

25 February 2021

The Manager Market Announcements Office Level 40, Central Park, 152-158 St George's Terrace PERTH WA 6000

# HIGH GRADE GOLD IN MAIDEN DRILLING AT TWIN HILLS

#### **HIGHLIGHTS**

- High grade gold in composite samples returned from the Company's maiden drilling program at Twin Hills Gold Project
- Significant results from 4 metre composites include:

8m @ 2.66g/t Au from 40m including 4m @ 3.62g/t Au from 44m (THRC014); 4m @ 1.18g/t Au from 32m (THRC015); and

12m @ 0.62g/t Au from 40m including 4m @ 1.10g/t Au (THRC008)

- Mineralisation is open in all directions
- Validation of exploration model confirmed highlighting the prospectivity of structures underlying the three priority auger anomalies
- Program of Works application lodged for priority follow-up RC drilling

The Directors of eMetals Limited (ACN 142 411 390) (ASX:EMT) (eMetals or the Company) are pleased to announce the results of the Company's first reverse circulation drilling program at its wholly owned Twin Hills Project (Project) in the Eastern Goldfields region of Western Australia.

This announcement details the assay results of composite sampling from reverse circulation (RC) drilling undertaken in January 2021. Results of single metre sampling of quartz and sulphide bearing intervals are pending and will be reported when re-assaying of samples is complete.

Drilling has intersected high grade lode gold mineralization from scout RC drilling of auger geochemical anomalies defined by field work in 2020. Significant high grade assay results have been returned from an area 5 kilometres north of the Twin Hills gold mine (excised), from 4m composites sampling, with results of up to 4m @ 3.6g/t Au (THRC014, 44-48m) within an 8 metre zone of mineralization at 2.66g/t Au (from 40m).

The mineralization is hosted within greenstone and felsic porphyry and is **open in all directions** within a 400m long auger geochemical anomaly of **6ppb Au**. Several other auger geochemical anomalies were tested and further drilling is required.

eMetals Director Mathew Walker commented:

"The composite sample results received by the Company have exceeded expectations with high grade gold returned from one RC hole and several new anomalous results returned from several other drill holes. Our search for repetitions of the Twin Hills gold shoot is off to an excellent start and further aggressive exploration is planned in the near future."



### **BACKGROUND**

The Twin Hills Project consists of a single granted exploration license (E29/950) located approximately 30 km north east of Menzies and 150km north of Kalgoorlie in the Eastern Goldfields of Western Australia. The tenement covers an area of approximately 30 km² and extends over approximately 10 km of strike of the greenstone sequence that hosts the excised historical Twin Hills gold mine. The tenement covers the north and south extension of the shear zone which is the interpreted host of mineralisation at Twin Hills.

At Twin Hills the geology is interpreted to be a narrow north-northwest striking Archaean greenstone belt of amphibolite facies chert, metabasalt and ultramafic schist and felsic porphyry dykes, sandwiched between later intrusive granites.

eMetals completed two auger geochemical programs at Twin Hills in 2020 and defined three gold anomalous zones within the tenement. These gold anomalies were considered significant due to association with northwest trending magnetic anomalies matching mapped shears known to host the Twin Hills gold shoot (excised from E29/950).

### **REVERSE CIRCULATION DRILLING**

The Company made use of an RC rig that became available in January 2021 and completed 17 holes for 1395m across the three auger geochemical targets. Refer to Figure 1.

The results reported herein are from the composite samples with high grade gold results returned from several holes and significant anomalism in numerous other holes. Significant intersections are reported in Table 1 below and all anomalism >0.1ppm Au are reported in an Appendix following the JORC Table 1 and 2.

### Table 1: Significant 4m Composite Results

THRC008	12m @ 0.62g/t Au trom 40m including 4m @ 1.10 g/t Au from 48m
THRC011	4m @ 0.10g/t Au from 52m
THRC013	4m @ 0.36g/t Au from 16m, and,
	8m @ 0.15g/t Au from 28m
THRC014	8m @ 2.66g/t Au from 40m including 4m @ 3.62g/t Au from 44m
THRC015	4m @ 1.18g/t Au from 32m

## **INTERPRETATION**

Gold anomalism in THRC013 through to THRC015 is located five kilometres north of the historical Twin Hills gold mine (excised from E29/950), and occurs in a zone which has not previously been drilled.

The section THRC013, THRC014 and THRC015 contains a series of felsic porphyry and granite dykes intruded in to the metabasalt greenstone sequence. Gold mineralization is developed on the contacts of the dykes as zones of 5-40% quartz veining.

Significantly, the results from THRC013 to THRC015 are open across strike. The drill holes, spaced 80m apart, have not sufficiently tested the entire width of the anomalous zone, which is open to the north and south.



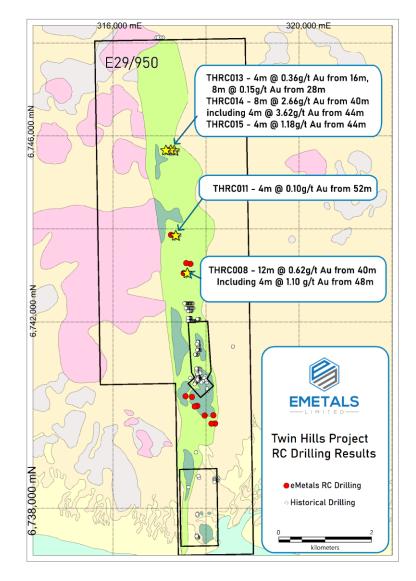


Figure 1 - RC drilling initial results, Twin Hills Gold Project

Gold in the composite samples is associated with zones of quartz and carbonate veining with moderately elevated copper (to 0.11%), bismuth (to 25ppm), silver, and tellurium (to 3.5ppm). Arsenic is below detection limits and the mineralization is low in sulphur. This is typical of lode gold hosted within the Kalgoorlie Terrane, and is distinct from the more arsenic-rich Menzies domain.

## **DRILLING AND SAMPLING METHODOLOGY**

Drill holes were drilled with a truck mounted 'slim line' RC rig via face sampling hammer with all holes collected into 1 metre sample bags. The drill holes were sampled by a combination of four metre composite samples and single metre sampling undertaken in areas that the geologist judged to have potential for mineralization.



Composite samples were taken via scooping from four sample reject piles into a single sample for assay. Single metre sampling was achieved by collecting the bag containing one metre intervals taken from the rig conical splitter.

Composited intervals were assayed via aqua regia digest with 33 elements plus gold reported. This is a partial digest and is appropriate for assaying composite samples for low level anomalism. Composited intervals with greater than 100 ppb Au will be re-assayed via collection of the single metre samples.

Single metre samples were taken for 157 metres from drill holes THRC002, THRC003, THRC004, THRC010, THRC011, THRC012, THRC015 and THRC016.

Single metre samples are being assayed via lead collection fire assay. Due to high demand for laboratory services the results from single metre sampling are expected within 2 to 4 weeks.

All assays of composites >0.1g/t Au are reported above and all other assays received from composites returned Au less than 0.1g/t Au. Please refer to the JORC Table 1 and 2 for full details of all drilling and assaying.

#### **ONGOING EXPLORATION**

eMetals is highly encouraged by the success of the auger drilling program with several identical structural positions yet to be tested. Completion of the auger drilling in untested areas is a priority.

Following on from this program eMetals will mobilise an RC drill rig to test the THRC014 intersection at depth and along strike with the aim of determining whether a shoot of gold mineralization may be delineated.

This announcement has been authorised by the Board of eMetals Limited.

For, and on behalf of, the Board of the Company

# **Mathew Walker**

Director **EMETALS Limited** 

## -ENDS-

Shareholders and other interested parties can speak to Mr Sonu Cheema if they have any queries in relation to this announcement: +618 6489 1600.

### Forward looking statements

This announcement contains forward-looking statements which are identified by words such as 'may', 'could', 'believes', 'estimates', 'targets', 'expects', or 'intends' and other similar words that involve risks and uncertainties. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this announcement, are expected to take place. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, the directors and our management. We cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this prospectus will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements. We have no intention to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this announcement, except where required by law. These forward looking statements are subject to various risk factors that could cause our actual results to differ materially from the results expressed or anticipated in these statements.



### **Competent Persons Statement**

The information in this announcement that relates to Exploration Results is based on and fairly represents information and supporting documentation prepared by Mr Roland Gotthard. Mr Gotthard is a consultant geologist for eMetals and a member of the Australian Institute of Mining and Metallurgy. Mr Gotthard has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this announcement and to the activity which they are undertaking 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' ("JORC Code"). Mr Gotthard consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

# **DRILL HOLE COLLAR INFORMATION AND DETAILS**

Hole ID	Hole Type	MGA East	MGA North	RL	Hole Depth	Azimuth	Dip
THRC001	RC	318160	6740000	248	80	90	-60
THRC002	RC	317973	6739994	248	80	90	-60
THRC003	RC	317815	6740203	248	80	90	-60
THRC004	RC	317759	6740189	248	88	90	-60
THRC005	RC	317562	6740410	248	80	90	-60
THRC006	RC	317700	6740394	248	80	90	-60
THRC007	RC	317522	6743055	248	80	90	-60
THRC008	RC	317607	6743057	248	80	90	-60
THRC009	RC	317667	6743254	248	88	90	-60
THRC010	RC	317576	6743270	248	88	90	-60
THRC011	RC	317351	6743870	248	87	90	-60
THRC012	RC	317248	6743877	248	80	90	-60
THRC013	RC	317318	6745697	248	80	90	-60
THRC014	RC	317226	6745706	248	80	90	-60
THRC015	RC	317152	6745706	248	82	90	-60
THRC016	RC	318198	6739821	248	82	90	-60
THRC017	RC	318120	6739820	248	80	90	-60

Projection: Map Grid of Australia GDA94 Zone 51 South

Collar Survey: GPS +/-3m Accuracy

Downhole Surveys not performed due to unavailable instrument



# JORC CODE, 2012 EDITION - TABLE 1

Criteria	JORC Code explanation	Commentary		
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	Reverse circulation drilling     Mineralisation defined above a geochemical cut-off of 0.1 parts per million gold in a four metre composite		
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>Slim line reverse circulation drilling using a truck mounted rig with auxiliary compressor with 550cfm air capacity</li> <li>Face sampling hammer</li> </ul>		
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Sample recovery was assessed qualitatively, with sample moisture, bulk recovery and quality recorded</li> <li>Samples were collected via dry samples</li> <li>No known relationship between sample recovery and assay grade can be determined from the limited drilling undertaken to date</li> </ul>		
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the</li> </ul>	<ul> <li>A reference set of rock chips were collected into chip trays for logging by the on-site geologist</li> <li>Chip trays were photographed to assist in verification of mineralised intercepts</li> <li>Logging is qualitative only and used for geochemical purposes</li> </ul>		



Criteria	JORC Code explanation	Commentary		
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> </ul>	<ul> <li>Reverse circulation drilling was used to obtain 2-3 kilograms of rock chips per metre</li> <li>Samples were collected every metre into calico sample bags via conical splitter with a duplicate sample collected every 6 metres into a calico sample bag</li> <li>Samples were split to 500g, pulverised and a 25g charge assayed</li> <li>Sample compositing was via scooping of sample reject piles with a nylon sample scoop with 2-3kg per 4m composite</li> <li>Sample quality was monitored for</li> </ul>		
	Whether sample sizes are appropriate to the grain size of the material being sampled.	recovery and moisture content to ensure adequate sample recovery  • Bulk sample rejects were placed on the ground and reference rock chips collected in plastic sampling trays for geological logging and any further spectroscopic work  • The sampling method is considered appropriate for low-level geochemical reconnaissance sampling  • Sample size is considered appropriate to the material being sampled  • Samples are dried, pulverised and split to 25g in the laboratory prior to assay		
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>Appropriate matrix-matched, low-level commercially available geochemical standards were inserted at a rate of 2 per 100 samples</li> <li>Duplicate samples on 1m samples were collected in the field at the rate of 1 per 6</li> <li>Duplicate samples of composites were collected at a rate of 1 per 20 samples</li> <li>Samples assayed via Aqua Regia 33 Element + Au 10g which is a partial digest method with pathfinder elements, considered appropriate for Au exploration</li> <li>Single metre assays via 50g charge lead collection fire assay</li> </ul>		



Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Data entry is via tough pad or similar digital tablet in the field</li> <li>Significant intersections were verified by alternate company personnel</li> <li>No twinned holes have been conducted</li> <li>Assay data is not adjusted.</li> <li>Fire assay data, where available, is prioritized over aqua regia digests</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Holes were located in the field using a handheld tough pad with GPS capability and locations recorded in the field</li> <li>Downhole survey instrumentation was unavailable at the time of drilling</li> <li>Re-entry of holes to perform down hole surveys will be required in the future</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Data spacing is considered appropriate for exploration of this nature</li> <li>Drill hole spacing is not sufficient to calculate a mineral resource. Further work is planned.</li> <li>Sample intervals are calculated as a simple arithmetic mean of all adjacent samples &gt;0.1ppm Au, with no internal dilution</li> <li>Sub-intervals of significant intercepts are reported at +1g/t Au, +3g/t Au or +10g/t Au</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Based on all information to date, drilling is oriented roughly orthogonal to structural and stratigraphic trends</li> <li>The true orientation of structural controls is not known at this stage, but it is unlikely to be unduly influencing reported widths</li> </ul>
Sample security      Audits or reviews	<ul> <li>The measures taken to ensure sample security.</li> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	Samples were delivered via commercial courier company     Not applicable



# **Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>E29/950 is owned 100% by RWG Minerals Pty Ltd, a subsidiary of eMetals Limited</li> <li>Heritage clearances and agreements are in place and drilling is under an approved Programme of Works</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The tenement has been explored by Golden Deeps NL and other parties since ~1980  Resources at Twin Hills are not owned by eMetals Limited or its subsidiaries and no agreement is in place
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Plunging shoots of quartz lode gold are hosted in shear zones within mafic and ultramafic greenstones</li> <li>Sheeted porphyry dykes and quartz veins</li> <li>Greenstone belts within Archaean granite terranes, adjacent to major fault zones</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>A map of RC and DDH holes is provided illustrating the drilling on the tenement outside of the excised tenements</li> <li>Other drill holes (RAB, AC, shallow holes, auger) are excluded as this is not material to the understanding of the project</li> </ul>



LIMITED——				
Criteri	ia	JORC Code explanation	Commentary	
ag	ata ggregation ethods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Selected intercepts are reported as all material &gt;1m @ &gt;0.1g/t</li> <li>In the case of multiple fire assay repeats of overlimit aqua regia assays, the minimum fire assay result is used</li> <li>No top cut is applied</li> <li>No metal equivalents are reported</li> </ul>	
be mi wi int	elationship etween ineralisation idths and tercept ngths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	Insufficient work has been undertaken to understand the true width of any mineralization	
• Di	iagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	A map showing the excised tenements is provided	
	alanced porting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	<ul> <li>It is impractical to report all historical drill holes and all intercepts</li> <li>The reader is referred to WAMEX reports</li> <li>Statements on the excised tenements and the ownership of the non-JORC compliant Resources on those tenements are made proximal to any discussion of those non-owned assets</li> </ul>	
su ex	ther ubstantive xploration ata	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Not applicable	
• Fu	urther work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	RC drilling is planned to test auger geochemical targets pending receipt of approvals	