# ASX ANNOUNCEMENT 31 October 2023



# **Quarterly Report September 2023**

#### **HIGHLIGHTS**

- Nagambie prepared to bid for the underwater storage at the Nagambie Mine of PASS to be generated from the construction of the North East Link Project (NELP) road tunnels. A final conforming bid was submitted post quarter end to Spark, the builders of the NELP.
- The major Victorian high-grade antimony-gold (Sb-Au) virgin discovery at the 100%-owned Nagambie Mine was announced on 3 July 2023.
- The discovery now consists of four lode systems with multiple veins within them (C1, C2, C3 and N1 lodes) and they all remain open at depth. A maiden JORC Inferred Resource is being calculated.
- The newly-delineated N1 lode system already has a strike length of around 220m and is open both to the west and east. N1 is now the lode system with the most potential AuEq content.
- The 38 economically-mineable intersections to date average 3.8m downhole length, 1.6m EHT (estimated horizontal stope thickness) and 14.5 g/t AuEq (gold equivalent) (5.6% Sb plus 3.8 g/t Au).
- The average gold-equivalent stope grade of 14.5 g/t AuEq or approximately 0.5 ounces/tonne AuEq is very high grade by Victorian and Australian standards, and 4.8 times the estimated mineable cut-off grade of 3.0 g/t AuEq.
- The average antimony stope grade of 5.6% Sb makes the Nagambie Mine discovery the highest-grade antimony mineralisation in Australia.
- A new and dramatically increasing use of antimony is in Solar PV (photovoltaic) glass panel
  manufacturing as the world moves to renewable, decarbonizing energy generation. Nagambie has
  continued to be approached by overseas antimony refineries, end users and trading groups from
  China, the Middle East and Europe all interested in mutually-beneficial antimony off-take
  agreements.

#### COMMENTARY

Nagambie Resources' Executive Chairman, Mike Trumbull, commented: "We have bid competitively to store a large quantity of PASS from the NELP road tunnels at the Nagambie Mine and are hopeful of being awarded a contract by Spark.

"The calculation of a maiden, stopeable JORC Inferred Resource for the 100%-owned Nagambie Mine Sb-Au discovery is under way. The multiple high-grade Costerfield-Mine-like Sb-Au lodes, that do not outcrop and lie beneath the low-grade oxide Au at surface, represent one of Victoria's major "blind" exploration finds.

"Underground mining of the Sb-Au lodes beneath and to the west of the West Pit will not be affected by water in the West Pit and the surface Murray Basin unconsolidated sediments (layers of clay and sand). Below the surface clay and sand, which is up to 30m thick, the West Pit was excavated through the underlying solid basement sandstone/siltstone rocks to a maximum depth of 48m. Initial underground mining of the Sb-Au lodes is planned to commence a minimum of 57m below the base of the West Pit, deeper into the solid basement rocks."

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#### PASS BID FOR NORTH EAST LINK PROJECT (NELP)

PASS (<u>P</u>otential <u>A</u>cid <u>S</u>ulfate <u>S</u>oil) material will be generated from the boring of the NELP road tunnels by two large tunnel-boring machines (TBMs). The first of the two TBMs arrived in parts by ship in Port Melbourne in early September 2023. Those parts were trucked to the NELP tunnels launch area and assembly commenced. With a total announced assembly time of six months, the first TBM could be ready to commence boring in March 2024. Total TBM tunnelling time is estimated to be two years.

Nagambie Resources has EPA Victoria approval, via an Environmental Management Plan (EMP), to store PASS below water in the two water-filled 1990s oxide-gold pits at the Nagambie Mine.

Nagambie submitted a final conforming bid to the Spark consortium, the builders of the NELP, for the underwater storage of PASS at the Nagambie Mine on 24 October 2023.

#### NAGAMBIE MINE HIGH-GRADE ANTIMONY-GOLD DISCOVERY

# **Current Status of Project**

- The major Victorian high-grade antimony-gold (Sb-Au) virgin discovery at the 100%-owned Nagambie Mine was announced on 3 July 2023.
- The discovery now consists of four lode systems with multiple veins within them (C1, C2, C3 and N1 lodes) and they all remain open at depth. Nagambie's structural model predicts that significantly more lode systems could be delineated over time.
- The **38 economically-mineable intersections** to date (refer Table 1) average 3.8m downhole length, **1.6m EHT** (estimated horizontal stope thickness) and **14.5 g/t AuEq** (gold equivalent) **(5.6% Sb** (antimony) **plus 3.8 g/t Au** (gold)).
- The average gold-equivalent stope grade of 14.5 g/t or approximately 0.5 ounces/tonne AuEq is very high grade by Victorian and Australian standards, and 4.8 times the estimated mineable cut-off grade of 3.0 g/t AuEq. This indicates potentially very-low operating cost, very-high operating margin mineralisation.
- The average antimony stope grade of 5.6% Sb makes the Nagambie Mine discovery the highest-grade antimony mineralisation in Australia.
- The **newly delineated N1 (E-W) lode system** already has a strike length of around 220m and is open both to the west and east. N1 is now the lode system with the most potential AuEq content.
- Diamond drilling was paused early in the September 2023 quarter to fully assess the results of all the
  drilling since the June 2022 quarter, calculate a maiden JORC Inferred Resource and conserve funds
  ahead of the next focussed drilling program. Nagambie's geologists have carried out extensive geological
  modelling of the anticlinal folding, the anticlinal shears, the bedding traces, and the more sandstone-rich
  sedimentary beds. Logging, core sawing and laboratory assaying of the remaining intersections will be
  completed shortly.
- Mining Plus, a global mining services provider, has determined that the Sb-Au mineralisation is not highly-nuggety / highly-variable and, as a result, costs of drilling going forward, both from surface and underground, will be significantly less than for nuggety / highly-variable-grade mineralisation.
- Mining Plus has also designed an exploration decline from surface, to be entirely in solid basement sandstone/siltstone rocks and well away from the surface Murray Basin clays and sands further to the west. Initial main ore drives are planned at 105m and 125m vertically below surface. The designs will form part of Nagambie's Work Plan Variation application to carry out underground exploration work under its Mining Licence.
- A new and dramatically increasing use of antimony is in **Solar PV** (photovoltaic) **glass panel manufacturing** as the world moves to **renewable**, **decarbonizing energy generation**.
- During the last year, Nagambie has been approached by overseas antimony refineries, end users and trading groups from China, the Middle East and Europe all interested in mutually-beneficial antimony off-take agreements.

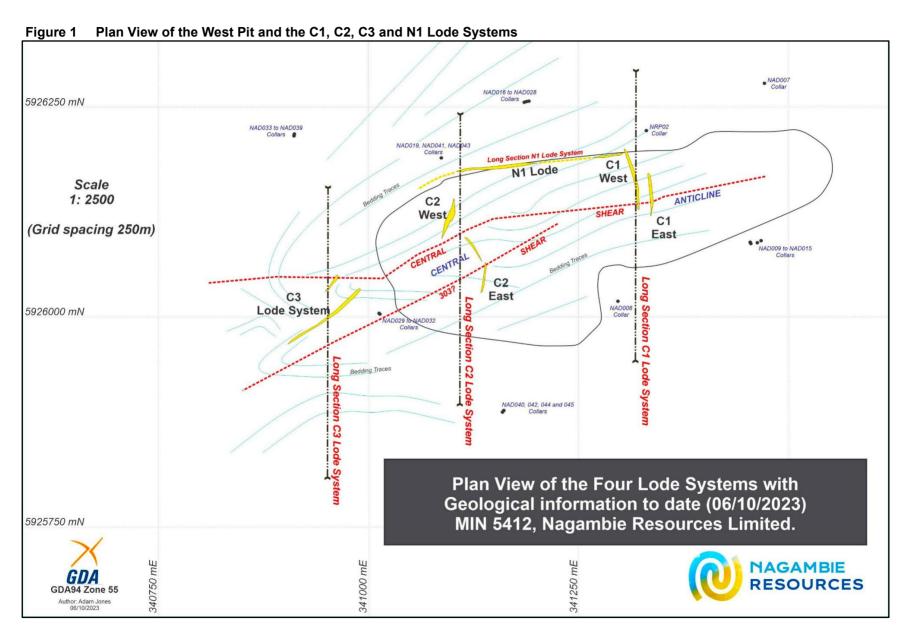


Table 1 All 38 Economically-Mineable Intersections to date: EHT => 1.2m and AuEq => 3.0 q/t

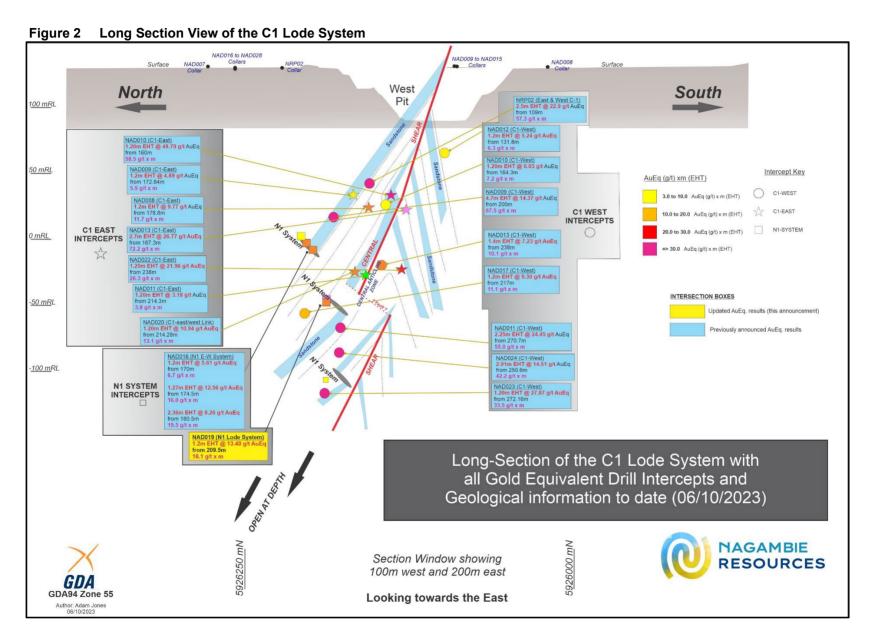
Table 1 All 38	ECOHOII	iicany-i	viineabi					HT => 1.2m and AuEq => 3.0				g/t	
				BD of unmineralised waste: 2.74				EHT and BD Weighting					
				BD of pure Stibnite: 4.56									
Mineable Intersection	From (m)	To (m)	Downhole	EHT	Au	Sb	AuEq	BD	EHT & BD	EHT & BD	EHT & BD	AuEq	AuEq
(Potential Stope)			Length	(m)	Assay	Assay	(g/t)	based	Weighted	Weighted	Weighted	x EHT	хL
			L (m)		(g/t)	(Sb %)		on Sb%	Au	Sb	AuEq	(g/t x m)	(g/t x m)
NRP002 C1 E&W	109.00	136.10	27.10	2.50	4.84	7.51	19.18	2.89	5.42	9.15	22.90	57.3	621
NAD008 C1 E	178.20	180.00	1.80	1.20	3.51	3.05	9.34	2.79	3.55	3.26	9.77	11.7	18
Progressive Totals **	otals ** 16 September 2022			3.70								69.0	
NAD009 C1 E	172.34	174.20	1.86	1.20	0.08	2.36	4.59	2.78	0.08	2.52	4.89	5.9	9
NAD009 C1 W	200.00	207.30	7.30	4.70	4.86	4.20	12.88	2.81	5.32	4.74	14.37	67.5	105
NAD010 C1 E	160.00	161.78	1.78	1.20	13.38	16.14	44.21	3.05	13.56	18.44	48.79	58.5	87
NAD010 C1 W	163.56	165.35	1.79	1.20	0.19	2.81	5.56		0.21	3.05	6.03	7.2	11
NAD011 C1 E	214.30	217.80	3.50	1.20	0.10	1.47	2.91	2.77	0.10	1.61	3.18	3.8	11
NAD011 C1 W	270.70	276.00	5.30	2.25	1.46	10.38	21.29	2.94	1.52	12.01	24.45	55.0	130
Progressive Totals **	16 Novem		15.45								267.0		
NAD012 C2 E	401.40	404.80	3.40	2.62	6.72	2.54	11.57	2.78	6.68	2.57	11.59	30.3	39
NAD012 C2 W	423.00	428.00	5.00	2.42	8.70	5.49	19.19	2.84	9.30	6.17	21.08	51.0	105
Progressive Totals **	23 Januar			20.49								348.4	
NAD012 C2 W (Hinge)	416.00	420.00	4.00	1.98	6.27	3.78	13.50	2.80	6.30	3.89	13.72	27.2	55
NAD012 C1 W	130.86	132.20	1.34	1.20	1.67	1.66	4.84	2.77	1.75	1.83	5.24	6.3	7
Progressive Totals **	3 March 20	023		23.67								381.8	
NAD013 C1 E	167.30	171.10	3.80	2.70	3.61	10.02	22.74	2.93	4.32	11.75	26.77	72.2	102
NAD013 C1 W	238.00	240.30	2.30	1.40	7.13	0.05	7.23	2.74	7.13	0.05	7.23	10.1	17
NAD016 N1 (E-W)	180.50	188.00	7.50	2.36	3.12	2.37	7.64	2.78	3.12	2.69	8.26	19.5	62
NAD016 N1 (E-W)	174.50	177.00	2.50	1.27	9.37	1.67	12.55	2.77	9.32	1.69	12.56	16.0	31
NAD016 N1 (E-W)	170.00	171.40	1.41	1.20	5.00	0.32	5.61	2.74	5.00	0.32	5.61	6.7	8
NAD017 C1 W	217.00	219.48	2.48	1.20	5.92	1.77	9.30	2.77	5.90	1.78	9.30	11.1	23
Progressive Totals **	10 March 2023			33.80								517.5	
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	13.1	25
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	26.3	34
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	33.5	107
NAD029 N1 (E-W)	285.50	286.75	1.25	1.20	4.59	9.02	21.82	2.92	4.72	10.99	25.72	30.8	32
Progressive Totals **	23 March 2023		7.00	38.59	0.70	5.74	40.07	0.04	2.00	0.40	44.54	621.3	440
NAD024 C1 W	250.60	258.20	7.60	2.91	2.70	5.74	13.67	2.84	2.68	6.19	14.51	42.2	110
NAD030 C2 E	206.70	208.30	1.60	1.36	1.55	1.34	4.11		1.56	1.35		5.6	7
NAD030 C2 E	202.50	203.90	1.40	1.20	0.90	3.92	8.40		0.92	4.39	9.30	11.2	13
NAD030 C2 E NAD031 C2 E	198.20 208.00	199.90 210.35	1.70 2.35	1.20 1.20	1.33 1.18	1.71 3.85	4.60 8.53		1.33 1.17	1.76 4.23	4.69 9.25	5.6 11.1	8 22
NAD031 C2 E NAD034 C2 W (Hinge)	284.50	286.50	2.35	1.20	1.16	1.31	4.04		1.17	1.38	4.19	5.0	8
NAD034 C2 W (Hinge)	275.40	276.90	1.50	1.20	1.64	5.58	12.30		1.69	6.45		16.8	21
Progressive Totals **	22 May 2023		1.00	48.86	1.01	0.00	12.00	2.04	1.00	0.40	14.00	718.8	
NAD033 C3	205.00	206.56	1.56	1.20	0.79	5.54	11.38	2.84	0.89	6.37	13.05	15.7	20
NAD035 03	316.00	319.00	3.00	1.33	0.70	3.44	7.28		0.70	3.50		9.8	22
NAD036 N1 (E-W)	310.00	314.16	4.16	1.20	3.32	1.24	5.68		3.31	1.27	5.81	7.0	24
NAD036 N1 (E-W)	304.30	307.20	2.90	1.48	6.42	10.05	25.61	2.93	6.60	11.84		43.3	85
NAD040 C3	253.00	261.30	8.30	1.20	0.73	8.29	16.56	2.89	0.74	9.15		21.9	151
Progressive Totals **	3 July 2023			55.28								816.5	
NAD019 N1 (E-W)	209.50	211.59	2.09	1.20	6.33	3.37	12.76	2.80	6.26	3.74	13.40	16.1	28
NAD038 C3	193.10	197.21	4.11	1.20	0.34	2.22	4.59	2.78	0.35	2.42		6.0	20
NAD040 C3	292.40	296.00	3.60	1.91	2.58	0.96	4.41	2.75	2.57	0.98	4.44	8.5	16
NAD044 C3	330.70	332.89	2.19	1.20	1.37	7.02	14.77	2.87	1.33	7.94	16.50	19.8	36
Progressive Totals **	13 Octobe	r 2023	143.18	60.79								866.88	
Averages to Date		-	3.77	1.60				2.83	3.84	5.56	14.47	23.1	55
			7.1.1							7.70			

 $AuEq (g/t) = Au (g/t) + (Sb\% x 1.91); BD = bulk density; EHT = estimated horizontal stope thickness; ** EHT (m) is used to calculate the volume of a mineable stope; <math>AuEq (g/t) \times EHT (m)$  is used to calculate the AuEq content of a mineable stope.

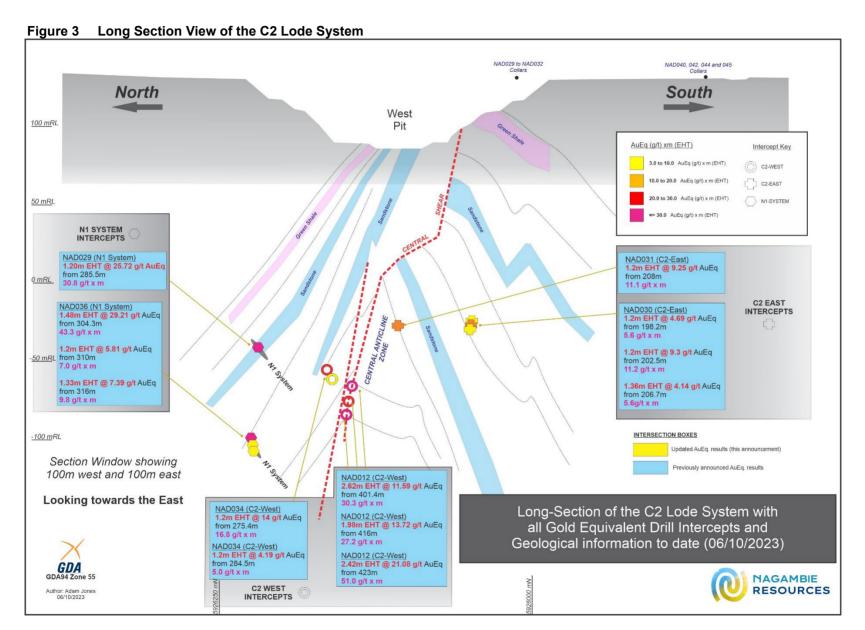




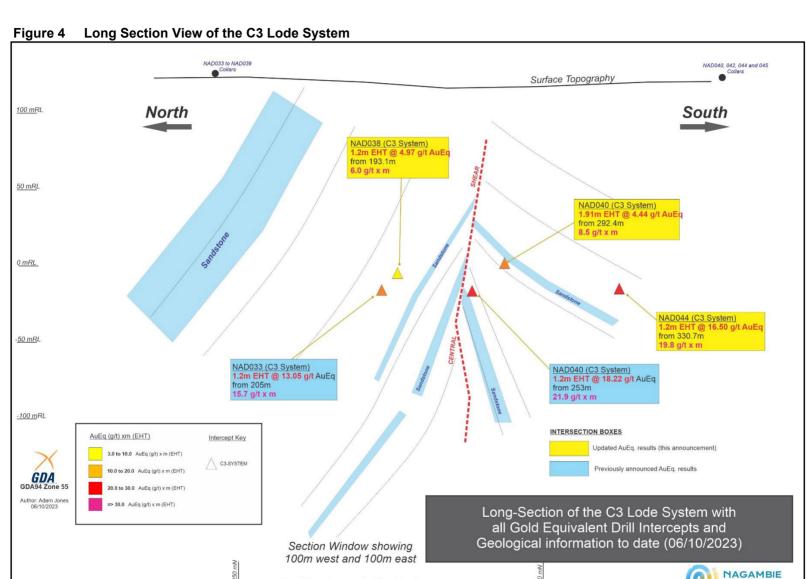








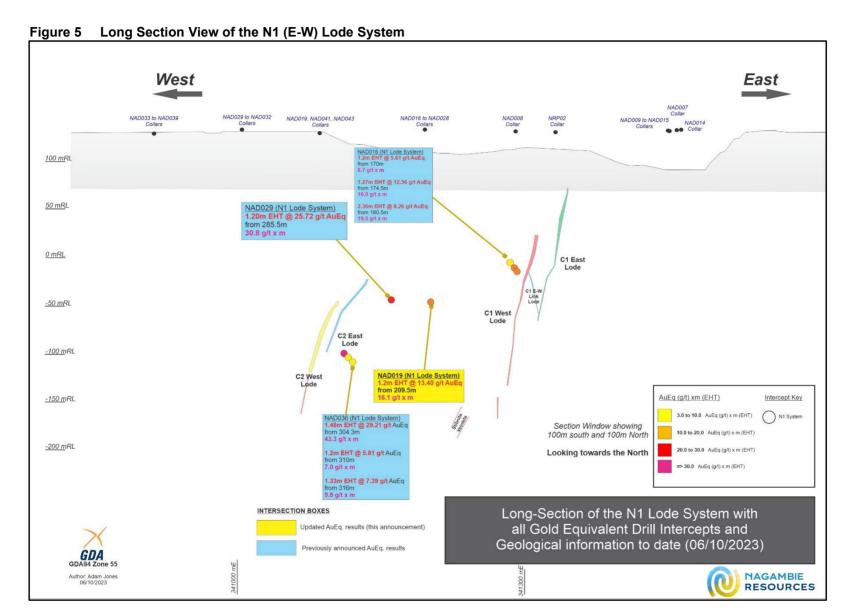




RESOURCES

Looking towards the East







#### Mineable Intersections (or Potential Stopes) for Sb/Au Mineralisation

Nagambie conforms to the JORC Code for the reporting of Exploration Results by calculating economically-mineable intersections over estimated horizontal thicknesses (EHTs) rather than just reporting simple down hole assay data.

The JORC Code requires that, if the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If the geometry 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 industry reports either estimated true widths (ETWs) or estimated horizontal thicknesses (EHTs) to account for the geometry of the mineralisation with respect to the drill hole angle.

For samples containing significant antimony, the individual Au and Sb assays are weighted by Nagambie for both sample thickness and bulk density. Consideration is then given to the mineable cut-off grade (MCOG) of 3.0 g/t AuEq over a stope width of at least 1.2m EHT.

For full details regarding the calculation of sample bulk density, AuEq calculation, minimum mineable EHT and MCOG, refer to the attached **Appendix 1: Summary of Mining-Method Considerations and Developed Assay-Reporting Criteria** on pages 13-15.

Nagambie calculates AuEq grades by applying a Costerfield Mine AuEq factor, the relative value of 1.0% Sb in the mine to 1.0 g/t Au in the mine. In CY2023, **the AuEq factor applied by Nagambie is 1.91** based on Mandalay Resources' (owner of the Costerfield Mine) annual guidance in January 2023 of US\$1,797 / oz Au and US\$10,805 / tonne Sb.

All 38 economically-mineable intersections (potential stopes) within the four lodes to date (C1, C2, C3 and N1 lodes) are summarised in Table 1.

#### Geological Overview to date of Sb/Au Mineralisation

The four epizonal lode systems delineated to date (C1, C2, C3 and N1) are shown in plan view in Figure 1 and long section view in Figures 2, 3, 4 and 5 respectively. Nagambie's structural model predicts that more lode systems could be delineated over time.

The principal anticlinal folding, the anticlinal shears, and the more sandstone-rich sedimentary beds for the C1, C2 and C3 lode systems are shown in Figures 2, 3 and 4 respectively. Sedimentary bedding in the East Pit generally strikes E-W but the bedding in the West Pit (refer Figure 1) is striking more predominately NE-SW. The lode system Sb-Au mineralisation has not been dated but is considered to be of circa 375 million years age.

The deepest intersection to date is 250m vertically below surface (refer Figure 2, C1 lode system, 27.9 g/t AuEq (14.2% Sb plus 0.7 g/t Au) over 1.2m EHT from 272.2m in NAD023). All four lode systems are open at depth and could extend significantly deeper. The Fosterville Mine epizonal mineralisation (65km west of the Nagambie Mine) extends to more than 1,000m vertical depth and the Costerfield Mine epizonal mineralisation (45km west of the Nagambie Mine) is approaching 1,000m vertical depth.

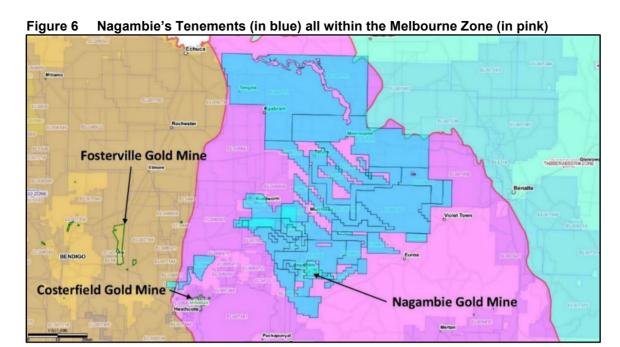
The lode with the most potential to date appears to be the newly delineated N1 (E-W) lode system (refer Figures 1 and 5). It already has a strike length of around 220m and is open both to the west and to the east. N1 was not predicted and was located in holes designed to intersect the C1 and C2 lode systems. It appears to be related to one of the E-W-striking thrust faults and the mineralisation associated with these E-W thrust faults has not previously contained significant Sb grades. N1 mineable intersections to date containing significant Sb (refer Figure 5) include:

- 29.2 g/t AuEq (11.8% Sb plus 6.6 g/t Au) over 1.5m EHT from 304.3m in NAD036; and
- 25.7 g/t AuEq (11.0% Sb plus 4.7 g/t Au) over 1.2m EHT from 285.5m in NAD029.

# NAGAMBIE RESOURCES' ANTIMONY AND GOLD TENEMENTS

The Company's tenements as at 30 September 2023, totalling 3,336.5 sq km, are listed in Table 2 and their general location in central Victoria is shown in Figure 6.





Nagambie has received notice from the Victorian Earth Resources Regulator (ERR) regarding a reassessment of the rehabilitation liability for MIN5412. The Company is liaising with ERR on the recalculation. The bond is currently \$500,000.

Table 2 Nagambie Resources Tenements as at 30 September 2023

Tenement Number	Tenement Name					
MIN 5412	Nag ambie Mining Licence	3.5				
EL 5430	Bunganail Exploration Licence	160.0				
EL 5511	Nagambie Central Exploration Licence	21.0				
EL 6352	Miepoll Exploration Licence	342.0				
EL 6508	Tabilk Exploration Licence	33.0				
EL 6606	Gowangardie Exploration Licence	88.0				
EL 6719	Euroa Exploration Licence	81.0				
EL 6720	Tatura Exploration Licence	145.0				
EL 6731	Arcadia Exploration Licence	218.0				
EL 6748	Waranga Exploration Licence	102.0				
EL 6937	Nagambie East Exploration Licence	2.0				
EL 6877	Nagambie Exploration Licence	8.0				
EL 7207	Arcadia Exploration Licence	156.0				
EL 7208	Cullens Road Exploration Licence	29.0				
EL 7210	Locksley Exploration Licence	26.0				
EL 7211	Shepparton Exploration Licence	444.0				
EL 7212	Shepparton North Exploration Licence	321.0				
ELA 7213	Pederick Exploration Licence Application	683.0				
EL 7264	Resource Recovery Exploration Licence	1.0				
ELA 7265	Nagambie Town Exploration Licence Application	8.0				
EL 7594	Miepoll East Exploration Licence	47.0				
ELA 7595	Miepoll West Exploration Licence Application	113.0				
ELA 7690	Nagambie South Exploration Licence Application	4.0				
ELA 8082	Tabilk North Exploration licence Application	7.0				
ELA 8083	Tabilk East Exploration Licence Application	40.0				
Subtotal	Waranga Domain excluding Whroo JV Property	3,082.5				
EL 6158	Rushworth Exploration Licence	46.0				
EL 6212	Reedy Lake North Exploration Licence	17.0				
EL 7205	Angustown Exploration Licence	49.0				
EL 7209	Goulburn West Exploration Licence	34.0				
EL 7237	Kirwan's North (1) Exploration Licence	20.0				
EL 7238	Kirwan's North (2) Exploration Licence	9.0				
RL 2019	Doctors Gully Retention Licence	4.0				
Subtotal	Whroo JV Property with SXG	179.0				
	Total Waranga Domain	3,261.5				
EL 5546	Redcastle Exploration Licence	51.0				
EL 7498	Comella Exploration Licence	19.0				
EL 7499	Sheoak Exploration Licence	5.0				
Subtotal	Redcastle JV Property with SXG	75.0				
TOTAL	Nagambie Resources Limited Tenements	3,336.5				



#### NAGAMBIE GOLD TREATMENT PLANT

Nagambie Resources and Golden Camel Mining (GCM) are proceeding with the construction and operation of a 300,000 tonnes per annum toll treatment facility at the Nagambie Mine. GCM is the Manager and is paying 100% of all infrastructure, construction and commissioning costs. After commissioning, all revenues and operating costs will be shared 50:50. Initial feed for the plant is to be trucked from GCM's Golden Camel Mine.

GCM has been refurbishing key components of the plant and is still finalising financial arrangements with external parties.

#### POTENTIAL BACTERIAL RECOVERY OF GOLD IN 1990s HEAP LEACH PAD

Total recorded gold production from the Nagambie Mine cyanide heap between 1989 and 1997 was 134,000 ounces and Nagambie Resources considers that a significant amount of gold remains in the heap. Extracting this gold in a toll treatment plant or by additional cyanide heap leaching is currently not viable or economic.

Stage 1 of the Bioleaching Project was completed with the findings being that gold can be bioleached from the tailings using native and externally sourced bacteria when suitable conditions are provided. Further research was recommended to refine and improve the rate of gold bioleaching.

\$50,000 of funding assistance for Stage 2 of laboratory testwork, using larger samples from the Nagambie Mine and more bacteria options, has been approved under the Federal Government's Innovation Connections Program. The Perth-based laboratory, which is carrying out the work, has agreed to contribute an additional \$55,000 to the Stage 2 work given its positive assessment of the project. The Stage 2 work is still progressing.

#### **CORPORATE**

# Cash

At 30 September 2023, total cash held by the group was \$806,000.

# \$2.0 Million PPT Flexible Working Capital Facility

Nagambie Resources on 13 September 2023 entered into a loan facility agreement with PPT Nominees Pty Ltd (PPT). The key terms of the Facility with PPT are as follows:

- Principal: \$2,000,000;
- Facility Fee: \$20,000;
- Availability Period: To 13 September 2025, being 24 months from the date of entry into the Facility;
- Drawdowns: Minimum drawdown of \$100,000; and maximum drawdown of \$500,000 per month;
- Repayment Date: The earlier of 24 months from the date of the Loan Facility Agreement, or an event of default occurring, or earlier at the Company's election without penalty;
- Interest: 10% per annum on the outstanding amount drawn down, payable each quarter in arrears;
- Security: The Company and its Subsidiaries have granted security over their assets and undertakings in favour of PPT pursuant to a general security deed;
- Guarantees: Provided by the Subsidiaries in respect of the Company's obligations under the Facility; and
- Repayments: The Company may make repayments at any time to reduce the outstanding amount drawn down without penalty.

#### Appointment of Kevin Perrin as a Non-Executive Director

Mr Kevin Perrin, a director of PPT, was appointed as a Non-Executive Director of Nagambie on 13 September 2023. Mr Perrin was previously a director of the Company from 17 September 2010 to 30 June 2019, during which time he was the Deputy Chairman of the Board and the Chairman of the Audit and Compliance Committee. Mr Perrin is the largest shareholder in Nagambie with a 16.8% holding.



# **Related Party Payments**

In accordance with its obligations under ASX Listing Rule 5.3.5, Nagambie Resources advises that the only payments made to related parties of the Company in the quarter, as set out in item 6.1 of the accompanying Appendix 5B, were in respect of directors' and consulting fees.

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 recovery 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.



#### APPENDIX 1: Summary of Mining-Method Considerations and Developed Assay-Reporting Criteria

Mining Plus, a global mining services provider, reviewed the assay-reporting criteria developed by Nagambie Resources for the antimony-gold veins resource drilling program at the Nagambie Mine and agreed that the criteria were appropriate and meaningful in terms of reporting to the ASX. The developed criteria draw heavily on the publicly-available information for the Costerfield Mine, 45 km to the west of the Nagambie Mine and currently Australia's only operating antimony-gold mine.

The Sb-Au veins at Nagambie's 100%-owned Nagambie Mine are geologically very similar to the Sb-Au vein systems at the Costerfield Mine, 100%-owned by Mandalay Resources Corporation, a Canadian company. The latest publicly-available comprehensive technical report for Costerfield ("Costerfield Report") is dated 25 March 2022:

https://mandalayresources.com/site/assets/files/3408/mnd\_costerfield\_ni-43\_101\_technical\_report\_2022.pdf

- 2) The Nagambie Sb-Au veins could be mineable from ~60m vertical depth from surface, the depth of the oxidised zone. An appropriate vertical geotechnical pillar under the West Pit (maximum 48m depth) will be determined in due course.
- 3) Like the Costerfield veins, the Nagambie veins to date are sub-vertical (45 degrees to 90 degrees (vertical)) and have good continuity both vertically and horizontally. As such, they are amenable to mechanised mining methods. Long-hole CRF stoping (where CRF stands for cemented rock fill) is the preferred mining method employed at the Costerfield Mine (p254, Costerfield Report). Another description of this method at Costerfield is Up-Hole-Retreat (UHR) stoping with the stope drill drives being 10m vertically apart and these drives being typically 3m high, so that the up-hole blast holes would be typically 7.0m in vertical height. Using cemented rock fill (utilising the underground development waste) would allow for future stopes above, below and besides each filled stope (also as for the Costerfield mine). For an example of a typical Costerfield stope drill drive, from which the up-hole blast holes are drilled, refer p75 of the Costerfield Report.
- 4) Conceptual mine planning for a Nagambie underground mine already indicates that, mining only the C1, C2. C3 and N1 lodes, sufficient stopes could be developed to effectively schedule stoping operations and optimise the antimony and gold grades delivered to the treatment plant. Nagambie remains very confident of discovering additional Sb-Au lodes to the south west of the West Pit.
- 5) Minimum stoping width could be 1.2m estimated horizontal thickness (EHT) (similar to the Costerfield Mine).
- 6) For stopes side by side, the waste between them should be at least 1.5m EHT to cover the additional costs for multiple stopes of strike driving, stoping, backfilling and potential ore mining losses.
- 7) All individual sample assays to be weighted by both EHT and sample bulk density (BD) using the Costerfield Mine BD formula based on Sb% (see below).
- 8) Gold equivalent grade (g/t AuEq) to be calculated for each sample by multiplying the Sb% by the AuEq factor and adding that figure to the g/t Au. For the relevant formula, see below.
- 9) All intersection grades (Au, Sb, AuEq) to be reported for the EHT of the vein and, where the vein EHT is less than 1.2m, for the minimum mineable EHT of 1.2m by adding appropriate waste dilution (similar to the Costerfield Mine).
- 10) Mineable cut-off grade (MCOG) of 3.0 g/t AuEq over 1.2m EHT or greater (similar to the Costerfield Mine).

#### **Bulk Density Calculation**

BD is calculated for each intercept using the formula that the Costerfield Mine uses for the Augusta, Cuffley and Brunswick orebodies - refer page 191 of the Costerfield Report.

#### Formula:

# BD = ((1.3951\*Sb%)+(100-(1.3951\*Sb%)))/(((1.3951\*Sb%)/4.56)+((100-(1.3951\*Sb%))/2.74))

# for which:

- Empirical formula of stibnite: Sb<sub>2</sub>S<sub>3</sub>
- Sb%: Antimony assay as a percentage by mass
- Molecular weight of Antimony (Sb): 121.757
- Molecular weight of Sulphur: (S): 32.066

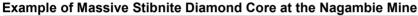


- 1.3951 is a constant calculated by 339.712/243.514 where 339.712 is the molar mass of Sb<sub>2</sub>S<sub>3</sub>, and 243.514 is the molar mass of antimony contained in one mole of pure stibnite
- BD of pure stibnite: 4.56
- BD of unmineralised waste (predominantly sandstones, siltstones, mudstones): 2.74

In time, when a sufficiently representative range of material is available, Nagambie will need to calculate the BD of the unmineralised waste (predominantly sandstones, siltstones and mudstones) at the Nagambie Mine. However, Nagambie does not consider that it will vary significantly from 2.74.

A graphical representation of the Costerfield BD formula is shown in Graph 1. For 0% Sb, BD = 2.74 and for 71.7% Sb (the maximum possible in stibnite), BD = 4.56 (pure stibnite).

Nagambie considers that the Costerfield BD formula, while being appropriate, is a little conservative in that, for both the Costerfield Mine and the Nagambie Mine, the stibnite  $(Sb_2S_3)$  is known to contain variable amounts of the gold-antimony mineral, aurostibite  $(AuSb_2)$ . While pure stibnite has a BD of 4.56, aurostibite has a BD of 9.98, reflective of its very high gold content – meaning that otherwise pure stibnite containing aurostibite will have a BD greater than 4.56.





# **Gold Equivalent Factor**

Nagambie considers that both gold and antimony will be economically recoverable at the Nagambie Mine, as they are at the Costerfield Mine which is 45 km to the west of the Nagambie Mine. The gold-antimony Costerfield Mine currently calculates its gold equivalent (AuEq) factor, the relative value of 1.0% antimony in the mine to 1.0 gram / tonne gold in the mine as:

AuEq factor = [US\$/tonne antimony price x 0.01 x 0.95 antimony recovery] / <math>[US\$/ounce gold price / 31.10348 grams per ounce x 0.93 gold recovery]

The Costerfield Mine is 100% owned by Mandalay Resources Corporation and the projections for CY2023 on the Mandalay website adopt average CY2023 prices for gold and antimony of US\$1,797 / ounce gold and US\$10,805 / tonne antimony (refer Graph 2). For these prices, the AuEq factor using the above equation is **1.91**.





