



## ASX Announcement

8 June 2016

# Exceptional High Grade Gold Results for Bird-in-Hand Project

### Highlights

- **Significant gold intersections reported in several holes including exceptionally high grade intercepts**
- **BH054 from 192.9 metres, 5.8 metres at 37.43 g/t gold**
- **BH056 from 187.0 metres, 8.0 metres at 26.90 g/t gold**
- **Additional assay results expected in coming weeks**

Terramin Australia Limited (**Terramin**) (ASX:TZN) is pleased to announce that following completion of the drilling programme announced on 4 March 2016, it has received the first assay results from its diamond drill core samples at the Bird-in-Hand Gold Project (**Project**).

Terramin drillhole BH054 returned **5.8 metres at 37.43 g/t gold** from 192.9 metres down hole from Red Reef (Figure 1) including **1.18 metres at 167.71 g/t gold** from 192.9 metres, respectively equivalent to true widths of 4.4 metres and 0.9 metres.

Drillhole BH056 also from the Red Reef returned **8.0 metres at 26.90 g/t gold** from 187.0 metres down hole including **4.5 metres at 44.71 g/t gold** from 187.0 metres, respectively equivalent to true widths of 6.5 metres and 3.7 metres.

These results affirm the exceptionally high grade gold mineralisation of the Bird-in-Hand deposit. It is also notable that drillhole BH054 has returned gold intersections significantly higher than originally expected for that part of the deposit.

The diamond drillhole programme was designed principally to provide hydrological, geotechnical and metallurgical data about the Bird-in-Hand deposit to enable Terramin to progress the underground mine design and commence layouts of surface facilities. In addition, as part of that programme, six holes were drilled to obtain fresh samples for mineralogical analyses of the gold mineralisation. The assay results from the four remaining diamond drillholes are expected within the next few weeks and will be included in the metallurgical test work. The results will be included in the mining lease application which is expected to be lodged at the end of this year.

Subject to the assays from the remaining drillholes being positive, the Company will be able to upgrade the mineral resource classification for the upper part of the deposit from Inferred to Indicated without additional drilling.

Commenting on these results, Mr Martin Janes, Terramin's CEO said: "These assay results are exceptional and for drillhole BH054 the high grade in that particular area of the deposit was higher than expected. These results confirm the high quality of the deposit and there's good potential to upgrade the resource."

The Project located near Woodside in the Adelaide Hills, South Australia has an Inferred Mineral Resource estimate of 557,000 tonnes at 13.0g/t for a contained 233,000 ounces of gold ("Bird-in-Hand Revised Resource Estimate" dated 2 December 2013). As such it represents one of the highest grade gold deposits in Australia. The resource is open at depth and geological setting of the deposit indicates potential for additional high grade shoots to be present along strike within the Mineral Claim.

Hole	East	North	RL	Depth	Dip	Azimuth
BH054	309005.91	6129697.96	455.39	213.9	-86	046
BH056	309004.5	6129693.65	455.23	218	-90	000

Table A: Drillhole coordinates in MGA Zone 54 (GDA 94).

Hole	Sample	From (m)	To (m)	Length (m)	Au (g/t)	Reef	Comment
BH054	266871	186.5	187.5	1	4.33	White	
BH054	266879	192.9	193.3	0.4	<b>17.99</b>	Red	Screen Fire
BH054	266880	193.3	193.7	0.4	<b>19.33</b>	Red	Screen Fire
BH054	266881	193.7	194.08	0.38	<b>481.50</b>	Red	Screen Fire
BH054	266882	194.08	195	0.92	2.06	Red	Screen Fire
BH054	266883	195	195.85	0.85	0.54	Red	
BH054	266884	195.85	196.5	0.65	0.33	Red	
BH054	266885	196.5	197.3	0.8	<b>17.66</b>	Red	
BH054	266886	197.3	197.95	0.65	0.29	Red	
BH054	266887	197.95	198.7	0.75	3.05	Red	
BH056	266896	165	166	1	3.71	White	
BH056	266911	187	188	1	<b>67.00</b>	Red	Screen Fire
BH056	266912	188	189	1	<b>78.65</b>	Red	Screen Fire
BH056	266913	189	189.7	0.7	<b>29.98</b>	Red	Screen Fire
BH056	266914	189.7	191	1.3	<b>14.22</b>	Red	
BH056	266915	191	191.5	0.5	<b>32.15</b>	Red	
BH056	266916	191.5	192.5	1	3.41	Red	
BH056	266917	192.5	193	0.5	4.13	Red	
BH056	266919	193	194	1	5.47	Red	
BH056	266920	194	195	1	3.08	Red	

Table B: Individual gold assay results from sample intervals.

*Notes to Table 1*

1. Except for samples with visible gold and adjacent samples which were submitted to Intertek-Genalysis- for 100um gold screen fire assay, samples were submitted for analysis using 50g fire assay with AA finish
2. Samples 266885, 266914, 266915 have been re-submitted to Intertek-Genalysis for 100um gold screen fire assay
3. True widths for summary intersections are reported in text
4. g/t (grams per tonne)

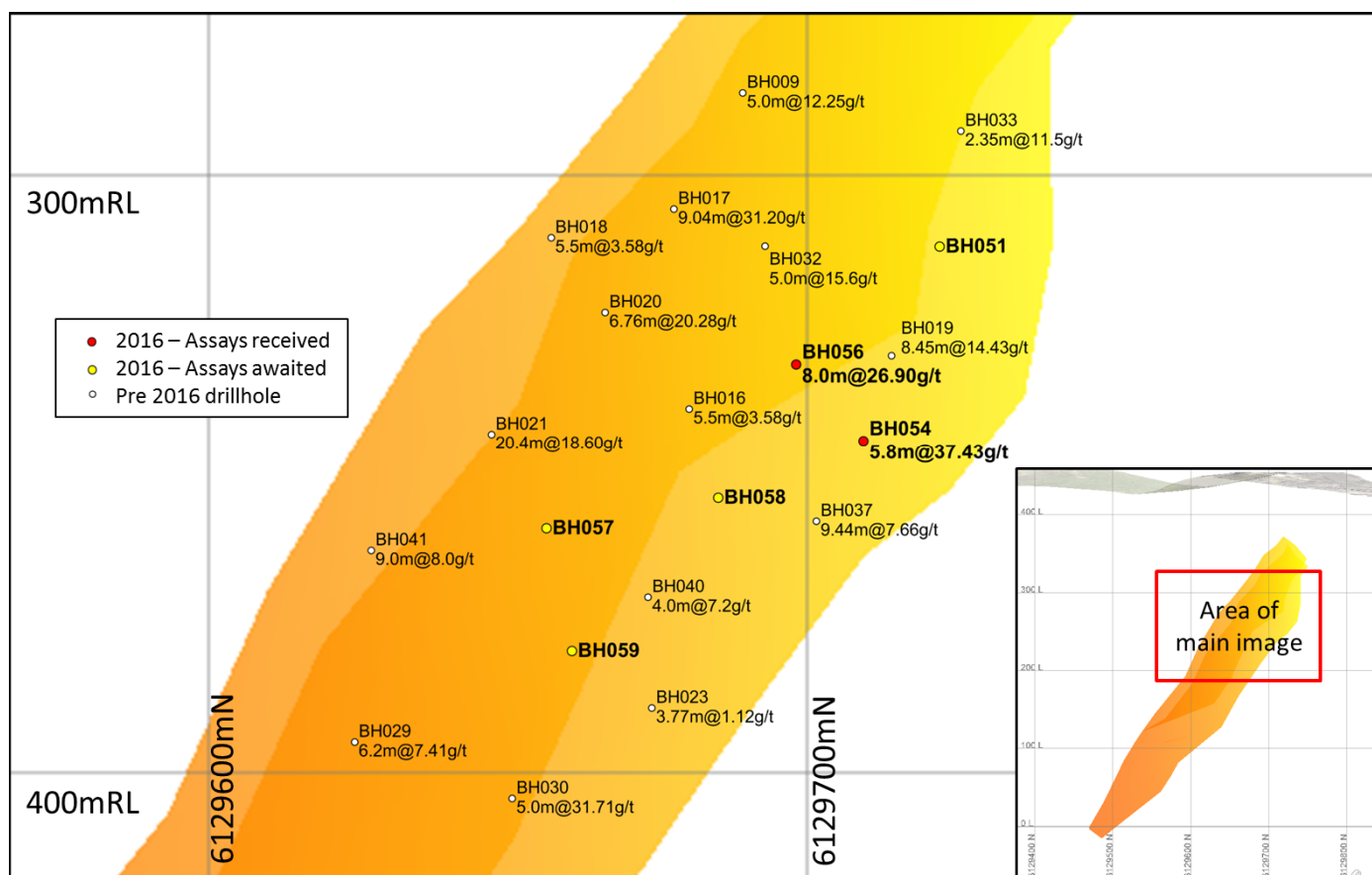


Figure 1: Long section showing drillhole pierce points within the Red Reef on Bird-in-Hand 2013 Resource outline.

For further information, please contact:

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**Competent Person's 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 an employee and Principal Resource Geologist 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.

## JORC Code, 2012 Edition – Table 1 report template

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"><li>• Sampling was undertaken using standard industry practices including the use of standards at regular intervals.</li><li>• All sampling of mineralised zones was from half cut HQ diamond core, by default sampled at 1m lengths unless over ridden by geological boundaries.</li></ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"><li>• TZN holes BH054 and BH056 were diamond drilled HQ for the entire hole length.</li></ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"><li>• Core recovery was measured for each drill run between the driller's marker blocks.</li><li>• Recovery to <math>\pm 0.01</math> m was recorded on all current diamond core.</li><li>• Core recovery was recorded for each individual sample assayed.</li><li>• Average core recovery within the mineralised intersections exceeded 95%.</li></ul>
<i>Logging</i>	<ul style="list-style-type: none"><li>• Geological logging was undertaken by Terramin geologists.</li><li>• Core was logged directly into laptop computers before data being transferred and validated in a DataShed database. All systems used the same standard codes.</li><li>• Detailed logging routinely recorded lithology, alteration, mineralisation, veining, structure, and geotechnical datasets.</li><li>• All drillholes were logged in full.</li><li>• All drill core was photographed using a digital camera. Photographs were initially transferred to the on-site computer before being transferred to Terramin's secure server situated in Adelaide, South Australia</li></ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"><li>• Mineralised intervals were identified by the site geologist who marked up the core sample intervals. Core sampling extends several metres above and below identified mineralised intervals. Sample length interval is nominally 1 metre but varies based on lithology and mineralisation styles. The core was cut on site by Terramin personnel using a diamond bladed core saw. Half of each sample interval was placed into numbered calico bags and all sample intervals and sample numbers were recorded on a standard sample interval sheet.</li><li>• Half-core samples were sent to a commercial laboratory (Intertek-Genalysis laboratory in Wingfield, South Australia) for sample preparation and assaying. Samples were pulverized to 85% passing -75um.</li><li>• .</li><li>•</li></ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>Except for samples with visible gold and their adjacent samples, which were submitted to Intertek-Genalysis- for 100um gold screen fire assay, routine samples were submitted for analysis using 50g fire assay.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>Drill sample analysis is undertaken by Intertek - Genalysis, Wingfield. NATA accreditation number: 3244, ISO/IEC 17025:2005 which includes 7.03.18 – precious metal ores.</li> <li>No geophysical tools were used to estimate mineral or element percentages. Terramin utilises hand held XRFs to aid geological interpretation.</li> <li>Certified standards, sourced from Geostats Pty Ltd, were inserted in the drill sample sequence equivalent to 1 in 10 samples. Standards were selected to mimic the expected grade distribution, including the high gold values.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>A Terramin geologist is assigned the task of monitoring QC of drill results. Assay quality was monitored on a batch by batch basis to identify and rectify problems immediately as well as on a six-monthly basis to monitor long term trends. The QC data is stored in Terramin's Maxwell Geoservice's Datashed database and accessed through a linked program QAQCR also from Maxwell Geoservices. All QAQCR reports are stored on the Terramin server.</li> <li>The QC implemented by Terramin for drilling programs consists of the following: <ol style="list-style-type: none"> <li>Review lab analyses of Terramin's certified standards and Intertek – Genalysis' internal checks</li> <li>Grind sizing checks</li> </ol> </li> <li>In addition to QAQCR analyses, further checks were carried out using: <ol style="list-style-type: none"> <li>Standardised Response Mean (SRM) plots for assays of standards submitted</li> <li>Comparison of the analytical results for the original and duplicate samples by use of scatter and Mean Absolute Paired Difference (MAPD) plots</li> </ol> </li> <li>No twin holes have been drilled by Terramin or previous explorers</li> <li>Primary data was collected using a standard set of templates.. Data were verified before loading to the database. Geological logging of all samples is undertaken. Features logged include colour, structure, alteration and lithology</li> <li>No adjustments or calibrations were made to any assay data reported.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>Drillhole collar co-ordinates were recorded and reported in UTM grid (GDA94 Z54) and have been surveyed in using a differential GPS.</li> <li>Drillholes were surveyed downhole at a nominal 30 metres spacing.</li> <li>A Ranger survey tool was used to conduct downhole surveys. The Ranger routinely provides information on the magnetic susceptibility which assists in determining the validity of the survey. Surveys have shown very little variation in the intensity of the magnetic field strength. There is little evidence of magnetic minerals within either the hanging wall or the mineralisation,</li> </ul>

Criteria	Commentary
	<p>and the azimuth measurements are generally assumed to be accurate.</p> <ul style="list-style-type: none"> <li>Results from a gyro survey of BH057 showed no significant difference to that of the Ranger survey.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>Drillhole pierce point spacing between 325m RL and 225m RL is predominantly on a 25 m or better pattern. Beneath the 225m RL drillhole pierce point spacing is in the order of 60m.</li> <li>Previous drilling had defined an Inferred Mineral Resource of 557,000 tonnes at 13.0g/t for a contained 233,000 ounces of gold.</li> <li>Sample sizes are considered appropriate for the size and scale of the deposit.</li> <li>Field sample compositing was not undertaken.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>Overall Bird-in-Hand mineralisation dips 45 degrees towards 100 and plunges 40 degrees towards 125.</li> <li>Reported Terramin drillholes approximately intersected the mineralisation at 45 degrees.</li> <li>Intersections are not creating any known bias.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>Chain of custody is managed by Terramin staff. Drill samples selected for analysis were initially stored on site and then transported by Terramin staff to Intertek-Genalysis at Wingfield, South Australia.</li> <li>When at the laboratory samples are stored in a locked yard before being processed and tracked through preparation and analysis (Lab-Trak system).</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>No external audits or reviews of modelling techniques and data have been undertaken.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>The Bird-In-Hand Gold Project is contained within both EL5469 and MC4113.</li> <li>In addition to State royalties, Terramin will pay Maximus Resources Ltd a 0.5% royalty if the average sale price for gold is greater than \$1000 per ounce on bullion production after production of the first 50,000 ounces.</li> </ul>

Criteria	Commentary
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Capricorn Resources NL completed 2 RC drill holes in 1997 and Maximus Resources completed 29 diamond drillholes between 2005 and 2008. All relevant work by these two companies has been thoroughly reviewed by Terramin and is considered to have been carried out to industry standard at that time.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>Bird-In-Hand is a zoned vein deposit where gold mineralisation is associated with quartz + carbonate (<math>\pm</math> pyrite, <math>\pm</math> galena <math>\pm</math> sphalerite) veining hosted by marble (Brighton Limestone) and surrounding metasedimentary rocks.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>Drillhole collar data for reported drillholes are presented in Table A and assays for sample intervals are reported in Table B.</li> <li>Exploration results previously reported are available from ASX or Terramin website, ASX release “Bird-in-Hand – Revised Resource Estimate” dated 2/12/2013.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>Summary intercepts are reported by a “bulk and carry” of better than 1g/t gold, restricted within individual quartz reefs.</li> <li>All significant new drillhole assay data are reported in this release.</li> <li>No metal equivalent values have been reported.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>Estimated true widths are reported.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>Figure 1 shows the location of BH054 and BH056 pierce points in relation to existing drillhole pierce points within the Red Reef.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>All assays received from both White and Red Reefs in are listed in Table B and estimates of true widths for summary intersections have been reported.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>All new significant data is reported in this release.</li> <li>All material results from previous drilling have been reported.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>Work is currently focused on collecting data for future feasibility studies.</li> <li>Samples from recent drilling will be used in mineralogical and metallurgical test work to determine the process for optimum gold recovery.</li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>• Hydrological data acquisition and modelling are ongoing. Detailed hydrogeological investigations are required to accurately determine the expected rate of mine inflows, mine dewatering requirements and the likely drawdown impacts on existing groundwater users. The Bird-In-Hand deposit lies within the Western Mount Lofty Ranges region. A moratorium under the Natural Resources Management (NRM) Act now applies to all new and potential users of water resources within this region.</li> <li>• Environmental studies are ongoing.</li> <li>• Geotechnical assessment is ongoing.</li> <li>• The Bird-in-Hand Resource is open at depth and historic mines located with a few hundred metres of Bird-in-Hand indicate potential for additional high grade shoots to be defined along strike.</li> </ul>