ASX Announcement

14 SEPTEMBER 2023

Great Boulder
RESOURCES LIMITED

MORE HIGH GRADES IN RC DRILLING AT MULGA BILL

HIGHLIGHTS

- **Ongoing RC drilling at Mulga Bill has intersected high-grade gold in the "gap" zone between the Central and HGV resource areas. Highlights include:**
  - **6m @ 30.96g/t Au from 113m, including 1m @ 173.50g/t Au from 116m in 23MBRC045**
  - **8m @ 5.71g/t Au from 216m, including 3m @ 13.84g/t Au from 216m in 23MBRC057**
  - **7m @ 4.94g/t Au from 129m in 23MBRC051**
- **"Cervelo" veins intersected at depth, >300m long, open along strike and down dip**
- **Heritage surveys are scheduled to commence on 20 September over the new high priority regional targets defined within the 14km Ironbark Corridor in preparation for maiden drill testing in Q4 2023**
- **The Company is on track to deliver an updated Mineral Resource Estimate for Mulga Bill and Ironbark at the end of October**

Great Boulder Resources ("**Great Boulder**" or the "**Company**") (ASX: **GBR**) is pleased provide an update on results from Phase 3 RC drilling at the Company's flagship Side Well Gold Project ("**Side Well**") near Meekatharra in Western Australia.

Great Boulder's Managing Director, Andrew Paterson commented:

"The Phase 3 program was designed to test the gap between our Central and HGZ zones at Mulga Bill. This is outside the current mineral resource, so we're excited to see high grades confirming our structural interpretation in that area."

"These high-grade intersections are interpreted to include mineralisation in subvertical lodes as well as high-grade west-dipping veins at depth, which remain open down dip and along strike."

"The RC rig is now completing a small Phase 4 program, which is filling in a few gaps in the data prior to our next resource update."

"We are also looking forward to starting a new heritage survey over the Ironbark corridor next week. This is an important step forward for Great Boulder, setting the stage for a big regional AC drilling campaign to test this extremely prospective zone in the months ahead."

17 RC holes were drilled for a total of 3,870m in this campaign, with resource definition drilling ongoing at Mulga Bill in preparation for the pending Side Well resource update. The main aim of this program was to test the continuity of mineralisation in the gap between the Central and HGV Zones at Mulga Bill. Until recently this area been relatively poorly tested because many of the earlier holes were drilled towards the west. With improved geological understanding, all subsequent holes have been drilled towards grid east to intersect west-dipping vein structures.

Drilling within the gap has intersected mineralisation within subvertical shear-hosted or "Malvern" lodes as well as west-dipping vein hosted "Cervelo" lodes. This combination of structures is the same as that seen within the mineral resource areas to the north and south. By extrapolation, we expect that the same orientations are likely to control mineralisation at Mulga Bill North.

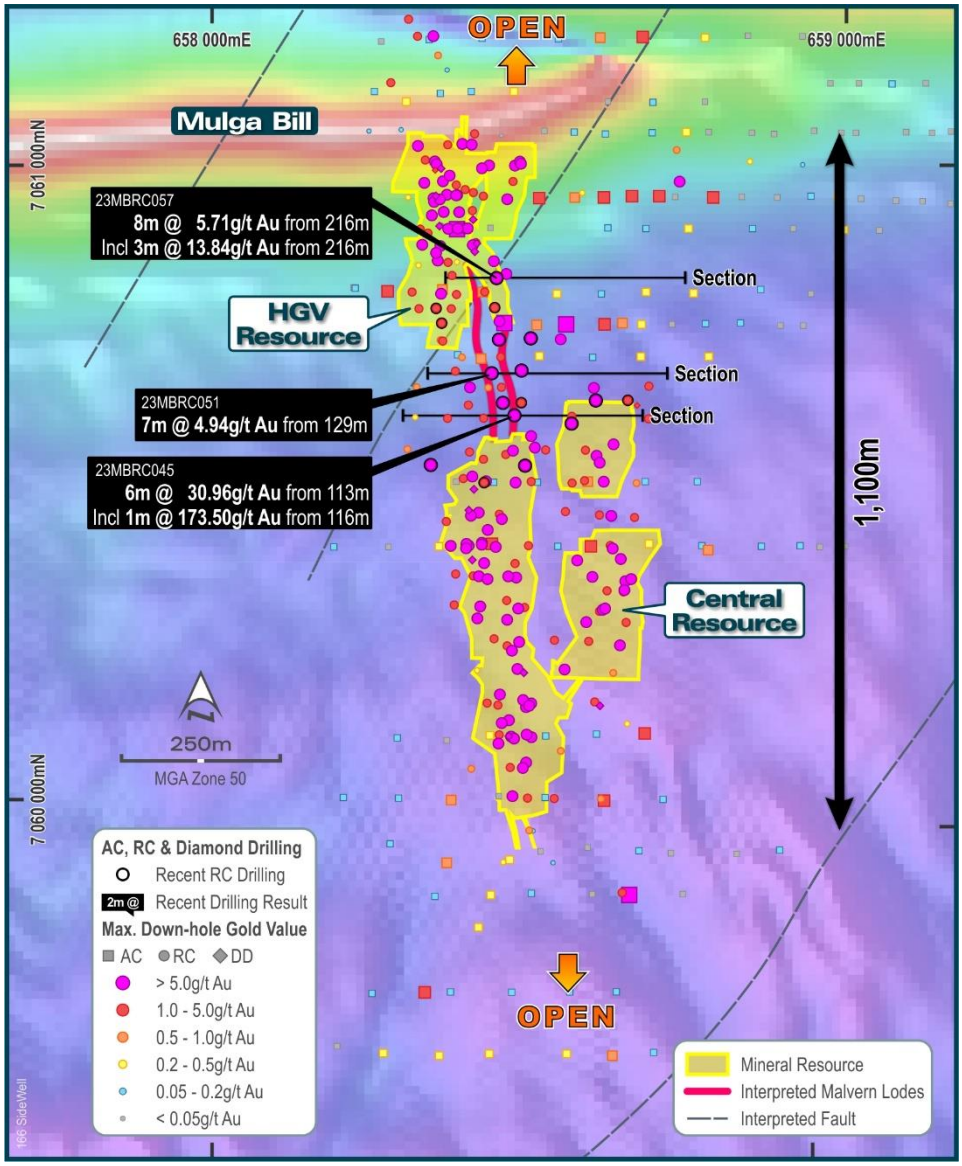

FIGURE 1: RECENT HIGHLIGHTS FROM MULGA BILL RC DRILLING

Within the gap area the strike of the shear appears to flex from northwest to northeast, forming a dilational jog. Tensional high-grade vein sets dipping shallowly to the west have also been

intersected, and the result in 23MBRC045 (**6m @ 30.96g/t Au** from 113m including 1m @ 173.50g/t Au) is likely to be within one of these veins.

Hole 23MBRC057 (**2m @ 13.50g/t Au** from 188m and **8m @ 5.71g/t Au** from 216m) is interpreted to represent an intersection between the deeper west-dipping Cervelo lodes and the north-south shear style mineralisation. The Cervelo lodes have now been intersected over a strike length of more than 300m, and mineralisation remains open down dip and along strike.

Figure 2 below is a long section highlighting recent drilling. The section displays conceptual pit shells based on the January 2023 Resource (see ASX Announcement 01/02/2023) and are for illustration purposes only. **The latest drill results have provided significant high-grade results outside the existing resource estimate**, now proving continuity of mineralisation over a total strike length of 1,100m.

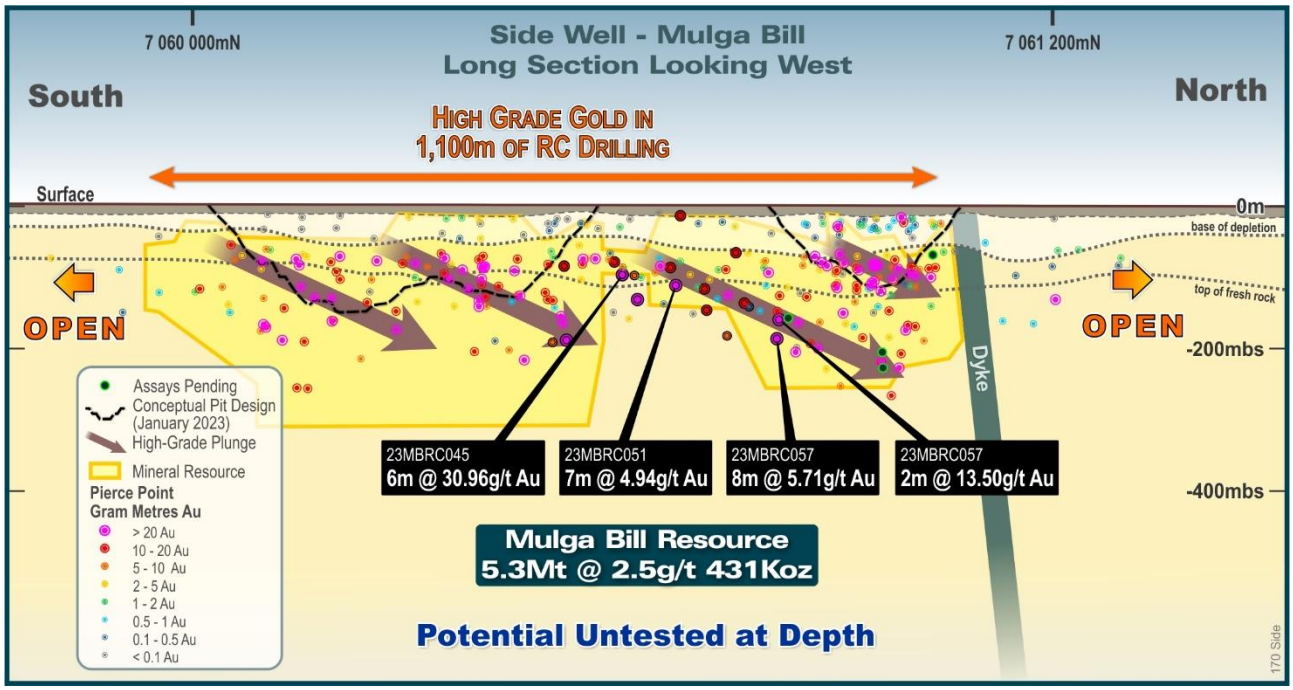

FIGURE 2: A PROJECTED LONG SECTION OF MULGA BILL SHOWING CONCEPTUAL PIT SHELLS AND APPARENT HIGH-GRADE PLUNGE TO THE NORTH.

Better results from Phase 3 RC drilling include:

- 5m @ 3.24g/t Au from 103m in 23MBRC041
- 11m @ 2.27g/t Au from 85m, including 3m @ 4.72g/t Au from 93m in 23MBRC042
- **6m @ 30.96g/t Au** from 113m, including **1m @ 173.50g/t Au** 116m in 23MBRC045
- 3m @ 5.19g/t Au from 91m, including 1m @ 11.45g/t Au from 91m in 23MBRC047
- **4m @ 5.72g/t g/t Au** from 156m, including 1m @ 16.75g/t Au from 157m in 23MBRC049
- **7m @ 4.49g/t Au** from 129m, including **1m @ 17.05g/t Au** from 132m in 23MBRC051
- 3m @ 3.87g/t Au from 135m, including 1m @ 9.48g/t Au from 135m in 23MBRC052

- 3m @ 13.50g/t Au from 188m, and **8m @ 5.71g/t Au** from 216m including **3m @ 13.84g/t Au** from 216m in 23MBRC057.

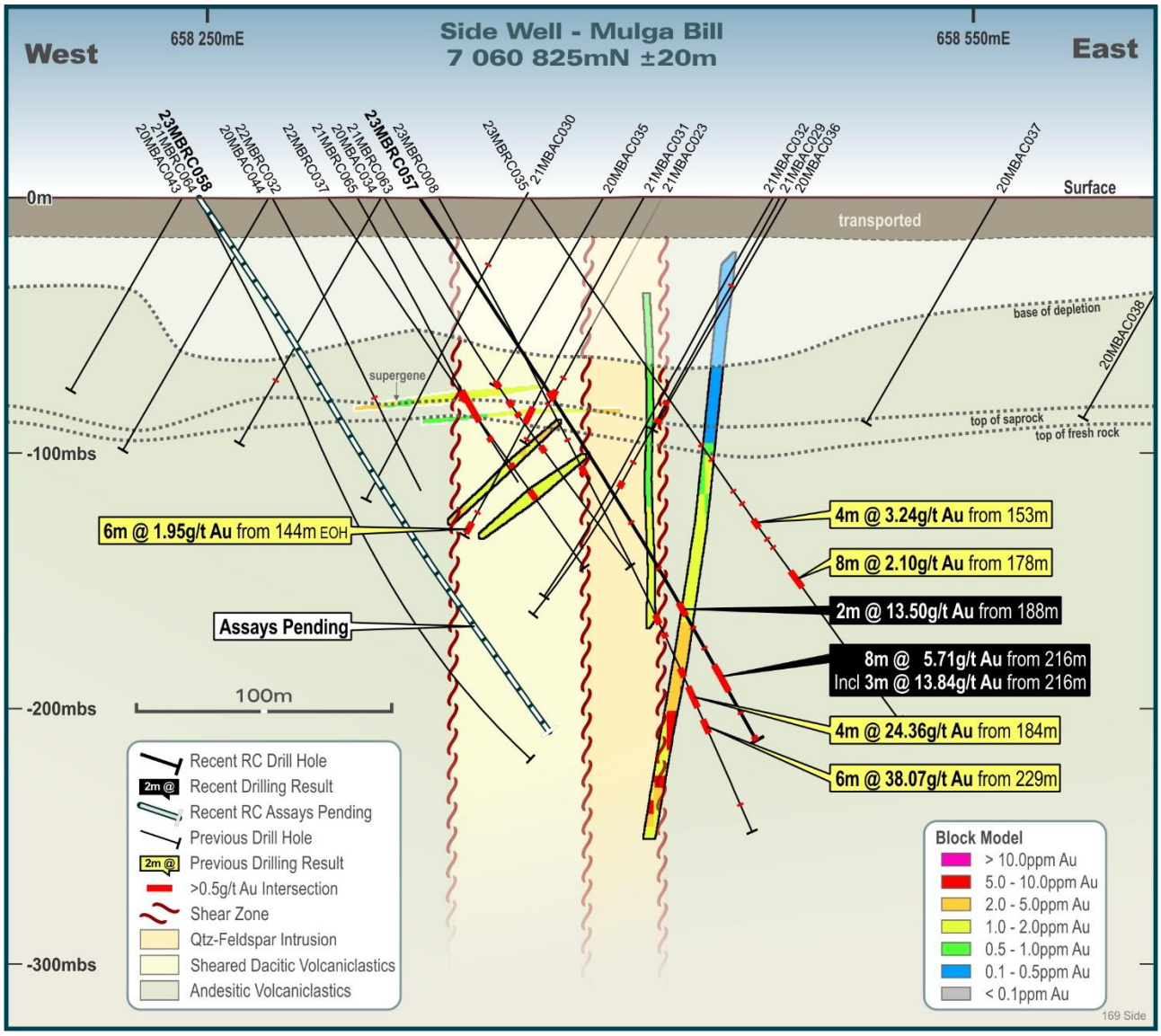

FIGURE 3: THE NORTHERN-MOST CROSS SECTION SHOWS HIGH GRADES AT DEPTH IN 23MBRC057 AND 23MBRC008. THIS IS INTERPRETED TO BE A WEST-DIPPING CERVELO LODE.

The rig has now moved onto another phase of resource definition drilling, including slimline RC holes to better define shallow gold mineralisation within the regolith at Mulga Bill.

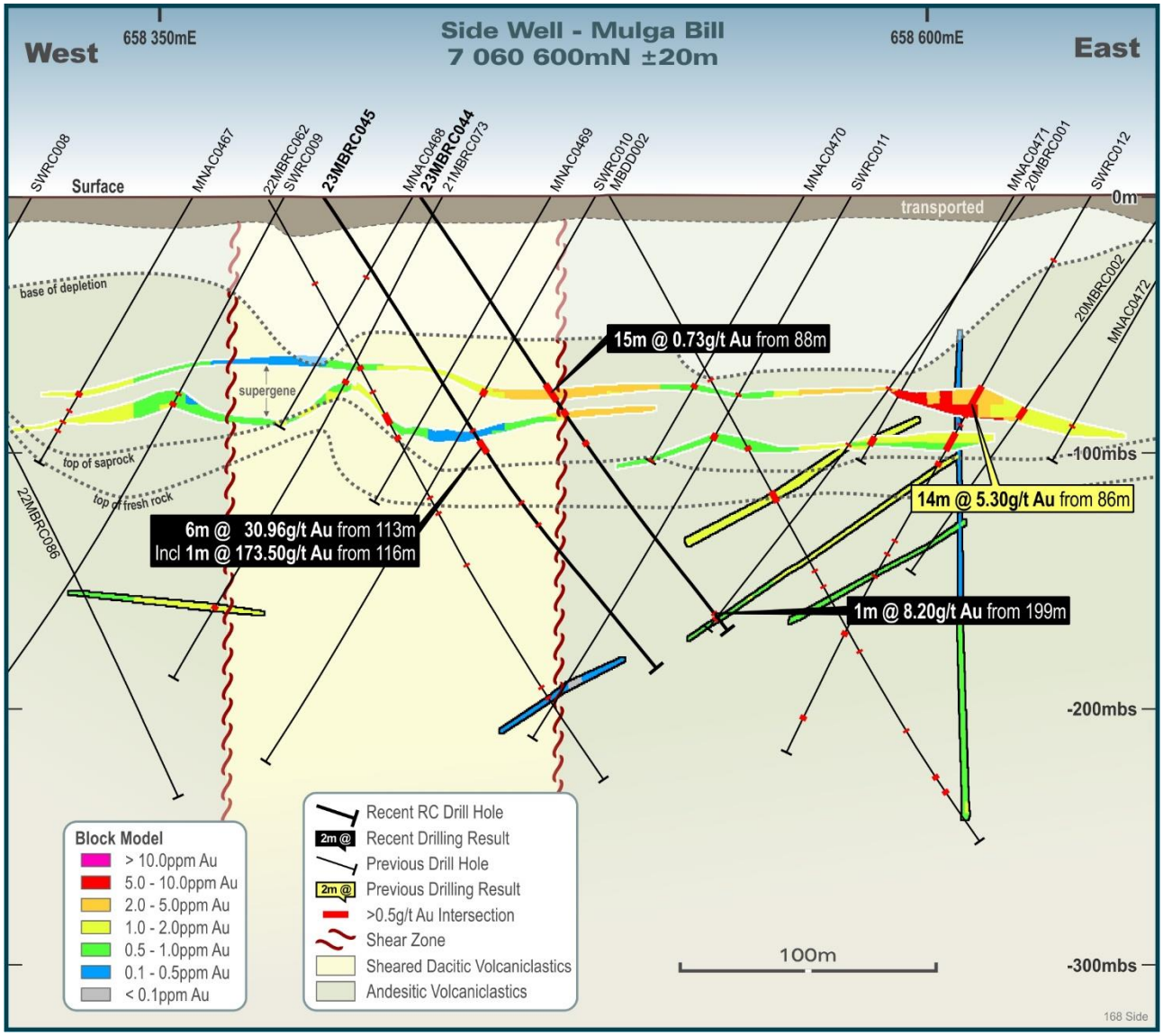

FIGURE 4: MULGA BILL MIDDLE CROSS SECTION, HIGHLIGHTING RECENT DRILL RESULTS SUPPORT THE EXISTING INTERPRETATION.

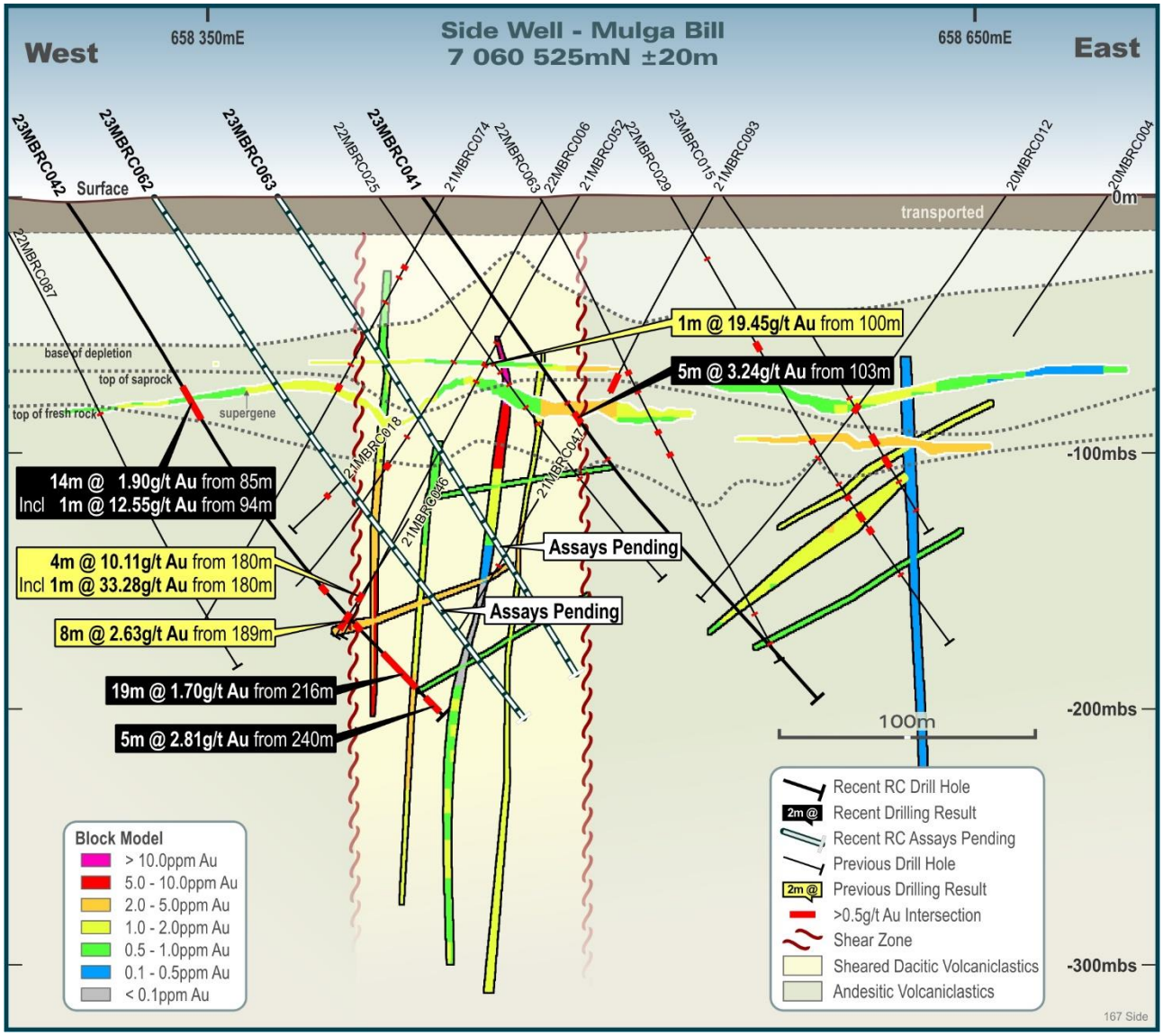

FIGURE 5: MULGA BILL SOUTHERN-MOST CROSS SECTION. HOLE 23MBRC042 INTERSECTED THICKER SUPERGENE MINERALISATION THAN PREVIOUSLY MODELLED, AS WELL AS BROAD ZONES OF LOWER GRADE MINERALISATION AT DEPTH THAT MAY SIT WITHIN THE SUBVERTICAL MALVERN LODES.

Yugunga Nya heritage and land access

After reaching in-principle agreement on cultural heritage management and land access with the Yugunga Nya Traditional Owner group in July the first heritage surveys south of Ironbark are scheduled to commence on 20 September 2023. This is an important step forward in Great Boulder's regional exploration plans, as it will commence the process of clearing highly prospective exploration targets for AC drilling during the fourth quarter of 2023.

The Ironbark corridor is a 14km-long zone of hydrothermal mineralisation and alteration, larger in surface extent than the Paddy's Flat gold camp. The same geochemical pathfinder signature appears to continue south into the Wanbanna ground, in which GBR recently acquired an 80% joint venture interest.

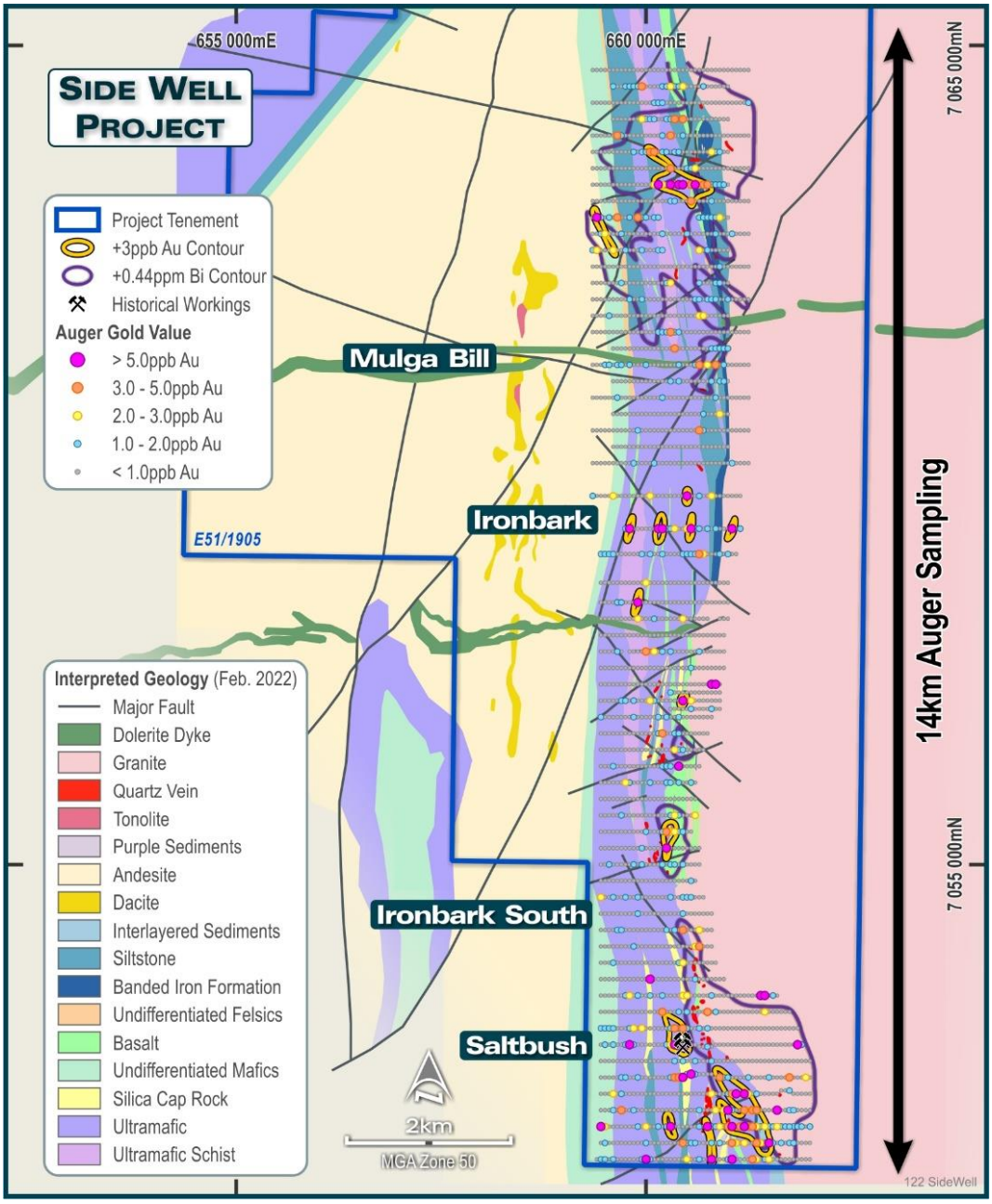

FIGURE 6: REGIONAL TARGETS WITHIN THE IRONBARK CORRIDOR. HERITAGE SURVEYS WILL INITIALLY PRIORITISE THE SALTBUSH AREA.

Next Steps

RC drilling is on track to be completed this week. With gold and multi-element assay turnaround currently averaging approximately three weeks, all data should be received by the first week of October.

While the drilling and assay data is being collated Great Boulder's geologists will start updating the mineralisation envelopes for Mulga Bill and finalise those for Ironbark.

All data and wireframes are on track to be delivered to the resource estimation consultant in mid-October with the aim of re-estimating both mineral resources by the end of October.

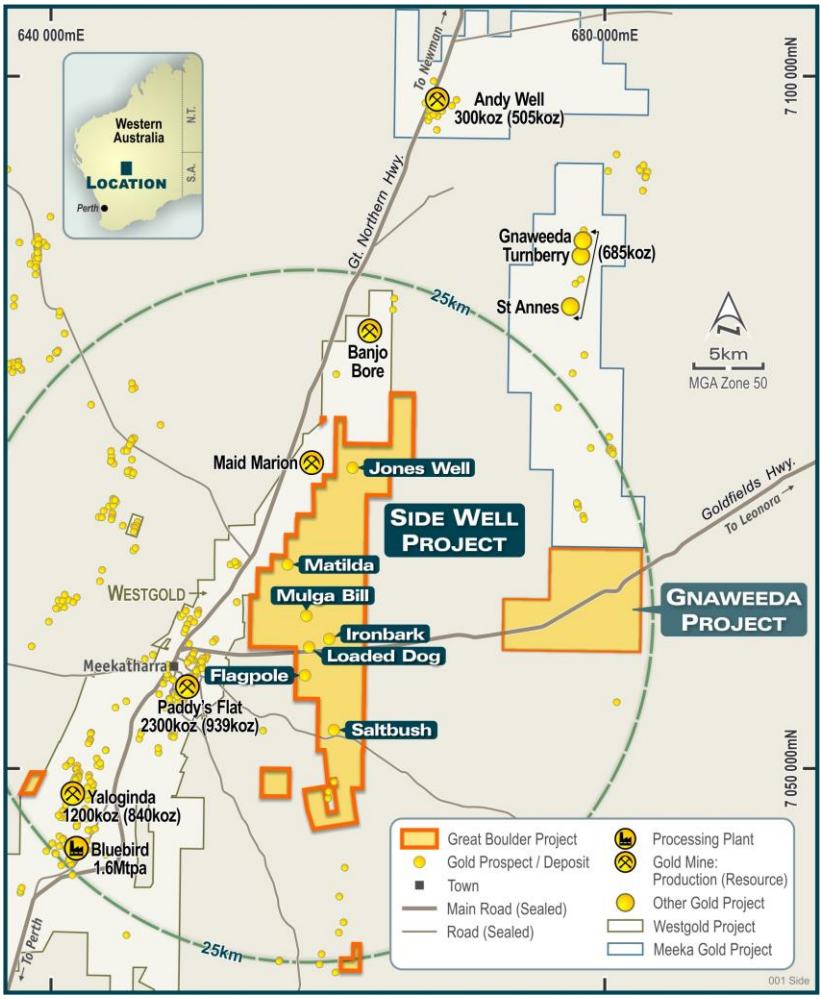

FIGURE 7: SIDE WELL LOCATION PLAN.

This announcement has been approved by the Great Boulder Board.

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TABLE 1: SIDE WELL INFERRED MINERAL RESOURCE (ASX 1 FEB 2023)

Deposit	Category	Tonnes	Grade (g/t Au)	Au (Koz)
Mulga Bill	Inferred	5,258,000	2.5	431,000
Ironbark	Inferred	934,000	2.9	87,000
Global Resource	**Total**	**6,192,000**	**2.6**	**518,000**

Resources reported at a cut-off grade of 0.5g/t gold for open pit and 1.0g/t for underground

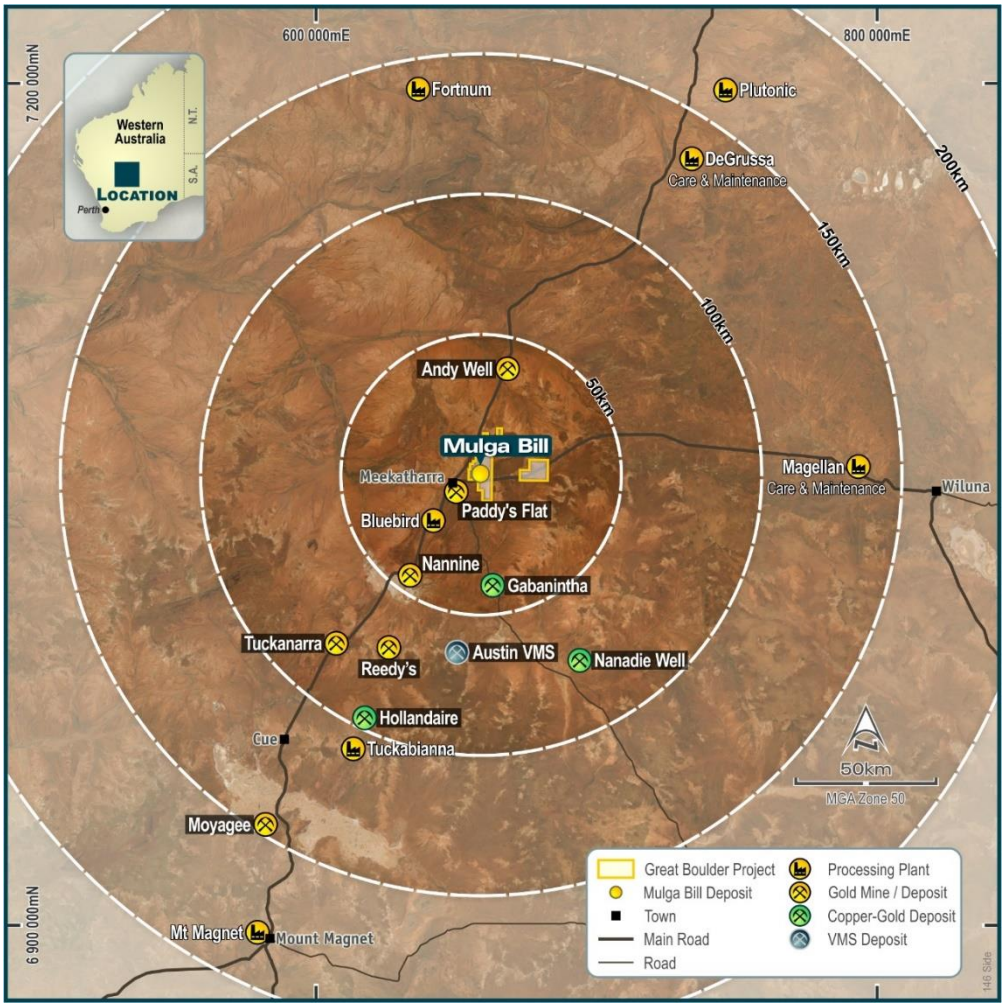


FIGURE 8: SIDE WELL IS STRATEGICALLY LOCATED CLOSE TO EXISTING MINES AND INFRASTRUCTURE

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 1 February 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.

TABLE 2: SIGNIFICANT INTERSECTIONS

Prospect	Hole ID	From	To	Width	Grade g/t Au	Comments
Mulga Bill	23MBRC041	98	99	1	0.59	
		103	108	5	3.24	
		125	126	1	0.74	
		132	136	4	0.24	4m composite
		140	144	4	0.10	4m composite
		148	152	4	0.20	4m composite
	23MBRC042	85	99	14	1.90	
	Including	86	88	2	3.59	
	And	93	96	3	4.72	
		98	99	1	0.62	
		120	124	4	0.12	4m composite
		180	184	4	0.50	4m composite
		200	204	4	0.93	4m composite
		216	235	19	1.70	
	Including	216	220	4	1.32	4m composite
	And	231	234	3	3.65	
		240	245	5	2.81	
		249	250	1	0.52	EOH
	23MBRC043	92	96	4	0.18	4m composite
		246	247	1	0.79	
		262	263	1	0.79	
		265	268	3	2.27	
		271	272	1	1.17	
		286	287	1	1.45	
	23MBRC044	88	103	15	0.73	4m comps to 100m
		115	117	2	0.71	
		199	200	1	8.20	
	23MBRC045	28	32	4	0.12	4m composite
		108	109	1	0.66	
		113	114	1	0.69	
		113	119	**6**	**30.96**	
	Including	116	117	**1**	**173.50**	
		142	143	1	1.38	
		153	154	1	0.75	
	23MBRC046	97	100	3	2.18	
		109	110	1	0.61	
		113	114	1	0.51	
		148	152	4	0.15	4m composite
		168	184	16	0.27	4m composites
	23MBRC047	91	94	3	5.19	
	Including	91	92	**1**	**11.45**	

		98	101	3	0.91	
		108	110	2	0.87	
		151	155	4	0.94	
		158	160	2	1.37	
		196	200	4	1.16	4m composite
		216	219	3	1.59	
	23MBRC048	93	94	1	1.78	
		118	121	3	1.81	
		198	200	2	1.36	
	23MBRC049	32	36	4	0.13	4m composite
		72	76	4	0.64	4m composite
		80	84	4	0.19	4m composite
		97	98	1	0.69	
		156	**160**	**4**	**5.72**	
	Including	**157**	**158**	**1**	**16.75**	
		188	192	4	1.01	4m composite
	23MBRC050	95	96	1	4.97	
		101	104	3	4.93	
	Including	101	102	**1**	**11.60**	
		110	111	1	0.61	
		152	156	4	0.17	
	23MBRC051	17	19	2	5.09	
		68	84	16	1.53	4m composites
	Including	68	76	8	2.55	4m composites
		111	112	1	0.52	
		114	115	1	1.12	
		129	130	1	2.61	
		129	136	**7**	**4.94**	
	including	132	133	**1**	**17.05**	
		168	172	4	1.18	4m composite
		231	232	1	1.11	
	23MBRC052	135	138	3	3.87	
	including	135	136	1	9.48	
		141	142	1	1.80	
		148	152	4	0.18	4m composite
	23MBRC053	84	92	8	0.82	4m composites
		100	105	5	1.35	4m composite
		114	115	1	0.75	
		129	130	1	9.90	
		136	140	4	0.16	4m composite
		146	147	1	0.51	
		167	172	5	2.81	
		212	216	4	0.75	4m composite
	23MBRC054	68	72	4	0.20	4m composite

		76	88	12	1.09	4m composites
		176	184	8	0.29	4m composites
		216	220	4	2.10	4m composite
		232	236	4	0.21	4m composite
	23MBRC055	52	56	4	0.18	4m composite
		82	83	1	0.73	
		84	85	1	0.53	
		100	104	4	0.19	4m composite
		112	121	9	0.22	4m comps to 120m
		123	148	25	0.17	4m comps from 124m
		162	166	4	2.60	
		198	200	2	3.39	
		212	220	8	0.14	4m composites. EOH.
	23MBRC056	126	127	1	1.14	
	23MBRC057	91	95	4	2.15	
		107	108	1	2.40	
		151	152	1	3.65	
		172	173	1	3.43	
		188	190	**2**	**13.50**	
		193	194	1	6.03	
		208	209	1	1.91	
		216	224	**8**	**5.71**	
	including	216	219	**3**	**13.84**	
		227	228	1	0.51	
		244	250	6	0.39	4m comp to 248; EOH

Significant intersections are intervals with a 4m composite assay >0.1g/t Au or a 1m assay >0.5g/t Au

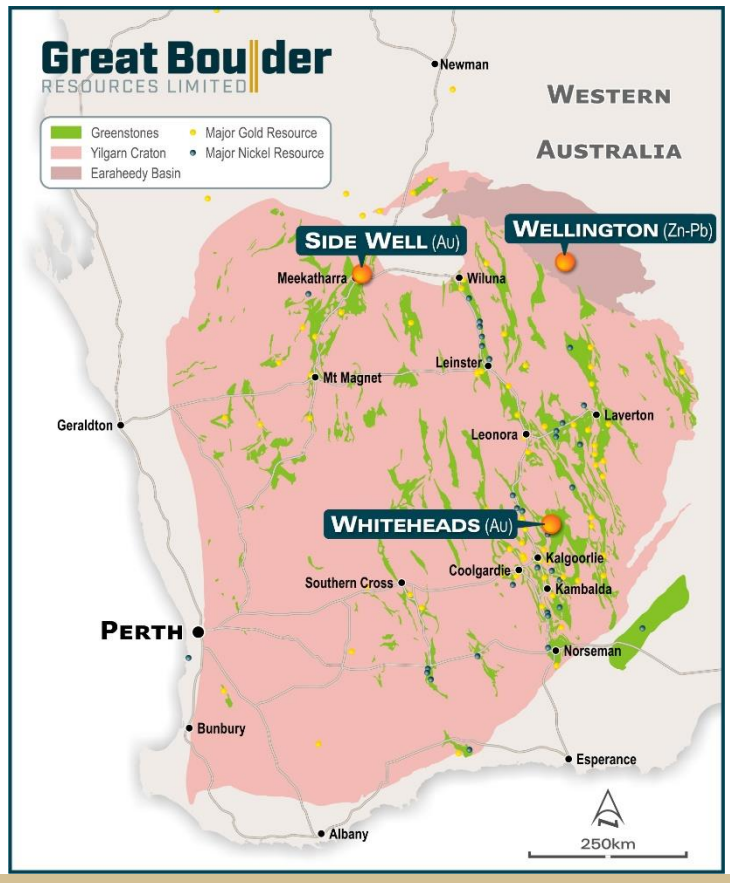
TABLE 3: COLLAR DETAILS. COORDINATES ARE IN GDA94 ZONE 50 PROJECTION.

Hole ID	Prospect	Easting	Northing	RL	Depth	Dip	Azimuth
23MBRC041	Mulga Bill	658435	7060525	511	250	-55	87
23MBRC042	Mulga Bill	658291	7060525	509	250	-55	87
23MBRC043	Mulga Bill	658254	7060500	510	292	-55	87
23MBRC044	Mulga Bill	658452	7060596	511	208	-55	87
23MBRC045	Mulga Bill	658411	7060600	510	226	-55	87
23MBRC046	Mulga Bill	658602	7060625	510	196	-55	87
23MBRC047	Mulga Bill	658552	7060625	510	250	-55	87
23MBRC048	Mulga Bill	658422	7060625	510	208	-55	87
23MBRC049	Mulga Bill	658372	7060625	510	202	-55	87
23MBRC050	Mulga Bill	658434	7060675	510	202	-55	87
23MBRC051	Mulga Bill	658363	7060672	510	244	-55	87
23MBRC052	Mulga Bill	658433	7060725	510	208	-55	87
23MBRC053	Mulga Bill	658388	7060725	510	220	-55	87
23MBRC054	Mulga Bill	658319	7060750	511	244	-55	87

23MBRC055	Mulga Bill	658357	7060775	511	220	-55	87
23MBRC056	Mulga Bill	658285	7060773	509	200	-55	87
23MBRC057	Mulga Bill	658333	7060825	513	250	-55	87

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 to advanced exploration. The Company's core focus is the Side Well Gold Project at Meekatharra in the Murchison gold field, where the Company has an Inferred Mineral Resource of 6.192Mt @ 2.6g/t Au for 518,000oz 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

505.3M	**$4.3M**	**$1.5M**	**$50k**
SHARES ON ISSUE	**CASH**	**LISTED INVESTMENT**	**DAILY LIQUIDITY**
ASX: GBR	As at 30 June 2023	Cosmo Metals (ASX:CMO)	Average 30-day value traded
$32.8M	**Nil**	**25.3M**	**30.3%**
MARKET CAP	**DEBT**	**UNLISTED OPTIONS**	**TOP 20 OWNERSHIP**
At $0.065/sh	As at 30 Jun 2023		

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

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

Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	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 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.
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.
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. 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.
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 Ipec 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 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.