

# FURTHER HIGH-GRADE DRILL RESULTS & LARGE INTRUSION-RELATED GOLD SYSTEM IDENTIFIED AT MULGA BILL

## HIGHLIGHTS

- Assays received from remaining RC holes at Mulga Bill confirm depth continuity of high-grade gold mineralisation. Highlights include:
  - 8m @ 13.36g/t from 151m, including 4m @ 26.42g/t Au from 151m (21MBRC017)
  - 4m @ 7.33g/t Au from 111, including 1m @ 20.68g/t Au from 111m (21MBRC017)
  - 8m @ 3.31g/t Au from 124m (21MBRC026)
- New results support the interpretation of two parallel quartz-sulphide lodes in the central Mulga Bill prospect
- Multi-element sampling at Mulga Bill shows Copper grades in excess of 1% associated with gold in parts of the veins. The mineralised veins occur within an extensive district with highly elevated levels of Bismuth and Molybdenum, suggesting Mulga Bill is part of a large intrusion-related vein system
- The multi-element pathfinder footprint is over 1.2km long and open along strike
- Follow-up drilling planned for July to test extensions to high-grade zones and new targets generated by geochemical sampling
- RC drilling is continuing at Blue Poles within the Whiteheads Gold Project near Kalgoorlie

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Great Boulder Resources (“**Great Boulder**” or the “**Company**”) (ASX: **GBR**) is pleased to announce further assay results from Reverse Circulation (RC) holes drilled at the Mulga Bill prospect within the Side Well Gold Project (“**Side Well**”) in Western Australia. These are the final assays from the drilling campaign in April.

### **Great Boulder’s Managing Director, Andrew Paterson commented:**

*“I’m pleased to see this last batch of RC results supports our geological interpretation at Mulga Bill. This gives us confidence to plan further definition drilling in the next program, and we also have new zones to follow up in the northern section”.*

*“The identification of such a strong pathfinder signature at Mulga Bill is even more exciting. This is an important step forward in our understanding of the project and it indicates the potential for a very large gold system”.*

*“Dr Scott Halley assessed the geochemical data for us. According to Scott the pathfinder association and style of hydrothermal alteration is most unusual in the Yilgarn. Although drilling to date has*

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intersected narrow high grade veins, the chemistry is indicative of a big magmatic-related gold system”.

“Bismuth forms distinct haloes around the veins and gives us immediate targets for follow-up drilling outside the current area of focus and also justifies some deeper holes into the western and eastern zones. We’d like to get some diamond holes into these areas as soon as we can”.

## RC DRILLING PROGRAM RESULTS

The remaining results support Great Boulder’s interpretation of two sub-parallel lode positions striking north-south through the central area of Mulga Bill.

Significant intersections include:

- **4m @ 7.33g/t Au** from 111m in 21MBRC017, including **1m @ 20.68g/t Au** from 111m, and **8m @ 13.36g/t Au** from 151m, including **4m @ 26.42g/t Au** from 151m
- **8m @ 3.31g/t Au** from 124m in 21MBRC023
- 1m @ 10.99g/t Au from 82m in 21MBRC028
- 74m @ 0.76g/t Au from 88m to EOH in 21MBRC019, including 3m @ 2.96g/t Au from 122m and 4m @ 2.40g/t Au from 156m to EOH.

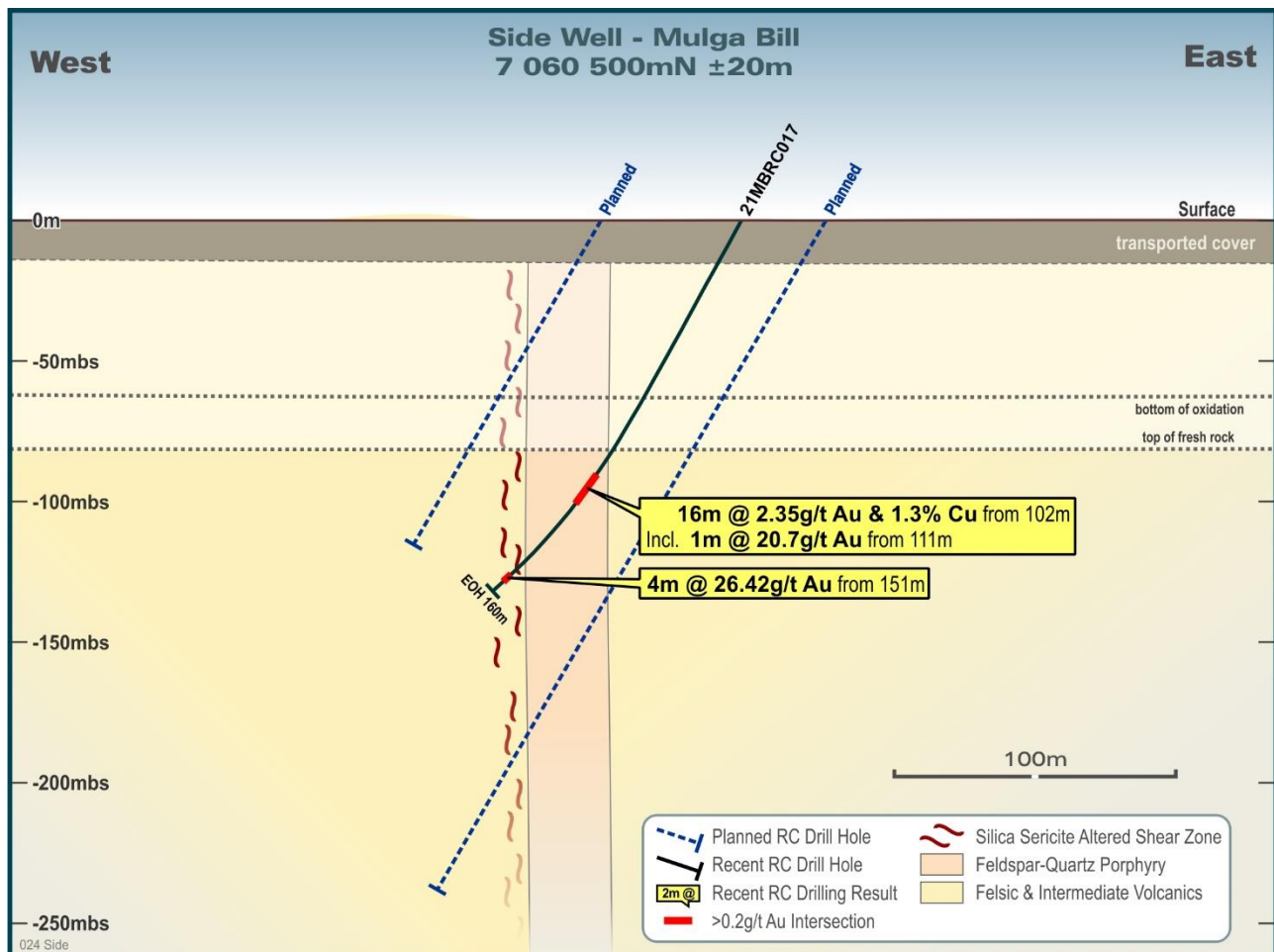


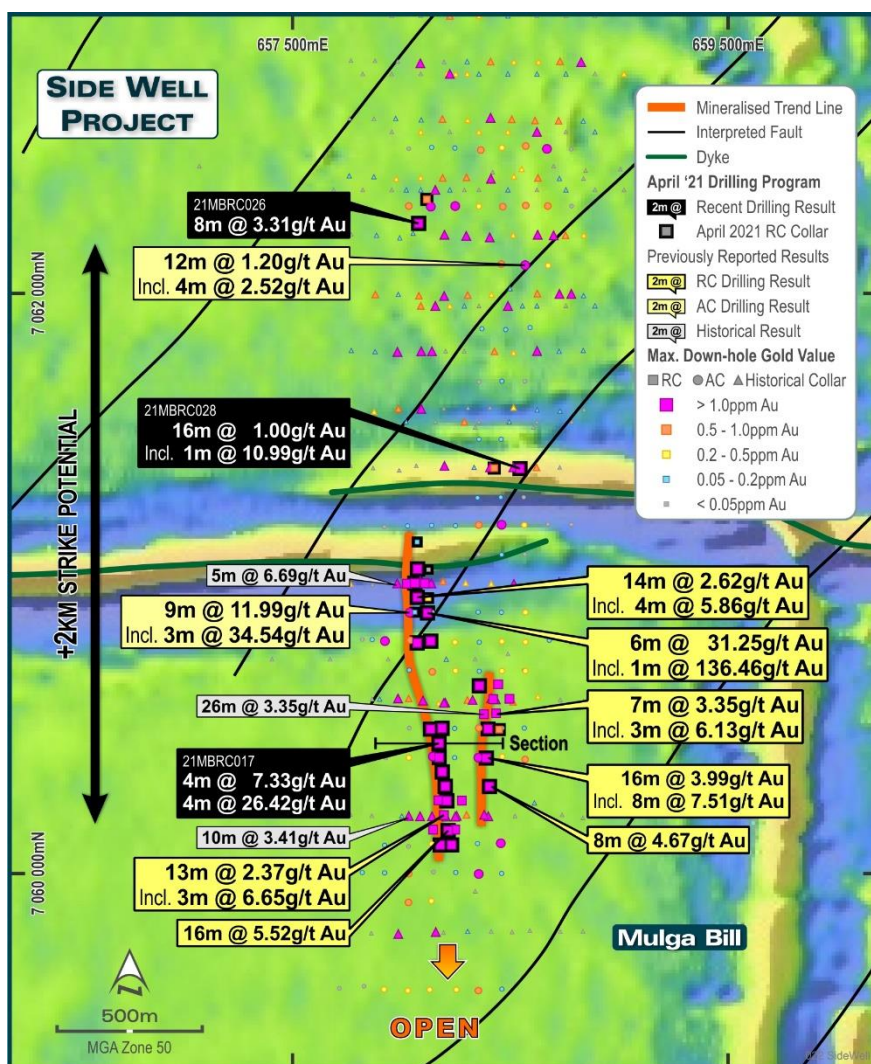
FIGURE 1: CROSS SECTION 7060500N. COPPER GRADES ARE AVERAGED HANDHELD XRF RESULTS.

Only three out of 20 holes targeting the western lode position were unsuccessful at encountering significant mineralisation. One of these was abandoned at 21m after it intersected a Proterozoic dyke. This very high success rate for the first RC program targeting this structure is very encouraging for further drilling and inferred continuity. The western zone has been drilled over a 1km strike extent south from a cross-cutting Proterozoic dyke, with a best result of 6m @ 31.25g/t Au from 130m in hole 21MBRC002. The zone appears to be open to the south and also has potential to continue to the north on the other side of the dyke (Figure 2).

Five holes targeting the eastern zone were all successful in intersecting significant mineralisation. This eastern zone has now been drilled over an extent of approximately 500m, with a best result of 8m @ 7.51g/t Au from 68m in 21MBRC016. The eastern zone remains open to the north and south. Both lodes remain open down dip and are completely untested at depth.

An intersection of 8m @ 3.31g/t Au from 124m in hole 21MBRC026 is potentially a new mineralised zone. The hole is located north of the dyke, in an area only tested previously by historic AC drilling.

An intersection of 16m @ 2.35g/t Au from 100m in 21MBRC017 also contained copper sulphides (chalcopyrite and bornite) with an average pXRF reading of 1.3% Cu. Investors are reminded that pXRF values do not have the same accuracy as laboratory assays, however these readings are further evidence of a relationship between gold and copper in the fresh rock at Mulga Bill.



**FIGURE 2: MULGA BILL DRILLING RESULTS SHOWING THE TWO LODGE POSITIONS AND NEW INTERSECTIONS TO THE NORTH. COMPARE THIS TO PATHFINDER MAPS IN FIGURE 3 BELOW.**

## GEOCHEMICAL PATHFINDER ANOMALY

Great Boulder has also received multi-element geochemical analyses from 450 drill samples at Mulga Bill. The geochemical data show a large-scale, high-tenor pathfinder footprint indicating Mulga Bill is likely part of a significant intrusion-related vein system (Figure 3). This association suggests significant size potential to the deposit, both along strike and at depth.

The pathfinder elements bismuth, copper and molybdenum are coincident with anomalous gold values in both Great Boulder's RC and AC drilling, an association indicative of an intrusive-related gold system. The bismuth anomaly is particularly compelling, showing an extremely high-tenor footprint stretching more than 1.2km along the western lode structure (Figure 2) with a peak value of 121.34ppm Bi in hole 21MBRC016.

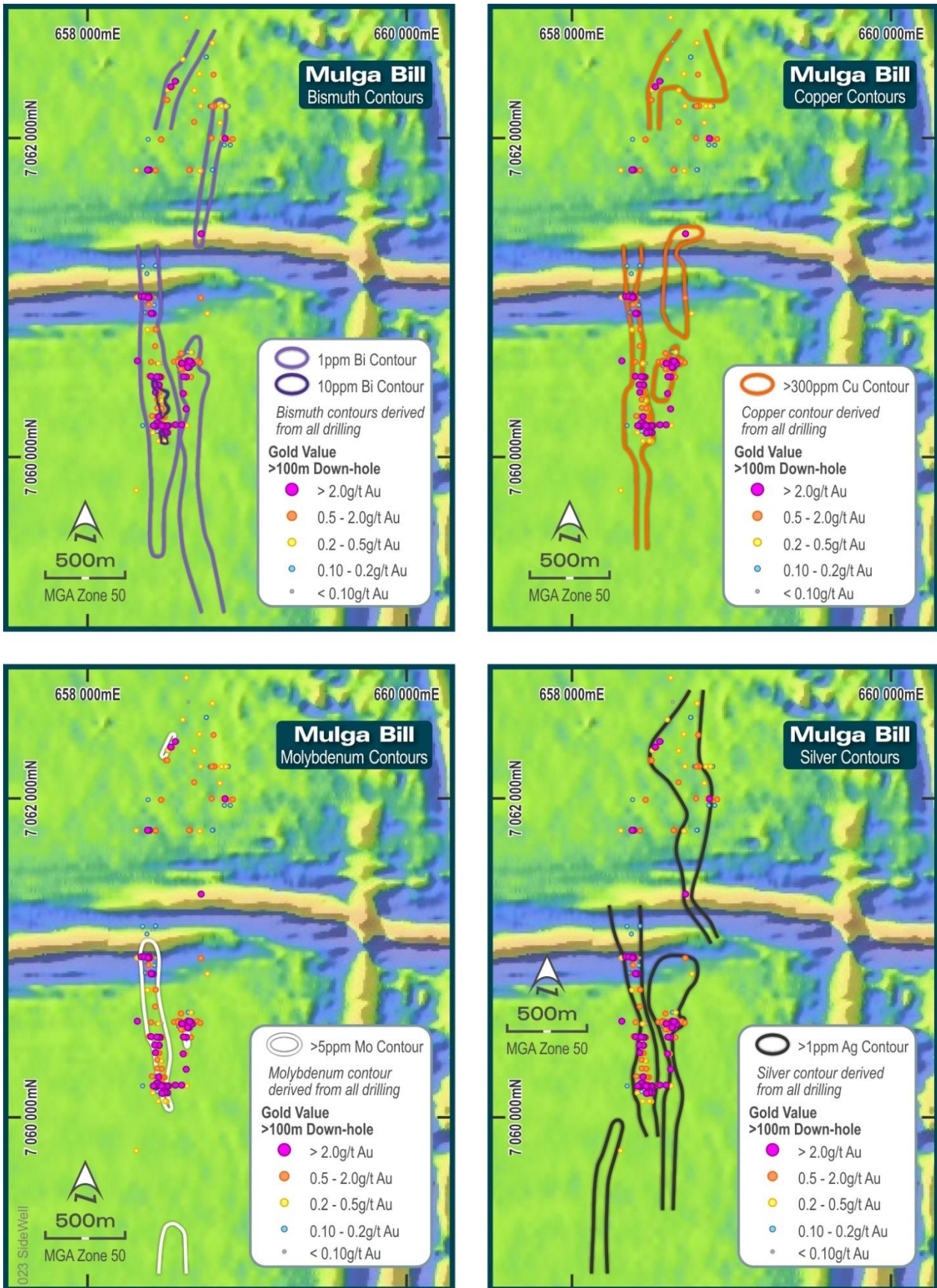
To put this number into context, the background concentration of bismuth in the Yilgarn province is around 0.1ppm Bi and values of 1ppm or above are regarded as significantly anomalous. As a pathfinder element bismuth is associated with a number of large gold systems in Western Australia including the St Ives deposits and the Enterprise mine in the Goldfields and the Deflector mine in the Murchison.

Great Boulder will use bismuth as a regional exploration tool in future drilling. Bismuth is an oxy-anion and as such is stable during weathering, whereas both gold and copper are relatively mobile creating broad amorphous anomalies that are difficult to interpret for follow-up drilling. Any bottom-of-hole AC samples with values of 1ppm Bi or above will be proximal to gold mineralisation. Such an approach to defining future drill targets will generate immediate priorities for follow-up drilling, eliminating the need for extensive fences of RC holes to intersect a lode in fresh rock.

A number of the Company's AC holes outside the area of current drilling have returned significant bottom-of-hole bismuth values, and the Company plans to review and identify potential drill targets from these holes as part of its forthcoming exploration program.

Contours of anomalous bismuth, bismuth, molybdenum and silver geochemistry are plotted against gold assays in Figure 3 below. Only gold assays deeper than 100m down-hole are shown on these figures to remove supergene gold values from the data.





**FIGURE 3: PATHFINDER ELEMENT CONTOURS SHOWN IN RELATION TO GOLD MINERALISATION. GOLD ASSAYS ARE EXTRACTED BELOW 100M DOWN-HOLE TO SHOW PRIMARY MINERALISATION ONLY.**

**This announcement has been approved by the Great Boulder Board.**

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### Competent Person's Statement

Exploration information in this Announcement is based upon work undertaken by Mr Andrew Paterson who is a Member of the Australasian Institute of Geoscientists (AIG). Mr Paterson has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is 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 Paterson is an employee of Great Boulder Resources and consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

**TABLE 1: SIGNIFICANT INTERSECTIONS. 1M SAMPLES ARE REPORTED AT A 1G/T AU CUT-OFF; 4M COMPOSITES ARE REPORTED AT A 0.2G/T AU CUT-OFF.**

Hole ID	Depth (m)	From (m)	To (m)	Width (m)	Grade (g/t Au)	Comment	Target
<b>21MBRC017</b>	160	48	52	4	0.56	4m composite	Western zone
		88	96	8	0.25	4m composite	
		100	116	16	2.35	4m comps to 108m	
<i>Including</i>		<b>111</b>	<b>115</b>	<b>4</b>	<b>7.33</b>	1m splits	
<i>Including</i>		<b>111</b>	<b>112</b>	<b>1</b>	<b>20.68</b>	1m split	
		<b>151</b>	<b>159</b>	<b>8</b>	<b>13.36</b>	4m composites	
		<b>151</b>	<b>155</b>	<b>4</b>	<b>26.42</b>	4m composite	
<b>21MBRC018</b>	160	72	76	4	0.37	4m composite	Western zone
		84	88	4	0.97	4m composite	
		124	128	4	0.21	4m composite	
		140	144	4	2.27	4m composite	
		156	160	4	0.93*	4m composite	
<b>21MBRC019</b>	162	44	48	4	0.26	4m composite	Western zone
		88	162	74	0.76*	1m splits 120-128m	
<i>Including</i>		122	125	3	2.96	1m splits	
<i>And</i>		156	160	4	2.40	4m composite	
<b>21MBRC020</b>	160	20	24	4	0.34	4m composite	Eastern zone
		84	88	4	1.19	4m composite	
		96	100	4	0.21	4m composite	
		104	112	8	2.48	4m composite	
		132	152	20	0.87	4m composites	
<i>Including</i>		140	144	4	2.40	4m composite	
<b>21MBRC021</b>	162	80	84	4	0.22	4m composite	Eastern zone
		124	128	4	0.57	4m composite	
<b>21MBRC022</b>	145	76	84	8	1.04	4m composites	Intermediate zone
		115	117	2	0.42	1m splits	
		128	132	4	0.28	4m composite	
<b>21MBRC023</b>	150	80	96	16	0.92	4m composites	Western zone
		108	110	2	0.22*	2m composite EOH	
<b>21MBRC024</b>	110	No Significant Intersection					Western zone
<b>21MBRC025</b>	100	44	48	4	0.62	4m composite	New target
		88	92	4	0.26	4m composite	
<b>21MBRC026</b>	160	<b>124</b>	<b>132</b>	<b>8</b>	<b>3.31</b>	4m composites	New target
<b>21MBRC027</b>	180	16	20	4	0.20	4m composite	New target
		120	124	4	0.57	4m composite	
		139	140	1	1.16	1m split	
<b>21MBRC028</b>	144	16	20	4	0.41	4m composite	New target
		36	40	4	0.25	4m composite	
		68	84	16	1.00	4m comps to 80m	
<i>Including</i>		<b>82</b>	<b>83</b>	<b>1</b>	<b>10.99</b>	1m split	
		108	116	8	0.22	4m composites	
		117	120	3	1.16	1m splits	
<i>Including</i>		117	118	1	2.50	1m split	

		133	134	1	0.94	1m split	
<b>21MBRC029</b>	190	88	96	8	1.07	4m composites	Western zone
		116	132	16	0.30	4m composites	

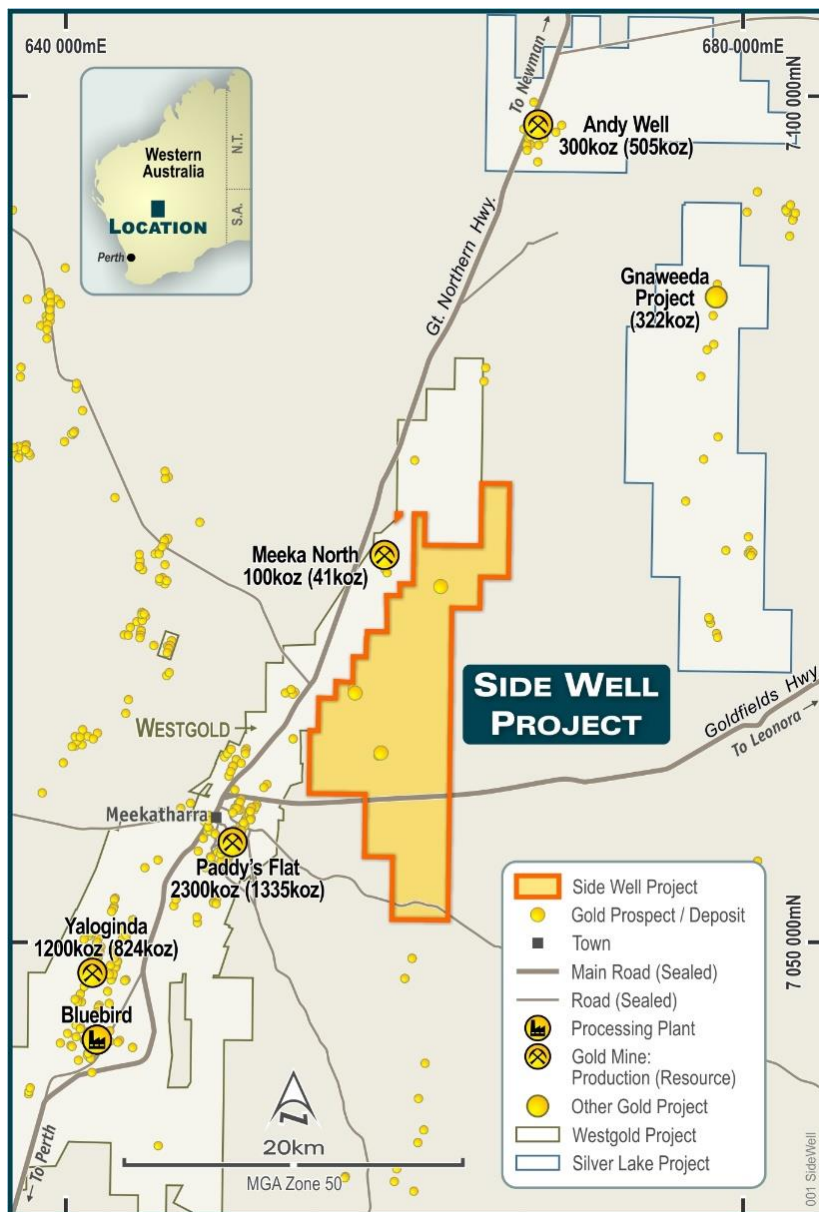
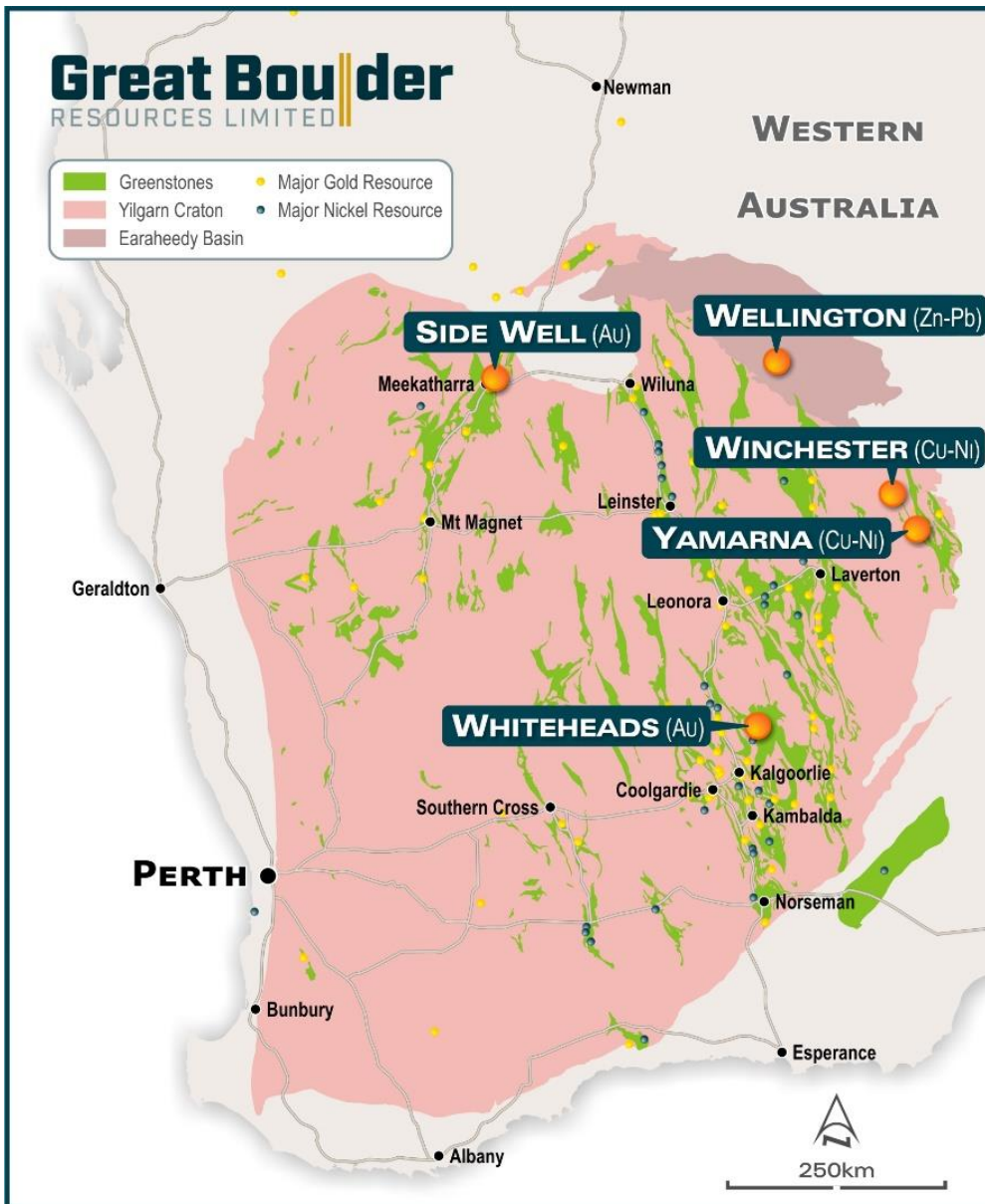


FIGURE 4: SIDE WELL PROJECT LOCATION PLAN.



**About Great Boulder Resources**

Great Boulder is a mineral exploration company with a portfolio of highly prospective gold and base metals assets ranging from greenfields through to advanced exploration located in Western Australia. The Company’s core focus is advancing the Whiteheads and Side Well gold projects while progressing initial exploration at the earlier stage Wellington Base Metal Project located in an emerging MVT province. Great Boulder is also conducting a strategic review of the advanced Yamarna copper-nickel-cobalt project. With a portfolio of highly prospective assets plus the backing of a strong technical team, the Company is well positioned for future success.



**FIGURE 5: GREAT BOULDER’S PROJECTS**

**TABLE 2: COLLAR DETAILS. COORDINATES ARE IN GDA94, ZONE 50 PROJECTION.**

Hole ID	Easting	Northing	RL	Depth	Dip	Azimuth
21MBRC001	658421	7060901	512	126	-60	270
21MBRC002	658465	7060898	511	186	-60	270
21MBRC003	658430	7060952	512	102	-60	270
21MBRC004	658467	7060949	509	198	-60	270
21MBRC005	658421	7061001	515	150	-60	270
21MBRC006	658430	7061050	512	150	-60	270
21MBRC007	658468	7061047	510	21	-60	270
21MBRC008	658509	7060098	519	126	-60	270
21MBRC009	658547	7060098	515	168	-60	270
21MBRC010	658535	7060148	514	150	-60	270
21MBRC011	658531	7060250	513	180	-60	270
21MBRC012	658525	7060300	513	160	-60	270
21MBRC013	658678	7060300	515	150	-60	270
21MBRC014	658515	7060350	511	160	-60	270
21MBRC015	658505	7060400	511	160	-60	270
21MBRC016	658668	7060398	515	160	-60	270
21MBRC017	658504	7060449	513	160	-60	270
21MBRC018	658475	7060498	512	160	-60	270
21MBRC019	658515	7060500	512	162	-60	270
21MBRC020	658673	7060498	514	160	-60	270
21MBRC021	658711	7060496	514	162	-60	270
21MBRC022	658644	7060647	506	145	-60	270
21MBRC023	658432	7060795	512	150	-60	270
21MBRC024	658429	7061143	513	110	-60	270
21MBRC025	658695	7061397	513	100	-60	270
21MBRC026	658784	7061397	502	160	-60	270
21MBRC027	658434	7062241	493	180	-60	090
21MBRC028	658462	7062324	510	144	-60	090
21MBRC029	658476	7060801	514	190	-60	270

## Appendix 1 - JORC Code, 2012 Edition Table 1

## Section 1 Sampling Techniques and Data

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

Criteria	Commentary
<b>Sampling techniques</b>	RC and AC samples were collected into calico bags over 1m intervals using a cyclone splitter. The residual bulk samples are placed in lines, in green bags (for the RC drilling) or in piles on the ground (for AC drilling). Visually prospective zones were sampled over 1m intervals and sent for analysis while the rest of the hole was composited over 4m intervals by taking a spear sample from each 1m bag. The sampling techniques used are deemed appropriate for the style of exploration.
<b>Drilling techniques</b>	RC Drilling was undertaken by Blue Spec Drilling. AC drilling was undertaken by Prospect Drilling. Industry standard drilling methods and equipment were utilised.
<b>Drill sample recovery</b>	Sample recovery data is noted in geological comments as part of the logging process. Sample condition has been logged for every geological interval as part of the logging process. Significant ground water was encountered in drilling which resulted in numerous wet samples. No quantitative twinned drilling analysis has been undertaken.
<b>Logging</b>	Geological logging of drilling followed established company procedures. Qualitative logging of samples includes lithology, mineralogy, alteration, veining and weathering. Abundant geological comments supplement logged intervals.
<b>Sub-sampling techniques and sample preparation</b>	1m cyclone splits and 4m speared composite samples were taken in the field. Samples were prepared and analysed at Genalysis Assay Laboratories Perth. Samples were pulverized so that each samples had a nominal 85% passing 75 microns. Au analysis was undertaken using FA50/OE involving 50g lead collection fire assay and Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) finish.
<b>Quality of assay data and laboratory tests</b>	All samples were assayed by industry standard techniques.
<b>Verification of sampling and assaying</b>	The standard GBR protocol was followed for insertion of standards and blanks with a blank and standard inserted per 40 samples. No QAQC problems were identified in the results. No twinned drilling has been undertaken.
<b>Data spacing and distribution</b>	The spacing and location of the majority of drilling in the projects is, by the nature of early exploration, variable.  The spacing and location of data is currently only being considered for exploration purposes.
<b>Orientation of data in relation to geological structure</b>	Drilling is dominantly perpendicular to regional geological trends where interpreted and practical. True width and orientation of intersected mineralisation is currently unknown or not clear.  The spacing and location of the data is currently only being considered for exploration purposes.
<b>Sample security</b>	GBR personnel were responsible for delivery of samples from the drill site to the courier companies dispatch center in Meekatharra. Samples were transported by Toll Internodal from Meekatharra to the laboratory in Perth.
<b>Audits or reviews</b>	None completed.

## Section 2 Reporting of Exploration Results

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

Criteria	Commentary
<b>Mineral tenement and land tenure status</b>	Side Well tenement E51/1905 is a 48-block exploration license covering an area of 131.8km <sup>2</sup> immediately east and northeast of Meekatharra in the Murchison province. Zebina Minerals Pty Ltd currently owns 100% of the tenement with GBR acquiring a 24 <sup>th</sup> Month option to form a joint-venture.
<b>Exploration done by other parties</b>	Tenement E51/1905 has a protracted exploration history but is relatively unexplored compared to other regions surrounding Meekatharra. The Exploration history by previous explorers has been described in the technical section of the announcement.
<b>Geology</b>	<p>The Side Well tenement group covers a portion of the Meekatharra-Wydege Greenstone Belt north of Meekatharra, WA. The north-north-easterly trending Archaean Meekatharra-Wydege Greenstone Belt, comprises a succession of metamorphosed mafic to ultramafic and felsic and sedimentary rocks belonging to the Luke Creek and Mount Farmer Groups.</p> <p>Over the northern extensions of the belt, sediments belonging to the Proterozoic Yerrida Basin unconformably overlie Archaean granite-greenstone terrain. Structurally, the belt takes the form of a syncline known as the Polelle syncline. Younger Archaean granitoids have intrusive contacts with the greenstone succession and have intersected several zones particularly in the Side Well area.</p> <p>Within the Side Well tenement group, a largely concealed portion of the north-north-easterly trending Greenstone Belt is defined, on the basis of drilling and airborne magnetic data, to underlie the area. The greenstone succession is interpreted to be tightly folded into a south plunging syncline and is cut by easterly trending Proterozoic dolerite dykes.</p> <p>There is little to no rock exposure at the Side Well prospect. This area is covered by alluvium and lacustrine clays, commonly up to 60 metres thick.</p>
<b>Drill hole Information</b>	A list of the drill hole coordinates, orientations and intersections reported in this announcement are provided as an appended table.
<b>Data aggregation methods</b>	<p>Results were reported using cut-off levels relevant to the sample type. For composited samples significant intercepts were reported for grades greater than 0.1g/t Au with a maximum dilution of 4m. For single metre splits, significant intercepts were reported for grades greater than 0.8g/t Au with a maximum dilution of 2m.</p> <p>A weighted average calculation was used to allow for bottom of hole composites that were less than the standard 4m and when intervals contain composited samples plus 1m split samples.</p> <p>No metal equivalents are used.</p>
<b>Relationship between mineralisation widths and intercept lengths</b>	The orientation of structures and mineralisation is not known with certainty, but majority of the drilling was conducted using appropriate perpendicular orientations for interpreted mineralisation. Diamond drilling has confirmed a mineralised intrusive body at Side Well has a near vertical dip and trends broadly north-south. Due to the wide spacing of drill lines exact orientation is not clear.
<b>Diagrams</b>	Refer to figures in announcement.
<b>Balanced reporting</b>	It is not practical to report all historical exploration results from the Side Well project. Selected historical intercepts have been re-reported by GBR to highlight the prospectivity of the region. Full drillhole details can be found in publicly available historical annual reports.
<b>Other substantive exploration data</b>	Subsequent to Doray Minerals Limited exiting the project in 2015, private companies have held the ground with no significant work being undertaken.
<b>Further work</b>	Further work is discussed in the document.