

# JUNE 2020 QUARTERLY REPORT

### **HIGHLIGHTS**

- Nagambie Resources considering whether it could recover gold from the heap leach material by using naturally-occurring bacteria rather than cyanide. In the USA, the use of naturally-occurring bacteria in solution has been shown to get significant recovery of residual gold in historic cyanide heap leach pads.
- Drilling of the RAD002 and NWD001 diamond holes delayed by around eight weeks in total to date due to Covid-19 manning issues for the drilling contractor. RAD002 is currently almost complete. The commencement of NWD001 could be delayed due to access to the collar position being wet from winter rain.
- Mawson Resources Limited ("Mawson") to carry out extensive geophysical surveys and commence diamond drilling at Redcastle (currently 100%-owned by Nagambie Resources) in the September 2020 quarter.
- Tenders closed during the quarter for the construction of the North East Link, which will require the management of around 5.4 million tonnes of PASS rock to be excavated by large tunnel boring machines. Nagambie Resources was requested to provide pricing for PASS management at the Nagambie Mine and it did so.
- Nagambie Resources' 9.5 million Mawson shares significantly increased in value during the quarter. At 30 June 2020, the value was \$3.954 million, \$1.854 million more than at 31 March 2020. Under the agreements with Mawson, Nagambie Resources could sell up to 25% of the shares (2.375 million with a value at 30 June 2020 of \$0.988 million) during the September 2020 quarter.

#### COMMENTARY

Nagambie Resources' Chairman, Mike Trumbull said: "The potential use of naturally-occurring bacteria to recover significant gold from the 1989-1997 heap leach pad at the Nagambie Mine is an exciting development for the Company. Subject to the results of testwork on bulk samples in the USA, which is being planned, first gold production could occur in CY 2022.

"Covid-19 testing protocols and the closure of State borders with both Tasmania and South Australia have unfortunately resulted in lengthy delays for the drilling of the RAD002 and NWD001 diamond holes and a planned IP survey. On the positive side, Mawson Resources will be carrying out extensive geophysical surveys and commencing the first-ever diamond drilling of high-grade gold targets at our Redcastle property in the September 2020 quarter.

"The tender for the construction of the North East Link closed in May and the winning tenderer will likely be announced in the December 2020 quarter as threatened Court action against the project has been averted. Nagambie Resources provided pricing for PASS Management at the Nagambie Mine."

## 31 JULY 2020

#### NAGAMBIE RESOURCES

Exploration for Fostervillestyle, structural-controlled, high grade sulphide-gold underground deposits within 3,600 sq km of Waranga Domain tenements is being methodically carried out using geophysical targeting techniques, diamond drilling and analysis for hydrothermal alteration of the sediments.

Underwater storage of sulphidic excavation material (WASS / PASS) in the two legacy gold pits at the Nagambie Mine is an excellent environmental fit with major infrastructure projects for Melbourne such as Metro Rail, West Gate Tunnel and North-East Link.

Recycling of the tailings and overburden dumps can produce aggregates for concrete and gravel products respectively.

Quarrying and screening of sand deposits at the mine to produce various sand and quartz aggregate products is planned.

The first landfill site is planned to take advantage of the 17 Ha of engineered black plastic under the mine tailings pad.

> <u>SHARES ON ISSUE</u> 499,932,346

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#### Board

Mike Trumbull (Exec Chairman) Gary Davison (Director) Alfonso Grillo (Dir/Company Sec)

James Earle CEO

### June 2020 Quarterly Report – 31 July 2020

### **GOLD EXPLORATION**

### RAD002 Diamond Drill Hole

Drilling of the first diamond hole into the Racecourse sulphide-gold target, RAD002, commenced on 19 April. Sited immediately to the east of the intersection of the Racecourse Thrust Fault with the Wandean Crustal Fault (refer Figure 1), the nominal 1,000m deep hole was planned to take approximately seven weeks to drill.

Initial progress was good but the drilling contractor then encountered manning issues due to Covid-19 protocols at certain of its sites in Victoria and, later, the closing of the border between Victoria and Tasmania due to Covid-19. At 30 July, the hole was still not complete but had reached 1,000m. Instead of taking seven weeks, the hole will take around 15 weeks to drill.

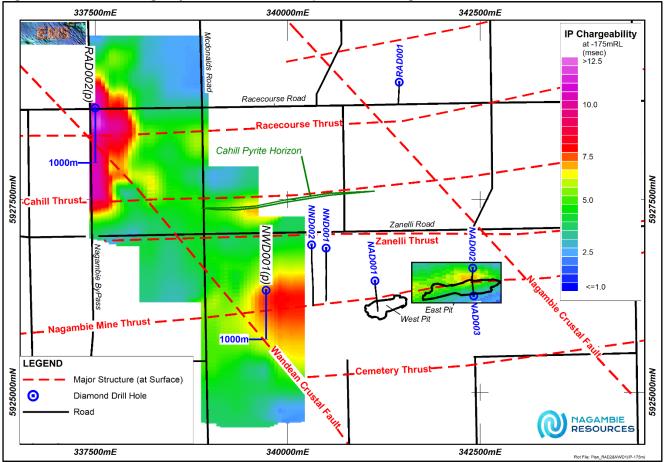
Detailed logging of the hole, including locating the first ever intersection of the Wandean Crustal Fault, is underway.

### NWD001 Diamond Drill Hole

Drilling of NWD001, the first hole to the west of the Nagambie Mine designed to intersect both the Nagambie Mine Thrust Fault and the Wandean Crustal Fault (refer Figure 1), has been planned to commence immediately after the completion of the RAD002 hole. However, ground access to the NWD001 collar position is wet due to winter rain and mobilisation of the contractor's drill rig could be delayed.

#### IP Survey to the West of RAD002

Two additional lines of Induced Polarisation (IP) to the west of the Nagambie Bypass Freeway had been planned to be carried out in June. However, Nagambie Resources' preferred contractor, Adelaide-based-Zonge, who has carried out all the major IP surveys in the Nagambie region, is currently unable to carry out the work because of the Covid-19 closure of the border between South Australia and Victoria.



#### Figure 1 Plan showing Major Structures, IP Sulphide-Gold Targets and DDHs RAD002 & NWD001

### Redcastle Joint Venture (Nagambie Resources currently 100%)

Mawson Resources Limited ("Mawson") (TSX: MAW) has the option to spend the next \$1.0 million to earn a 70% joint venture interest in EL 5546.

Mawson, in several releases to the Toronto Stock Exchange, has announced that it will be carrying out extensive geophysical surveys and commencing diamond drilling at Redcastle during the September 2020 quarter.

### **Doctors Gully Joint Venture** (Nagambie Resources currently 100%)

Mawson Resources Limited ("Mawson") (TSX: MAW) has the option to spend the next \$1.0 million to earn a 70% joint venture interest in RL 2019. Mawson has commenced field work at Doctors Gully.

### **Gold Tenements and Changes**

Table 1 Nagamble Resources Group Tenements as at 30 June 2020		
Tenement Number	Tenement Name	sq km
MIN 5412	Nagambie Mining Licence	3.6
EL 5430	Bunganail Exploration Licence	160.0
EL 5511	Nagambie Central Exploration Licence	24.0
EL 6158	Rushworth Exploration Licence	46.0
EL 6212	Reedy Lake North Exploration Licence	17.0
EL 6352	Miepoll Exploration Licence	414.0
EL 6421	Pranjip Exploration Licence	94.0
EL 6508	Tabilk Exploration Licence	63.0
EL 6606	Gowangardie Exploration Licence	120.0
EL 6719	Euroa Exploration Licence	132.0
EL 6720	Tatura Exploration Licence	199.0
EL 6731	Arcadia Exploration Licence	386.0
EL 6748	Waranga Exploration Licence	136.0
EL 6937	Nagambie East Exploration Licence	10.0
ELA 6877	Nagambie Exploration Licence Application	8.0
ELA 7205	Angustown Exploration Licence Application	79.0
ELA 7207	Arcadia Exploration Licence Application	156.0
ELA 7208	Cullens Road Exploration Licence Application	29.0
ELA 7209	Goulburn West Exploration Licence Application	34.0
ELA 7210	Locksley Exploration Licence Application	26.0
ELA 7211	Shepparton Exploration Licence Application	498.0
ELA 7212	Shepparton North Exploration Licence Application	321.0
ELA 7213	Pederick Exploration Licence Application	683.0
ELA 7237	Kirwans North (1) Exploration Licence Application	20.0
ELA 7238	Kirwans North (2) Exploration Licence Application	9.0
ELA 7264	<b>Resource Recovery Exploration Licence Application</b>	1.0
ELA 7265	Nagambie Town Exploration Licence Application	8.0
RL 2019	<b>Doctors Gully Retention Licence</b>	4.0
	Total Waranga Domain	3,680.6
EL 5546	Redcastle Exploration Licence	51.0
Total		3,731.6

### Table 1 Nagambie Resources Group Tenements as at 30 June 2020

The Company's tenements as at 30 June 2020 are listed in Table 1.

During the quarter, Nagambie Resources applied for 2 small, infill exploration licences in the Waranga Domain totalling 9 sq km. The total holding in the Waranga Domain of 3,680 sq km is the largest contiguous group of tenements in Victoria prospective for Fosterville-style gold mineralisation (refer Figure 2).

### POTENTIAL BACTERIAL RECOVERY OF GOLD IN HISTORIC HEAP LEACH PAD

As previously reported, Nagambie Resources has been investigating the screening of concrete aggregates from the material on the historic cyanide heap leach pad at the Nagambie Mine, with a view to then recovering gold from the remaining fines fraction.

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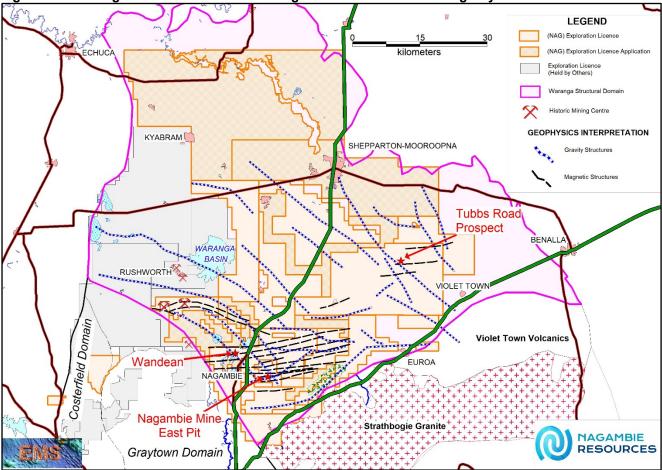


Figure 2 Waranga Domain Tenements of Nagambie Resources showing Key Structures

Late in the quarter, the Company began considering whether it could recover gold from the heap leach material "as is" before carrying out screening to produce the aggregates and, in particular, whether it could recover gold by using naturally-occurring bacteria rather than cyanide. In the USA, the use of naturally-occurring bacteria in solution has been shown to get significant recovery of residual gold in cyanide heap leach pads.

Total recorded gold production from the cyanide heap between 1989 and 1997 was 134,000 ounces and it is possible that a significant amount of gold remains in the heap. In 1997, the average price of gold was around A\$450 per ounce. Currently, the price of gold is over A\$2,600 per ounce, over five times the price in 1997.

Planning is currently being carried out for the testing of bulk samples from the Nagambie Mine heap leach pad in a specialist metallurgical laboratory in the USA. The testing would aim to establish the best naturally-occurring bacteria to use and the gold recovery that could be achieved.

### WASS / PASS PROJECT

Waste acid sulfate soil and rock (WASS) can be either potential acid sulfate soil (PASS) or actual acid sulphate soil and rock (AASS). PASS exists below the water table and, if it is excavated and then stored above ground, it naturally oxidises into AASS with attendant acid drainage environmental issues. Best practice management of PASS is to store it under water, preventing oxidation and acid formation.

Nagambie Resources has an Environment Protection Authority of Victoria (EPA)-approved Environment Management Plan (EMP) to store PASS in the legacy water-filled pits at the Nagambie Mine as part of the proposed rehabilitation of those pits. PASS capacity of the pits is around 5.0 million tonnes. The water in the Nagambie Mine open pits is naturally saline and alkaline, making it ideal for PASS management, particularly for PASS rock.

Total PASS rock to be generated from the proposed North East Link Project road tunnels in north-east Melbourne will be around 5.4 million tonnes, all of it from tunnelling by large-diameter tunnel boring machines (TBMs).

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In September 2019, the Victorian Government announced that three consortiums would be bidding for the construction of North East Link, with tenders to close in mid 2020. Media reports during the March 2020 quarter indicated that only one of the three initial consortiums, the SPARK consortium, would be submitting a conforming tender.

The North East Link tender did in fact close during the June 2020 quarter and the State Government has indicated that the winning tenderer will be announced in the December 2020 quarter. Nagambie Resources was requested to provide pricing for PASS Management at the Nagambie Mine and it did so.

Threatened Court action in September 2020 against the project by four local Councils has been recently called off following negotiations between the parties.

### **CORPORATE**

Cash

At 30 June 2020, total cash held by the group was \$784,000.

### Mawson Resources Limited ("Mawson") Shares (TSX: MAW)

At 30 June 2020, Nagambie Resources held 9.5 million Mawson shares which had a total value at 30 June 2020 of approximately \$3,954,000 (\$2,100,000 at 31 March 2020). Total cash held by the Company plus the value of the Mawson shares at the end of the quarter was therefore approximately \$4,738,000 (approximately \$1,527,000 more than the equivalent figure at 31 March 2020 of \$3,211,000).

Under the agreements with Mawson, Nagambie Resources could sell up to 25% of the 9.5 million Mawson shares (2.375 million), which had a value at 30 June 2020 of approximately \$988,500, during the September 2020 quarter.

James Earle Chief Executive Officer

### 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.