77	9.32	1.69	12.56	4.2
NAD016 C1 W/HW (PR)	170.00	171.40	1.41	1.20	5.00	0.32	5.61	2.74	5.00	0.32	5.61	1.9
NAD017 C1 W (PR)	217.00	219.48	2.48	1.20	5.92	1.77	9.30	2.77	5.90	1.78	9.30	3.1
NAD020 C1 E-W Link	214.28	216.60	2.32	1.20	0.75	3.93	8.25	2.82	0.75	5.34	10.94	3.6
NAD022 C1 E	238.00	239.55	1.55	1.20	3.46	7.70	18.16	2.89	3.96	9.42	21.96	7.3
NAD023 C1 W	272.16	276.00	3.84	1.20	0.69	11.98	23.57	2.98	0.68	14.23	27.87	9.3
NAD029 C2 W	285.50	286.75	1.25	1.20	4.59	9.02	21.82	2.92	4.72	10.99	25.72	8.6
Average to Date				1.75				2.84	4.77	6.06	16.34	5.4

(PR) = previously reported on 10 March 2023; AuEq (g/t) = Au (g/t) + (Sb% x 1.91); BD = bulk density; MCOG = mineable cut-off grade

Figure 7 Plan: Diamond drilling of the C1 & C2 antimony-gold vein systems

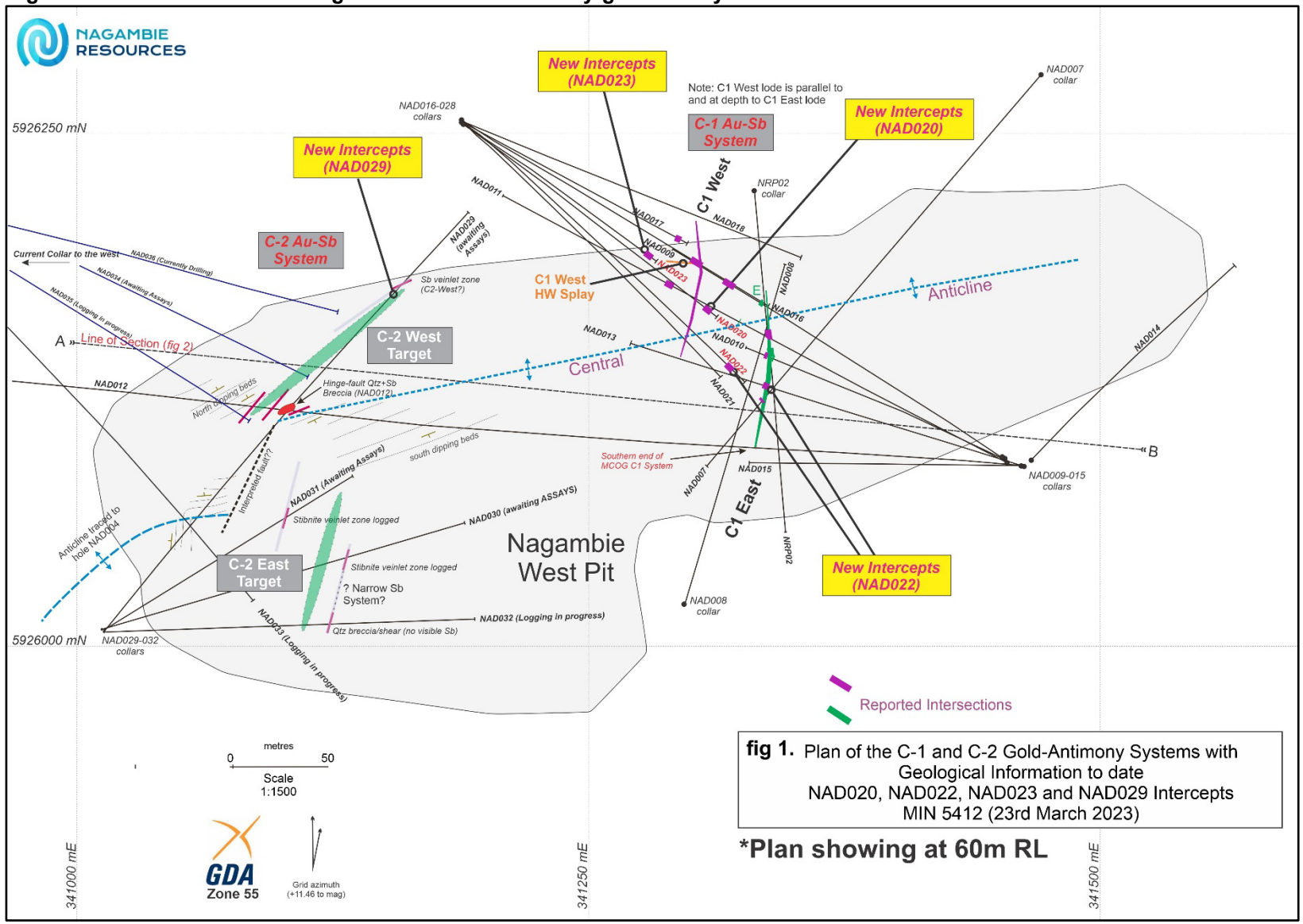


Figure 8 Section A-B, looking NNE: Showing C1 & C2 vein systems

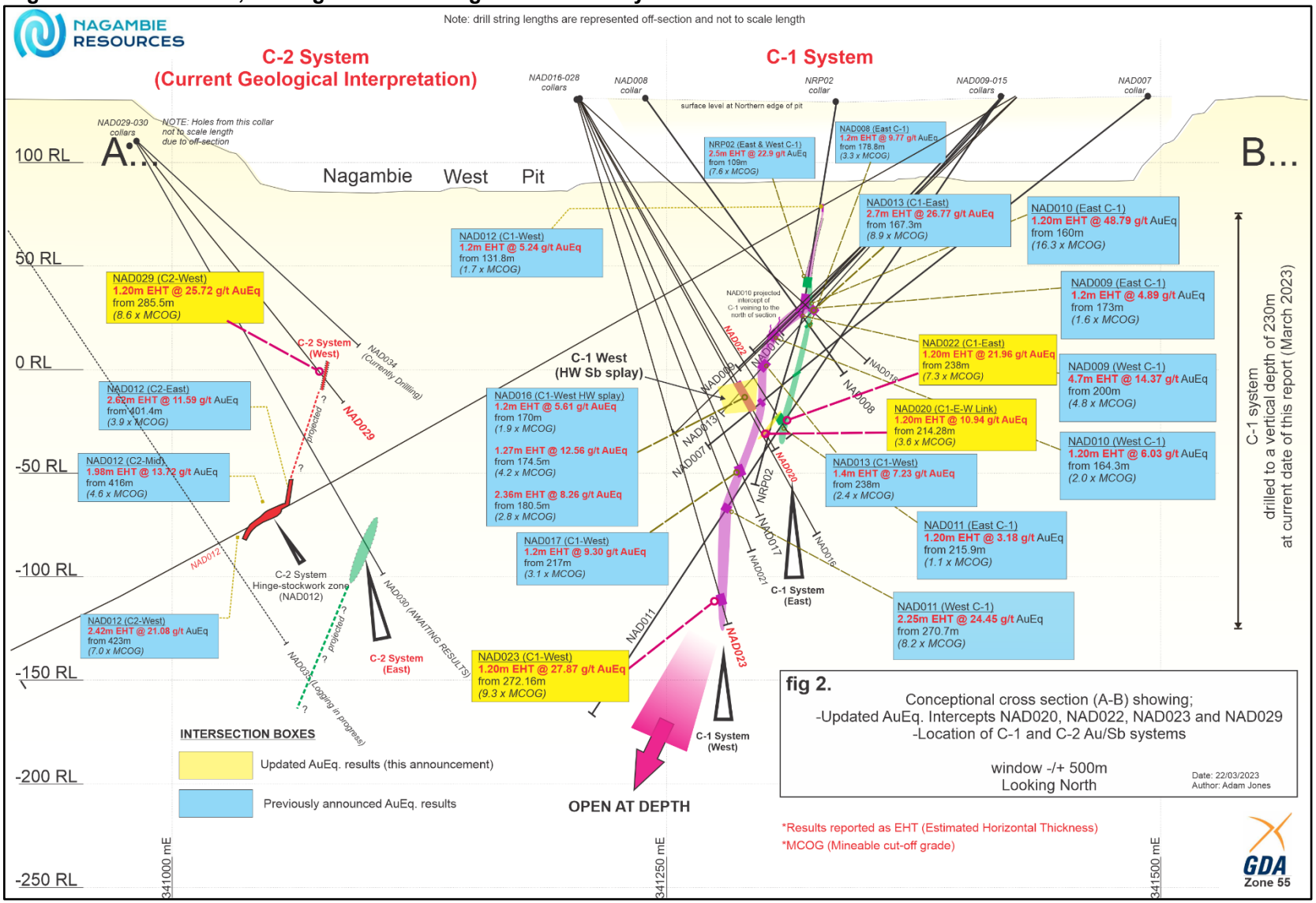
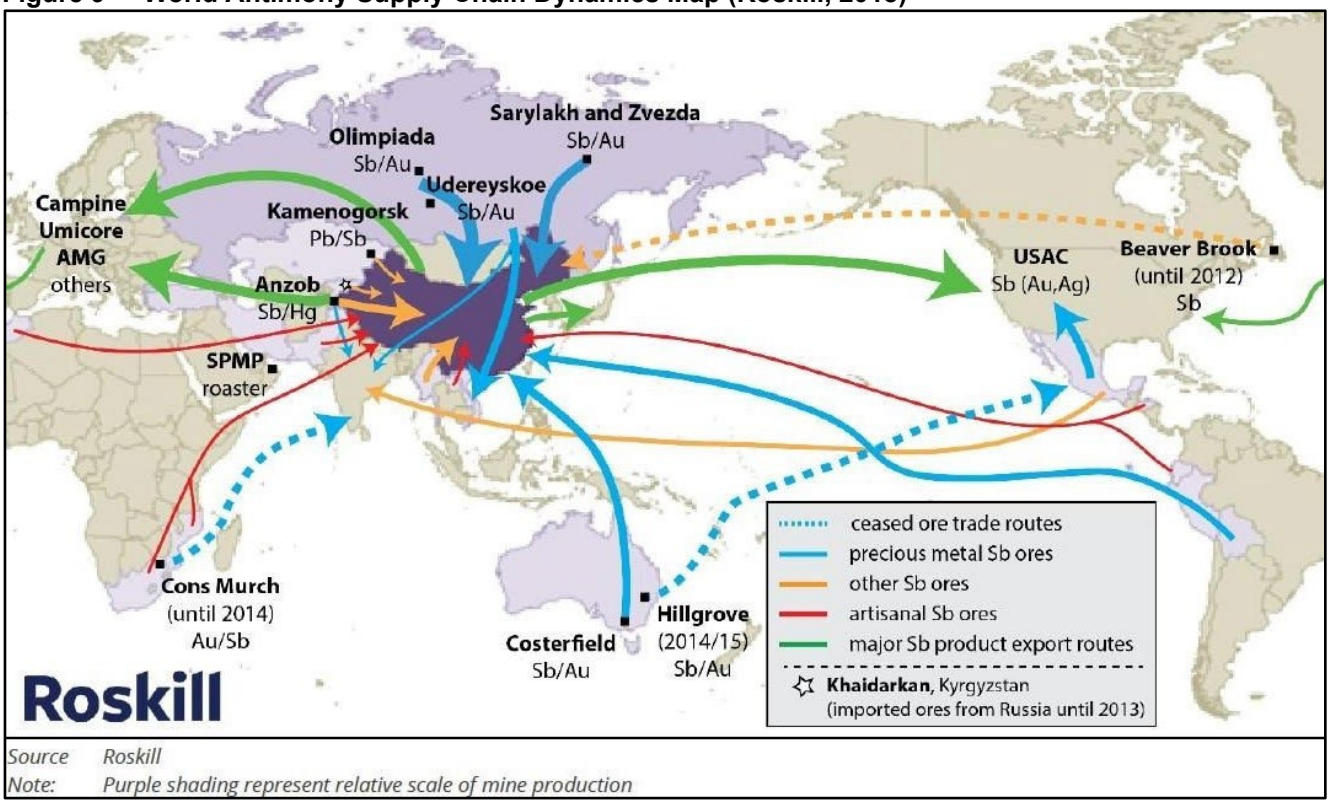


Figure 9 World Antimony Supply Chain Dynamics Map (Roskill, 2018)



Source Roskill
Note: Purple shading represent relative scale of mine production

Note: Roskill was acquired in June 2021 by Wood Mackenzie, a leading global research, consultancy, and data analytics business.

Regional Sb/Au Exploration – Nagambie Mine

Nagambie announced the discovery of the first high-grade, antimony-gold C-vein system (as in Costerfield-Mine-style system), C1, in November 2022. The second vein system, C2, 200m west of C1, was announced in January 2023.

The discovery of multiple N-striking stibnite vein systems to the west of C1 was predicted under Nagambie Resources' expanded structural model. Nagambie's initial gold model was based on the major N-S compression event (circa 375 million years ago) in the Waranga Domain resulting in E-W-striking anticlines and thrust faults, with quartz-carbonate-pyrite-arsenopyrite gold mineralisation emplaced in the resulting "E-W plumbing systems".

The drilling of the deep NAD004-006 diamond holes (completed in early 2022) to the SW of the West Pit showed that the Nagambie Mine Central Anticline "appears" to curve progressively more to the south, the further to the west that it extends. In fact, movement to the south of the E-W-striking anticline, thrust faults and sedimentary host rocks occurs wherever there has been N-striking cross-fault movement. Resulting from blocks of ground failing under the continuing N to S compression event at that time, these cross faults post-dated the E-W-striking quartz-carbonate gold mineralisation and established openings - "secondary N-striking plumbing systems". These cross-faults were filled with deeply-sourced, antimony-rich hydrothermal fluids rising under pressure.

The above structural explanation for the secondary, high-grade stibnite (antimony sulphide) vein systems at the Nagambie Mine is illustrated pictorially in Figures 10-13.

Figure 10 C-Veins: E-W Mineralisation before N to S Block Movements

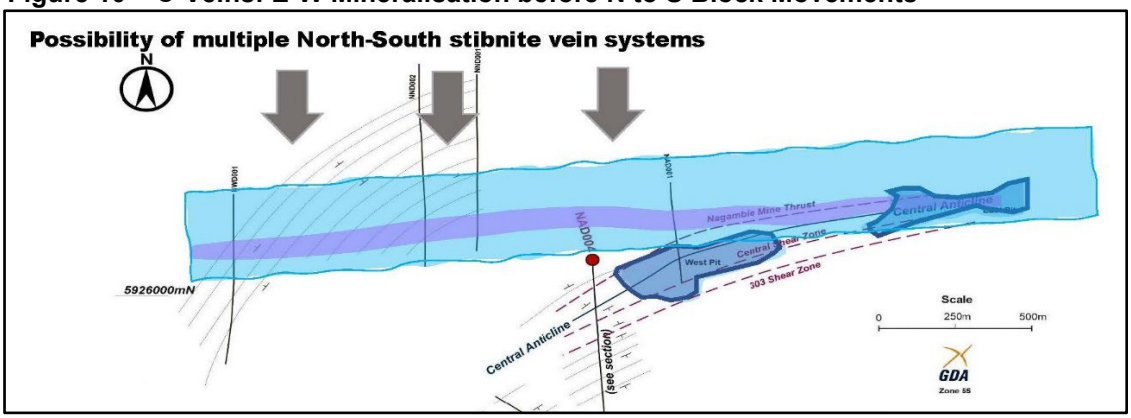


Figure 11 C-Veins: Blocks of E-W Mineralisation progressively shunted to South

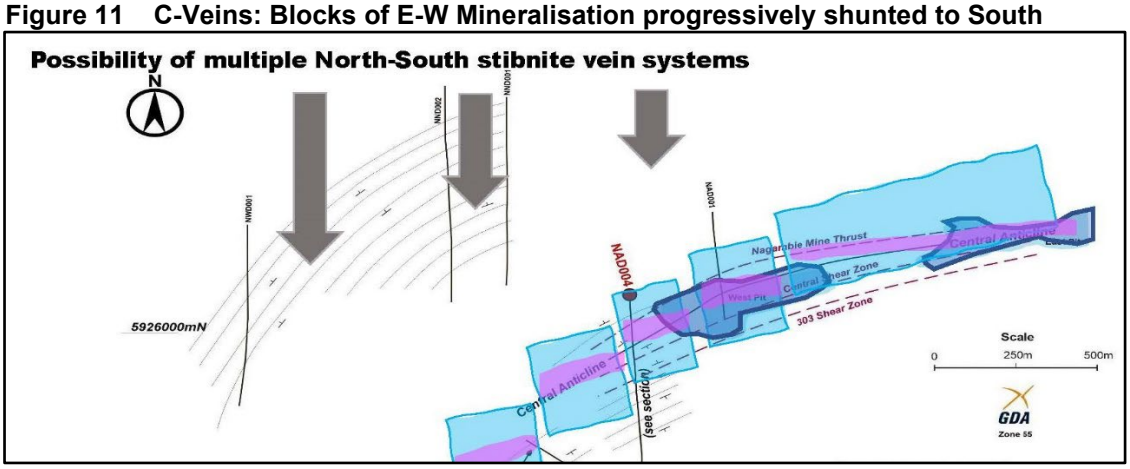


Figure 12 C-Veins: N-S Cross Faults filled with secondary Sb-Au Mineralisation

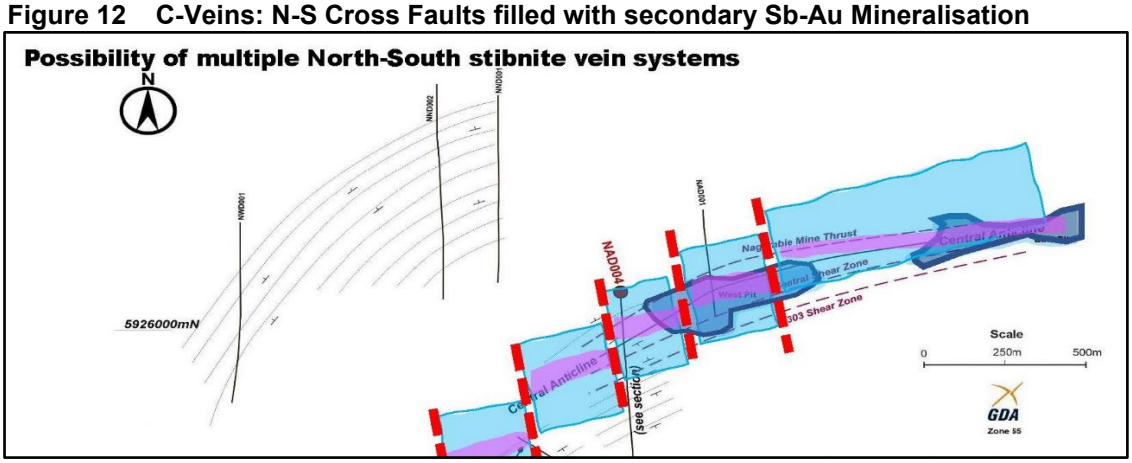
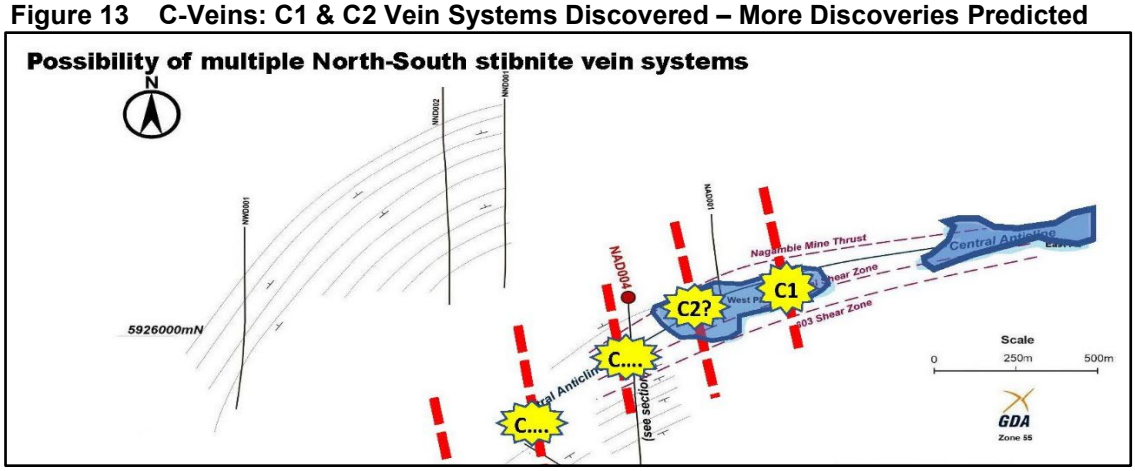


Figure 13 C-Veins: C1 & C2 Vein Systems Discovered – More Discoveries Predicted



Regional Sb/Au Exploration – Waranga Domain in the Melbourne Zone

Nagambie Resources holds over 3,000 sq km of Sb/Au exploration tenements in the Waranga Domain (refer Figures 14 and 15) of the Melbourne Zone in Northern Victoria because:

1) The Melbourne Zone is underlain by the Selwyn Block (refer Figure 16). While the Fosterville epizonal Sb/Au mine occurs on the eastern edge of the Bendigo Zone, it is in fact underlain by the Selwyn Block (refer Figure 16). The Selwyn Block is considered to be the likely source of the hydrothermal fluids that formed the epizonal Sb/Au deposits at the Fosterville, Costerfield and Nagambie mines and other deposits in the Melbourne Zone; and

2) The epizonal Sb/Au Fosterville, Costerfield and Nagambie mines are all located to the north of the Strathbogie Granites in the Melbourne Zone (refer Figure 17). Figure 18[1] shows that the Sb/Au epizonal deposits in the Melbourne Zone were formed as a result of the Tabberabberan Orogeny around 375 million years ago and the Strathbogie Batholith occurred after the Sb/Au epizonal mineralisation was deposited. To the north of the Strathbogie Granites, the mines at Fosterville, Costerfield and Nagambie are all hosted in shallow-ocean-formed turbidites (sandstones, siltstones and mudstones) with the "plumbing systems" having resulted from regional compressional folding and faulting of those sediments, unaffected by any igneous intrusions. To the south of the Strathbogie Granites, the epizonal Sb/Au deposits have tended to be impacted by igneous intrusions, causing these deposits to be more-geologically-complex and variable in terms of grade distribution. Nagambie Resources considers that the best potential for less-geologically-complex future discoveries, such as Fosterville, Costerfield and Nagambie, lies to the north of the Strathbogie Granites in the Waranga Domain (refer Figure 19).

Figure 14 Nagambie Resources' Tenements (light blue) in Northern Victoria

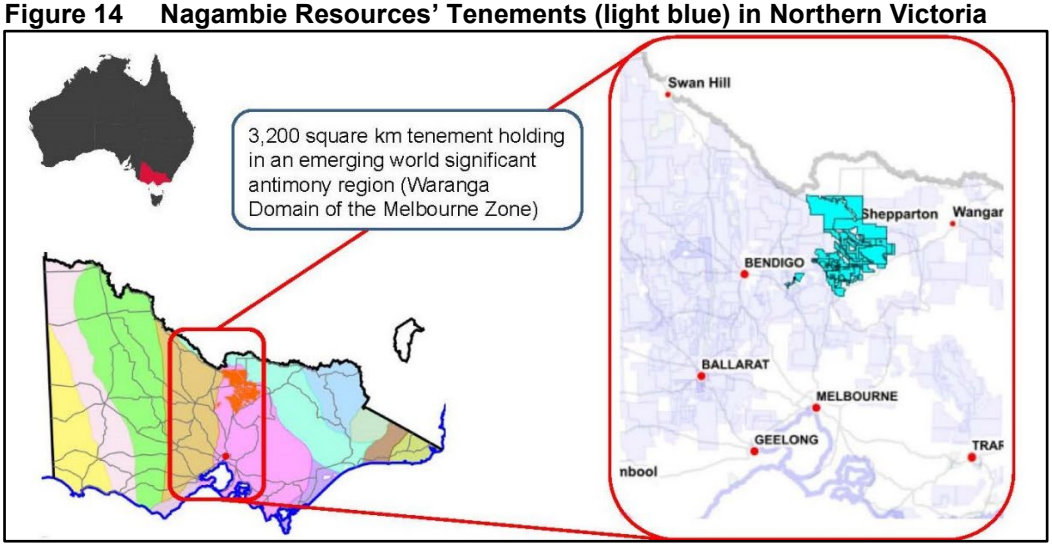
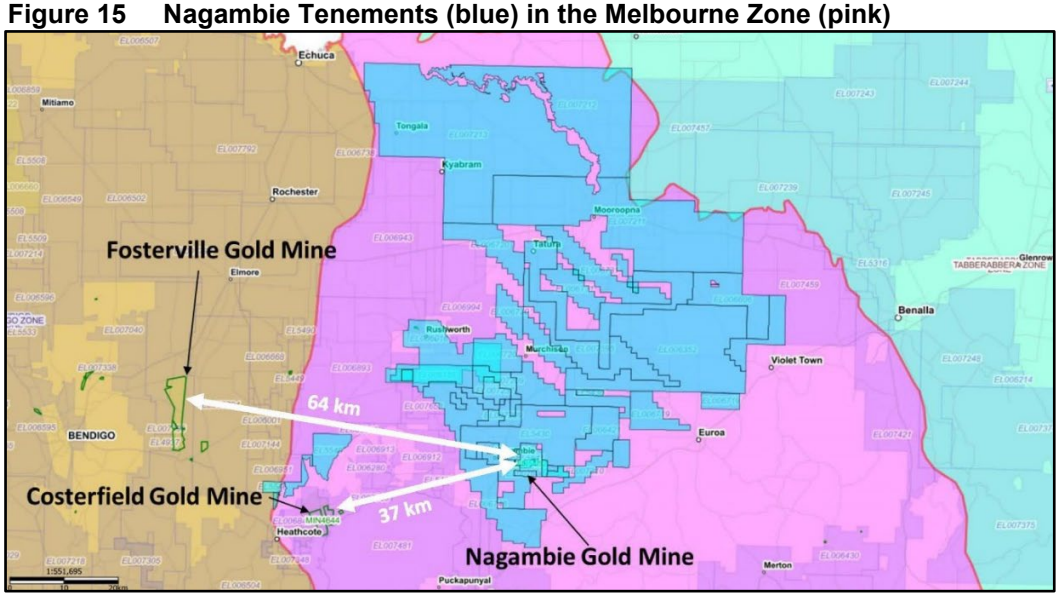


Figure 15 Nagambie Tenements (blue) in the Melbourne Zone (pink)



[1] from page 5, March 2023 Presentation, Southern Cross Gold Limited https://www.southerncrossgold.com.au

Figure 16 Melbourne Zone underlain by Selwyn Block – considered to be the source of Sb/Au fluids

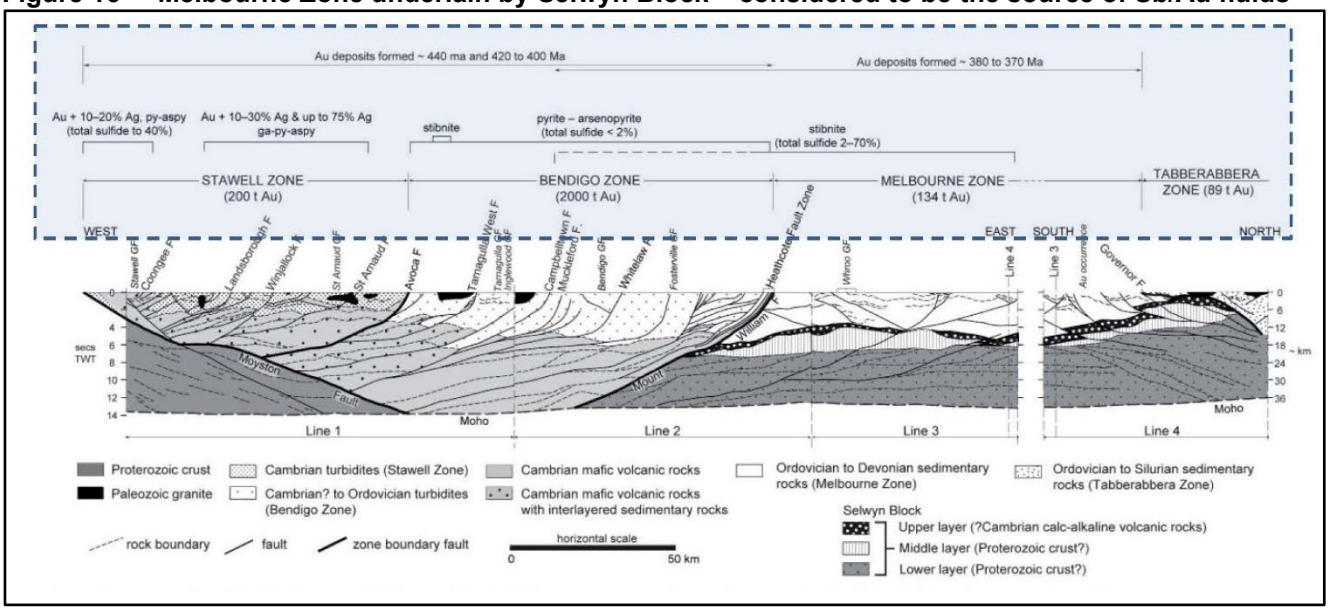


Figure 17 Victorian Sb/Au Deposits and Strathbogie Granites (dark red)

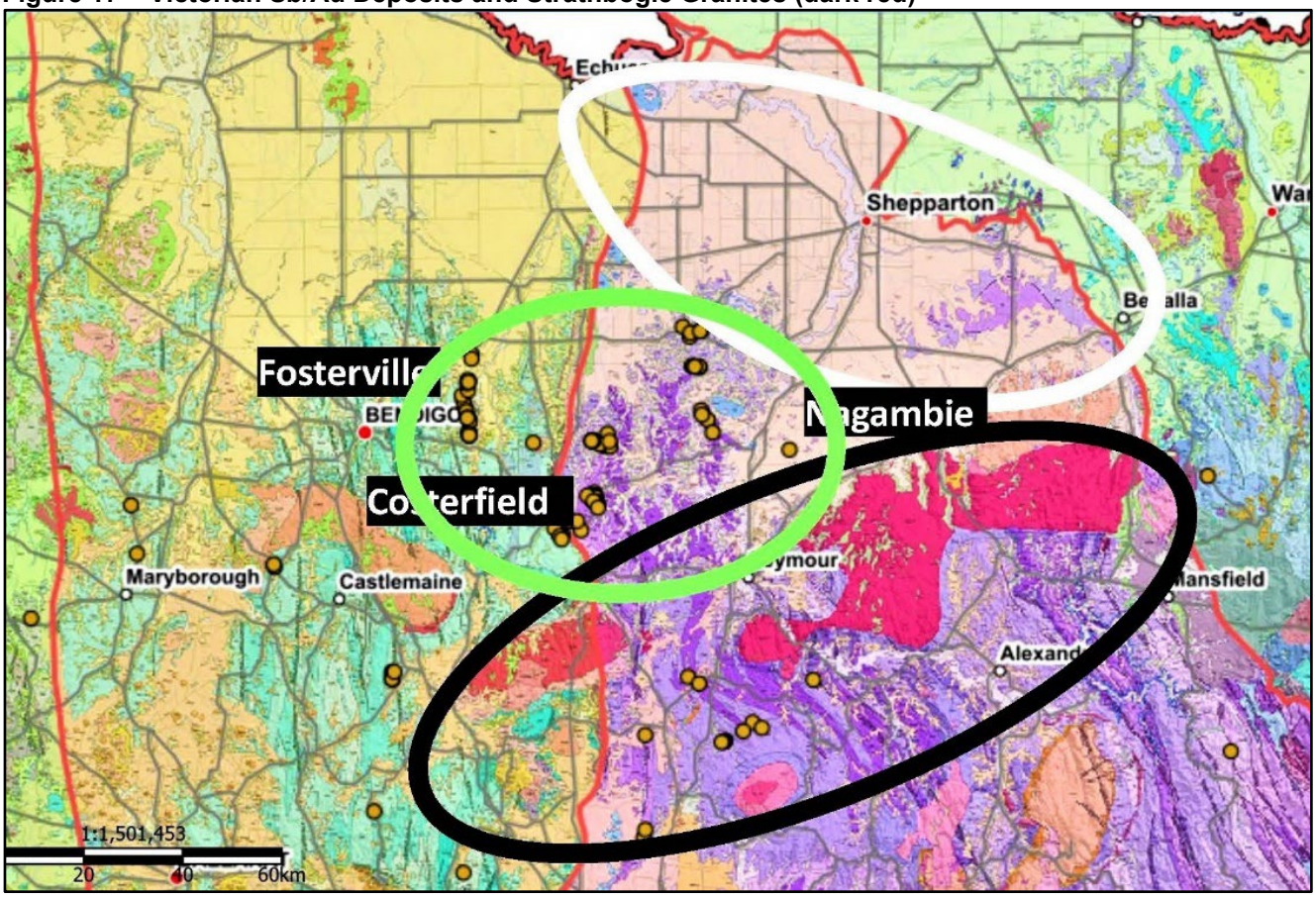


Figure 18 Melbourne Zone Au-Sb Deposits (Tabberabberan Orogeny) occurred before Strathbogie Batholith

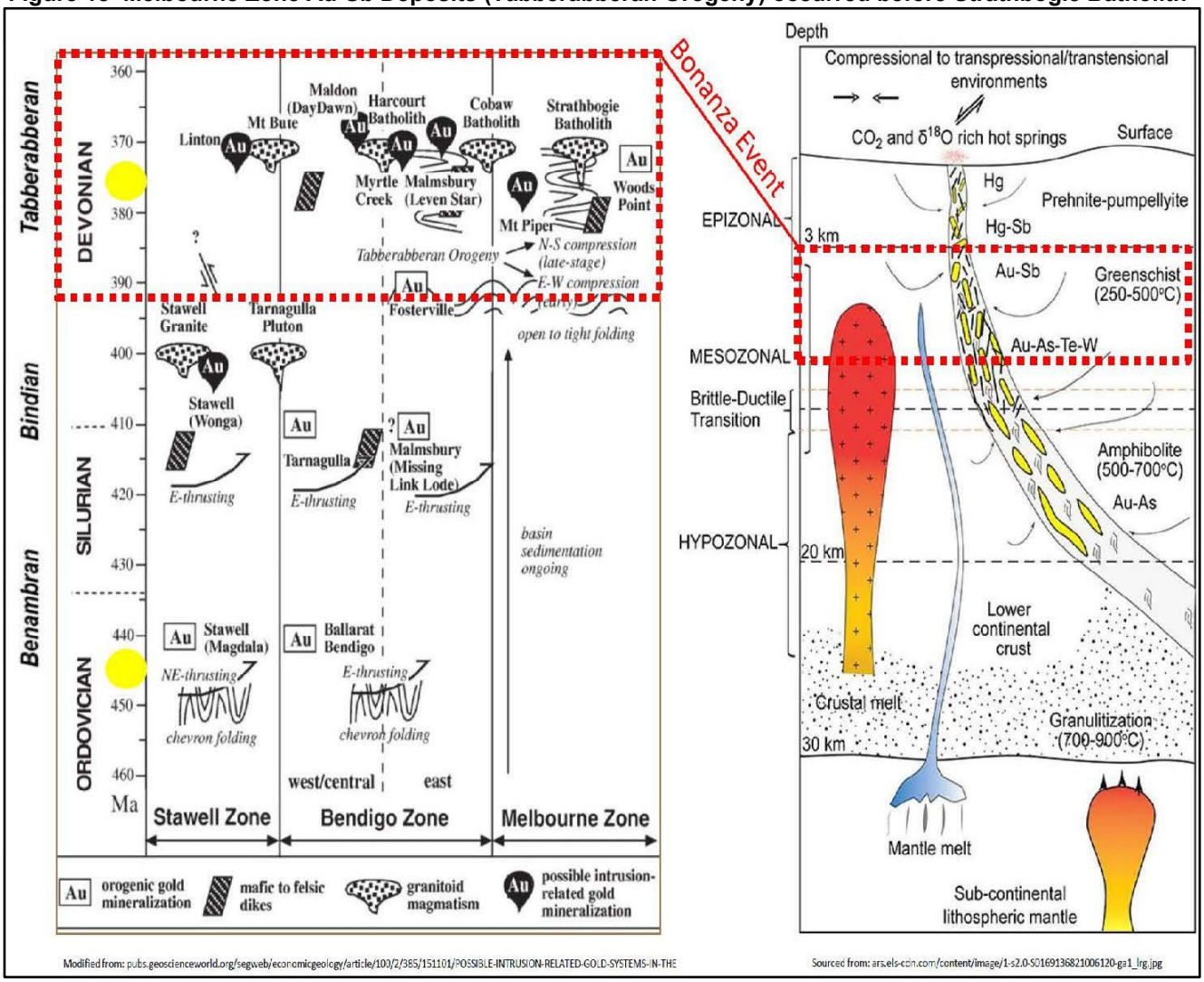
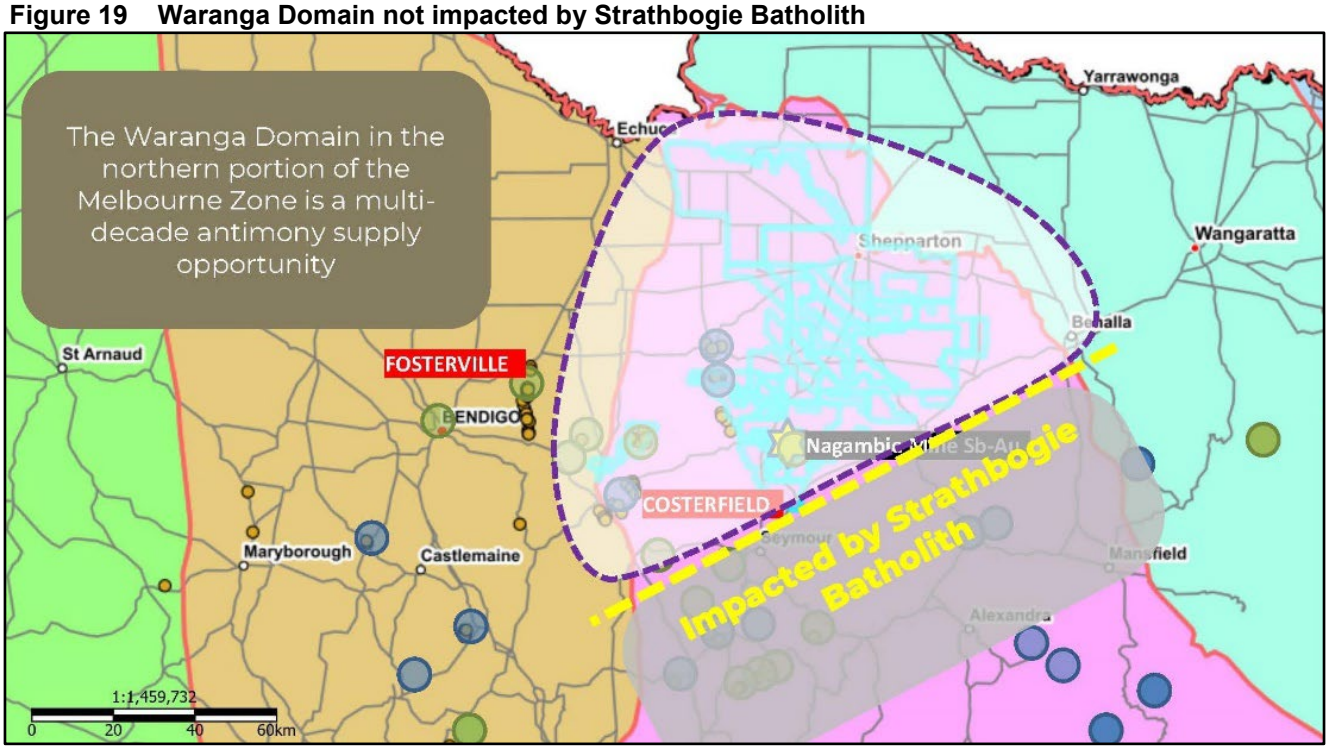


Figure 19 Waranga Domain not impacted by Strathbogie Batholith



By the order of the Board.

James Earle
Chief Executive Officer

STATEMENT AS TO COMPETENCY

The Exploration Results in this report have been compiled by Adam Jones who is a Member of the Australian Institute of Geoscientists (MAIG). Adam Jones has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he is 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". He consents to the inclusion in this report of these matters based on the information in the form and context in which it appears.

FORWARD-LOOKING STATEMENTS

This report contains "forward-looking statements" within the meaning of securities laws of applicable jurisdictions. Forward-looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "target", "intend", "plan", "estimate", "anticipate", "believe", "continue", "objectives", "outlook", "guidance" or other similar words, and include statements regarding certain plans, strategies and objectives of management and expected financial performance. These forward-looking statements involve known and unknown risks, uncertainties and other factors, many of which are outside the control of Nagambie Resources and any of its officers, employees, agents or associates. Actual results, performance or achievements may vary materially from any projections and forward-looking statements and the assumptions on which those statements are based. Exploration potential is conceptual in nature, there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource. Readers are cautioned not to place undue reliance on forward-looking statements and Nagambie Resources assumes no obligation to update such information.

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About Nagambie Resources:

www.nagambieresources.com.au

Oriented diamond drilling of structurally-controlled, high-grade antimony-gold underground targets within the Nagambie Mine Mining Licence and elsewhere in the 3,000 sq km of tenements in the Waranga Domain is being methodically carried out.

Nagambie Resources and Golden Camel Mining (GCM) have received approval for the construction and operation of a CIL gold toll treatment plant at the Nagambie Mine. GCM will pay 100% of all construction and commissioning costs; thereafter net operating cash flow will be shared 50:50. A future antimony flotation circuit is also planned.

Underwater storage of sulphidic excavation material (PASS) in the two legacy gold pits at the Nagambie Mine is an excellent environmental fit.

Bacterial recovery of residual gold from the 1990s heap leach pad is being investigated.

Mining and screening of sand and gravel deposits at the Nagambie Mine is also planned.