TERRAMIN AUSTRALIA LIMITED

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Quarter Report 2014

HIGHLIGHTS

- Positive discussions with Algerian partner and progress on review of definitive feasibility study.
- Rare earth discovery at Kapunda.
- High grade silver discoveries at Menninnie Dam.
- Water studies for pre-feasibility at Bird-in-Hand progressing well.
- Exploration drilling to start at Wheal Barton.

TERRAMIN AUSTRALIA LIMITED ABN 67 062 576 238

30 April 2014





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%). The Oued Amizour Exploration Permit 5225PE is a 125km² tenement which contains several lead-zinc deposits including the Tala Hamza deposit.

Update

Following the execution of a Technical Cooperation Agreement with China Non-Ferrous Metal Industry's Foreign Engineering and Construction Company (NFC) in December 2013, the Company and NFC's technical representatives have started work on a review of the Definitive Feasibility Study (**DFS**) for the Tala Hamza project. In January 2014, the Terramin and NFC teams attended a site visit that provided an opportunity to further discuss the scope and depth of the review of the DFS with Terramin's Algerian partners and the Algerian government.

The review undertaken by Terramin and NFC has allowed a better understanding of the Algerian government's concerns regarding the environment, safety and tailings dam in addition to its concerns regarding the mining method.

Following these meetings, Terramin and its Algerian partner have agreed that Terramin and NFC would review the DFS and consider the potential use of an alternative method to the block caving method originally proposed in the DFS. This review will lead to a report on the proposed mining method highlighting technical, economic and environmental issues. The parties have agreed that the proposed method and its implications in terms of mine design, life of mine, economics of the project, environmental impact and employment will be considered by the Algerian party and a decision will be taken as to whether to pursue the project on the basis of this alternative mining method.

NFC and Terramin have submitted a preliminary report regarding the potential use of an alternative mining method to develop the project. The joint venture parties and NFC are currently discussing the technical details of the mining method and its implications. The joint venture parties and NFC will continue the work required for the review of the DFS and the preferred mining method in the second quarter of the year.

In addition, the Company notes that the Algerian parliament has recently passed a law to amend the *Mining Act 2001*. This Act has been very recently promulgated by the President of the Republic of Algeria and officially published. The Company is reviewing the potential impact of the new provisions on the project.

At the end of the quarter, total expenditure for the project was A\$232,686. There were no regional exploration activities within the area of the Oued Amizour tenement during the quarter.

BIRD-IN-HAND GOLD PROJECT

100% owned by Terramin 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. The project has a high grade Resource of 233,000 ounces of gold which is amendable to underground mining.

It is anticipated that subject to required regulatory approvals, the Bird-in-Hand material will be processed utilising the facilities at Angas which can be modified to process goldbearing material. The existing tailings dam at Angas has the capacity to hold all the Birdin-Hand tailings.

Update

The Bird-in-Hand project is progressing with base line environmental studies which form part of the pre-feasibility study underway. For this purpose, land access arrangements have been agreed with a number of landowners in accordance with the provisions of the *Mining Act*.

A material part of the environmental studies are the water studies for which a significant amount of data is necessary as relatively little is known about the regional ground water interaction. The first stage of the Bird-in-Hand water planning and data collection report has been completed. The study proposed to undertake further work by installing 5 test bores, targeting the different rock types, and undertaking a short term pump test to gather information to include in a ground water model.

A regional ground water survey has commenced and 5 water loggers have been installed in the site bores to determine the effect of summer irrigation on the water table. A site weather station has been installed to log weather conditions for inclusion in the modelling.

The proposal to undertake investigatory work to determine the ground water and aquifer interaction was presented to the Department for Manufacturing, Innovation, Trade, Resources and Energy (DMITRE), the Environment Protection Agency South Australia (EPA) and the Department of Environment, Water and Natural Resources (DEWNR). Approval for the construction of the test bores has been received from DEWNR. An application for the drilling of the holes has been submitted to and is awaiting approval from DMITRE. Water bore drilling is planned to commence in May 2014.

In order to progress the necessary site specific flora and fauna sensitivity studies, a referral under the Environmental Protection and Biodiversity Conservation (EPBC) Act is required from the Commonwealth Minister for Environment. The documentation required for this referral includes heritage studies of the area, desk top reviews of existing regional species data and reports, and current surveys. The work has begun with the assistance of environmental consulting company Care Of Our Environment (COOE Pty Ltd). Fieldwork is planned throughout the year to continue collating this information. The referral is expected to be submitted in November 2014.

A meeting was held with a local group of ground water users in April. The meeting was well attended by stakeholders interested in receiving an update on the project and planned work. An information brochure regarding the project and planned works was issued to all attendees and is available on the website at www. terramin.com.au.

Total project expenditure for the quarter at Bird-in-Hand was \$A400,828 reflecting measured spending on essential work to progress the project.



100% owned by Terramin and Terramin Subsidiary Terramin Exploration Pty Ltd

The Adelaide Hills project consists of twelve contiguous exploration tenements that cover 3547km² stretching 120km between Victor Harbor and Kapunda. (Figure 1). This project area is considered prospective for gold, copper, lead, zinc and rare earth elements.

Update



Figure 1: Terramin's Adelaide Hills tenements.

The compilation of historical exploration and mining data that document the work undertaken at over 250 historic gold and copper mines and prospects located on Terramin's tenements is well underway. Three project areas have so far been identified for further work: Wheal Barton, Kapunda and Golden Slope (see Figure 1).

Wheal Barton (copper, gold, silver)

Copper mineralisation was discovered at Wheal Barton in 1849, approximately 2km east of the township of Truro. An investigation by the then South Australian Department of Mines and Energy in 1942 indicated the presence of a 160m long main shoot and a 30m long south shoot that had been worked to the water table about 30m below surface. In some places the ore was up to 4.5 metres wide. Production records are incomplete and only record the production of 680t of ore at grade of approximately 20% copper plus an additional 93 tonnes of copper metal.

Field mapping by Terramin geologists has identified visible outcropping

copper mineralisation over a 600m

strike, typically as malachite and azurite in fractures, in quartz veins and gossanous shears (Figure 2). Fine copper bearing quartz veins are exposed in the dewatering dam as far as 20m into the footwall of the mined high grade copper orebody.

Samples assayed by previous explorers have shown that there may be significant amounts of gold and silver associated with the copper mineralisation.

Sample	Copper (%)	Gold (ppm)	Silver (ppm)	Lithology
SD525	12	0.42	25	Malachite and azurite stained schist
SD526	2.4	0.4	86	"Fe-stone" (gossan?)
SD527	9.2	0.19	<1	Malachite and azurite stained schist
ERN001	2.65	1.3	17.5	Bleached metasiltstone
ERN002	3.5	2.05	0.1	Brown gossan

Table 1: Assays for surface samples collected by Silverdust Pty Ltd and Eyre Resources NL.



Access agreements are in place with land owners and an application to undertake drilling has been lodged with DMITRE.



Figure 2. Examples of Wheal Barton copper veining and gossanous mineralisation.

Kapunda (copper, gold, REE)

The Kapunda Mine is located in the northern Mount Lofty Ranges, South Australia, approximately 35km north of Gawler and 80km from Port Adelaide. The Kapunda Mine, discovered in 1842, was Australia's first commercial copper mine. It yielded about 13,500t of copper metal from 68,000t of ore. Substantial drilling programs were undertaken in the Kapunda region during the 1960's and 1970's with the majority of the samples assayed only for copper. To better understand the copper mineralisation in the district reconnaissance samples were collected and assayed for a broad suite of elements. These samples identified high background levels of Rare Earth Elements (REE) and a peak Total Rare Earth Oxide (TREO) concentration in excess of 20% (See ASX release dated 11 February 2014). Follow up sampling validated the high REE concentrations and also returned a peak scandium assay of 335ppm.

Terramin is in the process of converting large historic data sets into a single consolidated digital database and has commenced approaching land owners to gain access to prospective areas.

Golden Slope (gold)

The Golden Slope prospect is located on EL4227 approximately 40km ENE of Adelaide. Alluvial gold was discovered at Golden Slope in 1869 and by 1870 over 2,000 ounces of gold had been recovered. Sporadic working of the alluvial field from 1870 to 1933 produced an additional 2,000 ounces bringing the total alluvial production to 4,000 ounces of gold. The first gold bearing quartz reef was discovered in 1871 and DMITRE records show that within a few years 14 mines were operating in the area. From aerial photographs over 100 workings (shafts, prospecting pits and costeans but excluding the alluvial workings) can be identified spread over an area of 1100m by 500m. Production figures from the mines are incomplete but typical recorded grades for the ore processed are in excess of an ounce of gold per tonne.



Figure 3. Example of sulphide casts in quartz at Golden Slope.

Historic records (H. Brown, 1908, Record of the Mines of South Australia) describe the Golden Slope West mineralisation as a "reef, 6ft. wide, of soft friable material, containing a large percentage of pyrites carrying free gold".

Terramin considers the Golden Slope area highly prospective for the discovery of high grade gold mineralisation. Access agreements are in place with the land owner and an application to undertake drilling has been lodged with DMITRE.





ANGAS ZINC MINE

100% owned and operated by Terramin

A 400,000 tpa operation that produced zinc and lead-copper-silver-gold concentrates currently in care and maintenance. The processing operations are expected to resume upon the start of mining of the Bird-in-Hand deposit.

Update

The Angas Zinc mine remains in care and maintenance and therefore there was no production for the quarter. An addendum to the Angas Programme for Environment Protection and Rehabilitation (**PEPR**) was submitted to DMITRE for management of the site during care and maintenance. Although the site criteria and the mining lease conditions regarding environmental protection remains the same, the frequency of monitoring has been modified to suit the level of operation. Approval of the PEPR by DMITRE is pending.

The site remains in compliance on all levels. Noise monitoring continues and although there is no noise generating activities occurring on site, some noise level exceedences have been recorded due to neighbouring activities. On site clean-up and recycling continues with removal of scrap metal and high density polyethylene (**HDPE**) piping. The annual Tailings Storage Facility (**TSF**) audit was completed and the report received from specialist consultants, ATC Williams.

Work continues on the Angas Mine Closure Plan, specifically with the studies to support the use of an engineered soil cover system (**Phytocap**) to replace the approved HDPE liner on the TSF. It is proposed that a Phytocap system will provide a superior, "self-restoring" system of cover which will be able to satisfy the closure requirements with less risk to failure than a HDPE liner cover. Ongoing discussions with DMITRE are occurring with the input of a global leader in applications of cover systems.

During the quarter a number of reports were completed which either satisfy the lease conditions or the closure plan requirements. The quarterly environmental report was completed with no issues reported. The geotechnical stability report was also completed, with 93% of the mined voids filled as at October 2013, there is little risk of any surface subsidence as a result of the mining activities. The 2013 annual compliance report was submitted to DMITRE in March 2014. The Phytocap design report along with the vegetation trail reports will be submitted to DMITRE in May 2014. Feedback from DMITRE on these reports will be included and will form part of the mine closure plan.

As planned, the remaining mine void is being filled with water, to prevent further oxidisation of the exposed rock and reducing the generation of acid and metalliferous drainage. Water injected into the surrounding mine aquifer during operations is being harvested and replaced into the mine. The water level has risen above the 190 level in the mine void and is being monitored for pH. (currently 7.2pH).

Total expenditure in respect of the care and maintenance of the Angas Zinc mine was A\$373,028 for the quarter.



100% owned by Terramin subsidiary Menninnie Metals Pty Ltd

The Menninnie Project comprises a group of five Exploration Licences covering a contiguous area of 2,471km² in the Southern Gawler Ranges, South Australia. Menninnie Metals has entered into a Farm-in and Joint Venture Agreement with Musgrave Minerals Ltd (Musgrave) (ASX:MGV) regarding the Menninnie Project. Musgrave can earn up to 51% by spending \$6m in the first phase and if Menninnie Metals does not contribute, up to 75% by spending an additional \$3m.

Update

Drilling undertaken to follow up five targets (Spare Rib, Frakes, Erebus, Tank Hill and Masaraga) across the Menninnie Project during the December quarter comprised 87 drill holes for 3,417m of aircore drilling to a maximum hole depth of 103m and took three weeks to complete. The analytical results from this drilling were received in January and February 2014.

The drilling intersected significant lead, zinc and silver mineralisation at the Spare Rib prospect, and high-grade silver at the Frakes prospect. Results were reported in a previous Quarterly Report (see ASX Announcement dated 28 January 2014 for full details). The Frakes prospect is 5km south-west of the existing Menninnie Central and Viper deposits at Menninnie Dam, and Spare Rib is 2km east of Viper (Figure 4).

Significant intercepts from Frakes included:

- 10m @ 990g/t Ag, 0.3 g/t Au, 0.2%
 Cu, 0.4% Pb and 0.3% Zn from 43m
 - Including 2m @ 3,942g/t Ag, 1.0g/t Au, 0.9% Cu, 0.7% Pb, 0.8% Zn from 44m.

The results from Frakes are considered to be significant. Interpretation suggested that the mineralisation may be structurally controlled. The Frakes



Figure 4: Location of Frakes and Spare Rib targets at Menninnie Dam with aircore drill hole collars (red dots) and significant assay results on silver soil geochemical and landsat image.

surface geochemical silver anomaly is more than 1.5km wide (Figure 4). Multiple structures are present in the Frakes area and many are not yet drill tested.

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Musgrave commenced an eight hole diamond drilling programme for a minimum of 1000m across Spare Rib and Frakes in early March. Drilling has taken longer than expected due to difficult sub-surface ground conditions and wet weather, and was still in progress at the end of the reporting period. The diamond drilling has shown that the mineralised zones are geologically complex. The programme is expected to conclude by late April and initial analytical results are expected to be available by late May.

In the June Quarter, it is expected that the following activities will be undertaken:

- Analysis and interpretation of diamond drilling results from Frakes, Spare Rib and Tank Hill prospects at Menninnie Dam
- Infill surface geochemical sampling of high priority targets at Menninnie Dam

All exploration expenditures regarding the Menninnie project have been undertaken by Musgrave under the terms of the JV Agreement.



Figure 5: Plan of aircore drill hole locations at Frakes and Erebus prospects showing significant aircore drill hole assay results on aeromagnetic image with silver surface geochemical colour drape.



100% owned and operated by Terramin subsidiary Menninnie Metals Pty Ltd

The Mount Ive Project, located in the Southern Gawler Ranges, South Australia, consists of two Exploration Licences covering a contiguous area of 584km² and three adjoining Exploration Licence Applications covering a further contiguous area of 1699km² (Figure 6). The project is adjacent to (but seperate from) the Menninnie Project and its southern boundary lies 6 km north of the Paris silver deposit. The area is prospective for gold, silver, copper, lead, zinc and tin.



Figure 6. Location of Mt Ive Project tenements and tenement applications

Update

Acquisition and compilation of historical exploration data for the entire project area is nearing completion. Some of this data has been difficult to source, delaying planned synthesis, reinterpretation and review of the exploration potential in the light of current targeting concepts. Reconnaissance field checking of geology accessible along tracks and fencelines on the Mt Ive and Unalla tenements will resume early in May 2014.





During the guarter, the Company's management and Directors have met with the representatives of Asipac Group Pty Ltd (Asipac), Transaminvest SA and another note holder to discuss the potential restructuring of the existing convertible notes. All parties have expressed their willingness to discuss the terms of a restructure and the Board of Terramin is confident that a commercially acceptable outcome will be reached in the coming weeks.

During the quarter, the Company paid:

- US\$119,602.50 as interests in accordance with the terms of the Convertible Note Deed Poll entered with Transaminvest SA dated 17 September 2009: and
- A\$197,354.96 as interests in accordance with the terms of the Convertible Note Deed Poll entered with a note holder dated 16 August 2008 as amended.

Terramin and Asipac agreed that the Company will issue shares in lieu of cash payment for A\$68,657.53 due as interests on the A\$2 million Corporate Loan Facility provided by Asipac. The Company will also issue shares in lieu of cash payment relating to the Convertible Note for USD\$180,233.85 relating to interest payable for the period ending 7 November 2013.

Exploration expenditures in the Company's South Australian tenements were A\$113,954. These expenditures have been limited during the quarter given the focus of the Company on the development of the Bird-in-Hand project and the Tala Hamza project and the need to preserve cash.

The Company cash balance at 28 April 2014 was A\$2 million. The Company's outstanding debt profile remains unchanged from the previous quarter.

CORPORATE INFORMATION

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CAPITAL STRUCTURE

at 30 April 2014 Shares on issue1,245,051,770 Kevin McGuinness Unlisted Options 1,300,000 Unlisted Convertible/redeemable notes: **Convertible at VWAP** (maturity May 2014)US\$15,050,000 Convertible at A\$2.21 per share (maturity July 2014)\$5,002,400

Conversion subject to minimum VWAP of \$1.70 (maturity September 2014)US\$10,000,000

DIRECTORS AND MANAGEMENT

Michael H Kennedy **Feng Sheng** Angelo Siciliano Xie Yaheng

Martin Janes Stéphane Gauducheau Company Secretary

Non-Executive Chairman Non-Executive Director Non-Executive Director Non-Executive Director Non-Executive Director

Chief Executive Officer

Competent Person Statement

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Eric Whittaker, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Whittaker is a full time employee of Terramin Australia Limited. Mr Whittaker 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 Whittaker consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.