



# Melbourne Mining Club Cutting Edge

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# WARANGA PROVINCE IN CENTRAL VICTORIA HIGH-GRADE SULPHIDE-GOLD POTENTIAL

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#### **Disclaimer & Competent Person's Statement**

#### 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 Mining assumes no obligation to update such information.

#### STATEMENT AS TO COMPETENCY

The Exploration Results in this presentation have been compiled by Mr Geoff Turner, who is a Fellow 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 Consultant to Nagambie Resources 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.



Directors Mike Trumbull

**Kevin Perrin** 

**Alfonso Grillo** 

**Executive Chairman** 

Finance Director

Corporate Director

CEO

**James Earle** 

Company Secretary

**Alfonso Grillo** 

Geological Consultants

**Geoff Turner** 

**Dr Rod Boucher** 





# ISSUED SECURITIES

|   | Millions |
|---|----------|
| Fully Paid Shares                                       | 403.936  |
| Unlisted Options - Directors, Employees and Consultants | 60.750   |
| Unlisted, Unsecured Convertible Notes                   | 40.013   |
|   | 504.699  |
| NAG Share Price (14 May 2018) 16.5 cents                |          |
| Market Cap - Undiluted                                  | \$67     |



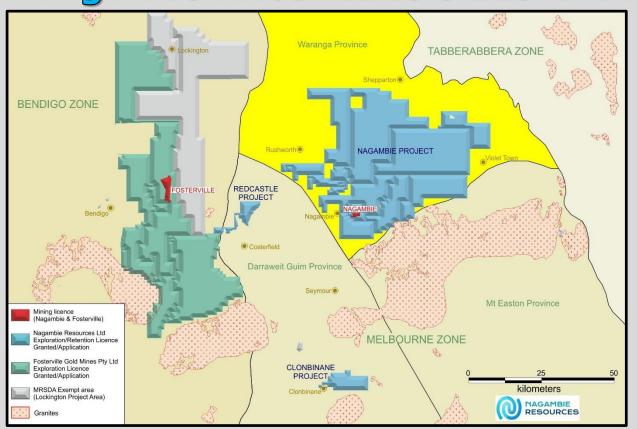


# Gold Exploration Success Increase in NAG Share Price from 2.7 cents in September 2017





# Waranga Province NAG's ELs in Blue





# What is NAG Targeting?

# Fosterville-Style, Underground Gold Deposits

# High-Grade, Antimony-Arsenic-Associated, Disseminated-Sulphide-Gold in Sediments (Sandstones and Siltstones)

The arsenic is in the form of arsenopyrite, an iron arsenic sulphide. Arsenopyrite crystals are typically pyramid-shaped but become thin and needle-shaped as gold replaces iron in the crystal lattice.

Gold can occur as free gold and, in this form, is easily recoverable using gravity methods. The gold locked up in the crystal lattice of the arsenopyrite is refractory so this gold requires bacterial oxidation ahead of conventional cyanide treatment.





# Gold Deposition Model

#### Crustal Faults (circa 40 km deep) – Striking North West

Hot gold-rich sulphidic fluids rose under pressure up deep crustal faults circa 377 million years ago.

#### Surface Faults (circa 6 km deep) – Striking East West

The surface thrusts (faults) in the Waranga Province resulted from regional north-south compression that cracked, at regular intervals, the thick sequence of sandstones and siltstones.

#### **Intersections of Crustal and Surface Faults**

At the intersections, the crustal fluids travelled under pressure along the surface faults to iron-rich sandstones and siltstones favourable to the deposition of gold with arsenopyrite.





# Intersection Exploration Strategy

**How to Check all the Intersections?** 

There is a huge number of them in 2,000+ sq km of ELs

Soils? NO Only good for 70m below surface

Drilling? NO Horrendously expensive as drilling "blind"

Deep IP? YES Works in the Waranga Province and

good for 400m below surface



# IP (Induced Polarisation Ground Geophysics) Chargeability Anomalies

# Anomalies are interpreted as representing sulphide bodies based on their recorded electrical response

Indicated strike length of an anomaly can be a reliable guide.

Indicated **width** of an anomaly is **not** a reliable guide due to the gradual drop in recorded electrical response away from the actual sulphide body – the aura effect.

Indicated **depth** of an anomaly is conservative because the computer generation process assumes that the responses do not continue below the model depth.





# Where to Trial Deep IP?

### **Nagambie Mine IP Survey**

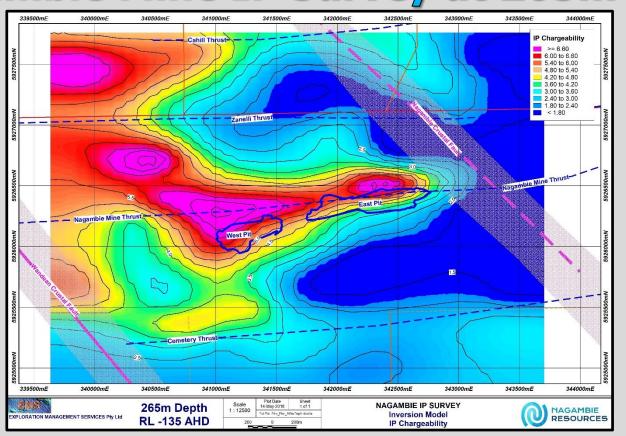
Look under and around the Nagambie Mine 1990s East and West Oxide Pits

### **Racecourse Prospect IP Survey**

Check along the interpreted NW-striking Nagambie Crustal Fault between the Nagambie Mine and the Racecourse Prospect 2.7 km to the North

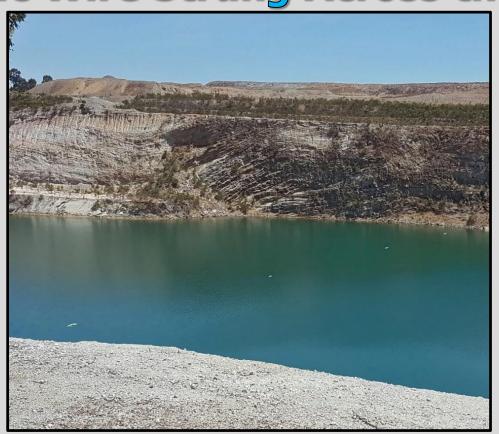


# Nagambie Mine IP Survey at 265m Depth





# IP Electric Wire Strung Across the East Pit

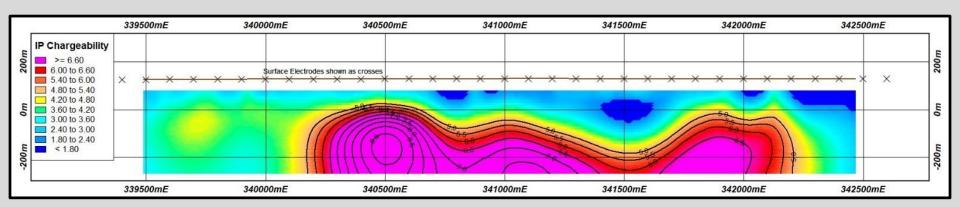






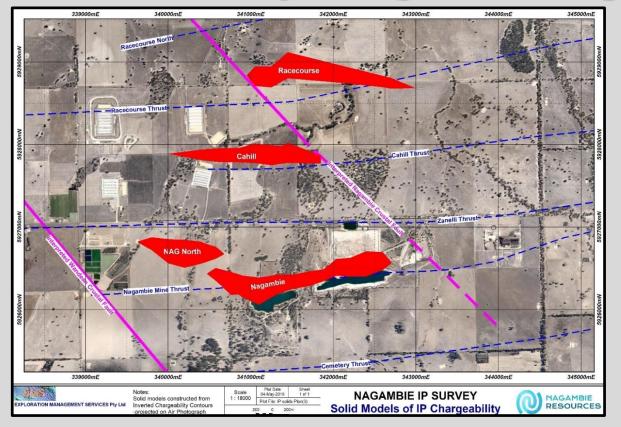
# Racecourse IP Survey

# Cahill Sulphide-Gold Target 1,800m EW Strike Length Commences only 100m below Surface





# Cluster of 4 Compelling Drill Targets





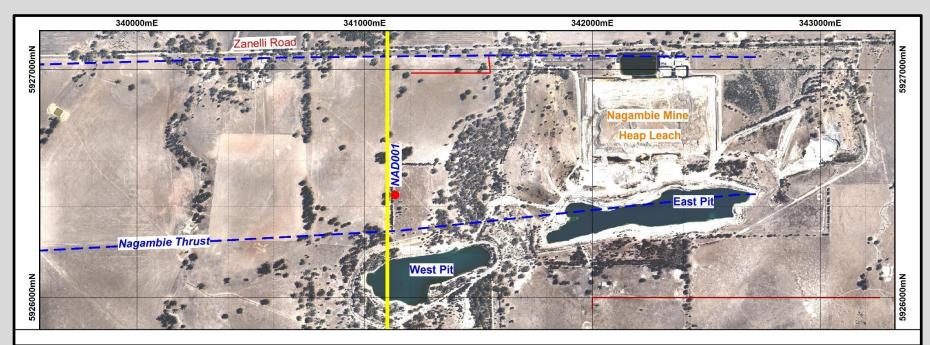
# Setting Up for the First Hole in the Target Diamond Drilling Program





# NAD001 into Nagambie Mine Target

Collar of NAD001 shown as Red Dot on Yellow Line

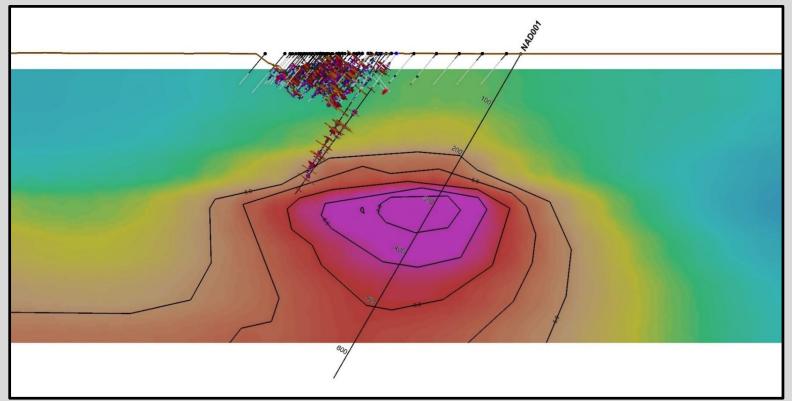






# NAD001 into Nagambie Mine Target

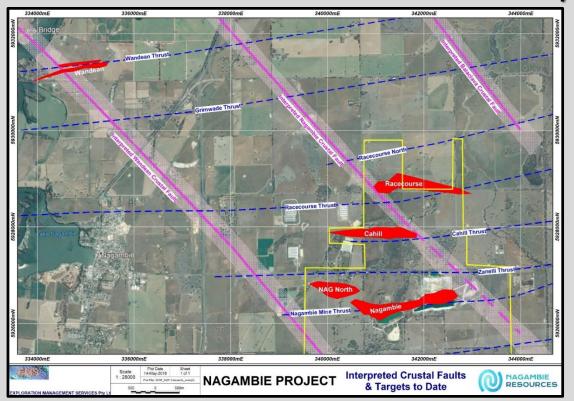
Showing historical drilling at West Pit





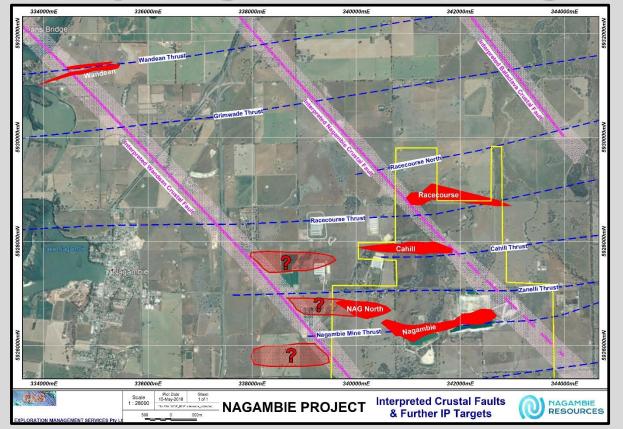
#### South-West Corner ~ 5% of NAG's Tenements

#### IP in the SW Corner to Date is Inside Yellow Boundary





# Next IP Survey Targets to West of Nagambie Mine





#### NAG FUNDING IN FUTURE YEARS

1. Exercising of 60.75 Million Options \$8.3 Million

2. Potential PASS Management\* Cash Flow \$ Tens of Millions / Year

3. Sales of Quarry Products \$ 1.0 Million + / Year

4. Leasing of Land to DOD & Farmers \$ 0.2 Million / Year

5. Shareholder SPP if required \$ Millions

6. Rights Issue if required \$ Millions

\* Potentially during tunnelling of major road and rail projects in Melbourne, starting CY2019. A summary of proposed PASS Management at the Nagambie Mine is attached at the end of the March 2018 Quarterly Report. (for a copy: www.nagambieresources.com.au)



# Waranga Province & NAG A Summary

- ❖ Deep IP works well in the Waranga Province to 400m depth. NAG is not aware of IP being currently used to depict gold targets anywhere else in Victoria. With IP-targeted drilling, NAG's exploration costs will be greatly reduced.
- NAG's gold deposition model for sulphide-gold-in-sediments mineralisation has been strongly supported by the results from the first two IP surveys.
- Four compelling IP sulphide-gold drilling targets have been generated to date with the strong likelihood of more being depicted in the next IP survey.
- ❖ A cluster of NAG underground sulphide-gold deposits could utilise a twindecline truck haulage layout that surfaced near a treatment plant at the Nagambie Mine.
- ❖ NAG is well placed to fund ongoing target drilling, gold resource drilling, development studies and staged mine capital development in due course.



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Thank you for your attention ......