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RESOURCES L

# DRILLING EXTENDS MULGA BILL TO 5.1KM & IDENTIFIES NEW GOLD PROSPECT

#### HIGHLIGHTS

- Air Core (AC) drilling has extended the Mulga Bill anomaly further south by 1.4km and discovered gold mineralisation in a new prospect to the southeast
- Phase 3 Reverse Circulation (RC) drilling at Mulga Bill has defined continuity of mineralisation over 400m in the eastern zone. Significant results include:
  - o 1m @ 11.0g/t Au from 89m and 8m @ 1.50g/t Au from 99m (21MBRC037)
  - o 4m @ 3.34g/t Au from 88m and 3m @ 5.34g/t Au from 105m (21MBRC039)
  - o 8m @ 3.63g/t Au from 72m (21MBRC040)

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- New AC intersections south of Mulga Bill have extended the total known strike length to 5.1km. Mineralisation remains open along strike in both directions
- New gold prospect identified approximately 1.5km south-east of Mulga Bill
- Significant AC results include:
  - o 8m @ 2.39g/t Au from 40m (21SWAC101)
  - o 24m @ 0.36g/t Au from 12m (21SWAC100)
- Results imminent for the July-August diamond drilling (DD) program with results expected to provide important structural context to the gold mineralisation identified to date at Mulga Bill
- Phase 4 RC drilling is complete at Mulga Bill and regional AC drilling has commenced at the Whiteheads Gold Project

Great Boulder Resources ("**Great Boulder**" or the "**Company**") (ASX: **GBR**) is pleased to announce further exploration results from RC and AC drilling within the Side Well Gold Project ("**Side Well**") in Western Australia. Reported RC holes are part of the third phase of RC drilling at Mulga Bill and was completed between late June and early July and AC drilling in mid-July.

AC drilling has discovered a new gold prospect approximately 1.5km east of Mulga Bill, with gold intersected on three 100m-spaced drill lines including **8m @ 2.39g/t Au** from 40m in 21SWAC101. This discovery is hosted within ultramafic lithology and the mineralisation remains open in all directions.

Regional AC drilling south of Mulga Bill has extended the prospect by another 1.4km, which means the overall strike length of Mulga Bill is now more than 5km and is not yet closed off along strike. Further south historic drilling has only reached average depths of 30-40m and is therefore deemed ineffective to define further Mulga Bill mineralisation due to near surface depletion in the upper oxide zone.

Final results from the Phase 3 RC drilling results highlight the continuity of significant gold mineralisation on the eastern trend at Mulga Bill over 400m in strike. This mineralisation trend has received shallow drilling to date within the supergene environment and is open in all directions.

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

"Infill RC drilling continues to define the high-grade zones in the central area of Mulga Bill. We have now completed a fourth round of RC drilling which is continuing to build our confidence in the highgrade gold structures.

We are also very excited the regional AC drilling has significantly extended Mulga Bill to the south, meaning it is now over 5km long and still open in both directions. This is a big, intrusive-related gold system with potential for significant scale and high-grade gold.

The discovery of a completely new prospect to the east is also hugely exciting, and we will be looking to extend that discovery further in the next round of drilling."

## PHASE 3 RC DRILLING RESULTS

The final 8 holes from the Phase 3 RC program at Mulga Bill have now been received. These results include 4 RC holes that were drilled as pre-collars for the diamond drilling completed in mid-August.

21MBRC037 was designed to test the up-dip of an intersection in 21MBRC017, which returned 16m @ 2.35g/t Au from 100m including **4m @ 7.33g/t Au** from 111m on the western zone. 21MBRC037 has extended mineralisation up-dip and to the west with intersections of 1m @ 11.0g/t from 89m and 8m @ 1.5g/t from 99m. Diamond hole 21MBRCD042 was drilled beneath both these RC holes, with assays expected during October.

Holes 21MBRC038 to 040 were drilled on the eastern zone of mineralisation at Mulga Bill (discovered in the previous phase of RC drilling - see GBR ASX announcement dated 1<sup>ST</sup> June 2021). The new holes have been successful in proving continuity of supergene-related mineralisation along this zone with significant intercepts including 4m @ 3.34g/t Au from 88m and 3m @ 5.34g/t Au from 105m in 21MBRC039, and 8m @ 3.63g/t Au from 72m in 21MBRC040. 21MBRC038 appears to have been drilled too far east, and requires follow up with further drilling.

The eastern zone of mineralisation extends for over 400m. Minimal drilling has been undertaken up or down dip with significant fresh rock intercepts including **3m** @ **11.13g/t Au** from 126m within 21MBRC013. The strike extensions of this zone are yet to be adequately tested by RC drilling.

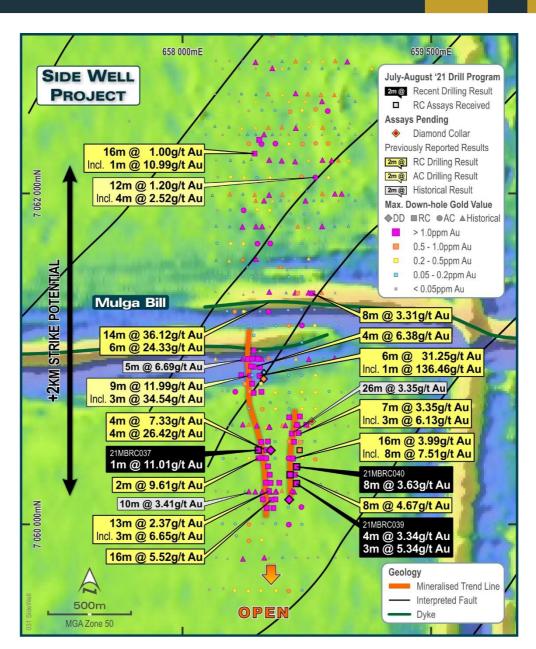


FIGURE 1: RECENT DRILL RESULTS AT MULGA BILL. ASSAY DOTS ARE PLOTTED AT THE COLLAR POSITION OF EACH HOLE.

#### SIDE WELL AIRCORE DRILLING

62 Aircore holes were completed at Side Well during July for a total of 5,841m of drill advance. Drilling was designed to test both the northern extensions of the western zone of mineralisation at Mulga Bill and other regional mineralised trends.

Drilling has been successful in discovering a new zone of mineralisation 1.5km to the east of Mulga Bill. The mafic-ultramafic stratigraphy on eastern flank was initially tested by GBR using auger sampling and returned values up to 40ppb Au within a broad silver and copper anomaly. A single AC line drilled during May returned elevated end-of-hole gold values. This anomalous result was followed up with two AC lines drilled 100m either side of the initial anomalous result. Significant

21SWAC100.

results include 8m @ 2.39g/t Au from 40m in 21SWAC101 and 24m @ 0.36g/t Au from 12m in

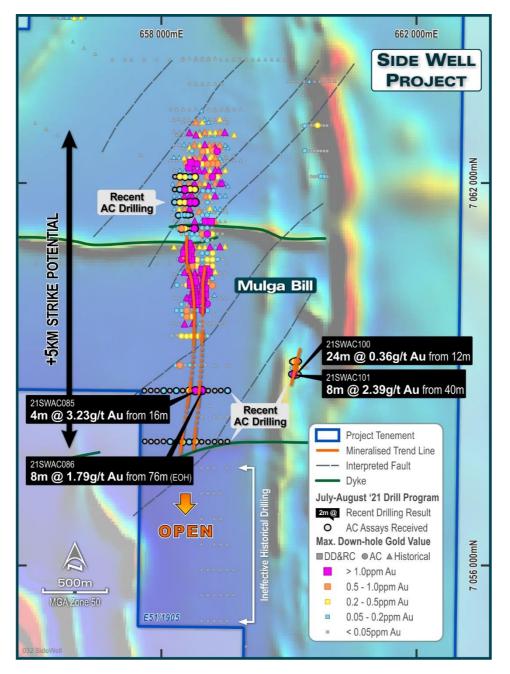


FIGURE 2: A LARGER SCALE MAP OF MULGA BILL SHOWING STRIKE EXTENSION TO THE SOUTH AND THE NEW, AS YET UNNAMED DISCOVERY TO THE EAST.

These results indicate a northeast trending gold bearing structure is associated with As-Sb-W bottom-of-hole multi-element anomalism. This mineralisation is currently open in all directions with no drilling within 5km to the north or south.

Two regional aircore lines were completed to the south of the Mulga Bill to test the strike extensions and gain lithological and multi-element data. These holes were successful in intersecting gold mineralisation in the projected extension position of the western lode. Significant results from drilling include 4m @ 3.23g/t Au from 16m in 21MBRC085 and 8m @ 1.79g/t Au from 76m to EOH in 21SWAC086. This drilling has now extended the Mulga Bill gold system to over 5km in strike length and remains open to both the north and south.

The two southern air core lines have been successful in delineating a +1ppm Bi corridor associated with gold mineralisation. 21SWAC110 on the southern-most line returned an extremely high bottom of hole bismuth result of 12.4ppm Bi, indicating the potential of this structure. Historic drilling further to the south of this area averaged less than 40m in depth and is similarly deemed ineffective, meaning there is potential for Mulga Bill to be extended further south with subsequent rounds of AC drilling.

#### **NEXT STEPS**

Phase 4 RC program at Mulga Bill is now complete. Only 10 holes were completed due to slow drilling rates before field crews had to mobilise to Whiteheads for a scheduled AC program. These 10 holes targeted extensions to the high-grade intersections reported from the Phase 3 RC program and deeper targets within the central zone at Mulga Bill. Further RC drilling (Phase 5) at Mulga Bill is scheduled for late October to continue follow-up on the multiple mineralisation zones identified in drilling. Assays of Phase 1 diamond drilling (DD) and Phase 4 RC drilling are expected in October. The diamond drilling results are expected to provide important structural context to the gold mineralisation identified to date at Mulga Bill.

The Whiteheads regional aircore program commenced on the 18<sup>th</sup> September. Approximately 6,000m of drilling is planned testing regional auger anomalies and following up on previous significant intersections.

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

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#### Media

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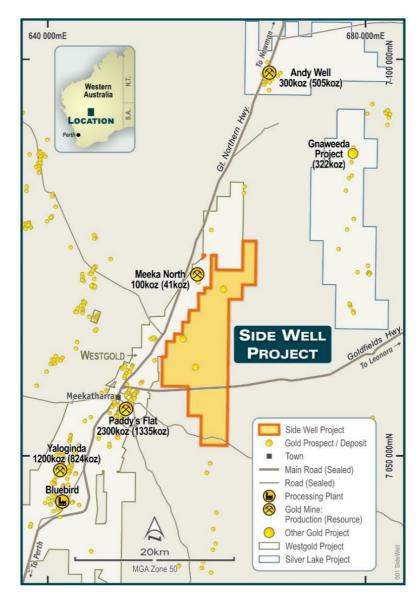


FIGURE 3: SIDE WELL PROJECT LOCATION PLAN.

#### **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 RC INTERSECTIONS REPORTED AT A 1G/T AU CUT-OFF.

Hole ID	Depth (m)	From (m)	To (m)	Width (m	) Grade g/	/t Au Comments	
21MBRC037	130	89	90	1	11.01		
		99	107	8	1.50		
21MBRC038	160		No Significant Intercept				
21MBRC039	180	88	92	4	3.34	4m composite	
		105	108	3	5.34		
21MBRC040	190	72	80	8	3.63	4m composite	
		98	99	1	2.78		
21MBRCD041	120	64	72	8	1.04	4m composite	
21MBRCD042	110	72	76	4	2.16	4m composite	
21MBRCD043	129	No Significant Intercept					
21MBRCD044	133		No Significant Intercept				

#### TABLE 2: SIGNIFICANT AC INTERSECTIONS REPORTED AT A 0.2G/T AU CUT-OFF.

Hole ID	Depth	From (m)	To (m)	Width (m)	Grade g/t Au	Comments
	(m)		,			connents
21SWAC055	87	52	56	4	0.57	4m composite
		72	76	4	0.43	4m composite
		84	87	3	0.43	3m composite
21SWAC056	57	0	4	4	0.26	4m composite
21SWAC059	84	68	72	4	2.46	4m composite
21SWAC066	132	24	28	4	0.49	4m composite
21SWAC067	150	24	28	4	0.26	4m composite
21SWAC068	117	112	116	4	1.39	4m composite
21SWAC069	129	90	93	3	2.35	
		110	113	3	0.48	
21SWAC072	126	24	28	4	0.24	4m composite
		99	100	1	1.10	
21SWAC073	126	48	52	4	0.31	4m composite
		116	120	4	0.22	4m composite
21SWAC074	152	52	68	16	0.26	4m composite
		88	92	4	0.47	4m composite
21SWAC076	60	56	60	4	0.21	4m Composite - EOH
21SWAC077	111	48	52	4	0.43	4m composite
21SWAC079	96	52	60	8	0.28	4m composite
		68	72	4	0.27	4m composite
21SWAC084	111	96	100	4	0.23	4m composite
21SWAC085	66	16	20	4	3.23	4m composite
		48	56	8	0.48	4m composite
21SWAC086	84	76	84	8	1.79	4m composite
21SWAC096	61	9	10	1	0.84	

21SWAC097	62	4	8	4	0.23	4m composite
21SWAC100	64	12	36	24	0.36	4m composite
		48	52	4	0.283	4m composite
21SWAC101	69	4	8	4	0.34	4m composite
		32	36	4	0.33	4m composite
		40	48	8	2.39	

# TABLE 3: RC Collar details. Coordinates are in GDA94\_50 projection. Holes 041 to 044 ARE PRE-COLLARS DRILLED IN PREPARATION FOR THE DIAMOND PROGRAM IN LATE JULY.

Hole ID	Northing	Easting	RL	Depth	Dip	Azimuth	Comments
21MBRC030	7060849	658376	513	136	-60	270	
21MBRC031	7060850	658420	513	150	-60	270	
21MBRC032	7060851	658473	517	180	-60	270	
21MBRC033	7060902	658355	515	138	-60	090	
21MBRC034	7060950	658430	512	150	-60	270	
21MBRC035	7060299	658649	515	135	-60	270	
21MBRC036	7060399	658458	516	160	-60	270	
21MBRC037	7060449	658457	516	130	-60	270	
21MBRC038	7060448	658706	515	160	-60	270	
21MBRC039	7060246	658688	515	180	-60	270	
21MBRC040	7060348	658688	518	190	-60	270	
21MBRC041	7060149	658643	515	120	-60	270	RC pre-collar
21MBRC042	7060448	658532	516	110	-60	270	RC pre-collar
21MBRC043	7060879	658490	515	129	-60	270	RC pre-collar
21MBRC044	7060919	658491	516	133	-60	270	RC pre-collar

#### TABLE 4: AC COLLAR DETAILS. COORDINATES ARE IN GDA94\_50 PROJECTION.

Hole ID	Northing	Easting	RL	Depth	Dip	Azimuth	Comments
21SWAC055	658315.18	7061285.78	510.659081	87	-60	270	
21SWAC056	658368.686	7061286.229	515.7808563	57	-60	270	
21SWAC057	658418.482	7061288.25	515.1520977	111	-60	270	
21SWAC058	658467.647	7061287.532	511.4980211	98	-60	270	
21SWAC059	658518.646	7061285.715	511.9756208	84	-60	270	
21SWAC060	658378.939	7061286.736	513.8744374	90	-60	270	
21SWAC061	658266.994	7061493.498	512.8976786	117	-60	270	
21SWAC062	658366.438	7061500.987	510.7903531	103	-60	270	
21SWAC063	658418.956	7061497.271	509.794418	143	-60	270	
21SWAC064	658466.647	7061497.477	511.3869945	108	-60	270	
21SWAC065	658208.233	7061699.166	510.5573771	113	-60	270	
21SWAC066	658290.665	7061697.607	510.2540942	132	-60	270	
21SWAC067	658366.937	7061696.367	510.7074704	150	-60	270	
21SWAC068	658451.952	7061696.559	512.5874963	117	-60	270	
21SWAC069	658529.181	7061698.106	511.2828366	129	-60	270	

#### ASX Announcement

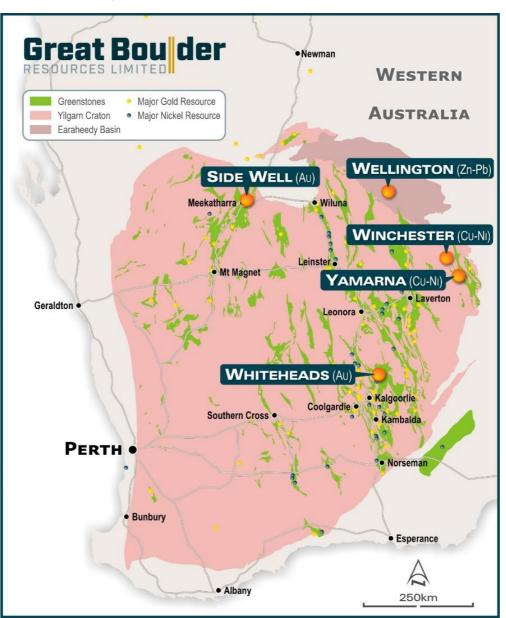
28 SEPTEMBER 2021

21SWAC070	658209.292	7061898.744	508.7861315	105	-60	270	
21SWAC071	658286.789	7061899.074	510.6444889	126	-60	270	
21SWAC072	658368.519	7061898.276	511.3852374	126	-60	270	
21SWAC073	658451.373	7061903.916	521.4623677	126	-60	270	
21SWAC074	658525.86	7061898.424	512.4303967	153	-60	270	
21SWAC075	658213.274	7062098.837	512.0867655	78	-60	270	
21SWAC076	658290.226	7062100.059	512.4497947	60	-60	270	
21SWAC077	658372.268	7062095.424	510.38503	111	-60	270	
21SWAC078	658448.445	7062095.449	508.1932348	114	-60	270	
21SWAC079	658528.554	7062095.989	514.4466892	96	-60	270	
21SWAC080	658036.516	7058741.51	514.0345345	111	-60	270	
21SWAC081	658133.922	7058742.757	515.9260408	111	-60	270	
21SWAC082	658234.272	7058742.986	515.6912741	81	-60	270	
21SWAC083	658334.372	7058743.713	514.9085332	87	-60	270	
21SWAC084	658434.933	7058742.707	515.9885606	111	-60	270	
21SWAC085	658532.977	7058741.444	516.6116157	66	-60	270	
21SWAC086	658634.829	7058745.525	516.7539306	84	-60	270	
21SWAC087	658734.733	7058742.527	516.5180734	120	-60	270	
21SWAC088	658838.11	7058742.123	514.664396	93	-60	270	
21SWAC089	658932.693	7058744.431	515.5919082	98	-60	270	
21SWAC090	659039.033	7058743.553	522.1410305	105	-60	270	
21SWAC091	657733.524	7058741.176	512.9597253	94	-60	270	
21SWAC092	657833.466	7058745.123	512.8759605	78	-60	270	
21SWAC093	657932.414	7058744.122	511.9088763	93	-60	270	
21SWAC094	660045.43	7059198.532	512.642273	54	-60	270	
21SWAC095	660161.826	7059202.626	519.2260403	42	-60	90	
21SWAC096	660123.799	7059202.373	519.5762034	61	-60	90	
21SWAC097	660081.803	7059199.947	519.533021	62	-60	90	
21SWAC098	660045.722	7059194.348	519.2401244	57	-60	90	
21SWAC099	660157.021	7058997.123	518.5684763	56	-60	90	
21SWAC100	660117.297	7059002.052	518.260205	64	-60	90	
21SWAC101	660078.526	7058996.42	520.8196708	69	-60	90	
21SWAC102	660042.765	7059001.931	518.8992384	38	-60	90	
21SWAC103	657740.253	7057946.579	510.092621	99	-60	270	
21SWAC104	657836.838	7057943.61	513.357483	120	-60	270	
21SWAC105	657931.647	7057941.992	510.727295	119	-60	270	
21SWAC106	658033.796	7057945.823	519.247375	99	-60	270	
21SWAC107	658137.654	7057942.983	513.348389	149	-60	270	
21SWAC108	658237.56	7057942.74	513.613342	111	-60	270	
21SWAC109	658333.006	7057936.236	513.588867	90	-60	270	
21SWAC110	658436.336	7057938.941	514.100281	71	-60	270	
21SWAC111	658532.318	7057943.508	514.578674	92	-60	270	
21SWAC112	658630.703	7057941.065	515.503662	104	-60	270	
21SWAC113	658732.861	7057937.688	514.889771	81	-60	270	
21SWAC114	658833.529	7057942.527	515.433044	48	-60	270	

21SWAC115	658930.929	7057940.981	516.040771	56	-60	270	
21SWAC116	659035.261	7057944.111	516.863159	33	-60	270	

#### 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. With a portfolio of highly prospective assets plus the backing of a strong technical team, the Company is well positioned for future success.





ASX Code: GBR

### 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
Sampling techniques	RC and AC 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 spear sample from
	each 1m bag.
	The sampling techniques used are deemed appropriate for the style of exploration.
Drilling techniques	RC Drilling was undertaken by KTE. AC drilling was undertaken by Prospect Drilling. Industry standard
	drilling methods and equipment were utilised.
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. Significant
	ground water was encountered in drilling which resulted in numerous wet samples.
	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	1m cyclone splits and 4m speared composite samples were taken in the field. Samples were
and sample preparation	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.
Quality of assay data	All samples were assayed by industry standard techniques.
and laboratory tests	
Verification of sampling	The standard GBR protocol was followed for insertion of standards and blanks with a blank and
and assaying	standard inserted per 40 samples. No QAQC problems were identified in the results. No twinned
	drilling has been undertaken.
	The gravity data was checked and verified independently by a consulting geophysicist.
Data spacing and	The spacing and location of the majority of drilling in the projects is, by the nature of early
distribution	exploration, variable.
	The spacing and location of data is currently only being considered for exploration purposes.
Orientation of data in	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.
relation to geological	The widel and orientation of intersected mineralisation is currently diknown of not clear.
structure	The spacing and location of the data is currently only being considered for exploration purposes.
Sample security	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.
Audits or reviews	Data review and interpretation by an independent consulting geophysicist.

#### Section 2 Reporting of Exploration Results

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

Criteria	Commentary
Mineral tenement and	Side Well tenement E51/1905 is a 48-block exploration license covering an area of 131.8km2
land tenure status	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.
Exploration done by	Tenement E51/1905 has a protracted exploration history but is relatively unexplored compared to
other parties	other regions surrounding Meekathara. The Explroation history by previous explorers has been described in the technical section of the announcement.
Geology	The Side Well tenement group covers a portion of the Meekatharra-Wydgee Greenstone Belt north of Meekatharra, WA. The north-north-easterly 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 same The group the provestion is intersected to be tightly folded into a group the plane intersection and airborne magnetic data.
	<ul><li>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.</li><li>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.</li></ul>
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	<ul> <li>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.</li> <li>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.</li> </ul>
	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 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.
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.