11 JUNE 2024



# NEW HIGH-GRADE VEIN DISCOVERY - A SIGNIFICANT EXTENSION TO MULGA BILL

#### **HIGHLIGHTS**

- Drilling at the northern end of Mulga Bill has discovered a new shallow high-grade vein extending ~150m north of the current JORC Mineral Resource. Highlights include:
  - o 32m @ 8.38g/t Au from 104m, including 18m @ 13.76g/t Au from 104m in 24MBRC001
  - o 16m @ 2.12g/t Au from 108m, including 4m @ 5.68g/t Au from 108m in 24MBRC002
  - o 26m @ 3.31g/t Au from 88m, including 8m @ 10.02g/t Au from 88m in 24SWAC194
- > The new vein discovery at Mulga Bill extends into Mulga Bill North, where drilling has now defined gold mineralisation over 1.5km of strike
- Further assays pending on recent RC and AC holes at Mulga Bill North
- Maiden AC drilling program now underway at the Polelle Project 5km southwest of Side Well, with 45 holes planned

Great Boulder Resources ("Great Boulder" or the "Company") (ASX: GBR) is pleased to announce recent exploration results from the Company's flagship Side Well Gold Project ("Side Well") near Meekatharra in Western Australia.

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

"This is an extremely exciting development at Mulga Bill, with the discovery of a thick high-grade vein immediately north of the current Mulga Bill resource. Our drilling has defined it over 150m of strike, with indications that it could extend 350m or more."

"It appears to have the same orientation as high-grade veins previously discovered within the resource area and has the potential to be a significant extension to the Mulga Bill deposit.""

"This new discovery connects the Mulga Bill and Mulga Bill North prospects. Mulga Bill North is 1,500m long and still relatively poorly drilled. It's a big gold system and we definitely haven't defined the full extent of it yet."

The northern end of Mulga Bill is the shallowest part of the mineral resource, so any additional gold ounces defined in that area have good potential to enhance the economics of the project."

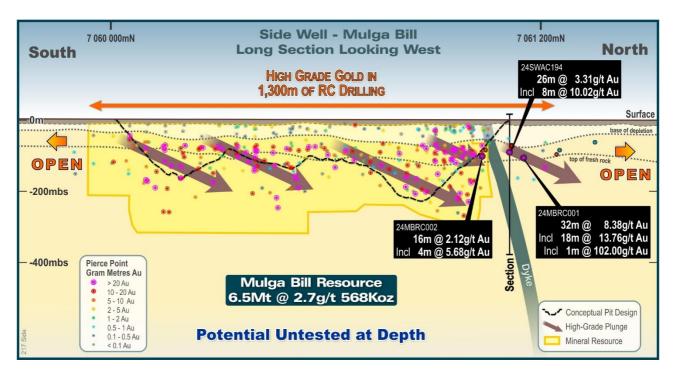


FIGURE 1: MULGA BILL LONG SECTION SHOWING NEW RESULTS NORTH OF THE CURRENT RESOURCE.

At **Mulga Bill** four holes (2 RC, 2 AC) were drilled to the south to define the thickness of the crosscutting Proterozoic dyke at the northern end of the Mulga Bill mineral resource. Mineralisation wireframes within the resource are currently truncated by this dyke, so establishing its exact location and thickness is important for targeting extensional mineralisation to the north.

The holes were successful in defining the thickness of the dyke, also intersecting a new west-dipping high-grade vein north of the dyke which appears to be plunging north (Figure 1). This high-grade zone is currently interpreted to have similar geometry and dimensions to other high-grade zones within the 568Koz Mulga Bill mineral resource to the south.

Highlights from the drilling include:

- 32m @ 8.38g/t Au from 104m, including 18m @ 13.76g/t Au from 104m, which includes 1m
   @ 102.00g/t Au from 121m in 24MBRC001
- 16m @ 2.12g/t Au from 108m, including 4m @ 5.68g/t Au from 108m in 24MBRC002
- 26m @ 3.31g/t Au from 88m, including 8m @ 10.02g/t Au from 88m in 24SWAC194

Additional drilling has since been completed in this area to confirm the orientation of the new highgrade mineralisation, with results expected in three to four weeks.

26 AC holes were also drilled north of the dyke and at Mulga Bill North to continue defining gold mineralisation in this area. Initial results from the first 12 holes in this area show significant gold enrichment coinciding with the continuation of the new high-grade vein, with bottom-of-hole gold anomalism extending over 350m north of Mulga Bill providing an exciting target for deeper RC drilling. This indicates the strike potential of the new vein may be more than 350m, a significant extension to the 1,100m-long Mulga Bill resource.

Assays remain pending for the last 14 holes drilled at Mulga Bill North.

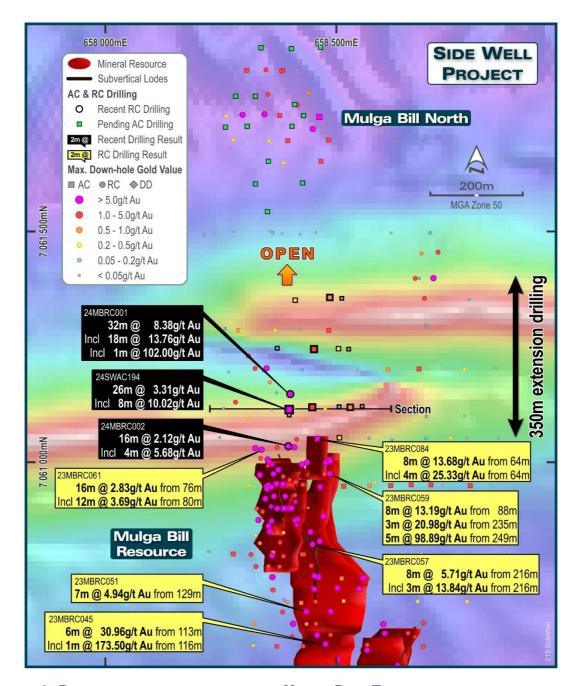


FIGURE 2: PLAN VIEW OF THE NORTH END OF MULGA BILL. THE CROSS-CUTTING DYKE CAN BE SEEN AS A RED MAGNETIC HIGH IN THE BACKGROUND. THE 568KOZ MULGA BILL RESOURCE, SHADED IN RED, IS AN 1,100M-LONG HIGH-GRADE DEPOSIT. MULGA BILL NORTH REMAINS UNDEREXPLORED, WITH GOLD DEFINED OVER MORE THAN 1,500M OF STRIKE.

#### **NEXT STEPS**

The AC drill rig has now moved south to the Polelle project approximately 14km south of Meekatharra. 45 AC holes are planned as an initial test of some of the geochemical targets in the area.

The Company is also finalising plans to conduct additional heritage surveys over Side Well South and Polelle in late July.

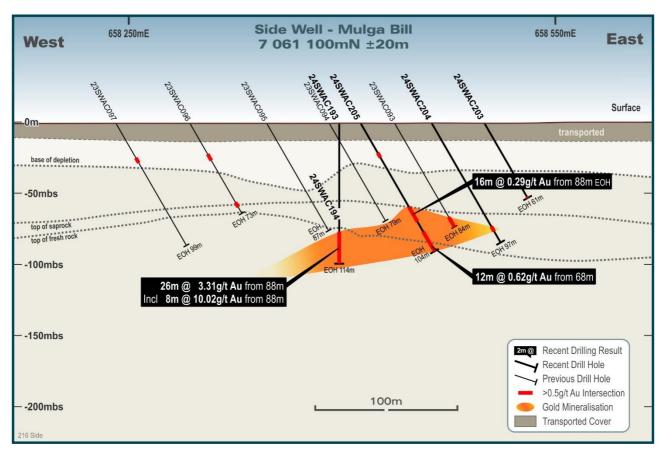


FIGURE 3: CROSS-SECTION AT MULGA BILL IMMEDIATELY NORTH OF THE PROTEROZOIC DYKE. THIS VEIN APPEARS TO PLUNGE TO THE NORTH, WITH INITIAL DRILLING INDICATING A POTENTIAL STRIKE EXTENT OF +350M

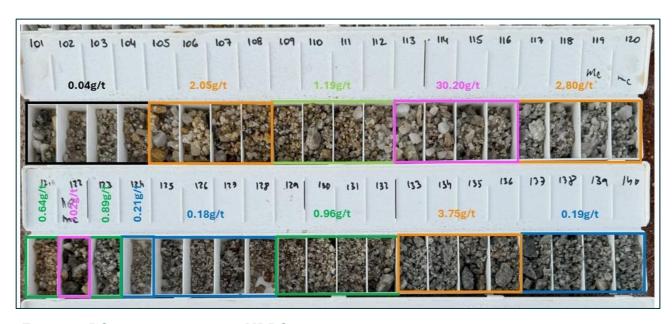


FIGURE 4: RC CHIPS FROM HOLE 23MBRC001 SHOWING A THICK INTERSECTION OF QUARTZ VEINING. ASSAYS ARE DISPLAYED IN THE TEXT ABOVE EACH INTERVAL. 4M GROUPS ARE COMPOSITE SAMPLES.

#### 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.

The information that relates to Mineral Resources was first reported by the Company in its announcement to the ASX on 16 November 2023. The Company is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not material changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

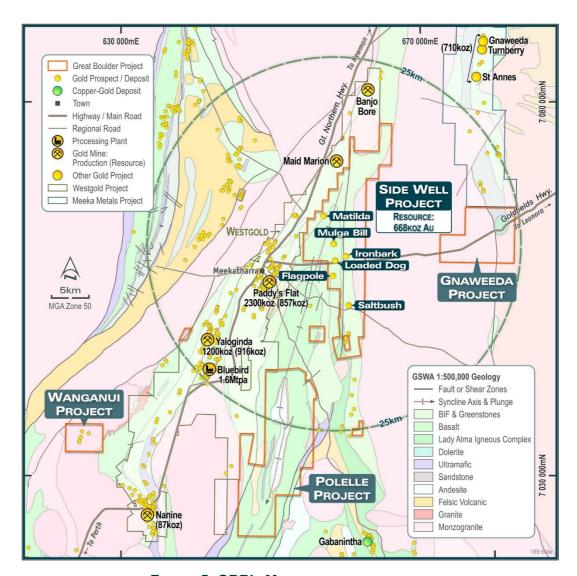


FIGURE 5: GBR'S MEEKATHARRA PROJECTS

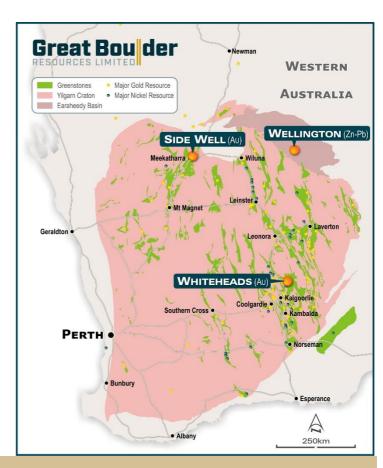
TABLE 1: SIDE WELL MINERAL RESOURCE SUMMARY, NOVEMBER 2023

			Indicated			li li	nferre	d	Total		
Deposit	Туре	Cut-off	Tonnes (kt)	Au (g/t)	Ounces	Tonnes (kt)	Au (g/t)	Ounces	Tonnes (kt)	Au (g/t)	Ounces
Mulga Bill	Open Pit	0.5	1,667	3.1	169,000	2,982	1.9	183,000	4,649	2.4	352,000
	U/ground	1.0	733	3.5	83,000	1,130	3.6	132,000	1,863	3.6	216,000
	Subtotal		2,399	3.3	252,000	4,112	2.4	316,000	6,511	2.7	568,000
Ironbark	Open Pit	0.5	753	3.7	88,000	186	1.9	11,000	938	3.3	100,000
	U/ground	1.0	0	0.0	0	0	0.0	0	0	0.0	0
	Subtotal		753	3.7	88,000	186	1.9	11,000	938	3.3	100,000
	Total		3,152	3.4	340,000	4,298	2.4	327,000	7,450	2.8	668,000

Subtotals are rounded for reporting purposes. Rounding errors may occur.

## ABOUT GREAT BOULDER RESOURCES

Great Boulder is a mineral exploration company with a portfolio of highly prospective gold and base metals assets in Western Australia ranging from greenfields through advanced to exploration. The Company's core focus is Side Well Gold Project Meekatharra in the Murchison gold field, where exploration has defined a Mineral Resource of 7.45Mt @ 2.8g/t Au for 668,000oz Au. The Company is also progressing early-stage exploration at Wellington Base Metal Project located in an emerging MVT province. With a portfolio of highly prospective assets plus the backing of a strong technical team, the Company is well positioned for future success.



#### **CAPITAL STRUCTURE**

606M

SHARES ON ISSUE

\$36M

MARKET CAP

~\$4M

**CASH** As at 31/03/24

N 11-1

**DEBT**As at 31/3/2024

\$1.0M

LISTED INVESTMENT
Cosmo Metals (ASX:CMO)

64.5M

UNLISTED OPTIONS

\$50k

**DAILY LIQUIDITY** 

Average 30-day value traded

~34%

**TOP 20 OWNERSHIP** 



Exploring WA Gold & Base Metal assets, located in proximity to operating mines & infrastructure



Developing a significant high grade, large scale gold system at Side Well



Technically focused exploration team with a strong track record of discovery



Undertaking smart, innovative & systematic exploration



Ongoing drilling at multiple projects providing consistent, material newsflow

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**TABLE 2: SIGNIFICANT INTERSECTIONS** 

Prospect	Hole ID	From	То	Width	Grade	Comments	
Mulga Bill RC	24MBRC001	104	136	32	8.38		
	Including	104	122	18	13.76		
	Including	121	122	1	102		
	24MBRC002	28	44	16	0.16	4m composites	
		56	64	8	0.36	4m composites	
		92	100	8	0.63	4m composites	
	Including	92	96	4	1.12	4m composite	
		108	124	16	2.12	4m composites	
	Including	108	112	4	5.68	4m composite	
		133	134	1	3.99		
Mulga Bill AC	24SWAC193	0	69	69	No	o significant intersection	
	24SWAC194	88	114	26	3.31	4m composites	
	Including	88	96	8	10.02	4m composites	
		104	114	10	0.21	EOH. 4m and 2m composites	
	24SWAC195	0	57	57	No	o significant intersection	
	24SWAC196	28	32	4	0.12	4m composite	
		68	74	6	0.54	EOH. 4m and 2m composites	
	24SWAC197	20	32	12	0.24	4m composites	
		68	76	8	0.14	4m composites	
	24SWAC198	0	74	74	No	o significant intersection	
	24SWAC199	48	52	4	0.17	4m composite	
		112	119	7	0.20	EOH. 4m and 3m composites	
	24SWAC200	104	112	8	1.05	4m comps to 108m	
		124	128	4	0.19	4m composite	
	24SWAC201	88	92	4	0.17	4m composite	
	24SWAC202	0	75	75	No	No significant intersection	
	24SWAC203	60	61	1	0.78	ЕОН	
	24SWAC204	84	88	4	0.12	4m composite	
	24SWAC205	24	28	4	0.25		
		68	80	12	0.62	4m composites	
		88	104	16	0.29	To EOH. 4m composites	
	24SWAC206	92	100	8	0.30	4m composites	

Significant intersections include 4m composite samples > 0.1g/t Au and 1m samples > 0.5g/t Au.

**TABLE 3: COLLAR DETAILS** 

Hole ID	Prospect	Easting	Northing	RL	Dip	Azi	Total
						(Mag)	Depth
24MBRC001	Mulga Bill Nth	658400	7061205	510	-60	180	146
24MBRC002		658400	7061089	510	-60	180	146
24SWAC193		658398	7061117	510	-60	180	69
24SWAC194		658398	7061159	510	-60	180	114
24SWAC195		658495	7061355	510	-60	90	57
24SWAC196		658451	7061357	510	-60	90	74
24SWAC197		658398	7061351	510	-60	90	83
24SWAC198		658491	7061245	510	-60	90	74
24SWAC199		658446	7061246	510	-60	90	119
24SWAC200		658397	7061245	510	-60	90	133
24SWAC201		658327	7061247	510	-60	90	124
24SWAC202		658541	7061121	510	-60	90	75
24SWAC203		658500	7061119	510	-60	90	61
24SWAC204		658463	7061120	510	-60	90	97
24SWAC205		658413	7061119	510	-60	90	104
24SWAC206		658451	7061053	510	-60	90	112
24SWAC207		658351	7061543	510	-60	90	144
24SWAC208		658427	7061605	510	-60	90	136
24SWAC209		658325	7061603	510	-60	90	167
24SWAC210		658353	7061652	510	-60	90	151
24SWAC211		658404	7061728	509	-60	90	149
24SWAC212		658307	7061728	509	-60	90	90
24SWAC213		658260	7061726	509	-60	90	165
24SWAC214		658429	7061751	509	-60	90	135
24SWAC215		658410	7061775	509	-60	90	163
24SWAC216		658325	7061793	517	-60	90	170
24SWAC217		658282	7061793	517	-60	90	165
24SWAC218		658466	7061899	517	-60	90	160
24SWAC219		658403	7061896	517	-60	90	167
24SWAC220		658337	7061898	517	-60	90	175

Coordinates are in GDA94 projection, Zone 50

### Appendix 1 - JORC Code, 2012 Edition Table 1 (GBR Drilling, Side Well Project)

#### **Section 1 Sampling Techniques and Data**

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

Criteria	Commentary				
Sampling techniques	At the Side Well Project GBR has collected data from auger sampling and from AC, RC and Diamond drilling techniques. This section encompasses all four methods.				
	RC samples were collected into calico bags over 1m intervals using a cyclone splitter. The residual bulk samples are placed in lines of piles on the ground. 2 cone splits are taken off the rig splitter for RC 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 scoop sample from each 1m bag.				
	Core samples are selected visually based on observations of alteration and mineralisation and sampled to contacts or metre intervals as appropriate. Once samples are marked the core is cut in half longitudinally with one half taken for assay and the other half returned to the core tray.				
	AC samples were placed in piles on the ground with 4m composite samples taken using a scoop.				
	Auger samples are recovered from the auger at blade refusal depth. Auger drilling is an open-hole technique.				
Drilling techniques	Industry standard drilling methods and equipment were utilised.				
	Auger drilling was completed using a petrol-powered hand-held auger.				
Drill sample recovery	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. Water was encountered during drilling resulting in minor wet and moist samples with the majority being dry.				
	No quantitative twinned drilling analysis has been undertaken.				
Logging	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.				
Sub-sampling techniques and sample preparation	1m cyclone splits and 4m speared composite samples were taken in the field. Samples were prepared and analysed at ALS Laboratories Perth for the RC drilling and Intertek Laboratories for the AC drilling. Samples were pulverized so that each samples had a nominal 85% passing 75 microns. Au analysis was undertaken using Au-AA26 involving a 50g lead collection fire assay and Atomic Adsorption Spectrometry (AAS) finish. For AC drilling, Au analysis was undertaken using a 50g lead collection fire assay with ICP-OES finish.				
	Multi-element analysis was completed at both ALS and Intertek Laboratories. Digestion was completed using both 4 Acid and Aqua-regia and analysed by ICP-AES and ICP-MS (Intertek code 4A/MS48, ALS codes ME-MS61, ME-ICP41-ABC).				
Quality of assay data and laboratory tests	All samples were assayed by industry standard techniques. Fire assay for gold; four-acid digest and aqua regia for multi-element analysis.				
Verification of sampling and assaying	The standard GBR protocol was followed for insertion of standards and blanks with a blank and standard inserted per 25 for RC drilling and 40 samples for AC drilling. Analysis of ME was typically done on master pulps after standard gold analysis with a company multi-element standard inserted every 50 samples. No QAQC problems were identified in the results. No twinned drilling has been undertaken.				
Location of data points	Sample locations and mapping observations were located and recorded electronically using a handheld GPS. Coordinates were recorded in GDA94 grid in Zone 50, which is the GDA94 zone for the Meekatharra area.				
	Drill holes were positioned using the same technique. Hole collars were initially picked up after drilling using a handheld GPS. RC and Diamond hole collars were subsequently surveyed with a DGPS for greater accuracy.				
	This accuracy is sufficient for the intended purpose of the data.				
Data spacing and distribution	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.				
Orientation of data in relation to geological structure	Drilling is dominantly perpendicular to regional geological trends where interpreted and practical. Wherever possible, cross sections are shown to give a visual indication of the relationship between intersection width and lode thickness.  The spacing and location of the data is currently only being considered for exploration purposes.				
Sample security	GBR personnel are responsible for delivery of samples from the drill site to the Toll Ipec dispatch center in Meekatharra. Samples are transported by Toll Ipec from Meekatharra to the laboratories in Perth.				
Audits or reviews	Data review and interpretation by independent consultants on a regular basis. Group technical meetings are usually held monthly.				

#### **Section 2 Reporting of Exploration Results**

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

Criteria	Commentary					
Mineral tenement and land tenure status	Side Well tenement E51/1905 is a 48-block exploration license covering an area of 131.8km2 immediately east and northeast of Meekatharra in the Murchison province. The tenement is a 75:25 joint venture between Great Boulder and Zebina Minerals Pty Ltd.					
Exploration done by other parties	Tenement E51/1905 has a protracted exploration history but is relatively unexplored compared to other regions surrounding Meekathara.					
Geology	The Side Well tenement group covers a portion of the Meekatharra-Wydgee Greenstone Belt north of Meekatharra, WA. The north-northeasterly-trending Archaean Meekatharra-Wydgee Greenstone Belt, comprises a succession of metamorphosed mafic to ultramafic and felsic and sedimentary rocks belonging to the Luke Creek and Mount Farmer Groups.					
	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.					
	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.					
	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.					
Drill hole Information	A list of the drill hole coordinates, orientations and intersections reported in this announcement are provided as an appended table.					
Data aggregation methods	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 0.5g/t Au with a maximum dilution of 3m.					
	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.					
	No metal equivalents are used.					
Relationship between mineralisation widths and intercept lengths	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. Stratigraphy appears to be steeply dipping to the west however mineralisation may have a different orientation.					
Diagrams	Refer to figures in announcement.					
Balanced reporting	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.					

	Other substantive exploration data	Subsequent to Doray Minerals Limited exiting the project in 2015, private companies have held the ground with no significant work being undertaken.			
Further work Further work is discussed in the document.		Further work is discussed in the document.			