

## HIGHLIGHTS

- Breakthrough quarter for gold exploration. Nagambie Goldfield now shown to host multiple zones of east-west trending gold mineralisation related to multiple east-west mineralising thrusts, validating the gold model developed by the Company for the region.
- Discovery of bedrock gold mineralisation in the first-pass RC drilling program at Wandean. Weighted average gold grade of approximately 1.2 g/t (the Nagambie Mine averaged 0.8 g/t gold when it was mined in the 1990s) was intersected.
- Highly anomalous gold-arsenic-antimony soil results extend the Wandean gold mineralisation trend at least 655m to the east and indicate that the mineralisation widens significantly to the east. The east-west gold trend is parallel with the interpreted Wandean Thrust, the predicted conduit for the mineralising fluids under the Company's gold model.
- Additional soil sampling has been carried out to extend the Wandean gold mineralisation trend further to the east to assist the planning of second-pass RC drilling at Wandean. Results are pending.
- More detailed analysis of the aeromagnetic data for the Nagambie region has interpreted two additional east-west thrusts – the Grimwade Thrust (1.25 km south of the Wandean Thrust) and the Zanelli Thrust (0.7 km north of the Nagambie Mine Trust).
- The number of interpreted east-west thrusts, each extending for around 17 km, now totals eight. Currently five of those thrusts are considered to be mineralised based on gold intersections in drill holes and/or highly anomalous soil sampling results. Soil sampling of sections of the newly-interpreted Grimwade and Zanelli Thrusts is being carried out as a priority.

## COMMENTARY ON THE QUARTER

Nagambie Mining Chairman, Mike Trumbull said: ***“The Company developed its new gold model for the region in 2012 and, realising the significance of the model, set about increasing its 100%-owned Nagambie tenement holdings from around 150 km<sup>2</sup> to over 500 km<sup>2</sup>.*”**

***“The drilling and soil sampling results at Wandean during the quarter confirm conclusively that we have ‘cracked the geological code’ for the Nagambie Goldfield.*”**

***“We are very confident that the Goldfield will ultimately be shown to host over 1.0 million ounces of additional low-cost, open-pitTABLE and heap-leachable oxide gold mineralisation.”***

### NAGAMBIE MINING

*Nagambie Mining Limited is an Australian ASX-listed gold company that is focussed on the discovery, evaluation and development of shallow, open-pitTABLE and heap-leachable gold deposits.*

*The Company holds 100% of over 500 km<sup>2</sup> of exploration tenements in central Victoria encompassing historic goldfields at Nagambie, Redcastle and Rushworth. It is testing new structural and mineralisation concepts for gold mineralisation by employing geological, geophysical and geochemical techniques.*

*Nagambie Mining is also developing construction material opportunities at the Nagambie Mine site, principally for rock and sand products and to ultimately maximise the value of the freehold land owned by the Company at the mine.*

### SHARES ON ISSUE

215,940,832

### ASX CODE: NAG

*Nagambie Mining Limited*  
ABN 42 111 587 163

### Registered, Operations & Head Office

533 Zanelli Road  
Nagambie Vic 3608  
PO Box 339

Tel: (03) 5794 1750  
Fax: (03) 5794 1790

[www.nagambiemininq.com.au](http://www.nagambiemininq.com.au)  
[info@nagambiemininq.com.au](mailto:info@nagambiemininq.com.au)

### Board

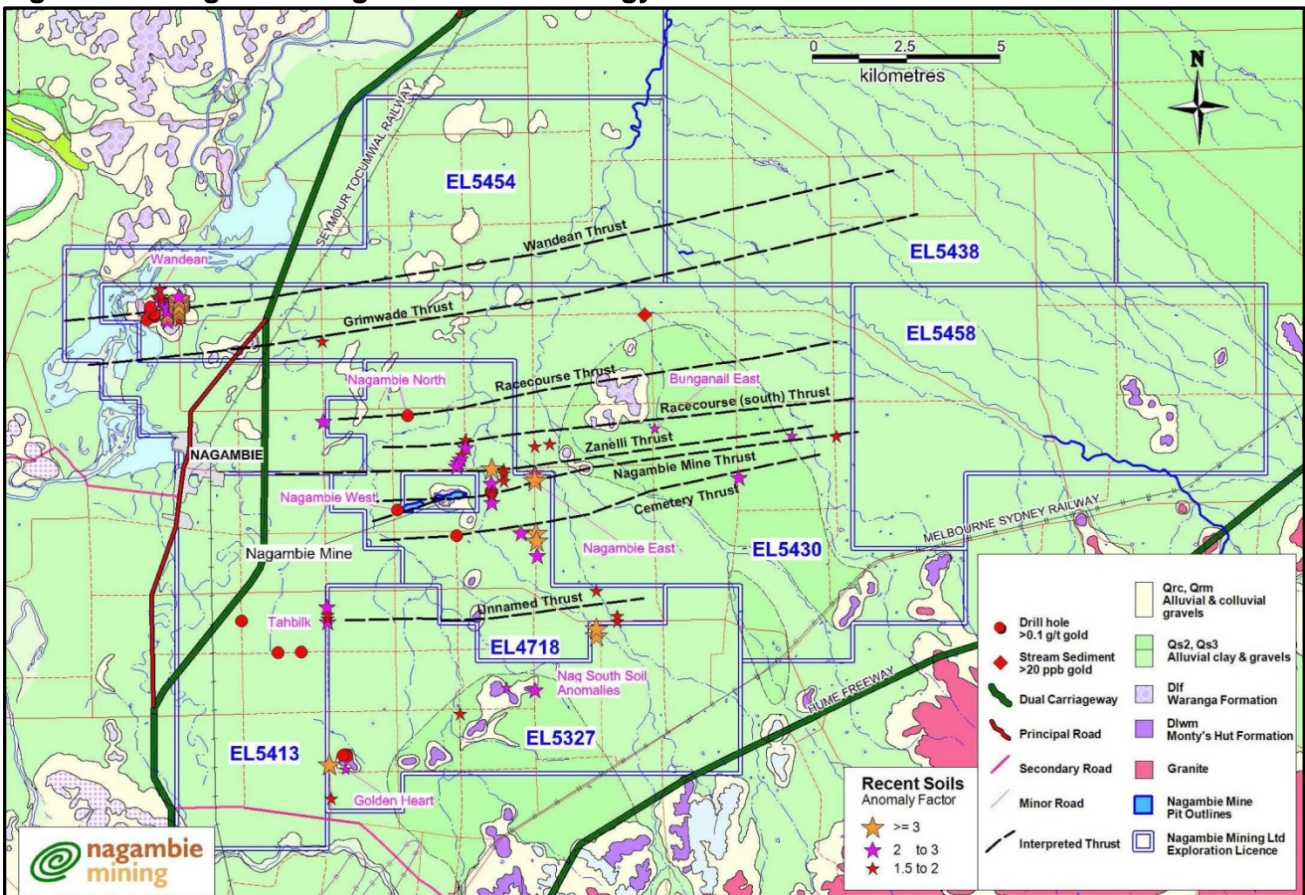
Mike Trumbull (Chairman)  
Colin Glazebrook (CEO)  
Geoff Turner (Exploration Dir.)  
Kevin Perrin (Finance Dir.)  
Alfonso Grillo (Company Sec.)

**EXPLORATION**

**1. NAGAMBIE REGIONAL GOLD PROJECT**

The Nagambie Regional Gold Project covers over 500 km<sup>2</sup> in seven granted explorations licences (ELs 4718, 5327, 5413, 5430, 5438, 5454 and 5458). The Company has applied to amalgamate ELs 5438, 5454 and 5458 into EL 5430 to minimise reporting requirements in the future.

**Figure 1 Nagambie Region Surface Geology with Anomalous Gold Results**



**1.1 Wandean**

Wandean is 9 km north west of the Nagambie Mine in EL 5430 (refer Figure 1) and had never been drilled before. Wandean was a real test of the Company’s new gold model as it had all the structural, rock type and surface mineralisation characteristics that were present at the Nagambie Mine before it was drilled out to establish gold resources, mined and heap leached in the 1990s.

**First-Pass RC Drilling Program at Wandean**

A 20-hole RC (reverse circulation) drilling program was completed at the end of December 2012 and the assay results were reported in detail in an ASX release on 22 February 2013.

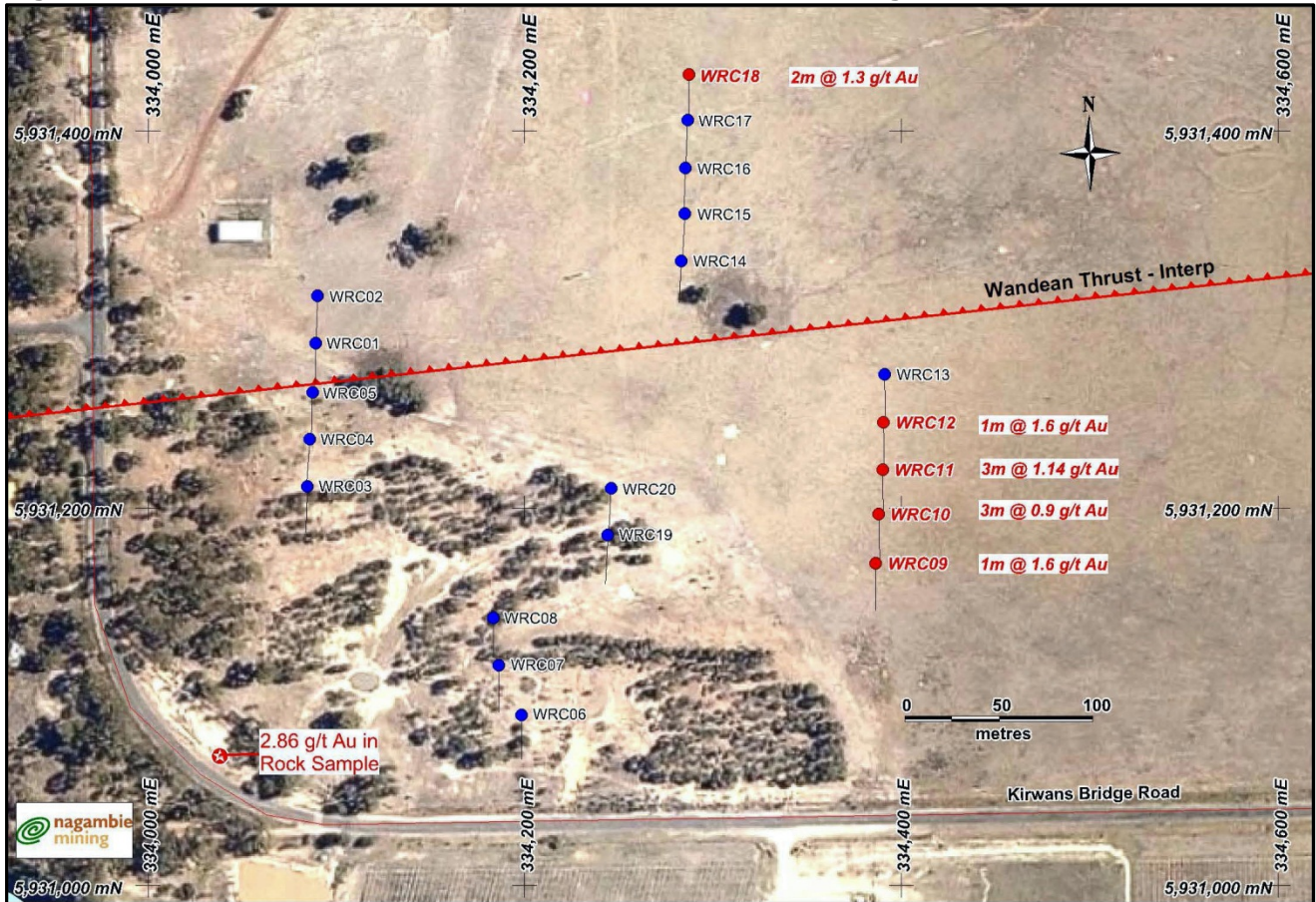
Four north-south traverses were drilled, each of five holes with the north-south spacing between holes being nominally 25 metres. The actual drilled locations for the holes, WRC 01 through to WRC 20, are shown in Figure 2, together with the interpreted position of the Wandean Thrust.

Significant gold intersections are highlighted in Figure 2. For a first-pass drilling program over an area never before drilled, the results were very encouraging.



The results in WRC 9, 10, 11 and 12 clearly indicated that bedrock gold mineralisation to the south of the Wandean Thrust was improving to the east and that the most obvious potential was further to the east, under shallow Tertiary cover. The mineralisation occurred in both siltstone and sandstone bedding, as at the Nagambie Mine.

**Figure 2 Plan of First-Pass RC Drill Holes at Wandean and Significant Results**



The length-weighted average gold grade for the intersections in WRC 9, 10, 11 and 12 was approximately 1.2 g/t. This is encouraging for future drilling programs at Wandean given that the Nagambie Mine averaged 0.8 g/t gold when it was mined in the 1990s.

**First Nagambie Mining Soil Sampling Program at Wandean**

Nagambie Mining has proven previously in the Nagambie region that the soil sampling protocols it employs are best practice in terms of the soil horizon being consistently sampled and the laboratory assaying procedures being employed. Based on the Company’s extensive database for the region, Nagambie Mining is picking up significant gold anomalies that had not been detected by earlier explorers.

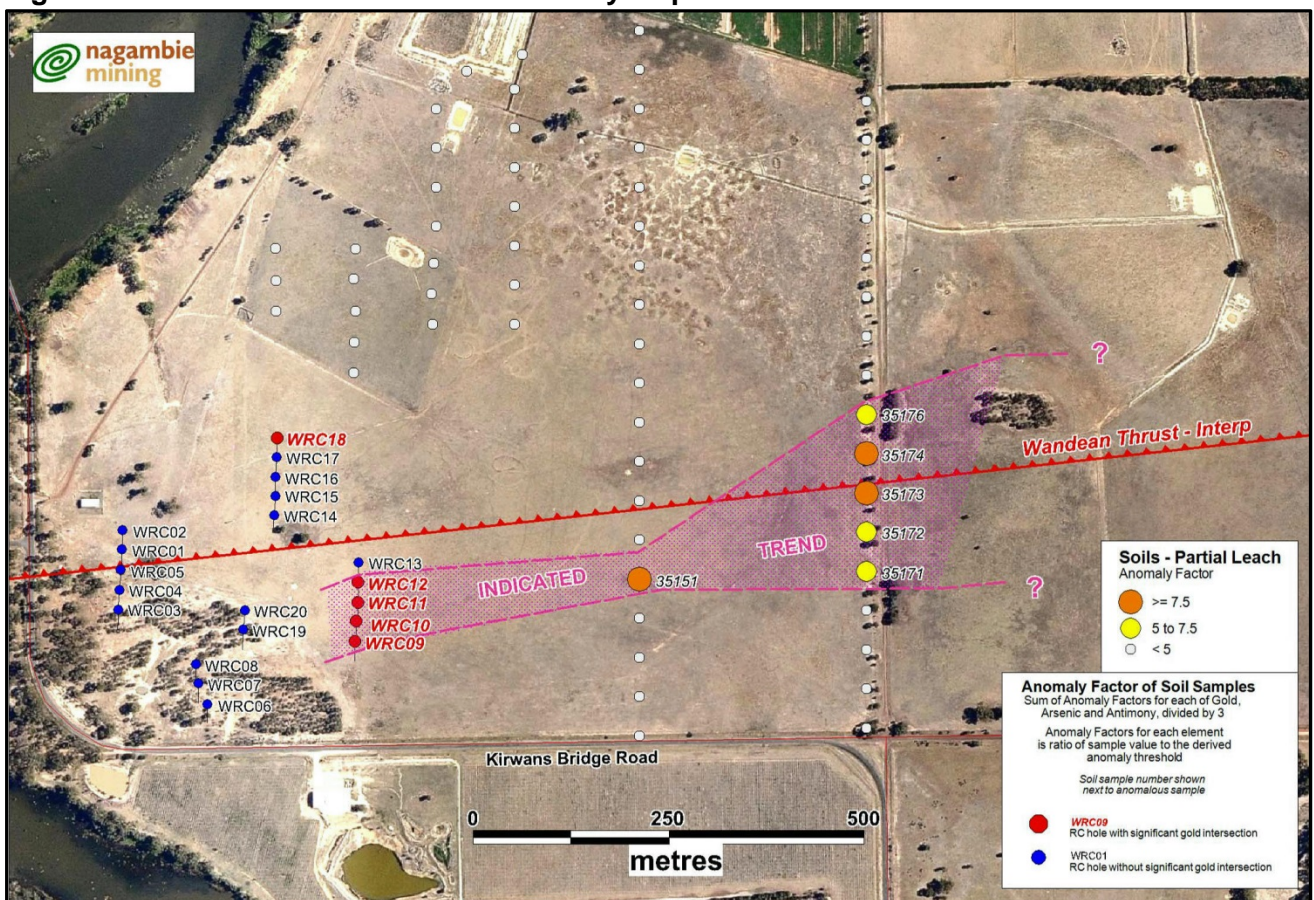
Following the discovery of Nagambie Mine-style gold mineralisation in the first-pass RC drilling program at Wandean, a 60-sample soil geochemistry program was carried out to test for indicated extensions of the gold mineralisation to the east and the north east. The results were reported in detail in an ASX release on 4 April 2013 and are highlighted in Figure 3.



The six highly anomalous soil sampling results received exceeded the Company’s expectations and indicated very strong eastward continuity of the gold mineralisation to the south of the interpreted Wandean Thrust. The strongest gold-arsenic-antimony soil results occur 655 metres east of the drilled gold mineralisation and indicate that the mineralisation may become significantly wider to the east. Maximum values of 45 ppb (parts per billion) gold, 5,121 ppb arsenic and 4,481 ppb antimony were returned within a very well defined trend of mineralisation.

To discriminate between geochemical background and values indicating sub-surface mineralisation, threshold values for anomalous readings were statistically calculated and applied to give anomaly factors for each of the three pathfinder metals (gold, arsenic and antimony), and to produce a combined Anomaly Factor (refer Figure 3).

**Figure 3 Wandean Soils Results Anomaly Map**



The extent of the indicated mineralisation trend to date approaches the dimensions of the mineralisation mined at Nagambie in the 1990s, and the strong arsenic/antimony association of the gold confirms the mineralisation style to be similar to that at the old Nagambie Mine.

A second soil geochemistry program to extend the east-west trending gold anomaly further to the east has now been completed and results are pending. The results from the two soil sampling programs will be used to plan a focussed, second-pass RC drilling program.

**1.2 The Importance of Grade of Gold Mineralisation in the Nagambie Region**

The target grade for Nagambie-style oxide, heap-leachable gold mineralisation in the region is 0.8 g/t gold, based on the average Nagambie Mine head grade.

The target size for a gold discovery is 200,000 ounces given the size of the Nagambie Mine orebody (184,000 ounces of gold mined in the 1990s plus 25,000 ounces targeted in the West Pit Extension).

An independent gold analyst, Peter Arden, has estimated that the Nagambie Mine, if found and mined today, would have direct cash operating costs of roughly A\$950 per ounce.

Grade is obviously critical for heap leach operations. If a mined grade of 0.8 g/t gold resulted in annual gold production of 20,000 ounces, mined grades of, for example, 1.2 g/t and 1.6 g/t gold would simplistically give 30,000 and 40,000 ounces per year respectively.

Hence, if the cash cost for a mined grade of 0.8 g/t gold was A\$950 per ounce, cash costs for mined grades of 1.2 g/t and 1.6 g/t gold would simplistically be A\$633 and A\$475 per ounce respectively.

### 1.3 Interpreted East-West Thrusts

The most revolutionary concept in Nagambie Mining's 2012 gold model for the Nagambie Region is that east-west trending thrusts have been the principal conduits for gold/sulphide mineralising fluids, leading to the formation, parallel to those thrusts, of gold orebodies in east-west trending, anticlinal, sedimentary folds.

In 2012, Nagambie Mining reviewed the base data from aeromagnetics flown in the Nagambie region in 1988. The Company interpreted six east-west regional thrusts based on the aeromagnetics and known mapped thrusts.

During the March 2013 quarter, Nagambie Mining sought independent geophysical advice on its interpretation of the available aeromagnetic data for the Nagambie region. The advice was that the six east-west thrusts interpreted are valid interpretations but that, in addition, a further two east-west thrusts can be interpreted. The Grimwade Thrust is interpreted approximately 1.25 km south of the Wandean Thrust and the Zanelli Thrust is interpreted approximately 0.7 km north of the Nagambie Mine Trust.

Additional aeromagnetics, specifically flown in a north-south direction would likely pick up additional interpreted east-west thrusts but the Company's view, particularly given the current success at Wandean, is to defer further aeromagnetic surveys at this stage.

The number of interpreted east-west thrusts, each extending for around 17 km, now totals eight. Currently five of those thrusts are considered to be mineralised based on gold intersections in drill holes and/or highly anomalous soil sampling results. Soil sampling of sections of the newly-interpreted Grimwade and Zanelli Thrusts is being carried out as a priority.

### 1.4 Nagambie East Area

The strongly anomalous Nagambie East zone was reported in the December 2012 quarterly report. Figure 1 shows its location.

The Nagambie East soil samples were taken every 100 metres down the side of Dargalong Road which runs north-south and is 1.8 km east of the Nagambie Mine. The soil assays for the zone, of up to 66 ppb gold (background for the area is 0 to 2 ppb gold), up to 1,868 ppb arsenic and up to 1,270 ppb antimony represent one of the Company's best ever gold-in-soil results. Coincident with the interpreted east-west Nagambie Mine Thrust, the assays indicate a compelling drill target that fits the Nagambie Mining gold model for the region.

Also shown on Figure 1 is another strongly anomalous zone, 1.5 km to the south of the Nagambie East zone, resulting from the soil sampling down Dargalong Road. This southern zone is roughly coincident with the interpreted position of the east-west Cemetery Thrust and again the target is consistent with the Company's gold model for the region.

Additional soil sampling is being undertaken in the Nagambie East area to assist the planning of focussed drilling programs.



**2. RUSHWORTH - EL 4723**

No significant work was carried out at Doctors Gully during the quarter.

**3. REDCASTLE - EL 3316 and MIN 4465**

No significant work was carried out at Redcastle during the quarter.

**NAGAMBIE MINE REHABILITATION AND SITE UTILISATION**

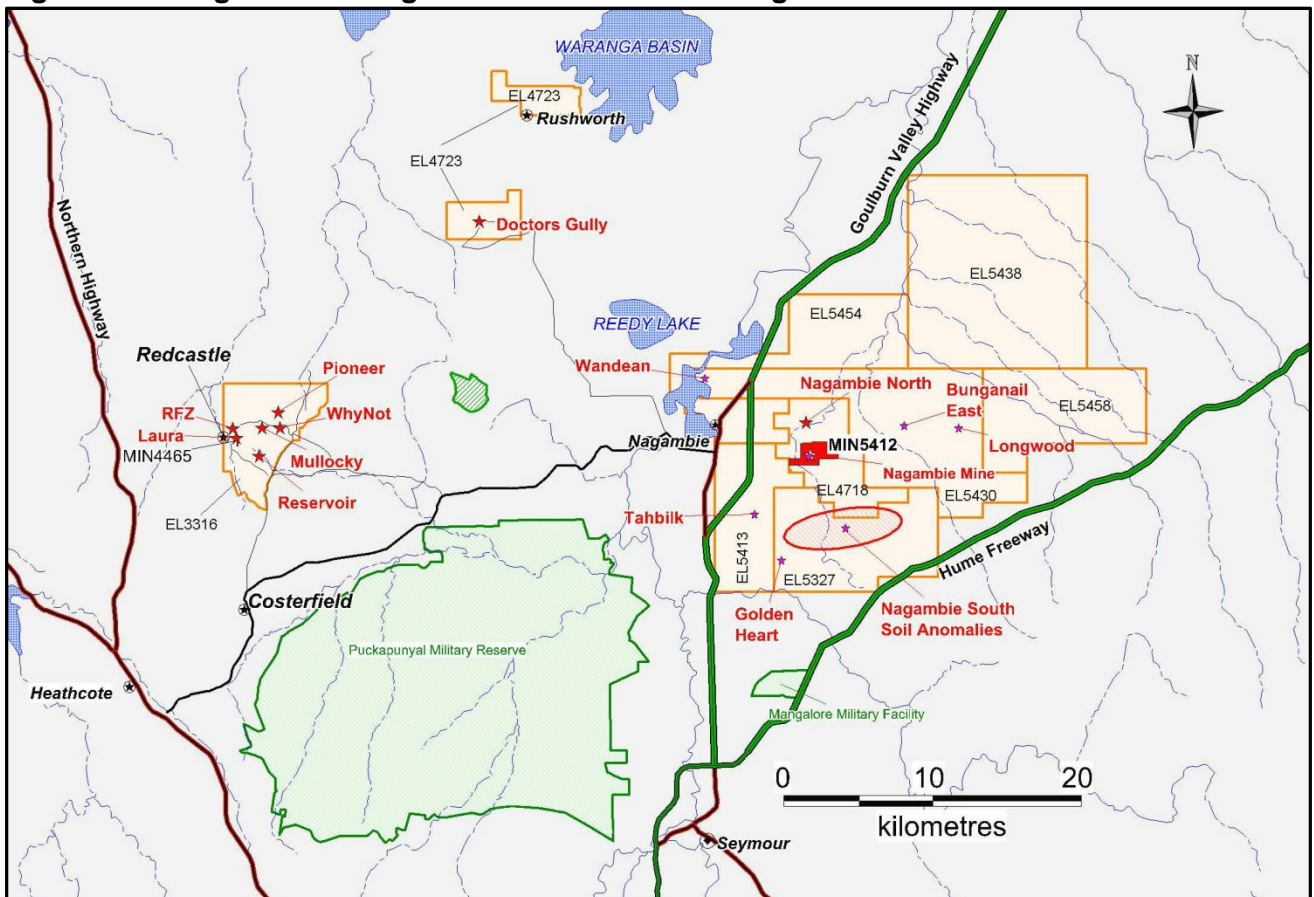
The Company is continuing to develop all the non-gold material opportunities on the freehold land at the Nagambie Mine in conjunction with Global Constructions Pty Ltd (“Global”). Global are currently producing sized gravel products from the Eastern Overburden Dump for supply to local Shires, developers and nurseries.

The proposed Green Organics Recycling Facility of Australian Native Landscapes (ANL) at the Nagambie Mine property is not to proceed due to ANL not being able to secure satisfactory Council and EPA approvals.

**TENEMENT CHANGES**

ELs 5454 and 5458 were granted during the quarter. ELs 5327 and 3316 were partly relinquished during the quarter to meet DPI requirements.

**Figure 4 Nagambie Mining Tenements and Gold Targets**



**EXPLORATION TENEMENTS AND DEVELOPMENT OBJECTIVES**

For a summary of Nagambie Mining’s exploration tenements, gold targets and its objectives for development and production, refer to pages 9 and 10.

**CORPORATE**

**CASH POSITION**

At 31 March 2013, total cash held by the Company was \$651,000.

**2013 SHARE PURCHASE PLAN (“SPP”)**

The SPP closed during April 2013 and raised \$195,000 from the take up of 9,750,000 new shares at 2.0 cents each. The price represented a 20% discount to the last traded price, before the announcement of the SPP, of 2.5 cents.

The SPP had been capped at a maximum of \$500,000. Hence the amount raised from the SPP, while a pleasing response from shareholders, was approximately \$305,000 short of the total sought by the Company.

Nagambie Mining will now look to place the shortfall with sophisticated and professional investors. For further information, investors should contact the Nagambie Mining Chairman, Mike Trumbull (phone: (03) 9817-1622 or 0411-430-845 or email: [trumbull.mike@gmail.com](mailto:trumbull.mike@gmail.com))

**GOLD PRICE**

The following graph, adapted from one on the Political Metals website ([www.politicalmetals.com](http://www.politicalmetals.com)), shows the US\$ gold price per ounce (log scale) from 1880 to April 2013. It is a useful graph in that it puts recent movements in the \$US gold price in a long term historical perspective.





Colin Glazebrook  
Chief Executive Officer  
Phone: (03) 5794 1750  
Email: [colin@nagambiemining.com.au](mailto:colin@nagambiemining.com.au)

## **COMPETENT PERSONS' STATEMENTS**

*The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Colin Glazebrook, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Glazebrook is a Director of Nagambie Mining Limited and consents to the inclusion in this report information in the form and context in which it appears. Mr Glazebrook 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'.*

*The Exploration Results in this report relating to soil geochemistry have been compiled by Mr Geoff Turner, who is a member of the Australian Institute of Geoscientists, has more than ten years in the estimation, assessment, and evaluation of mineral resources and ore reserves, and has more than 20 years in exploration for the relevant style of mineralisation that is being reported. In these regards, Geoff Turner qualifies as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Geoff Turner is a Director of Nagambie Mining Limited and 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", "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 Mining 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 assumes no obligation to update such information.*



**NAGAMBIE MINING TENEMENTS, TARGETS AND DEVELOPMENT OBJECTIVES**

**NAGAMBIE MINING TENEMENTS**

As at 31 March 2013, Nagambie Mining held nine granted Exploration Licences and two Mining Licences in Central Victoria with a total area of 574.2 km<sup>2</sup>. All licences are for gold and associated minerals.

Group Area	Project	Name/Prospect	Licence Number	Area km <sup>2</sup>	Interest %
<b>Exploration Group Areas</b>					
<b>NAGAMBIE</b>	<b>NAGAMBIE REGIONAL</b>	Nagambie North	EL 4718	34.9	100
		Nagambie South	EL 5327	53.0	100
		Nagambie West	EL 5413	43.1	100
		Wandean	EL 5430	102.0	100
		Pranjip	EL 5438	156.0	100
		Wahring	EL 5454	68.0	100
		Creighton	EL 5458	61.0	100
<b>RUSHWORTH</b>	<b>RUSHWORTH</b>	Doctors Gully	EL 4723	24.1	100
<b>REDCASTLE</b>	<b>REDCASTLE</b>	Redcastle	EL 3316	28.4	100
		Laura Mine	MIN 4465	0.1	100
<b>Development Group Area</b>					
<b>NAGAMBIE</b>	<b>NAGAMBIE</b>	Nagambie Mine	MIN 5412	3.6	100
			<b>Total</b>	<b>574.2</b>	

**NAGAMBIE MINING PORTFOLIO OF GOLD TARGETS**

Location	Gold Targets
<b>Nagambie Mine</b>	<b>1. West Pit Extension</b>
<b>Nagambie Regional</b>	<b>2. Nagambie Footwall Mineralisation</b>
	<b>3. Wandean</b>
	<b>4. Nagambie East</b>
	<b>5. Cemetery</b>
	<b>6. Nagambie North</b>
<b>Redcastle</b>	<b>7. Nagambie South</b>
	<b>8. Reservoir</b>
	<b>9. Mullocky</b>
	<b>10. Laura</b>
	<b>11. RFZ</b>
	<b>12. Why Not</b>
<b>Rushworth</b>	<b>13. Pioneer</b>
	<b>14. Doctors Gully</b>

## NAGAMBIE MINING OBJECTIVES FOR GOLD DEVELOPMENT AND PRODUCTION

The medium term objective for Nagambie Mining is to produce at least 20,000 ounces of gold per year with a projected mine life of at least 10 years. The Company is evaluating and developing 100%-owned oxide gold prospects on and within economic trucking distance of the Nagambie Mine, targeting a minimum of 200,000 ounces of heap-leachable gold mineralisation. The current focus is on the three historical goldfields at Nagambie, Redcastle and Rushworth (refer Figure 4). Redcastle is 40 km west of the Nagambie Mine, 19 km east of the Fosterville Mine and 12 km north of the Costerfield Mine. Doctors Gully at Rushworth is 28 km north west of the Nagambie Mine.

Heap leach operations can be developed quickly and are much lower cost than conventional gold treatment operations, both in terms of total capital cost and operating cost per tonne. The recommencement of heap leach operations at the Nagambie Mine will benefit from the proven technology and successful operations history at the Mine in the 1990s. Recommencement will also benefit from the bitumen public road access to the Mine gate, the Company's freehold land (roughly 200 hectares) and the process water that can be pumped from the East Pit. Other infrastructure remaining on site includes the haulage roads, the pondage civil works, the operations shed, the grid electricity supply and the potable water supply.

When the Nagambie Mine was operated in the 1990s by Perseverance Mining Pty Ltd ("Perseverance"), the average head grade of the 184,000 ounces of gold ore stacked on the heap leach pad was approximately 0.8 g/t gold. Heap leach gold recovery was reportedly around 80%. Importantly, the gold price averaged around only A\$500 per ounce at that time but is currently trading in a range of A\$1,300 to A\$1,600 per ounce. Costs for contract activities such as open-pit mining, trucking, crushing, agglomerating and conveyor stacking have not increased nearly as much as the A\$ gold price in the intervening years.

The target grade for Nagambie-style oxide mineralisation in the region is 0.8 g/t gold, based on the average Nagambie Mine head grade. Target size for a gold discovery is 200,000 ounces given the size of the Nagambie Mine orebody (184,000 ounces of gold mined in the 1990s plus 25,000 ounces targeted in the West Pit Extension). An independent gold analyst, Peter Arden, has estimated that the Nagambie Mine, if found and mined today, would have direct cash operating costs of roughly A\$950 per ounce.

Grade is obviously critical for heap leach operations. If a mined grade of 0.8 g/t gold resulted in annual gold production of 20,000 ounces, mined grades of 1.2 g/t and 1.6 g/t gold would simplistically give 30,000 and 40,000 ounces per year respectively. If the cash cost for a mined grade of 0.8 g/t gold was A\$950 per ounce, cash costs for mined grades of 1.2 g/t and 1.6 g/t gold would simplistically be A\$633 and A\$475 per ounce respectively.

The Company estimates that ore trucking costs from Redcastle and Rushworth to the Nagambie Mine (MIN 5412) would equate to around 0.2 g/t gold head grade equivalent. Hence an average head grade of 1.0 g/t gold or higher for Redcastle and Rushworth ore should produce attractive returns. Nagambie Mining is confident of being able to delineate various open pits at Redcastle and Rushworth containing a significant tonnage of mineralisation averaging 1.0 to 2.0 g/t gold.

Historical production at Redcastle and Rushworth focussed entirely on narrow, high-grade quartz veins hosted by sedimentary rocks, predominantly sandstones and siltstones. Apart from the mineralised quartz veins which occur in fractures associated with local anticlinal folding, lower-grade, disseminated gold has been identified within the sediments, thus presenting as large open-pit style targets. The depth of oxidation is around 60 metres. Nagambie Mining is planning to mine by open pit the lower-grade disseminated oxide gold, none of which was mined by the historical miners, together with the mineralised quartz veins that remain. These remnant quartz veins would have been either too thin or too low grade for previous underground mining operations, but will lift the average grade of the open-pit mineralisation.