



28 Oct 2019

## September 2019 quarterly activities report

### Q3 HIGHLIGHTS

#### Terramin South Australia Gold

##### Bird-in-Hand Gold Project (BIHGP) and Regional Gold Exploration

- Public consultations closed on 20 September 2019. Following feedback from the consultations, Terramin will submit a response and await a government decision on the MLA.
- Discussions with offtake financiers and streaming companies for BIHGP attracted strong interest.
- Expert response documentation prepared on water, noise and economic impact for the BIHGP.
- Final stope designs for BIHGP well progressed and reviews of geotechnical, ventilation and surface infrastructure commenced for BIHGP Feasibility Study.
- Plans progressed on metallurgical test work program which is scheduled for Q4.
- First draft of Program for Environmental Protection and Rehabilitation (PEPR) prepared.
- Confirmed as major hosting sponsor of the South Australian Mines Emergency Response Competition to be held at the Angas Zinc Mine Q1 2020.
- Entered an exhibit at the Strathalbyn Agricultural Show, offering community information and an opportunity to raise questions about the project.

#### Exploration

- Terramin responded to due diligence requirements for the Freeport-McMoRan ('Freeport') exploration program covering copper-gold prospects Wild Horse and South Gawler Ranges.
- Planning progressed on a Q4 drilling program on the Wild Horse anomaly.

#### Terramin Base Metals

##### Tala Hamza Zinc Project

- Elections in Algeria are scheduled for 12 Dec 2019. Decisions on large projects likely only after elections.
- Regular negotiations with Algerian authorities were held in Q3 to advance financing discussions.

#### Corporate and Environmental Performance

- Terramin attended community meetings and addressed local media enquiries regarding the public consultation process for the Mining Lease Application.
- Hydrostor continued works to dewater the Angas Zinc Mine at Strathalbyn as they progress development of their compressed air storage project. Drilling delays impacted schedule for evaluation of Angas 'Kickstarter' Project which will look at a restart of the Angas mine one year ahead of Bird in Hand first ore.

## TERRAMIN BASE METALS

### TALA HAMZA ZINC PROJECT

100% owned by Western Mediterranean Zinc Spa (WMZ)

*Terramin holds a 65% shareholding in WMZ. The remaining 35% is held by two Algerian government-owned companies: Enterprise Nationale des Produits Miniers Non-Ferreux et des Substances Utiles Spa (ENOF) (32.5%) and Office National de Recherche Géologique et Minière (ORGM) (2.5%).*

#### Update

Presidential elections have been scheduled for 12 December 2019 as the country transitions from 20 years of rule by former-President Abdelaziz Bouteflika. The government has been operating in a caretaker capacity. Major decisions are likely to be taken only after elections and ministerial appointments have been confirmed. Terramin will consider appropriately timing its application to allow any new appointments to become familiar with the project before being asked to consider the application.

During the quarter, further desktop work on optimisation of the Tala Hamza mine plan and processing schedule was undertaken. Terramin is awaiting a formal approval from its partners for the lodgment of the mining lease. Discussions have moved on from technical matters, particularly the mining method, to project financing. The most recent meetings were held on 23-24 April.

The revised DFS envisages a long life (21 year) project at lower processing rates and higher grades than the original DFS in 2010. Importantly, the DFS 2018 moves away from the larger scale, higher capex block cave mining method and utilises a selective mining method, Underhand Drift and Fill (UDF) that removes the surface expression of the mine and allows for underground placement of the majority of the tailings generated by the project. The change in mining method will remove the need for a tailings dam and significantly reduce the pre-production capital expenditure envisaged in the DFS 2010.

Expenditure on the Tala Hamza project during the quarter was \$0.1 million.

## TERRAMIN SOUTH AUSTRALIA GOLD

### BIRD-IN-HAND GOLD PROJECT & ANGAS PROCESSING PLANT

100% owned by Terramin and its subsidiary Terramin Exploration Pty Ltd

*The Bird-in-Hand Gold Project is located approximately 30km north of Terramin's existing mining and processing facilities at the Angas Zinc Mine (Angas or AZM) which was operational until 2013. The project has a high grade Resource of 650,000 tonnes at 12.6g/t for 265,000 ounces of gold. It is anticipated that, subject to required regulatory approvals, the Bird-in-Hand ore will be processed utilising the facilities at Angas which can be modified to process gold-bearing material. The existing tailings dam at Angas has the capacity to hold Bird-in-Hand tailings.*

#### Update

Terramin reached a major milestone with the lodgment of the Mining Lease Application (MLA) for its Bird-in-Hand Project and the Miscellaneous Purpose Lease (MPL) to allow the AZM site to treat the Bird-in-Hand ore on 21 June 2019. The application was validated by the South Australian Department for Energy and Mining (DEM). DEM and a 10 week public consultation program ended on 20 September 2019. Terramin completed a first draft of the Program for Environment Protection and Rehabilitation (PEPR) with major aspects largely covered by the preparatory works already undertaken for the MLA and MPL.

The Bird-in-Hand Scoping Study envisages high grade trucking of gold bearing material from the mine site to the Angas processing facility. The project has robust financials, including results of Nominal NPV<sub>8</sub> \$A101 and IRR 96%. The current improvements in gold price present significant upside on the scoping study results. There is potential to treat gold bearing material from Kitticoola and other potential targets, either currently held by the Company or available for acquisition.

The AZM site continued to be maintained in accordance with the DEM approved Mine Care and Maintenance Plan and is operating in compliance with its lease conditions. The Strathalbyn Community Consultation Committee and the Company met during the quarter, with the Company providing updates on the plan to use the Angas facility for the processing of Bird-in-Hand gold ore and also engagement with Canadian company Hydrostor regarding the Advanced Compressed Air Energy Storage (ACAES) project.

Terramin undertook a strategic review in 2018 which supported the eventual demerger of the precious metal assets from base metals. Demerger remains one of the options for the South Australian gold assets but in the short term management's focus is on realizing a project approval for the submitted MLA and MPL. While a number of parties expressed interest in Bird-in-Hand in 2019, the view is that the strong project economics and positive developments surrounding MLA and MPL submission warrant Terramin continuing to develop the project in the best interest of shareholders as outlined in the corporate strategy.

Expenditure on the Bird-in-Hand project and Angas Zinc Mine site was \$0.4 million.

## EXPLORATION

### EXPLORATION PROJECTS

100% owned by Terramin and Terramin subsidiaries Terramin Exploration Pty Ltd or Menninnie Metals Pty Ltd unless otherwise previously disclosed as part of a joint venture arrangement

*The Adelaide Hills Project consists of eleven contiguous exploration tenements that cover 3,481km<sup>2</sup> and stretch from Lake Alexandrina to Kapunda. This project area is considered highly prospective for gold, copper, lead, zinc and rare earth elements. Terramin's South Gawler Project is located along the southern margin of the Gawler Ranges, northern Eyre Peninsula, South Australia. The Project comprises a group of eleven Exploration Licenses totaling 4,524km<sup>2</sup>.*

### Update

During the period the Geological Survey of South Australia (GSSA) announced the Delamerian National Drilling Initiative (NDI) project that aims to characterise the basement and mineral potential beneath the Murray Basin. The objective of the GSSA's Delamerian NDI project is to provide industry with new data and new constraints on the geological setting and mineral prospectivity. The project area, which covers several of Terramin's Adelaide Hills tenements, has been placed under a Section 15 notice that restricts new tenement applications in the study area to existing tenement holders.

Terramin and joint venture partner Environmental Copper Recovery Pty Ltd have received Department for Energy and Mining approval to construct up to six wells and undertake aquifer pumping test work to evaluate the hydrogeology and amenability for copper recovery using In Situ Recovery (ISR) technology at Kapunda.

Terramin's expenditure on the Adelaide Hills and Gawler Ranges tenements was \$0.1 million.

## CORPORATE AND ENVIRONMENTAL PERFORMANCE

Terramin management continued to work towards the recapitalisation of the business and undertook a number of discussions with shareholders and investors throughout the period. The company continued to be supported by Asipac and discussions on refinancing of loans continued over the period. Asipac extended debt financing facilities by \$5.3m to refinance the AZM environmental closure bond with a Commonwealth Bank cash backed facility.

Terramin continued to pursue its safety and environmental goals during the quarter. There were no recordable injuries and no instances of non-compliance with relevant safety or environmental regulation or lease conditions.

During the quarter no unlisted options were exercised.

As at 30 September 2019, the Company's cash balance was \$5.4 million.

For further information, please contact:

### Investor Relations

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## DIRECTORS AND MANAGEMENT

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**Angelo Siciliano**  
**Wang Xinyu**  
**Richard Taylor**  
**Andre van Driel**

Executive Chairman  
Non-Executive Deputy Chairman  
Non-Executive Director  
Non-Executive Director  
Executive Director  
Chief Executive Officer and Company Secretary  
Chief Financial Officer

## CAPITAL STRUCTURE - 30 DECEMBER 2018

Shares on issue	1,869,601,371
Unlisted options	10,000,000

## Forward Looking Statements

This announcement includes certain 'forward looking statements'. All statements, other than statements of historical fact, are forward looking statements that involve various risks and uncertainties. There can be no assurances that such statements will prove accurate, and actual results and future events could differ materially from those anticipated in such statements. Such information contained herein represents management's best judgement as of the date hereof based on information currently available. Except for statutory liability which cannot be excluded, each of Terramin, its officers, employees and advisors expressly disclaim any responsibility for the accuracy or completeness of the material contained in this document and exclude all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in this statement or any error or omission. The Company does not assume any obligation to update any forward-looking statement. Accordingly no person or entity should place undue reliance on any forward looking statement.

## Competent Persons Statement

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Eric Whittaker (Tala Hamza and Exploration) and Mr Dan Brost (Bird-in-Hand), both being Competent Persons who are Member(s) of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr Whittaker is employed as the Principal Resource Geologist of Terramin Australia Limited and Mr Brost is a geologist consulting to Terramin. Mr Whittaker and Mr Brost have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as Competent Person(s) as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Whittaker and Mr Brost consent to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Ore Reserves is based on information compiled or reviewed by Mr Luke Neesham, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr Neesham is Principal Mining Engineer for GO Mining Pty Ltd a consulting firm engaged by Terramin Australia Limited to prepare mining designs and schedules for the Tala Hamza Feasibility Study. Mr Neesham has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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'. Mr Neesham consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

For further information, please contact:

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