



## ANNUAL GENERAL MEETING

November 15<sup>th</sup> 2022 | ASX:GRL

*A strategic focus on critical minerals and green metals through ongoing exploration and development in central west NSW*

**Rare Earths | Rare Metals | A Rare Opportunity**

## COMPETENT PERSONS STATEMENT JORC INFORMATION

The Presentation has been prepared with reference to public reports made by Ardea Resources Limited (**Ardea**) (ASX:ARL) and Godolphin Resources Limited (Godolphin or Company) (ASX:GRL). Notably, the Presentation includes information relating to the:

1. Yeoval Resource Update, reported by Ardea in ASX announcement 15 August 2019 in accordance with JORC 2012 (Yeoval Resource).
2. Mount Aubrey Resource Update, reported by Ardea in ASX announcement 28 August 2019 in accordance with JORC 2012 (Mount Aubrey Resource).
3. Lewis Ponds Resource Update, reported by Godolphin Resources Ltd in ASX announcement 2 February 2021 in accordance with JORC 2012 (Lewis Ponds Resource).
4. Narraburra - has an existing Mineral Resource Estimate. As announced on 2 March 2022 (ASX: GRL) the MRE was classified as Inferred under JORC (2004) by its previous owner Capital Mining Limited (ASX: CMY) not the Company. This previously reported MRE may not conform to the requirements in the JORC Code 2012. The estimates of Mineral Resources or Ore Reserves are not reported in accordance with the JORC Code 2012; a Competent Person has not done sufficient work to classify the estimates of Mineral Resources or Ore Reserves in accordance with the JORC Code 2012; it is possible that following evaluation and/or further exploration work the currently reported estimates may materially change and hence will need to be reported afresh under and in accordance with the JORC Code 2012; that nothing has come to the attention of GRL that causes it to question the accuracy or reliability of the former owner's estimates; but GRL has not independently validated the former owner's estimates and therefore is not to be regarded as reporting, adopting or endorsing those estimates.

(together, the **Estimates**).

Godolphin confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and that in the case of estimates, the material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

### Godolphin's Reporting of the Estimates

Original estimation reports for the Yeoval, Mount Aubrey, and Lewis Ponds Resources can be viewed on the Ardea (<https://ardearesources.com.au/>) and ASX (<https://www2.asx.com.au/>) web sites. Godolphin will not be entitled to refer to the Yeoval, Mount Aubrey and Lewis Ponds without undertaking a technical assessment of these assets and reporting the assets in a manner consistent with the JORC Code 2012. At present, Godolphin has not completed its own assessment of the reliability of the Estimates and cautions potential investors in Godolphin against relying on the Estimates. Information relating to the work programs used to underpin the Estimates can be obtained in the: Yeoval Resource Update, reported by Ardea in ASX announcement 15 August 2019 in accordance with JORC 2012 (Yeoval Resource); Mount Aubrey Resource Update, reported by Ardea in ASX announcement 28 August 2019 in accordance with JORC 2012 (Mount Aubrey Resource); and Lewis Ponds Resource Update, reported by Ardea in ASX announcement 3 September 2019 in accordance with JORC 2012 (Lewis Ponds Resource). These announcements also contain the key assumptions, mining and processing parameters and methods used to prepare the estimates. Godolphin is not aware of any further material data or information that affects the data contained in the Estimates, save for site geological visits which validated historic reporting. Godolphin proposes to undertake further work on the Estimates. There is a risk that Godolphin may be required to undertake a further work program of pattern drilling prior to Godolphin being able to announce the Estimates in a manner consistent with JORC 2012. A Competent Person on behalf of Godolphin has not done sufficient work to classify the estimates of Mineral Resources or Ore Reserves in accordance with the JORC Code 2012. It is possible that following evaluation and/or further exploration work the currently reported estimates may materially change and hence will need to be reported afresh under and in accordance with the JORC Code 2012 but it is noted that nothing has come to the attention of Godolphin that causes it to question the accuracy or reliability of the former owner's estimates. Godolphin has not independently validated the Estimates and therefore is not to be regarded as reporting, adopting or endorsing the Estimates.

## DISCLAIMER

### CAUTIONARY NOTE REGARDING FORWARD LOOKING INFORMATION

This Australian Securities Exchange (ASX) release contains forward-looking statements and forward-looking information within the meaning of applicable Australian securities laws, which are based on expectations, estimates and projections as of the date of this release.

This forward-looking information includes, or may be based upon, without limitation, estimates, forecasts and statements as to management's expectations with respect to, among other things, the timing and amount of funding required to execute the Company's exploration, development and business plans, capital and exploration expenditures, the effect on the Company of any changes to existing legislation or policy, government regulation of mining operations, the length of time required to obtain permits, certifications and approvals, the success of exploration, development and mining activities, the geology of the Company's properties, environmental risks, the availability of labour, the focus of the Company in the future, demand and market outlook for precious metals and the prices thereof, progress in development of mineral properties, the Company's ability to raise funding privately or on a public market in the future, the Company's future growth, results of operations, performance, and business prospects and opportunities. Wherever possible, words such as "anticipate", "believe", "expect", "intend", "may" and similar expressions have been used to identify such forward-looking information. Forward-looking information is based on the opinions and estimates of management at the date the information is given, and on information available to management at such time. Forward-looking information involves significant risks, uncertainties, assumptions and other factors that could cause actual results, performance or achievements to differ materially from the results discussed or implied in the forward-looking information. These factors including, but not limited to, fluctuations in currency markets, fluctuations in commodity prices, the ability of the Company to access sufficient capital on favourable terms or at all, changes in national and local government legislation, taxation, controls, regulations, political or economic developments in Australia or other countries in which the Company does business or may carry on business in the future, operational or technical difficulties in connection with exploration or development activities, employee relations, the speculative nature of mineral exploration and development, obtaining necessary licenses and permits, diminishing quantities and grades of mineral reserves, contests over title to properties, especially title to undeveloped properties, the inherent risks involved in the exploration and development of mineral properties, the uncertainties involved in interpreting drill results and other geological data, environmental hazards, industrial accidents, unusual or unexpected formations, pressures, cave-ins and flooding, limitations of insurance coverage and the possibility of project cost overruns or unanticipated costs and expenses, and should be considered carefully. Many of these uncertainties and contingencies can affect the Company's actual results and could cause actual results to differ materially from those expressed or implied in any forward-looking statements made by, or on behalf of, the Company. Prospective investors should not place undue reliance on any forward-looking information.

Although the forward-looking information contained in this news release is based upon what management believes, or believed at the time, to be reasonable assumptions, the Company cannot assure prospective purchasers that actual results will be consistent with such forward-looking information, as there may be other factors that cause results not to be as anticipated, estimated or intended, and neither the Company nor any other person assumes responsibility for the accuracy and completeness of any such forward-looking information. The Company does not undertake, and assumes no obligation, to update or revise any such forward-looking statements or forward-looking information contained herein to reflect new events or circumstances, except as may be required by law.

**No securities exchange, regulation services provider, securities commission or other regulatory authority has approved or disapproved the information contained in this release.**

Information in this presentation is extracted from reports lodged as market announcements referred to and available on the Company's website [www.godolphinresources.com.au](http://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.

# Investment highlights



Focused on **the development of projects containing critical minerals and green metals** across an established tenement suite in central west NSW



**1,397.m of diamond drill core completed at Narraburra Rare Earth project** for resource definition to upgrade resource to 2012 JORC



Farm-in agreement secured for the **Narraburra Rare Earth Element (REE) project**, located in central west NSW (340km west of Sydney)



**Numerous copper and gold projects** across tenement package provide optionality and additional upside - Current resources inventory of **519koz gold**



Pursuing a **multi-discovery strategy** with a pipeline of near-term rare earth, copper and gold projects with low capital entry costs and significant potential upside



Underpinned by an experienced technical team with **intimate area knowledge and a track record** of project development



**Active exploration programs** across the company's tenements ensures ongoing positive news flows in the short and long term



**Well funded** with \$3.72m at bank to progress a strategic and targeted exploration program



Stock Image of REE powders



Vein hosted Chalcopyrite (Copper) magnetite and chlorite mineralisation from GYDD001 –

1m @ 1.5% Cu, 8.0g/t Ag & 0.1g/t Au from 124m, Cyclops prospect , Yeoval

## Snapshot

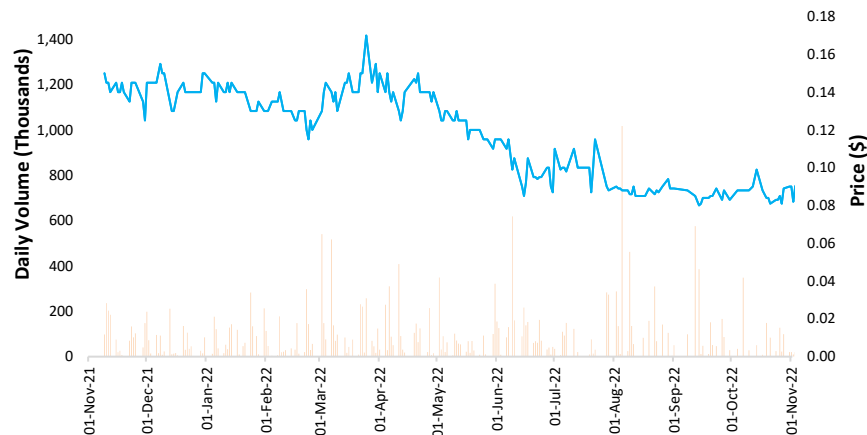
<b>Shares on issue</b>	118,37m
<b>Market capitalisation</b> (at \$0.09 per share - 8 Nov 2022)	\$10.65m
<b>Options on issue</b>	23.0m
<b>52 week high low-high</b>	\$0.08 - \$0.17
<b>Debt</b>	Nil
<b>Cash at bank</b> (At 30 September 2022)	~\$3.72

Major shareholders	% held
<b>Brian O'Shannassy &amp; Associates</b>	9.13%
<b>Ian Buchhorn &amp; Associates</b>	7.20%
<b>Orange Minerals NL</b>	5.96%
<b>HSBC Custody Nominees (Australia) Ltd</b>	3.74%
<b>Mr Matthew Francis Tori</b>	3.25%
<b>Top 20</b>	<b>46.81%</b>

## Board of Directors

<b>Non-Executive Chairman</b>	Mr Jeremy Read
<b>Managing Director</b>	Ms Jeneta Owens
<b>Non-Executive Director</b>	Mr Ian Buchhorn
<b>Non-Executive Director</b>	Mr Doug Menzies

## Price and volume (Year to date)



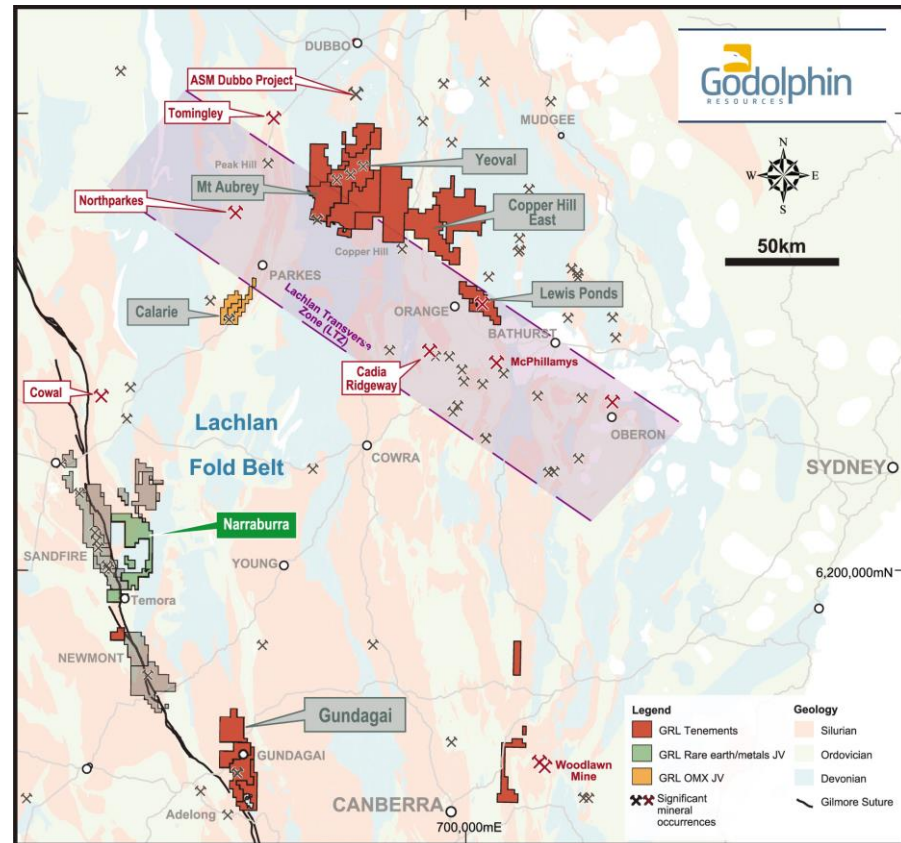
## NSW's Lachlan Fold Belt is a world-class mining precinct:

- GRL has one of the largest exploration landholdings in the LFB with **over 3,400km<sup>2</sup>** of highly prospective tenure
- Historic mining precinct - multiple new discoveries highlight LFB is **elephant country**
- Earn-in agreement for Narraburra provides significant optionality and opportunity

## Key projects:

- **Narraburra** – Rare earth elements
- **Yeoval** – Copper and gold
- **Lewis Ponds** – Copper, zinc and gold
- **Copper Hill East** – Copper and gold
- **Gundagai North & South** – Gold

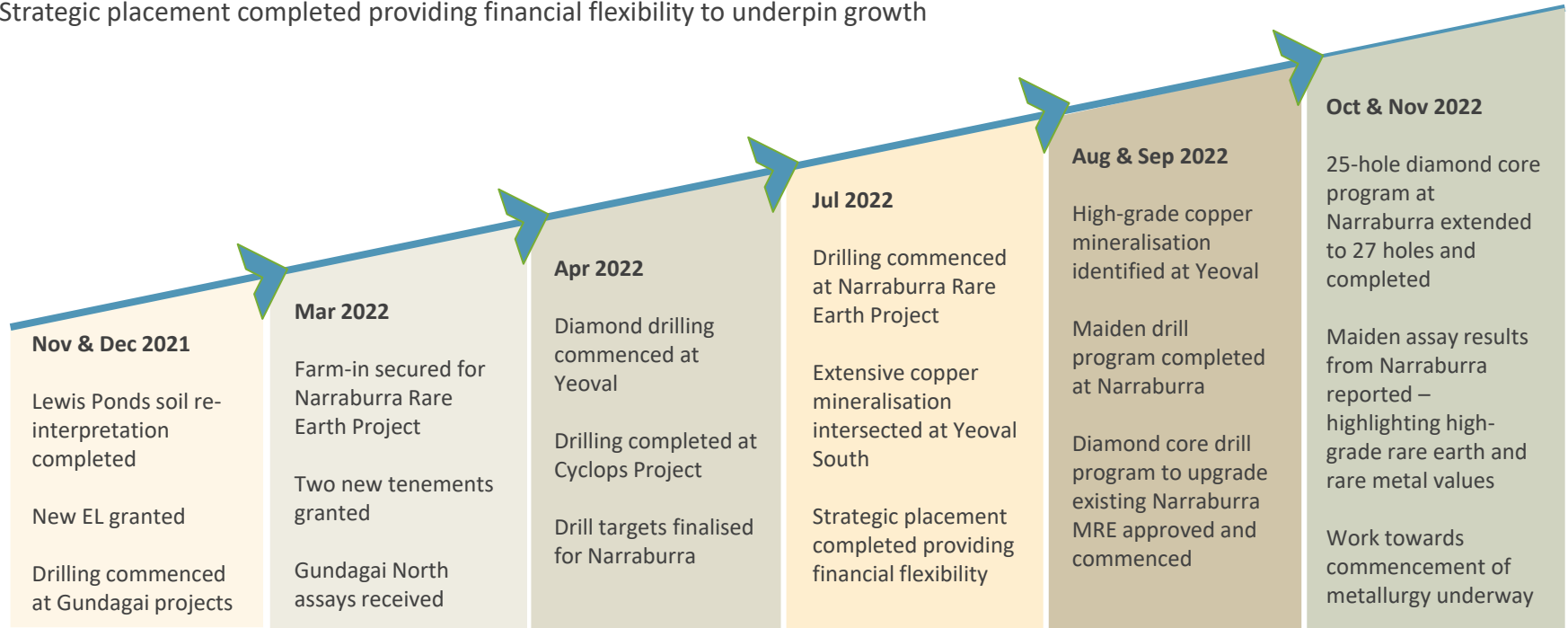
**Active work programs across Narraburra and the copper & gold tenements with considerable news flow pending**



# Significant progress in recent months

Considerable progress has been achieved in during 2022:

- Farm-in agreement secured for highly prospective rare-earth project with additional gold tenement secured
- Multiple work programs completed across project suite underpinning ‘multi- discovery strategy’
- Strategic placement completed providing financial flexibility to underpin growth



**The supply of critical green energy minerals is essential for clean energy technologies and needs to rapidly increase over the coming decades in order to meet the world's climate goals**

- **Net-zero economy transition will be mineral intensive**, requiring specific metals found in GRL's tenements: copper, zinc and REEs
- Current copper production is not **enough to supply the growing demand of ~30 Mt per annum by 2030**
- Rare earth elements (REE) **growth in strategic importance has coincided with rapid advancements in technologies** across several key industries:



**Automotive** – batteries for electric vehicles



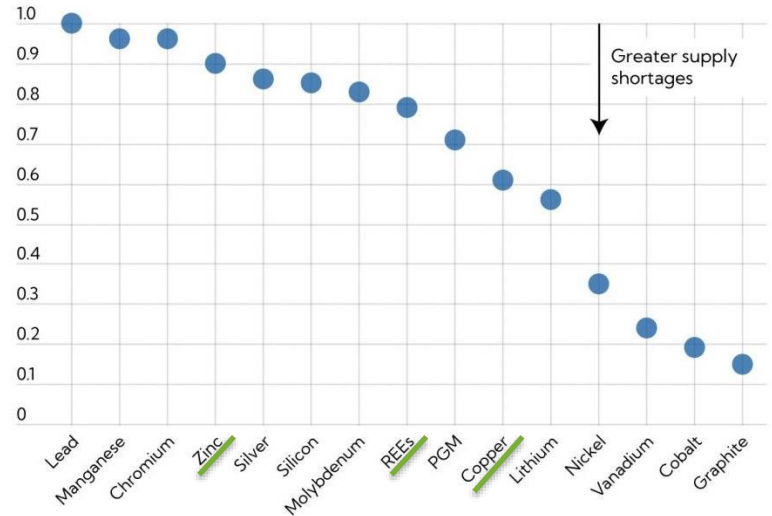
**Clean energy and pollution control**



**Medical, industrial and strategic applications** – unique catalytic, metallurgical, nuclear, electrical, magnetic and luminescent properties

## Metals in a net-zero scenario

Current production rates of some important metals, including copper, are likely to be inadequate to satisfy future demand. (supply/demand ratio, energy and non-energy demand coverage)



# Narraburra Rare Earth Element (REE) Project

- Agreement to earn up to a 75% interest in the project via a farm-in with private exploration company, EX9 Pty Ltd
- **Identified as one of Australia's largest zirconium, REE and rare metal resources** – also prospective for significant amounts of lithium
- Project sits in a well known mining region with access to extensive infrastructure
- Significant **discovery potential** as the project remains open in all directions and at depth – most recent diamond drilling tested potential for bedrock mineralisation – awaiting assay results
- Project mineralisation shown to host **REEs** that will be used across several **high-demand and rapid growth sectors**
- The mineralisation includes significant quantities of:

**Zirconium:** Commonly used in the glass and ceramics industry

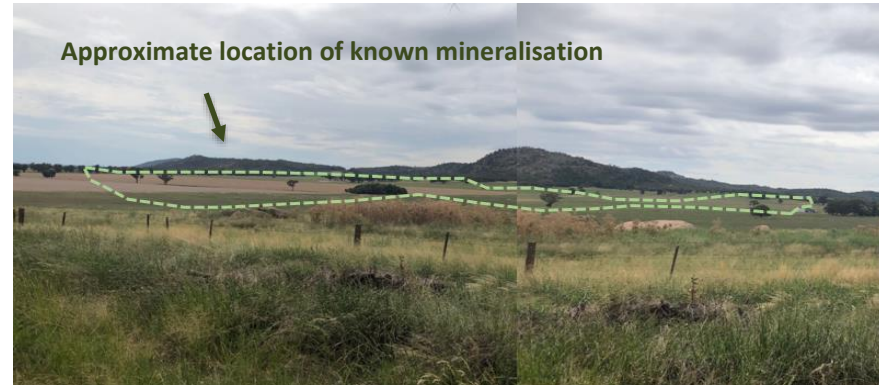
**Yttrium:** Metal alloys, microwave filters, oxygen sensors, LEDs and cutting lasers

**Niobium:** Jet engines and rockets, tools and superconductive magnets

**Hafnium:** Used in control rods for nuclear power and plasma welding torches

**Gallium:** Electronics, semiconductors, transistors, small electronic devices, LEDs

**Lithium:** Glasses, ceramics, pharmaceuticals, and and batteries

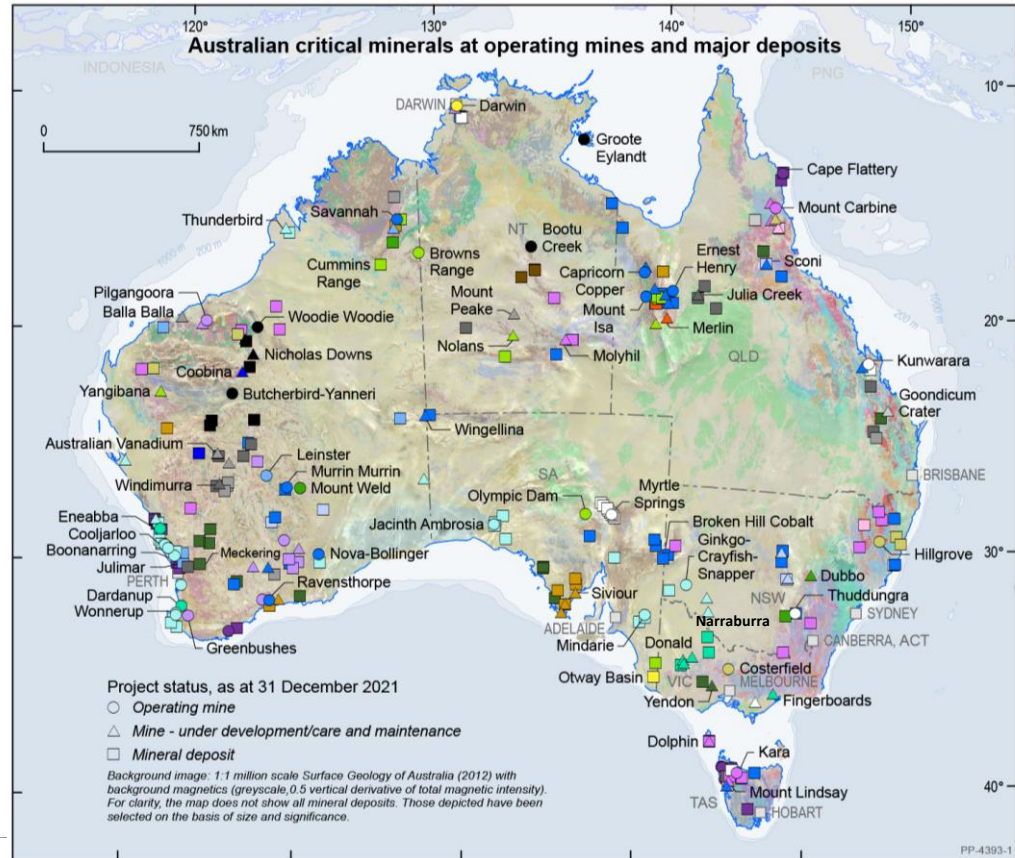




# Narraburra Rare Earth (REE) Project

- Identified by the **Australian Government Department of Industry, Science and Resources** in the **Australia's 2022 Critical Minerals Strategy\***, as a major deposit of REE
- Previously identified **Lithium** and **Gallium** mineralisation at the project
- Narraburra is listed as a **critical minerals** project by the Australian Government's Australia Trade and Investment Commission#

Commodity type	
● Aluminium (HPA)	● Manganese ore
● Antimony	● Heavy Mineral Sands (HMS) - Titanium, Zirconium
● Bismuth, +/- Cobalt, +/- Indium	● HMS - Titanium, Zirconium, REE
● Chromium, +/- Cobalt, +/- PGE	● Rare Earth Elements (REE)
● Cobalt	● REE, Zirconium, Niobium, +/- Hafnium, Lithium, Tantalum, Gallium
● Platinum Group Elements (PGE), +/- Cobalt	● Rhenium
● Scandium, +/- Cobalt, +/- PGE	● Silicon
● Graphite	● Tungsten
● Helium	● Titanium
● Indium	● Titanium, Vanadium
● Lithium, +/- Tantalum, +/- Niobium	● Vanadium
○ Magnesium	

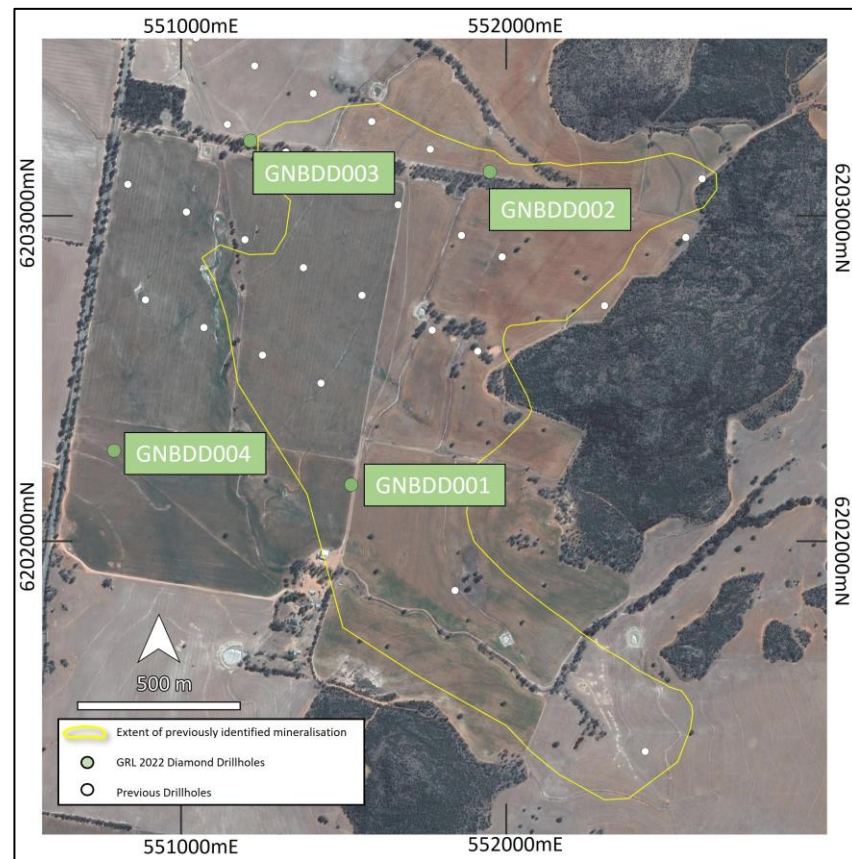


\*<https://www.industry.gov.au/data-and-publications/2022-critical-minerals-strategy>

# [https://www.austrade.gov.au/ArticleDocuments/5572/Critical\\_Minerals\\_Projects\\_in\\_Australia.pdf.aspx](https://www.austrade.gov.au/ArticleDocuments/5572/Critical_Minerals_Projects_in_Australia.pdf.aspx)

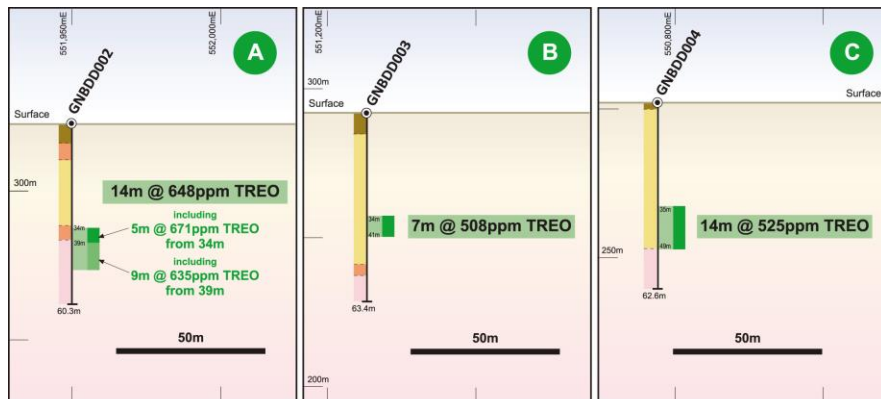
# Narraburra: Phase 1 Diamond Drilling Program

- **4 hole diamond drill (DD) program completed in August 2022**
- **pXRF measurements taken at the drill site, indicate REE & RM mineralisation present:** using indicator minerals – awaiting assay results
- **Historical data has been reviewed** to progress a systematic resource drill-out prior to JORC 2012 mineral resources estimate upgrade



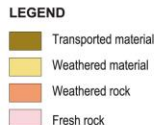
# Narraburra: Phase 1. Diamond Drilling Results

- **4 hole diamond drill (DD) program completed in August 2022**
- Broad intersections of **Rare Earth (REE) and Rare Metal (RM) mineralisation intersected in four diamond drillholes in both weathered surficial material and in underlying fresh rock material**
- Assay results confirm the previously identified REE/RM mineralisation and **suggest a large REE/RM system at Narraburra**

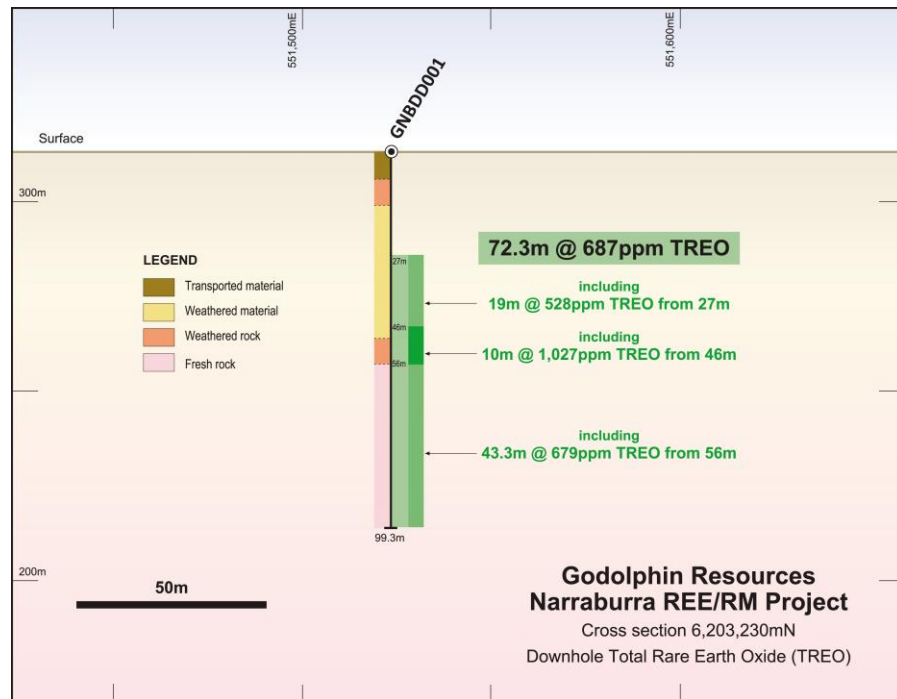


**Godolphin Resources  
Narraburra REE/RM Project**

Downhole Total Rare Earth Oxide (TREO)



Cross section A: 6,203,135mN  
 Cross section B: 6,203,230mN  
 Cross section C: 6,202,280mN



**Godolphin Resources  
Narraburra REE/RM Project**

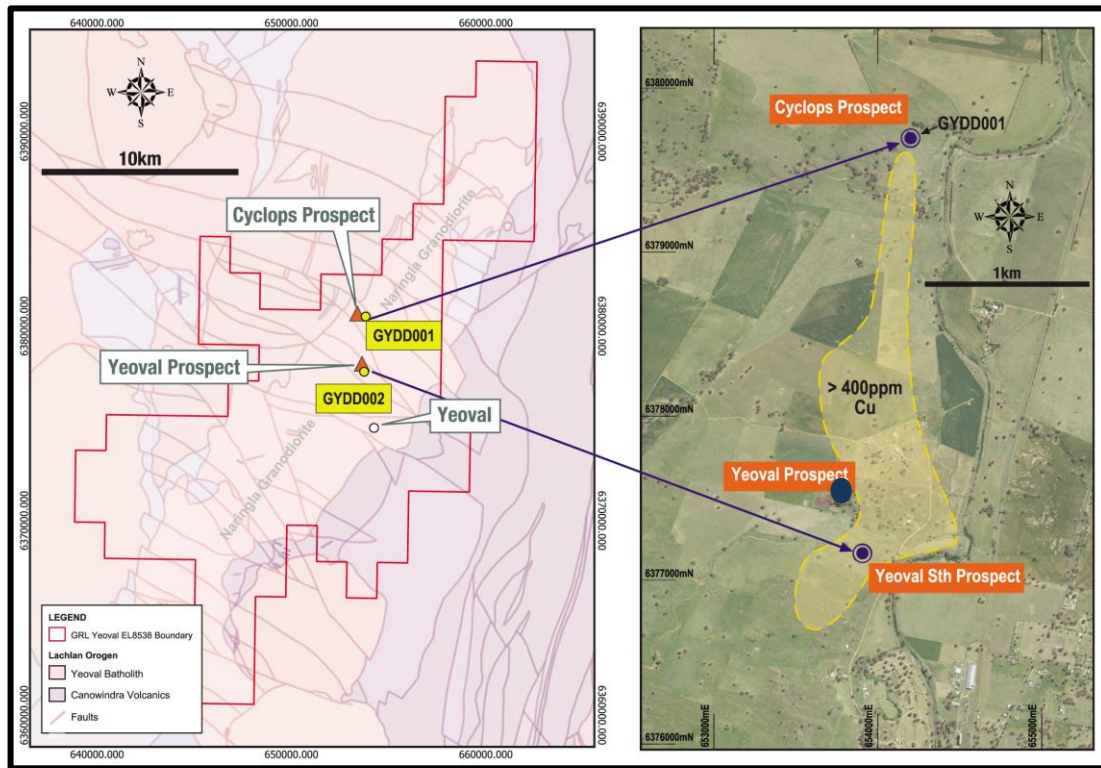
Cross section 6,203,230mN  
 Downhole Total Rare Earth Oxide (TREO)

- 27 hole diamond drill (DD) program completed in October 2022, 1111.5m in total
- All drill cores sampled and with the lab, awaiting assays – expected Q4 2022
- Updated JORC 2012 Resource by Q1 2023

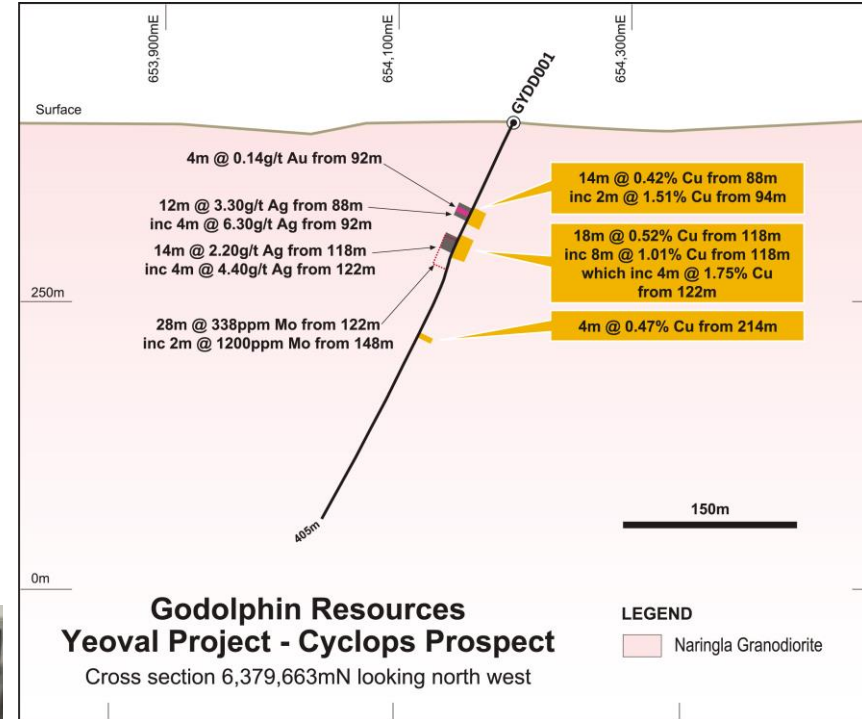


Photo: (A) Weathered clay-rich material from GNBD001 at a depth of 40.2m; (B) Weathered rock from GNBD001 at a depth of 51.4m; (C) granite rock from GNBD001 at a depth of 99m.  
**N.B. Rare Earth Oxides and Rare Metals are not visible to the naked eye**

- Existing JORC 2012 Mineral Resource Estimate of **\*12.8 Mt at 0.38% copper, 0.14 g/t gold, 2.2 g/t silver & 120 ppm molybdenum**
- Yeoval Project (EL8538) covers ~290km<sup>2</sup>, with over **60 historic copper-gold mine workings along 20km strike length**
- Recent diamond at Yeoval and Cyclops prospects
- Typical porphyry Cu-Au style mineralisation at Yeoval with disseminated and vein-hosted chalcopyrite, molybdenite and bornite**
- Cyclops Prospect hosts **significant copper potential**
- Multiple follow-up exploration activities in plan



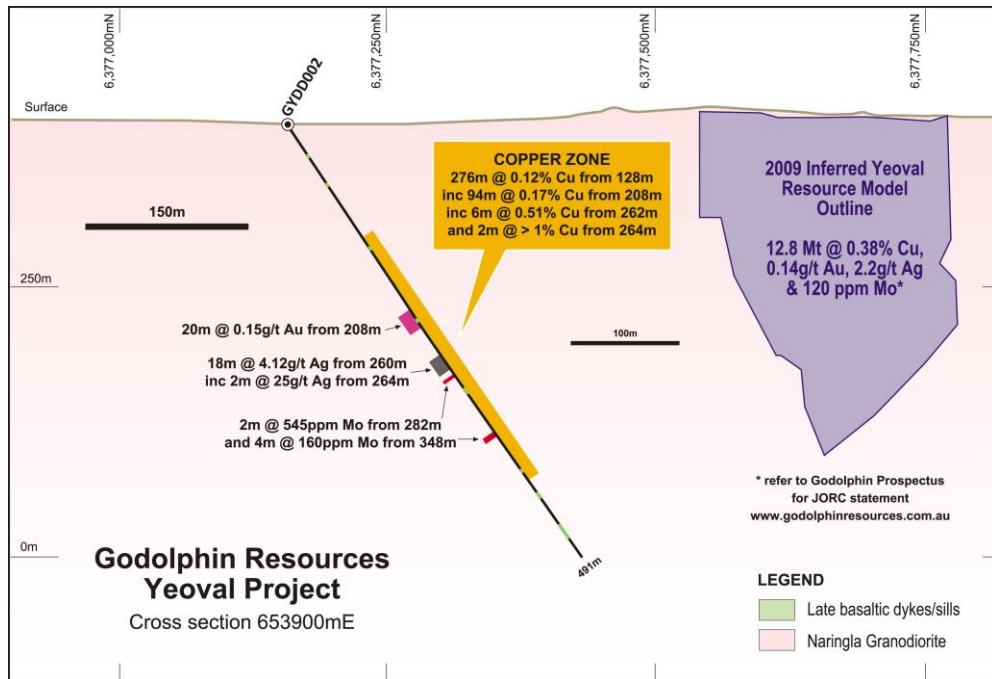
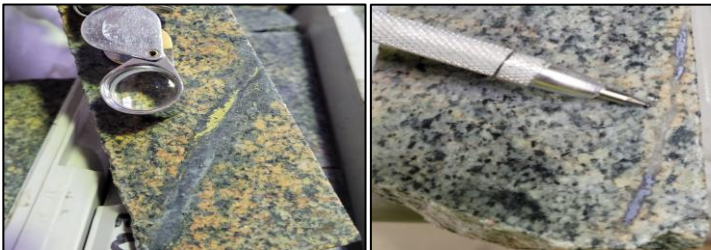
- Diamond drillhole GYDD001 from **Cyclops Prospect** returned **multiple zones of high-grade copper mineralisation** with coincident gold, silver and molybdenum
- Copper mineralisation at Cyclops occurs as chalcopyrite ± bornite within chlorite-magnetite-epidote-quartz altered lodes associated with north-west striking shear zones
- **Surface mapping** in 2022 identified multiple historic workings and shear zones at Cyclops
- **Recent soil sampling program**, targeting strike extensions to the Cyclops Prospect, identified **anomalous copper west** of GYDD001
- Mineralisation remains **open along strike**, plus **up and down dip**
- Ground-based magnetic survey to inform follow-up RC drill designs



Vein hosted Chalcopyrite (Copper) magnetite and chlorite mineralisation from GYDD001 –

1m @ 1.5% Cu, 8.0g/t Ag & 0.1g/t Au from 124m, Cyclops prospect, Yeoval

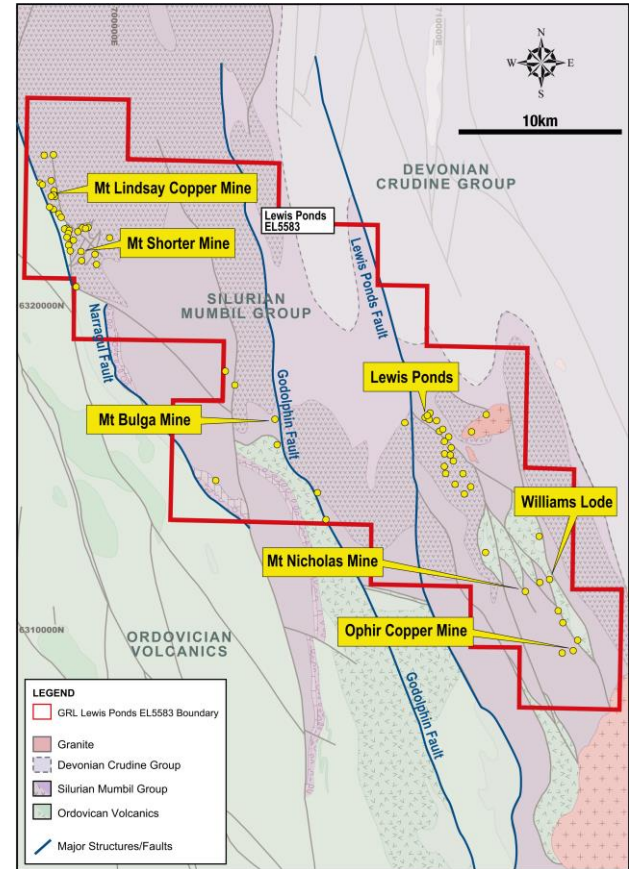
- GYDD002 copper intersection – **276m @ 0.12% Cu** from 128m, including:
  - 94m @ 0.18% Cu** from 208m and
  - 10m @ 0.56% Cu** from 260m and
  - 2m @ 1.8% Cu** from 264m
- GYDD002 was drilled ~350m to the south of existing Mineral Resource Estimate**
- The drill hole intersected **multiple zones** of narrow stringer quartz-magnetite veins containing **chalcopyrite and bornite** mineralisation and broad zones of **disseminated chalcopyrite** mineralisation throughout the host granodiorite



Vein hosted chalcopyrite (left) and molybdenum (right) mineralisation with albite-sericite-chlorite vein halo alteration in GYDD002

# Lewis Ponds – gold, copper, silver and zinc

- **JORC 2012 Resource\***: 6.20 Mt at 2.0g/t gold, 80g/t silver, 2.7% zinc, 1.6% lead and 0.2% copper
- Resource is part of a larger mineral system extending over 9km SE with extensive gold, copper and base metal workings
- Located 20km along a broad structural zone from McPhillamys 2.3m oz gold deposit<sup>#</sup> and surrounded by historical prospects - Mt Shorter, Mt Lindsay, Ophir and Caleula
- 2020 review highlighted Lewis Ponds is a gold and silver resource with base metal credits (Zinc, Copper & Lead) with potential mineralisation spread both east, west and north
- Lewis Ponds metal zonation, gold rich in the north and copper rich in the south



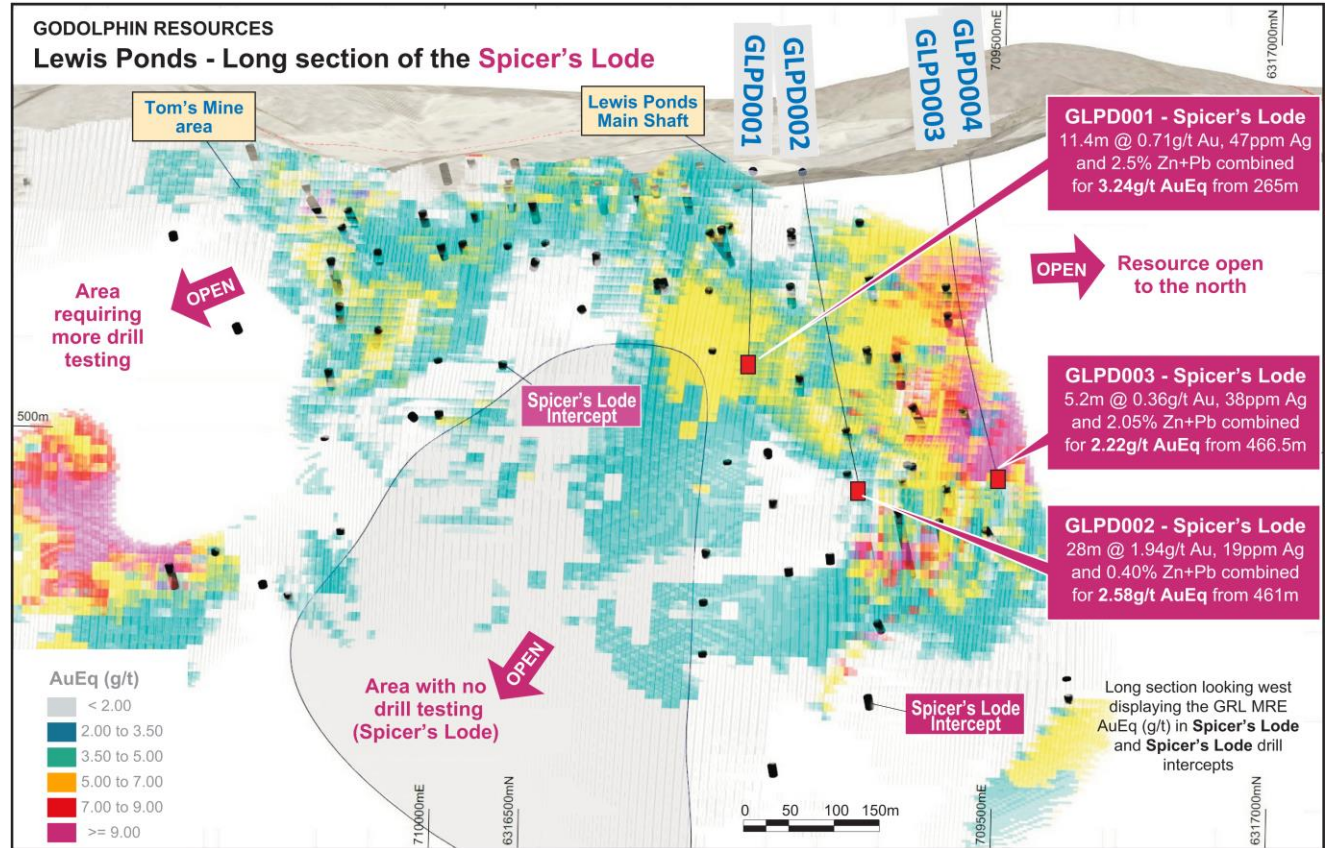
\*Lewis Ponds Resource Update, reported by Godolphin Resources Ltd in ASX announcement 2 February 2021

<sup>#</sup> Regis Resources Ltd 2019 Annual Report. ASX: RRL announced 24 October 2019.



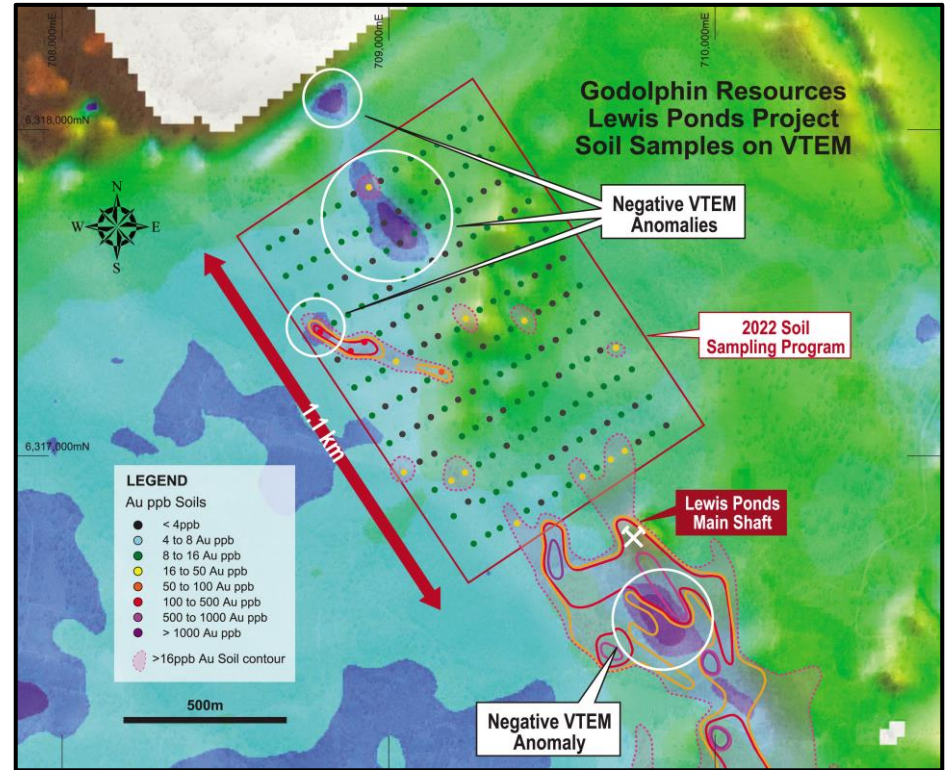
# Increasing the Lewis Ponds opportunity

- **Spicers Lode open to the north – no drilling**
- Large gaps within the resource – infill drilling
- Untested Downhole EM off hole conductors – not tested
- Lewis Ponds Copper rich south – no modern follow-up
- Re-interpretation of soil geochemical data confirms significant gold and multi-element anomalism similar to the nearby two-million-ounce McPhillamys Gold Deposit



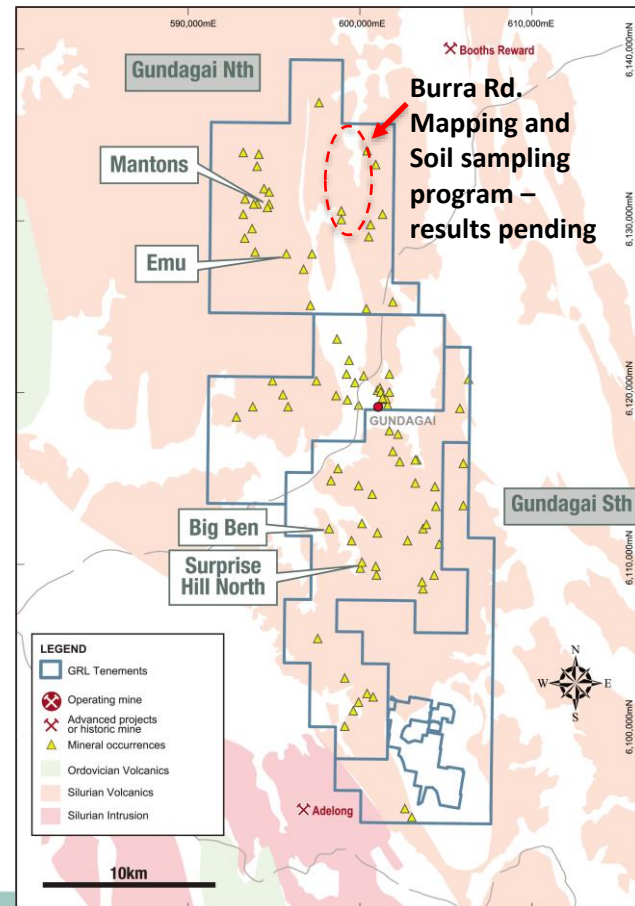
## Increasing the Lewis Ponds opportunity

- Results from an orientated **soil survey north** of known mineralisation at Lewis Ponds identified areas of **elevated gold in soils, co-incident with VTEM anomalies** with a similar signature to the main mineralised lodes at Lewis Ponds – direct drill targets
- A **downhole** electromagnetic survey at Lewis Ponds identified **three off hole conductors** providing drill targets with the potential to extend the currently defined Mineral Resource – drill targets
- An additional mineralised lens, the **Quarry Lode** is NW of the MRE, drilling in 2021 has confirmed mineralisation including gold and has been intersected at depth in previous drilling, upper levels and northern extent untested.
- Testing highlights significant potential for McPhillamys style gold deposit

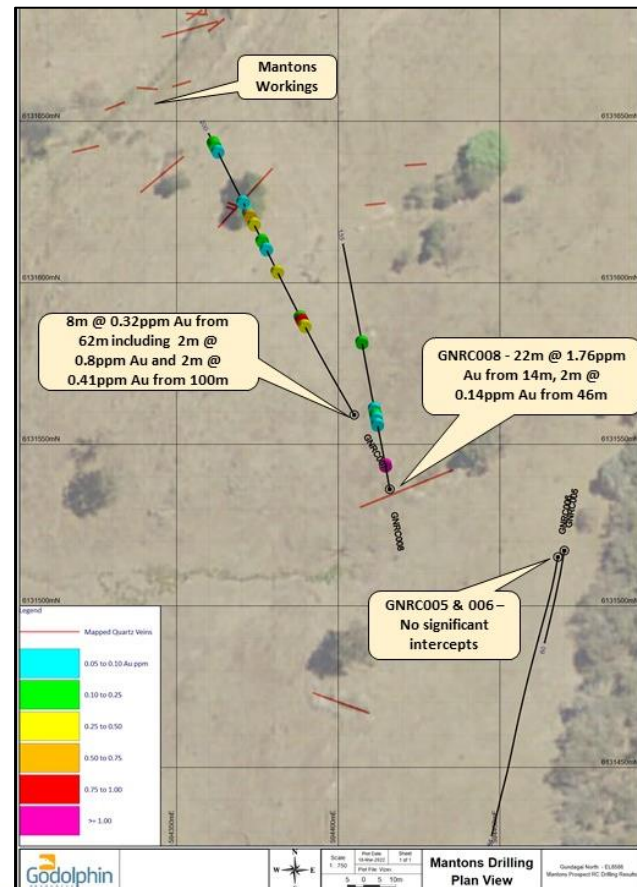


# Gundagai North and South gold project

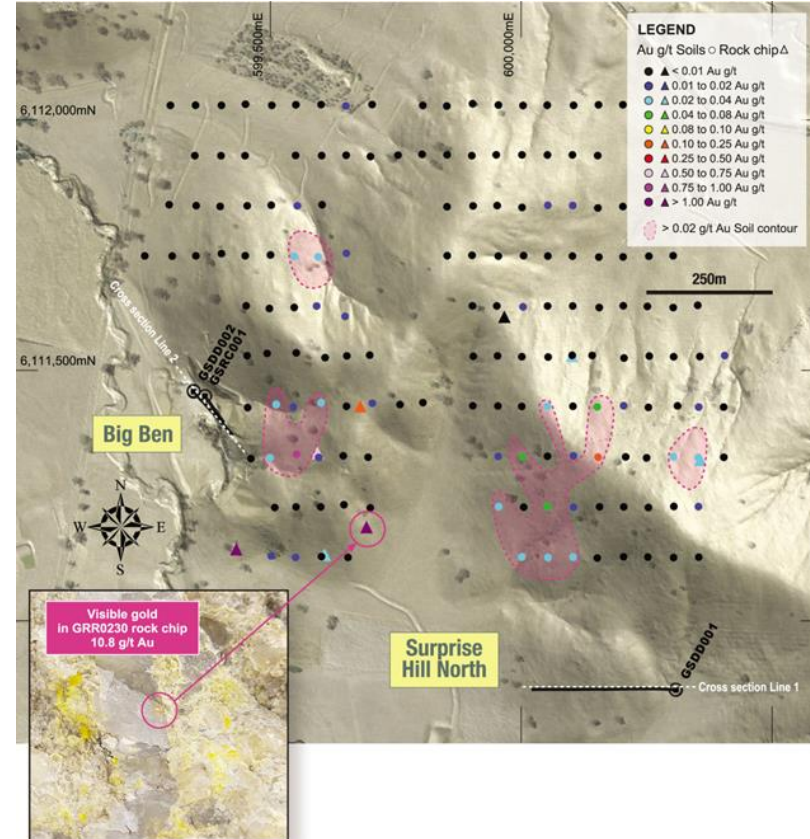
- Historical gold mining area with substantial historical workings
- Extensive soils, rock chip and mapping program taking place on Gundagai North tenement along untested historic workings and favorable geology
- **1,139m of RC drilling** completed across Gundagai North and Gundagai South prospects targeting historic workings and mapped veins – assay results are pending
- **698m of diamond drilling** at Gundagai South, Big Ben and Surprise Hill North Prospects targeting mapped mineralised porphyry units and mineralised veins



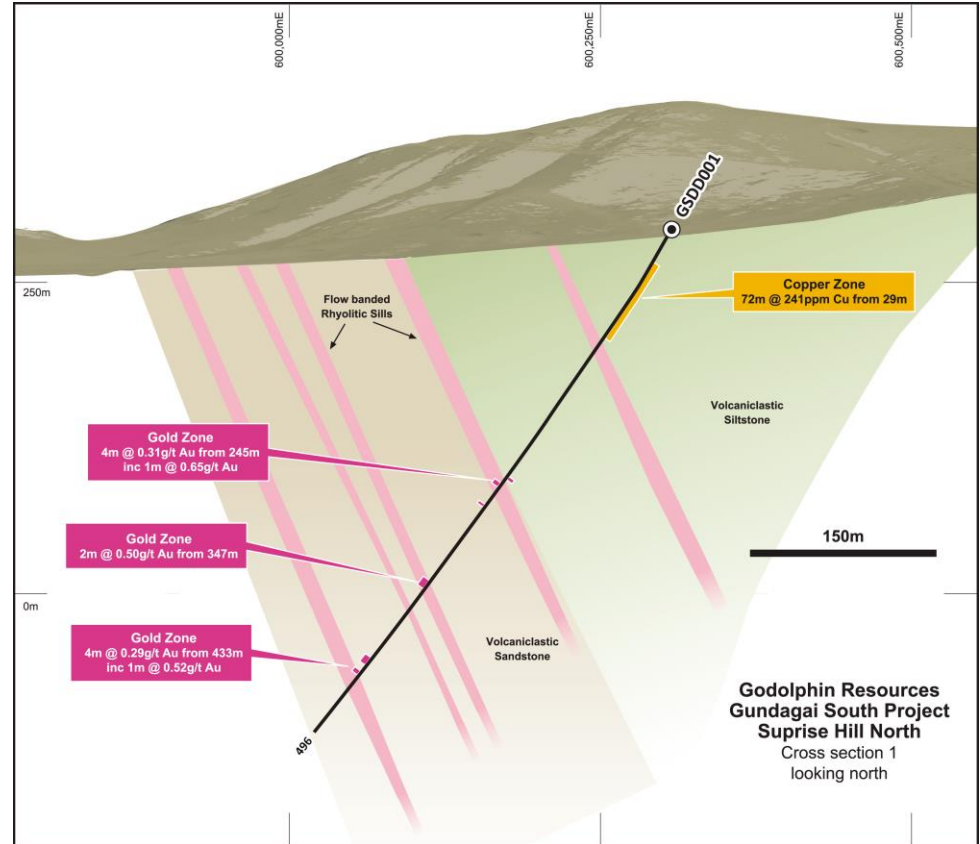
- Results from the seven-hole reverse circulation (RC) program at Emu and Manton's Prospects, Gundagai North returned highly anomalous gold values confirming narrow intervals of gold mineralisation at both Emu and Manton's Prospects
- **Drilling highlights include:**
  - **GNRC002 – 14m @ 0.10g/t Au from 18m including 2m @ 0.5g/t Au**
  - **GNRC003 – 2m @ 0.14g/t Au 80m and 2m @ 0.16g/t from 104m**
  - **GNRC007 – 8m @ 0.32g/t Au from 62m including 2m @ 0.8g/t Au and 2m @ 0.41g/t Au from 100m**
  - **GNRC008 – 2m @ 1.76g/t Au from 14m, 2m @ 0.14g/t Au from 46m**
- Gold mineralisation at both prospects within siliceous dacite to rhyodacite volcanics containing narrow veins or “quartz leaders” containing coarse pyrite and silica-sericite-chlorite alteration.
- Ongoing regional exploration at Gundagai North included soil sampling, rock chipping and mapping at the nearby Burra and Oaks Mine Prospect areas – results being assessed trace-element geochemistry



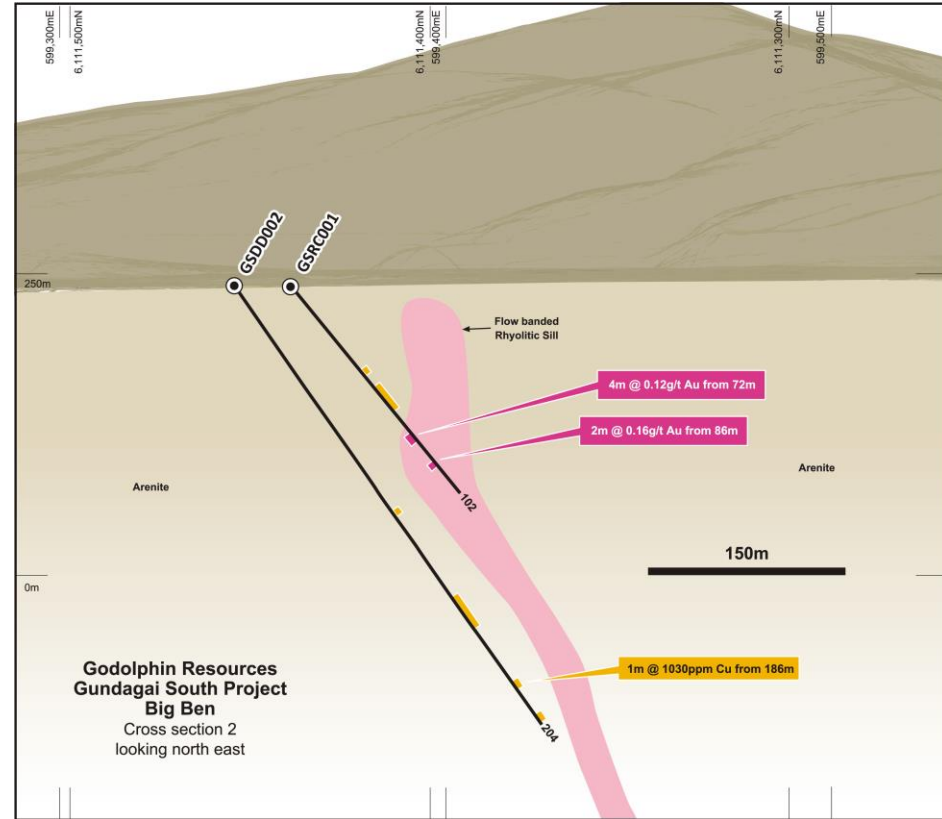
- Soil and rock chip sampling program, designed to complement drilling, extend existing surface geochemistry and to assist in identifying potential future drill targets in the Big Ben and Surprise Hill North areas.
- Results showed high-grade gold (<10.8g/t) occurs within quartz veined rhyolitic rock units and broad zones of anomalous gold in soils (>0.02g/t) occurs across both prospect areas.
- **High grade rock chip assays returned:**
  - **GRR0230 - 10.8g/t Au**
  - **GRR0231 – 1.28g/t Au**
- Soil sampling program identified the continuation of broad gold mineralisation enhancing exploration potential across the prospect area



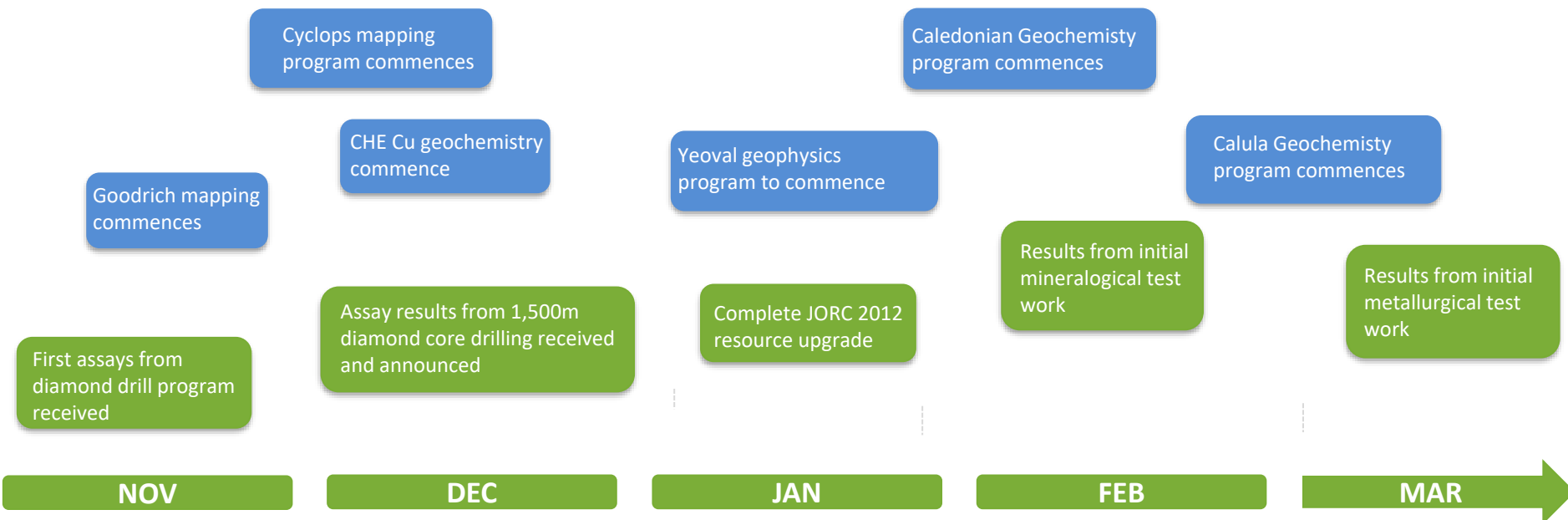
- One diamond drill hole completed at Surprise Hill North (496m).
- Drill results include:
  - **GSSD001 – 4m @ 0.31g/t Au from 245m including 1m @ 0.65g/t Au;**
    - 2m @ 0.35g/t Au from 342m;
    - 2m @ 0.50g/t Au from 347m;
    - 4m @ 0.17g/t Au from 418m;
    - 4m @ 0.29g/t Au from 433m including 1m @ 0.52g/t Au;
  - **72m @ 241ppm Cu from 29m including 1m @ 551ppm Cu.**



- **One RC hole for 102m** – finished in prospective lithology
- **One diamond 204m** – did not intersect prospective lithology
  - **GSRC001** – 4m @ 0.12g/t Au from 72m
    - **2m @ 0.16g/t Au from 86m**
- Diamond hole GSDD002 was drilled underneath the RC hole and returned low gold values but intercepted two zones of highly anomalous copper



## Near term multi-discovery exploration program



An active exploration program is set to unlock multiple value catalysts

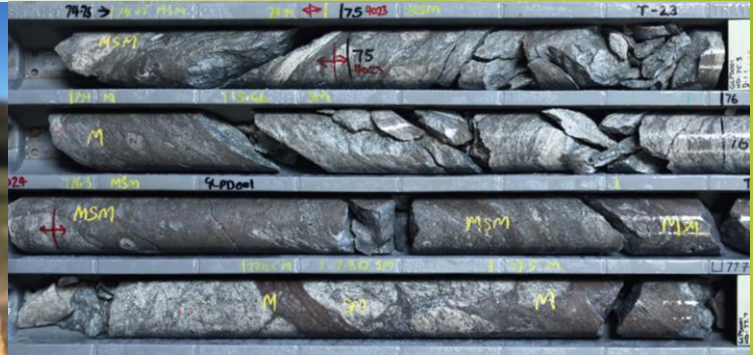
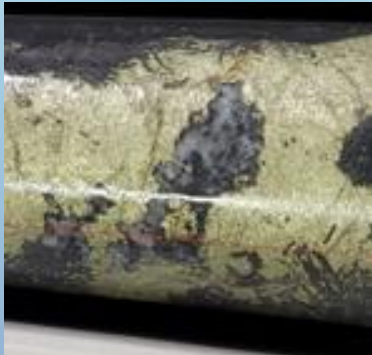




[godolphinresources.com.au](http://godolphinresources.com.au)

Unit 13, 11-19 Williams Street  
Orange, NSW, 2800  
Australia

Jeneta Owens – Managing Director  
[jowens@godolphinresources.com.au](mailto:jowens@godolphinresources.com.au)  
+61 417 344 658



### GRL has entered into a two-tranche farm-in and joint venture agreement with private exploration company, EX9 Pty Ltd, to earn-up to a 75% interest in the Narraburra project

#### First tranche (51% ownership):

- GRL must contribute \$1m in expenditure towards the project within two years
- Subject to members' approval, Godolphin would issue \$1m in new fully paid ordinary shares calculated at a 30-day VWAP prior to the date of issue
- Shares would be subject to a 12-month escrow period

#### Second tranche (75% ownership):

- GRL to contribute an additional \$2m within four years in exploration and development expenditure
- Subject to members' approval, Godolphin would issue a further issue \$1m in new fully paid ordinary shares calculated at a 30-day VWAP prior to the date of issue



# Appendix 2: What are Rare Earths

- Rare earths are 17 elements that share similar properties and are usually found together in geological deposits
- They require advanced metallurgical processing to recover and separate
- The most abundant are light rare earths, lanthanum, cerium and neodymium, praseodymium and samarium; ~85-90% of all rare earth resources
- Heavy rare earth elements make up the balance and are significantly less abundant
- HREE - Comprise europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, lutetium and yttrium
- Lanthanum, cerium and some of the other elements are widely used in applications such as catalysts, metallurgy, polishing, glass and ceramics

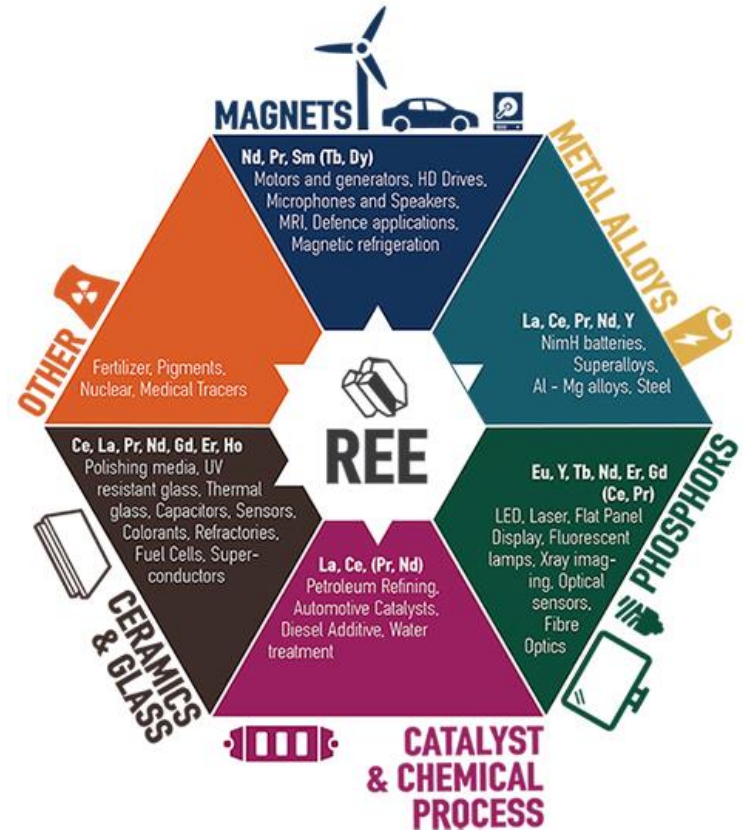
Light rare earths  
Heavy rare earths  
Rare metals

1 H Hydrogen 1.008																	2 He Helium 4.002602	
3 Li Lithium 6.94	4 Be Beryllium 9.012182											5 B Boron 10.81	6 C Carbon 12.011	7 N Nitrogen 14.007	8 O Oxygen 15.999	9 F Fluorine 18.99840323	10 Ne Neon 20.1797	
11 Na Sodium 22.98976928	12 Mg Magnesium 24.305											13 Al Aluminium 26.9815385	14 Si Silicon 28.085	15 P Phosphorus 30.973761998	16 S Sulfur 32.06	17 Cl Chlorine 35.45	18 Ar Argon 39.948	
19 K Potassium 39.0983	20 Ca Calcium 40.078	21 Sc Scandium 44.955908	22 Ti Titanium 47.867	23 V Vanadium 50.9415	24 Cr Chromium 51.9961	25 Mn Manganese 54.938044	26 Fe Iron 55.845	27 Co Cobalt 58.933194	28 Ni Nickel 58.6934	29 Cu Copper 63.546	30 Zn Zinc 65.38	31 Ga Gallium 69.723	32 Ge Germanium 72.630	33 As Arsenic 74.921595	34 Se Selenium 78.971	35 Br Bromine 79.904	36 Kr Krypton 83.798	
37 Rb Rubidium 85.4678	38 Sr Strontium 87.62	39 Y Yttrium 88.90584	40 Zr Zirconium 91.224	41 Nb Niobium 92.90638	42 Mo Molybdenum 95.95	43 Tc Technetium (98)	44 Ru Ruthenium 101.07	45 Rh Rhodium 102.90550	46 Pd Palladium 106.42	47 Ag Silver 107.8682	48 Cd Cadmium 112.414	49 In Indium 114.818	50 Sn Tin 118.710	51 Sb Antimony 121.757	52 Te Tellurium 127.60	53 I Iodine 126.90447	54 Xe Xenon 131.29	
55 Cs Cesium 132.90545196	56 Ba Barium 137.327	57 - 71 Lanthanoids		72 Hf Hafnium 178.49	73 Ta Tantalum 180.94788	74 W Tungsten 183.84	75 Re Rhenium 186.207	76 Os Osmium 190.23	77 Ir Iridium 192.227	78 Pt Platinum 195.084	79 Au Gold 196.966569	80 Hg Mercury 200.592	81 Tl Thallium 204.38	82 Pb Lead 207.2	83 Bi Bismuth 208.98040	84 Po Polonium (209)	85 At Astatine (210)	86 Rn Radon (222)
87 Fr Francium (223)	88 Ra Radium (226)	89 - 103 Actinoids		104 Rf Rutherfordium (261)	105 Db Dubnium (268)	106 Sg Seaborgium (266)	107 Bh Bohrium (270)	108 Hs Hassium (285)	109 Mt Meitnerium (276)	110 Ds Darmstadtium (281)	111 Rg Roentgenium (282)	112 Cn Copernicium (285)	113 Nh Nihonium (286)	114 Fl Flerovium (289)	115 Mc Moscovium (288)	116 Lv Livermorium (293)	117 Ts Tennessine (294)	118 Og Oganesson (294)

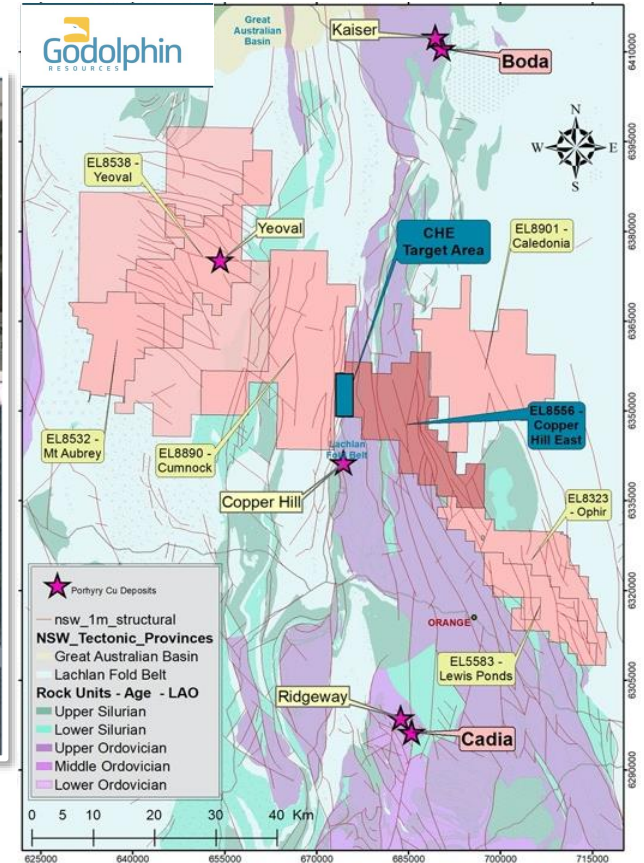
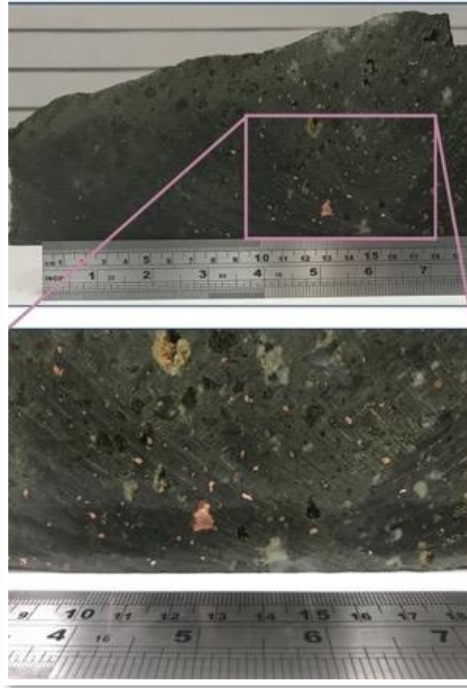
57 La Lanthanum 138.90547	58 Ce Cerium 140.12	59 Pr Praseodymium 140.90768	60 Nd Neodymium 144.242	61 Pm Promethium (145)	62 Sm Samarium 150.36	63 Eu Europium 151.964	64 Gd Gadolinium 157.25	65 Tb Terbium 158.92535	66 Dy Dysprosium 162.500	67 Ho Holmium 164.93033	68 Er Erbium 167.259	69 Tm Thulium 168.93402	70 Yb Ytterbium 173.054	71 Lu Lutetium 174.9668
89 Ac Actinium (227)	90 Th Thorium 232.0377	91 Pa Protactinium 231.03688	92 U Uranium 238.02891	93 Np Neptunium (237)	94 Pu Plutonium (244)	95 Am Americium (243)	96 Cm Curium (247)	97 Bk Berkelium (247)	98 Cf Californium (251)	99 Es Einsteinium (252)	100 Fm Fermium (257)	101 Md Mendelevium (258)	102 No Nobelium (259)	103 Lr Lawrencium (260)

## Appendix 3: Rare Earth Magnets

- The key driver of the rare earths industry in recent decades is their application in permanent magnets, for which neodymium is a key component
- The presence of praseodymium improves corrosion resistance with minimal reduction of magnet performance, while terbium and dysprosium each improve magnetic performance at high temperatures
- Rare earth magnets are essential for a growing number of applications involving electric motors, especially sustainable technologies and industries, where they are a vital component of wind turbine generators and electric vehicles
- The high energy to weight ratio of rare earth magnets has also facilitated the miniaturisation of computers, portable consumer electronics and smart devices
- Other uses include medical imaging and diagnostic equipment, such as MRIs, televisions, speakers, headphones, ceramics



- Project located in the same volcanic sequence as Boda (50km south) and Cadia-Ridgeway (50km north)
- Two drilling phases completed in 2020
- Preliminary indications from work include:
  - Copper and gold in soils anomaly
  - Minimum of 7km strike length
  - Strong magnetic anomaly in north with copper gold anomaly at Turrawonga Prospect
  - Native copper in surface rocks with strong copper in soil anomaly at Lyons Prospect



- Prospect hosts a magnetic anomaly with coincident Au/Cu anomaly-tested with four RC drill holes, two with diamond tails

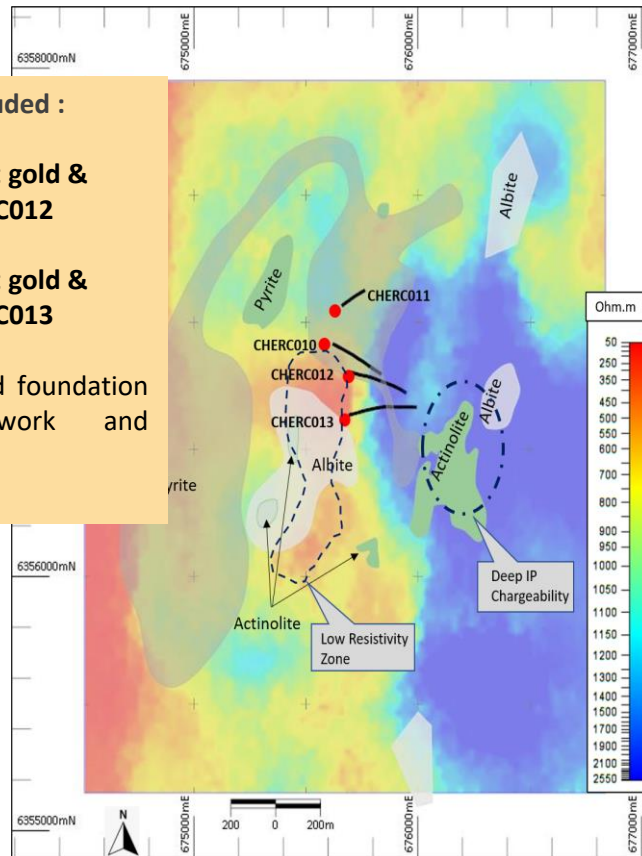
**Drill holes intersected:**

- Multiple intrusions
  - Zones of strong magnetite and pyrite
  - Chlorite-epidote-albite alteration
  - Variably disseminated chalcopyrite and occasional bornite
- MIMDAS survey completed, several resistivity lows identified
  - All characteristic of an alteration zone periphery to porphyry-related gold-copper mineralisation
  - A trace element geochemistry study was completed, sodic alteration identified at Turrawonga
  - Petrography and age dating of intrusive rocks highlight that rocks are the same age as porphyry intrusions at world-class Cadia copper gold mine, Copper Hill Deposit and Boda Project**

**Previous results included :**

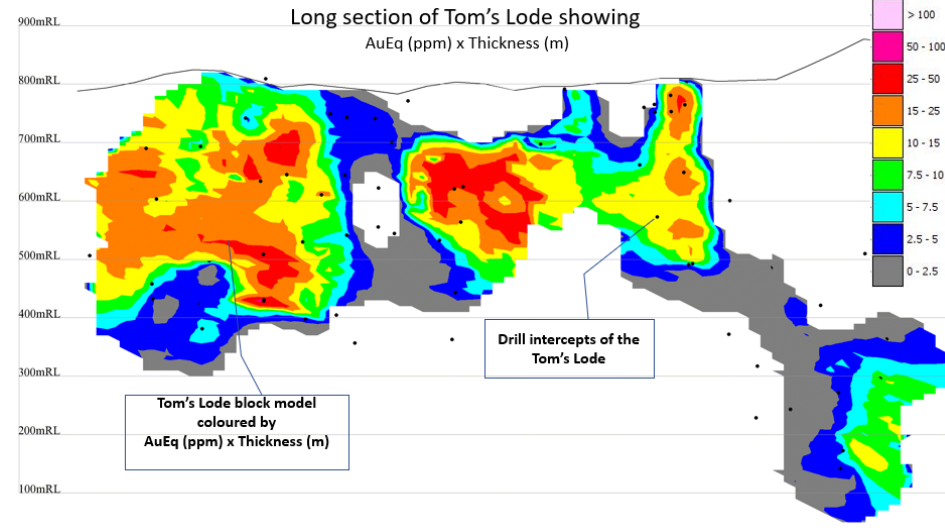
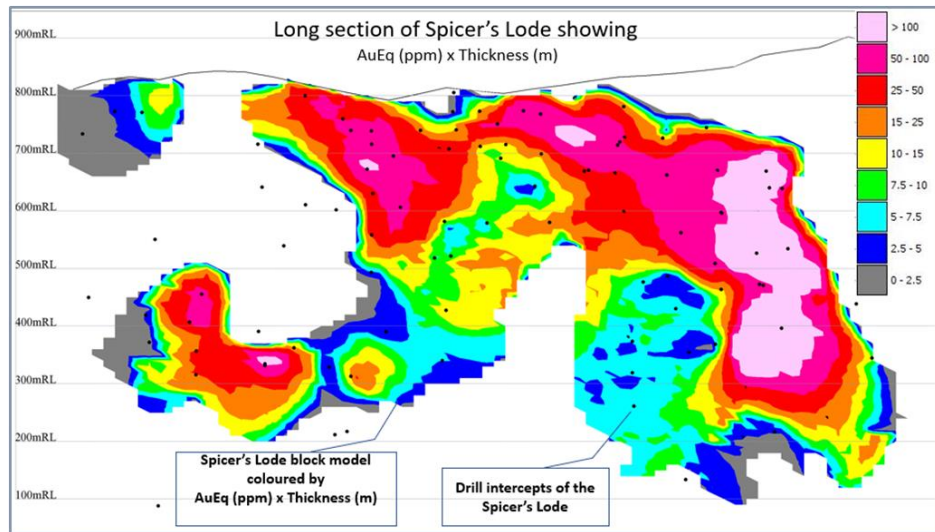
- 32m @ 0.29g/t gold & 0.13% in CHERC012**
- 30m @ 0.64g/t gold & 0.04% in CHERC013**

Results provide good foundation for additional work and exploration activities



# Appendix 6: Unlocking value at Lewis Ponds

Class	Tonnage (Mt)	Grade					Contained metal					
		Au (g/t)	Ag (g/t)	Zn ((%)	Pb (%)	Cu (%)	AuEq (g/t)	Au (koz)	Ag (moz)	Zn (kt)	Pb (kt)	Cu (kt)
Inferred	6.2	2.0	80	2.7	1.6	0.2	6.0	398	15.9	170	99	11
<b>Total</b>	<b>6.2</b>	<b>2.0</b>	<b>80</b>	<b>2.7</b>	<b>1.6</b>	<b>0.2</b>	<b>6.0</b>	<b>398</b>	<b>15.9</b>	<b>170</b>	<b>99</b>	<b>11</b>



## Appendix 7: 'Discover Thinking' exploration strategy



GRL is undertaking a **multi-discovery strategy** across its pipeline of gold and gold/copper projects

Objective is to **maximise drill targets through prospect generation** across entire tenement package – provides significant optionality

Targets defined through study of historical workings, multi-element geochemical and geophysical surveys – **multiple targets have been identified across project suite**

GRL will **test targets with rapid and cost-effective RC and diamond drilling programs**

Strategy will **leverage established experience and regional knowledge of exploration team** and unlock value across project suite



## Appendix 8: Lachlan Fold Belt deposits

- LFB is Australia's premier bulk-tonnage gold and copper metal province
- Godolphin's resources using both gold only and gold-equivalent exceed most LFB junior explorers
- All Godolphin resource projects have very clear drill targets to facilitate significant expansion

Project	Resource Type	Resource	Reference
<b>Lewis Ponds</b>	<b>Inferred</b>	<b>6.20Mt at 2.0g/t Au, 80g/t Ag, 2.7% Zn, 1.6% Pb, &amp; 0.2% Cu</b>	<b>1</b>
<b>Mount Aubrey</b>	<b>Inferred</b>	<b>1.21Mt @ 1.61g/t Au</b>	<b>2</b>
McPhillamys	Indicated and Inferred	69.8Mt @ 1.02g/t Au	3
Lake Cowal	Global	265Mt @ 1.06g/t Au	4
North Parkes	Global	482Mt @ 0.56% Cu and 0.18g/t Au	5
Cadia / Ridgeway	Global	3.2Bt @ 0.26% Cu and 0.37g/t Au	6
Tomingley	Global	9.4Mt @ 1.9 g/t Au	7

#### Source references

- 1 Godolphin Resources Ltd ASX Announcement 2 February 2021, (ASX:GRL)
- 2 Godolphin Resources Ltd Prospectus 29 October 2019, (ASX:GRL)
- 3 Regis Resources Ltd 2019 Annual Report, (ASX:RRL)
- 4 Evolution ASX Announcement 23 July 2020, (ASX:EVN)
- 5 NSW Government 'Advanced Mineral Projects & Exploration Highlights in NSW January 2020'
- 6 Newcrest Mining Resource Statement at 31 December 2019, (ASX:NCM)
- 7 Alkane Resources Resource & Reserve Statement 18 August 2020, (ASX:ALK)

## SUMMARY OF MINERAL RESOURCES (JORC 2012) CONTAINED WITHIN GODOLPHIN TENEMENTS

Project	Tonnes (Mt)	Au (g/t)	Ag (g/t)	Zn (%)	Pb (%)	Cu (%)	Contained Au (koz)	Contained Ag (moz)	Contained Zn (kt)	Contained Pb (kt)	Contained Cu (kt)
Mt Aubrey	1.21	1.61	-	-	-	-	63	-	-		
Yeoval	12.80	0.14	2.20	-	-	0.38	58	0.9	-		49
Lewis Ponds	6.20	2.00	80.0	2.74	1.59	0.17	398	15.9	170	99	11
<b>TOTAL</b>	<b>19.79</b>	<b>0.80</b>	<b>25.90</b>	<b>0.84</b>	<b>0.49</b>	<b>0.29</b>	<b>519</b>	<b>16.8</b>	<b>170</b>	<b>99</b>	<b>60</b>

Some rounding may occur.

Mt Aubrey, Yeoval as reported in Godolphin Resources Prospectus lodged on 29 October 2019. Lewis Ponds as reported by Godolphin Resources Ltd to ASX on 2 Feb 2021.

Godolphin confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and that in the case of estimates, the material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.