

24 February 2022

Age Dating Turrawonga Prospect at Copper Hill East Confirms Equivalence with Cadia, Copper Hill and Boda Porphyries

- Uranium-Lead (U-Pb) age dating of porphyritic intrusive rocks from the Turrawonga Prospect on the Copper Hill East Project shows the same age as porphyry intrusions at the world-class Cadia Copper-Gold Mine, the Copper Hill Deposit and the Boda Copper-Gold Project, all within the Molong Volcanic Belt
- Confirmation that Turrawonga is part of the Molong Volcanic Belt mineralising event
- Sample age determined based on zircon U-Pb geochronology from drill hole CHERCD012 is 450.1Ma (± 7.3 Ma)
- Sample age determined based on apatite U-Pb geochronology from drill hole CHERCD013 is 464Ma (± 12.5 Ma)
- Petrographic studies confirmed multiple intrusive phases, a calc-silicate altered diorite and an orange to pink albite-chlorite-sericite-hematite altered micro-monzonite
- Provides additional insight into the Turrawonga Prospect and Copper Hill East Project ahead of further exploration initiatives

Godolphin Resources Limited (ASX:GRL) (“**Godolphin**” or the “**Company**”) is pleased to advise that recent petrographic work and age dating data confirms an Ordovician age for the porphyry intrusions at the Turrawonga Prospect, located on GRL’s 100%-owned Copper Hill East Project, within EL8556. Further, the data has confirmed that the porphyritic intrusive rocks from Turrawonga show the same age as those at the world-class Cadia Copper-Gold Mine, the Copper Hill Copper Deposit and the Boda Copper-Gold Project, which are all situated within the Molong Volcanic Belt. The Turrawonga intrusion was emplaced during the same crustal evolution event that generated the Cadia gold-copper porphyry system. This recognition is a key incentive for systematic exploration of the Turrawonga system to “vector in” on the target potassic alteration core, where more intense copper mineralisation should occur.

Four reverse circulation (RC) drill holes and two diamond tails were completed at the Turrawonga Prospect in 2020, with two holes returning significant results of **32m @ 0.29g/t gold & 0.13% (CHERC012)** and **30 metres @ 0.64g/t gold & 0.04% (CHERC013)** (Refer ASX releases 20 October 2020 & 21 December 2020). The holes intersected multiple intrusive rocks and volcanic breccias, some with low intensity propylitic alteration assemblages of albite, actinolite, chlorite, sericite, which were subsequently tested to determine the age of the rocks.



Image 1: Albite-chlorite-sericite-hematite altered micro-monzonite porphyry with crustiform banded quartz-carbonate chlorite with minor bornite and chalcopyrite from 471.4m in drill hole CHERCD013

Managing Director Ms Jeneta Owens said: “This recent age dating and petrographic analysis is incredibly important and will assist us in better understanding the Turrawonga Prospect and the Copper Hill East Project as a whole. These findings provide us with an exceptional insight into the potential of the project, as we progress exploration efforts in the most logical and scientifically backed manner. We look forward to providing updates as to the progress in the coming months.”



Copper Hill East Project – Turrawonga Prospect

Different porphyritic intrusions within the two diamond-tailed drill holes completed in 2020 on EL8556, Copper Hill East, were selected and sent to the Centre for Ore Deposits and Earth Sciences (CODES) at the University of Tasmania (UTAS) for U-Pb zircon, apatite or titanite age dating. Both holes were drilled within the Turrawonga Prospect area of the Copper Hill East exploration licence (Figure 2). Samples were chosen from drill holes CHERCD012 and CHERCD013. Although no zircons were recovered in the sample sent from CHERCD013, apatite and titanite from that sample was dated instead and produced the same ages (within error) as the zircon-based ages for sample CHERCD012. The sample age determined based on zircon U-Pb geochronology from CHERCD012 is 450.1Ma (± 7.3 Ma), and apatite U-Pb geochronology from CHERCD013 is 464Ma (± 12.5 Ma) and based on titanite U-Pb geochronology from CHERCD013 is 454Ma (± 13.3 Ma).

Prior petrographic analysis of these rocks by Mason Geoscience in November 2021 had confirmed multiple intrusions at Turrawonga. The rock that hosts minor copper minerals is described as an orange to pink albite-chlorite-sericite-hematite altered micro-monzonite porphyry with crustiform quartz veins within CHERCD013. It was noted in thin-section to also contained fine-grained bornite and chalcopyrite. The low temperature of formation is supported by the mineralogical quartz banding inwards from the vein margins, defined by early massive microcrystalline quartz, overgrown by crustiform quartz \pm sulphides, and later central fillings of calcite.

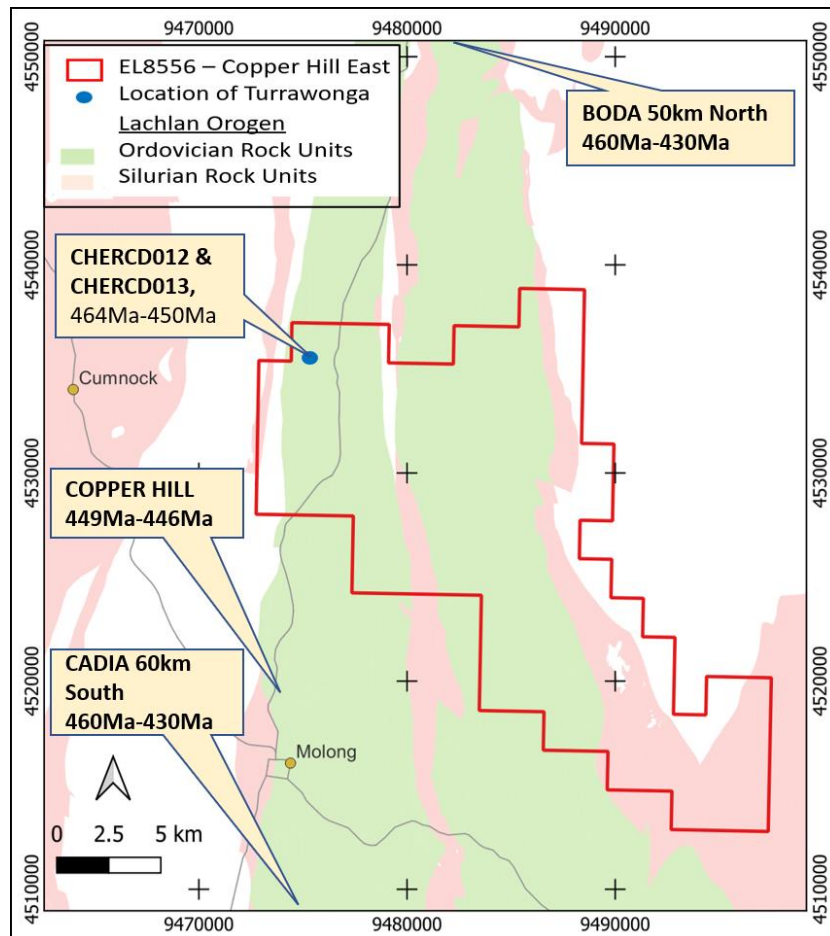


Figure 2: EL 8556 showing the location of Turrawonga within the CHE tenement and locations of other large porphyry Cu-Au projects and mining operations within the Molong Volcanic Belt.

These results are significant as it shows the intrusive rocks at Turrawonga fall within a compatible age range to large porphyry deposits along strike, both north and south in the Molong Volcanic Belt, within the Lachlan Fold Belt. This indicates that the emplacement of the intrusions at Turrawonga have potential for large tonnage porphyry style mineralisation and strongly supports systematic focused exploration using the Cadia/Boda model.



<<ENDS>>

This market announcement has been authorised for release to the market by the Board of Godolphin Resources Limited.

For further information regarding Godolphin, please visit <https://godolphinresources.com.au/> or contact:

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About Godolphin Resources

Godolphin Resources (ASX: GRL) is an ASX listed resources company, with 100% controlled Australian-based projects in the Lachlan Fold Belt (“LFB”) NSW, a world-class gold-copper province. Currently the Company’s tenements cover 3,200km² of highly prospective ground focussed on the Lachlan Transverse Zone, one of the key structures which controlled the formation of copper and gold deposits within the LFB. Additional prospectivity attributes of GRL tenure include the McPhillamy’s gold hosting Godolphin Fault and the Boda gold-copper hosting Molong Volcanic Belt.

Godolphin is exploring for structurally hosted, epithermal gold and base-metal deposits and large, gold-copper Cadia style porphyry deposits and is pleased to announce a re-focus of exploration efforts for unlocking the potential of its East Lachlan tenement holdings, including increasing the mineral resource of its advanced Lewis Ponds Project. Reinvigoration of the exploration efforts across the tenement package is the key to discovery and represents a transformational stage for the Company and its shareholders.

COMPLIANCE STATEMENT The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Ms Jeneta Owens, a Competent Person who is a Member of the Australian Institute of Geoscientists. Ms Owens is the Managing Director and full-time employee of Godolphin Resources Limited. Ms Owens 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. Ms Owens consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.

Information in this announcement is extracted from reports lodged as market announcements referred to above and available on the Company’s website www.godolphinresources.com.au.

The Company confirms that it is not aware of any new information that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons’ findings are presented have not been materially modified from the original market announcements.

Appendix 1 – JORC Code, 2012 Edition, Table 1 report

Section 1 Sampling Techniques and Data (Criteria in this section applies to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (eg 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 	<p>Sampling method Description</p> <p><u>Petrography – samples were selected based on visual observations of GRL geologists to represent the suite of rock types and alteration styles from the diamond drilling completed previously.</u></p> <p><u>Age Dating – samples were selectively sampled from the intrusive rocks logged by GRL geologists.</u></p> <p><u>Previous Diamond Drilling:</u></p> <ul style="list-style-type: none"> All holes were sampled on a geological interval basis. <ul style="list-style-type: none"> Each interval was geologically logged, and sample intervals determined using geological contacts. Each sample was cut in half, with one half sent for assay analysis and the other stored for future use. Some intervals was scanned with a Niton XRF scanner and the data recorded. <u>NOTE: The XRF scanner does not record gold values and the data collected was not used for reporting purposes,</u> but rather to inform the geologist of potential increase of trace element values. All intervals were logged and recorded in GRL's standard templates and saved in the company database. Data includes: from and to measurements, colour, lithology, magnetic susceptibility, structures etc. Visible mineralisation content was logged as well as alteration and weathering.

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Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details. 	<ul style="list-style-type: none"> Orientated diamond drilling (DD) with NQ core size using a triple tube and hole dip of 60° was used during this drilling program.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. 	<ul style="list-style-type: none"> Drill core recovery was determined by comparing the drilled length of each interval with the physical core in the tray. The drill depth and drill run length data is recorded on the core blocks by the drilling company and checked by GRM geologists. Overall estimated recovery was high.
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The drill core was logged by a GRL Geologist. The log includes detailed datasets for: Lithology, Alteration, Mineralisation, Veins, Structure, Geotechnical logs, magnetic susceptibility and XRF. The data is logged by a qualified geologist and is suitable for use in any future geological modelling, resource estimation, mining and/or metallurgical studies.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	<ul style="list-style-type: none"> Sample intervals were marked by the geologist using the lithology as guide. Sample lengths are not equal, but an average length of 1.5m was obtained for this program. The NQ core was split using a core saw and one half of each sample interval sent for assay analysis. QAQC was employed. A standard, blank or duplicate sample was inserted into the sample stream at regular intervals and also at specific intervals based on the geologists discretion. Standards were quantified industry standards. Sample sizes are appropriate for the nature of mineralisation.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<p>Diamond Drilling:</p> <ul style="list-style-type: none"> All GRL samples were submitted to Bureau Veritas laboratories in Adelaide. The samples were sorted, wet weighed, dried then weighed again. Primary preparation involved crushing and splitting the sample with a riffle splitter where necessary to obtain a sub-fraction which was pulverised in a vibrating pulveriser. All coarse residues have been retained. The samples have been analysed by firing a 50 g (approx) portion of the sample. Lower sample weights may be employed for samples with very high sulphide and metal contents. This is the classical fire assay process and will give total separation of Gold, Platinum and Palladium in the sample. Au, Pd, Pt have been determined by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry. The lab routinely inserts analytical blanks, standards and duplicates into the client sample batches for laboratory QAQC performance monitoring. GRL inserted QAQC samples into the sample stream as mentioned above.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. Documentation of primary data, 	<p>Diamond Drilling</p> <ul style="list-style-type: none"> The lab routinely inserts analytical blanks, standards and duplicates into the client sample batches for laboratory QAQC performance monitoring. GRL inserted QAQC samples as mentioned above



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	<p><i>data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <ul style="list-style-type: none"> Discuss any adjustment to assay data. 	<p>All of the QAQC data has been statistically assessed. GRL has undertaken its own further review of QAQC results of the BV routine standards through a database consultancy, 100% of which returned within acceptable QAQC limits. This fact combined with the fact that the data is demonstrably consistent has meant that the results are considered to be acceptable and suitable for reporting.</p>
Location of data points	<ul style="list-style-type: none"> <i>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.</i> 	<p>Collar Survey</p> <ul style="list-style-type: none"> Collars were surveyed to within 30cm accuracy using a Trimble GPS. <p>Down Hole Survey</p> <ul style="list-style-type: none"> Down hole surveys were conducted using a Boart Longyear down hole camera with readings taken at 30m intervals.
Data spacing and distribution	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <i>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.</i> <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> The exploration on this prospect is in its early stages. Data spacing and orientation requirements are still being determined
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> 	<ul style="list-style-type: none"> NA – These are the first drill holes in this prospect and thus their orientation w.r.t. the mineralization is not known.
Sample security	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> All core was collected and accounted for by GRL employees/consultants during drilling. All logging was done by GRL personel. All samples were bagged into calico bags and transported to the lab using a courier service. The appropriate manifest of sample numbers and a sample submission form containing laboratory instructions were submitted to the laboratory. Any discrepancies between sample submissions and samples received were routinely followed up and accounted for. Samples selected for Petrology and Age dating were selected by GRL personel, placed into calico bags, given a unique ID number and transported via courier service
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> NA



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 style="list-style-type: none"> 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. The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area. 	<p><u>Copper Hill East</u></p> <ul style="list-style-type: none"> Copper Hill East is comprised of tenement EL8556 located approximately 12 Km north-west of the town of Molong and 25 km north of Orange in central NSW. Access to the area is by sealed and gravel roads and a network of farm tracks from the towns of Cumnock, Molong and Orange and has an elevation of between 400m and 600m above sea-level. The exploration rights to the project are owned 100% by the Godolphin Resources through the granted exploration license EL8556. Security of \$19,000 is held by the Department of Planning and Environment in relation to EL8556 																														
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Past exploration has been completed by other parties. GRL may be contacted to obtain a list of past exploration. 																														
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralization. 	<p>Copper Hill East</p> <ul style="list-style-type: none"> Geology <p>The northern portion of the tenure straddles the Molong Volcanic Belt of the Ordovician Macquarie Arc and comprises of the Ordovician rocks of the Fairbridge Volcanics and Oakdale Formation. The units strike north-south and dip and young to the west. The Fairbridge Volcanics represent Phase 2 magmatism of the Macquarie Arc and, in the Molong region, show a well-defined upwards compositional change from medium and high-K calc-alkaline andesitic and basaltic volcanics and lavas at the base, through pillowed high-K calc-alkaline to shoshonitic basalts and basaltic andesites. At the Copper Hill prospect, located just to the south west of Copper Hill East (EL8556), the Fairbridge Volcanics are intruded by the Phase 3 Copper Hill intrusive dacite complex.</p> <p>The southern portion of the tenement is made up of the Late Ordovician Oakdale Formation which occurs towards the west of the tenure. This unit consists of mafic to intermediate, cherty and volcanoclastic siltstones and sandstones, intercalated with lesser lavas, intrusives, volcanoclastic conglomerates of mass flow origin and minor chert and black shale. The sequence is interpreted as being deposited in a relatively deep basin environment. The youngest unit within the tenement is the Devonian Cunningham Formation (Dn) located to the east forming the final phase of infill of the Hill End Trough</p>																														
Drill hole Information	<ul style="list-style-type: none"> 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: 	<table border="1"> <thead> <tr> <th>HoleID</th> <th>Hole_Type</th> <th>Depth</th> <th>Lease ID</th> <th>OrigGridID</th> <th>MGA_East</th> <th>MGA_North</th> <th>MGA_RL</th> <th>Dip</th> <th>MGA_Azi</th> </tr> </thead> <tbody> <tr> <td>CHERC012</td> <td>Diamond tail</td> <td>626.8</td> <td>EL8556</td> <td>MGA94_55</td> <td>675698.3</td> <td>6356804</td> <td>517</td> <td>-60</td> <td>100</td> </tr> <tr> <td>CHERC013</td> <td>Diamond tail</td> <td>594.6</td> <td>EL8556</td> <td>MGA94_55</td> <td>675690.7</td> <td>6356635</td> <td>512.9</td> <td>-60</td> <td>74.9</td> </tr> </tbody> </table>	HoleID	Hole_Type	Depth	Lease ID	OrigGridID	MGA_East	MGA_North	MGA_RL	Dip	MGA_Azi	CHERC012	Diamond tail	626.8	EL8556	MGA94_55	675698.3	6356804	517	-60	100	CHERC013	Diamond tail	594.6	EL8556	MGA94_55	675690.7	6356635	512.9	-60	74.9
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Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. 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. 	<ul style="list-style-type: none"> No grade aggregation, weighting, or cut-off methods were used for this announcement.
Relationship between mineralization widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 	Early stage exploration means that these relationships are unknown.
Diagrams	<ul style="list-style-type: none"> 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. 	Diagrams can be found in the body of the announcement.
Balanced reporting	<ul style="list-style-type: none"> 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 	All results of previous diamond drilling have been reported in a previous ASX release (Refer ASX releases 20 October 2020 & 21 December 2020) NOTE: If more detailed results are required, a request can be made to GRL



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	<i>reporting of Results.</i>	
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"><i>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.</i>	GRL have completed soil geochemical sampling as well as a ground magnetic study and a MIMDAS survey on this prospect
<i>Further work</i>	<ul style="list-style-type: none"><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	<ul style="list-style-type: none">Currently under assessment. Anticipated to include follow-up drilling.