

Exploration drilling update as third prospect delivers mineralised intervals at Mt Hardy

Hendrix-style mineralisation intersected at the Laver prospect, 1.2km east of the current Resource, highlighting growing potential across the Mt Hardy Project

Key Points:

- **Laver is now the third prospect with confirmed base metal mineralisation intersected at depth during initial reconnaissance RC drilling**
 - **Best intercept drilled to date in terms of combined base metal grade and width in first-pass RC drilling**
 - **Holes are at the northern extent of a >250m outcropping base metal gossan**
- **All outstanding assays now received for recently completed reconnaissance RC drilling program**
- **Mineralisation also intersected at Hendrix NW and in follow up drilling at Gilly North**
- **Results provide further confirmation that numerous occurrences of base metal mineralisation are located within a 2km radius of the Hendrix Mineral Resource**
- **Deeper focused exploration targeting additional massive sulphide mineralisation will commence on a number of prospects at the beginning of the 2020 exploration program**

Todd River Resources Limited (**ASX: TRT**) is pleased to advise that it has intersected significant shallow base metal mineralisation in recent Reverse Circulation drilling at a third prospect at its 100%-owned **Mt Hardy Copper-Zinc Project** in the Northern Territory (Figures 1 and 2).

The results, from the Laver prospect located just 1.2km east of the Inferred Resource at the Hendrix Deposit (**2.6Mt @ 10.5% Zn equivalent**), highlight the success of the recently completed reconnaissance Reverse Circulation (RC) drilling program, which has returned mineralised intervals from five of the prospects tested in the program.

All results from the reconnaissance RC drilling program completed in November have now been received and significant intersections are tabulated in Appendix A. The final batch of assays show that base metal mineralisation was also intersected at Hendrix NW and in follow-up drilling at Gilly North.

The drilling at Laver targeted a >250m strike length of outcropping base metal gossan that has a number of thicker zones and occurrences of highly anomalous base metal rock chip samples (Figure 3).



Best results were returned from the first line of drilling at the north of the trend (Figures 3 and 4) with results as follows:

- 15m @ 0.4% Cu, 1.7% Pb, 5.4% Zn and 29g/t Ag (**7.5% combined base metals**) from 111m, **including:**
 - **3m @ 0.6% Cu, 1.5% Pb, 11.7% Zn and 39.4g/t Ag (13.8% combined BM)** from 111m (MHRC0091) and:
- 4m @ 0.9% Cu, 1.4% Pb, 2.9% Zn and 30g/t Ag (**5.1% combined base metals**) from 49m, **including:**
 - **2m @ 1.3% Cu, 2.0% Pb, 4.5% Zn and 41.5g/t Ag (7.8% combined BM)** from 50m (MHRC0090)

Additional drilling completed at Laver on two sections to the south of holes 90 and 91 (also shown in Figure 3), targeted areas identified through mapping and surface sampling also intersected base metal mineralisation. Two holes (MHRC0092 and 0093) on the next section 100 metres to the south of MHRC0090 and MHRC0091 also intersected base metal mineralisation, as follows:

- 3m @ 0.6% Cu, 1.5% Pb, 0.5% Zn and 27.2g/t Ag (2.6% combined base metals) from 12m, (MHRC0092); and
- 1m @ 0.6% Cu, 0.6% Pb, 4.7% Zn and 16g/t Ag (5.9% combined base metals) from 49m (MHRC0093).

The positive results at Laver supplement those from the shallow base metal mineralisation reported from Hendrix South (see ASX announcement, 8 November 2019) and Gilly North (see ASX announcement, 25 October 2019).

At Hendrix North West, shallow drilling intersected mineralisation which is interpreted as an up-dip extension to the hangingwall lode to the Hendrix resource (this mineralisation sits outside the current resource estimate). Best results include:

- 5m @ 1.2% Cu, 4.1% Pb, 2.4% Zn and 70g/t Ag (7.8% combined base metals) from 34m, including 1m @ 1.8% Cu, 12.2% Pb and 6.3% Zn and 233g/t Ag from 37m (MHRC0082).
- 4m @ 0.6% Cu, 3.2% Pb, 3.0% Zn and 32g/t Ag (6.8% combined base metals) from 33m (MHRC0081)

A number of holes were drilled to follow up the mineralisation intersected previously at Gilly North (Figure 5). MHRC0099, drilled approximately 50m down-dip of hole MHRC0068 (8m @ 0.6% Cu, 0.1% Pb, 5.5% Zn) intersected **4m @ 0.5% Cu, 0.1% Pb, 1.2% Zn and 7g/t Ag** from 78m within an overall broader zone of brecciation dominated by silica with minor stringer sulphides. The broad zone of brecciation suggests that the system which hosts the mineralisation remains a potential host for further mineralisation at depth.

Immediately west of the original drilling at Gilly North hole MHRC0098 intersected a thin zone of high grade base metal mineralisation grading **1m @ 2.4% Cu, 8.5% Zn and 18g/t Ag**. No further drilling has been completed to follow up this interval to the west or north which appears to be the controlling plunge orientation of mineralisation at Mt Hardy.



Downhole EM will be carried out in hole MHRC0099 to test for conductors to target with further drilling.

Todd River's Managing Director, Will Dix, said the results from the Laver prospect continued the exceptional strike rate of the recently completed reconnaissance RC drill program.

"The regional RC program has been an extremely cost effective way of testing the broader potential of the Mount Hardy Project outside of the maiden Inferred Resource at Hendrix. We have intersected encouraging zones of shallow, high-grade base metal mineralisation at most prospects, with the most recent drilling intersecting Hendrix-style mineralisation at an emerging satellite prospect at Laver, just to the east.

"The deepest hole at each prospect has been cased for down-hole EM surveying, which should begin shortly, and this will potentially allow us to 'see' any accumulations of massive sulphide mineralisation at depth which will need to be further evaluated with deeper drilling early next year.

"We are now fine tuning our exploration program for what is shaping up as a defining year for Todd River in 2020."

Geological Setting and Drilling Outcomes

As previously reported, the Company has been focused on expanding the pipeline of potential targets within the Mt Hardy Project area. To that end, reconnaissance mapping and rock chip sampling was completed to follow up several historical Cu ± Pb mineral occurrences mapped by the Bureau of Mineral Resources (BMR – now Geoscience Australia) in 1968.

Many of the recently identified drilling targets stemmed from this follow-up work, together with systematic mapping, prospecting and sampling.

Laver (Figures 3 and 4)

At the Laver prospect, where rock chip sampling announced in July returned results of up to **12.7% Zn, 7.9% Pb, 3.1% Cu and 154 g/t Ag**, a north-northeast trending, haematite-goethite-quartz breccia body is associated with a quartz-rich horizon (similar to the Hendrix deposit).

The breccia body extends over a strike extent of more than 250m and the reconnaissance RC drilling program has targeted three zones along this trend where the surface gossan is best developed.

Further opportunity exists to the north of the currently mapped out prospect area where the best developed gossan splits into several occurrences.

Next Steps at Mt Hardy

Todd River intends to complete a down-hole EM survey on the deepest holes drilled on each prospect. This work will be completed in December and is expected to enable more targeted drilling, focussing on accumulations of massive sulphides, during the 2020 drilling campaign.



The commencement of the 2020 field season will focus on the expansion of the current RC program in areas of known mineralisation and selected deeper drilling of the highest priority prospects.

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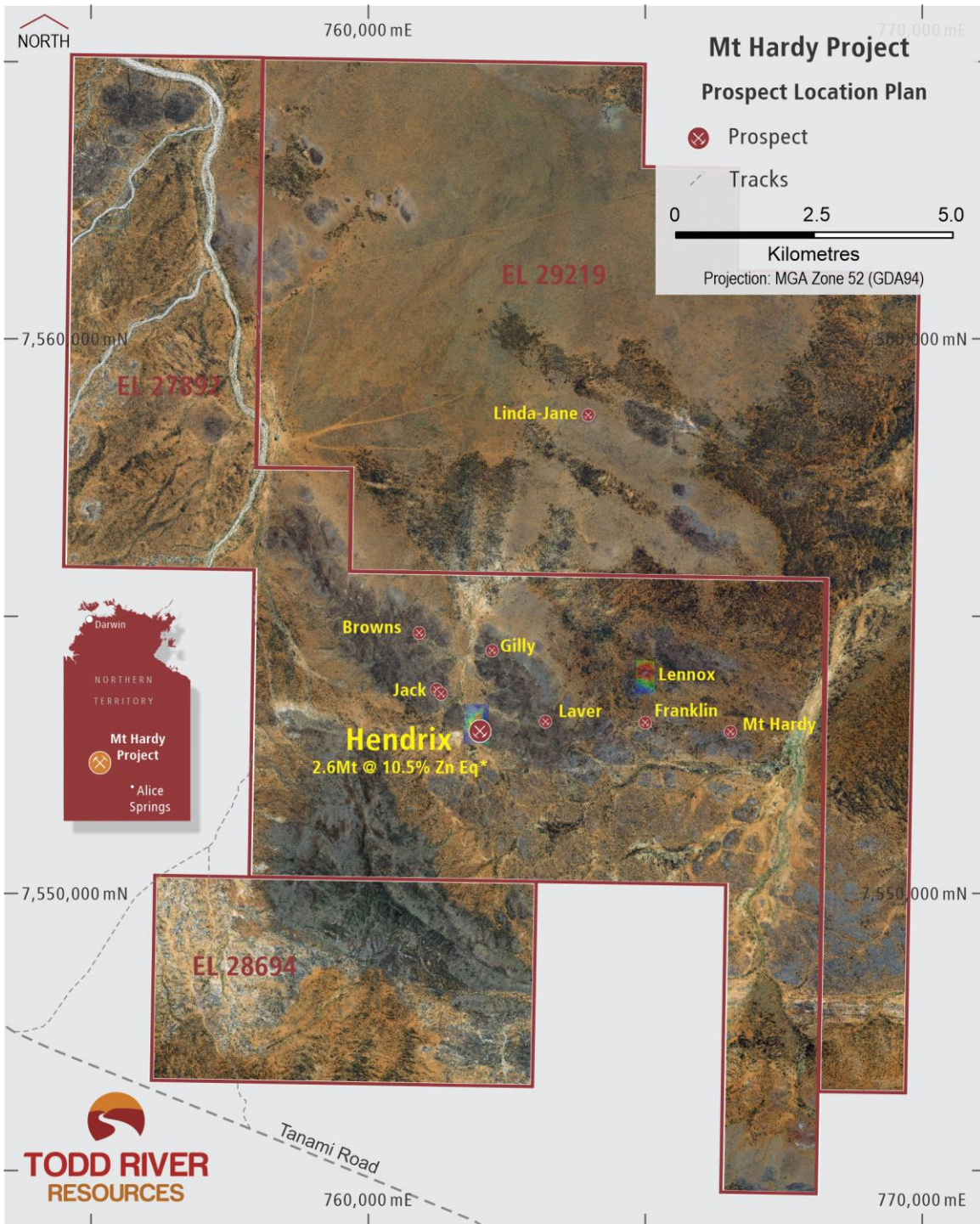


Figure 1 – Mt Hardy Project – Prospect Location plan

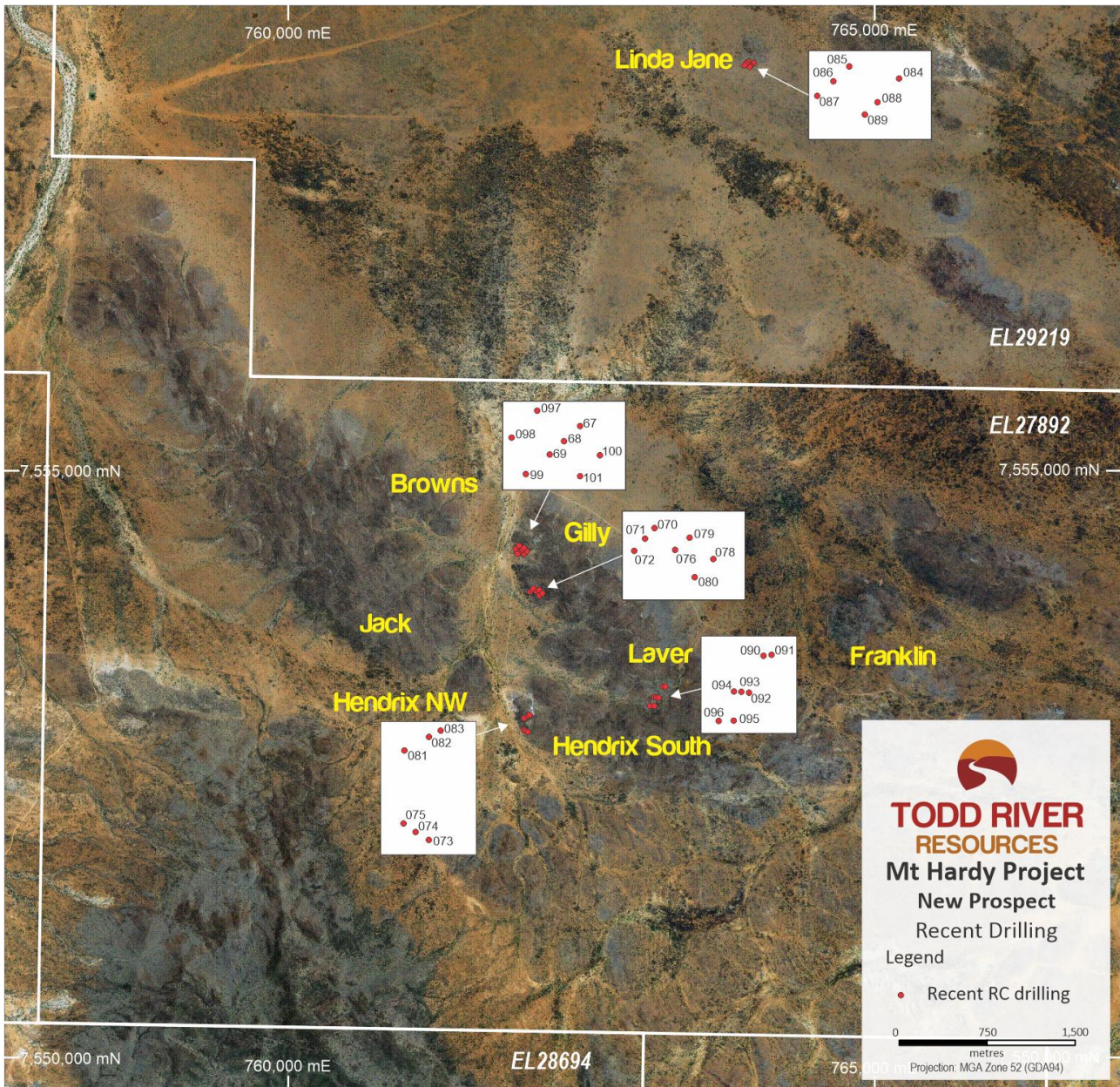


Figure 2 – Mt Hardy Project showing the collar locations for the holes drilled during the recently completed reconnaissance RC drilling program.

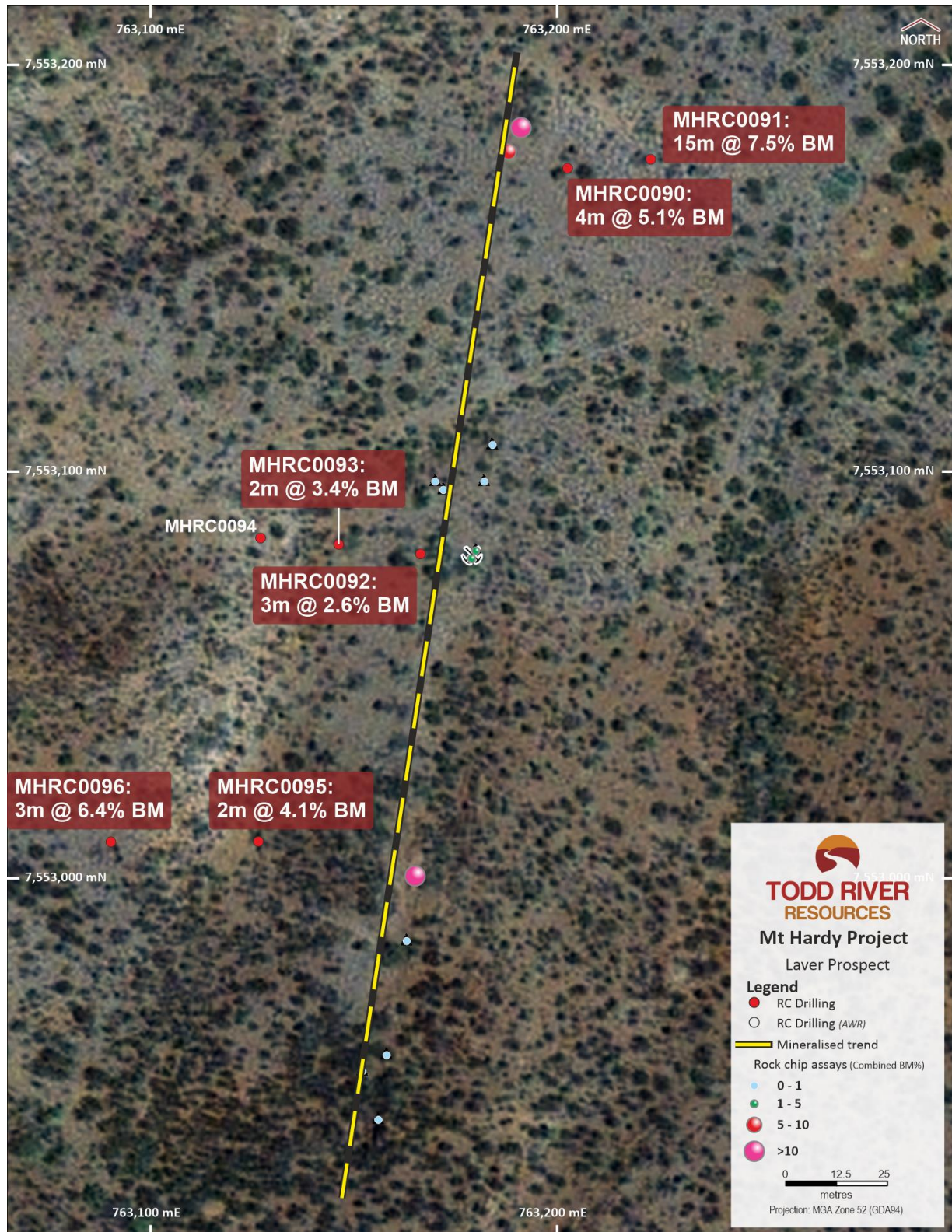


Figure 3 – Mt Hardy Project showing drill collar locations for holes completed at the Laver Prospect.

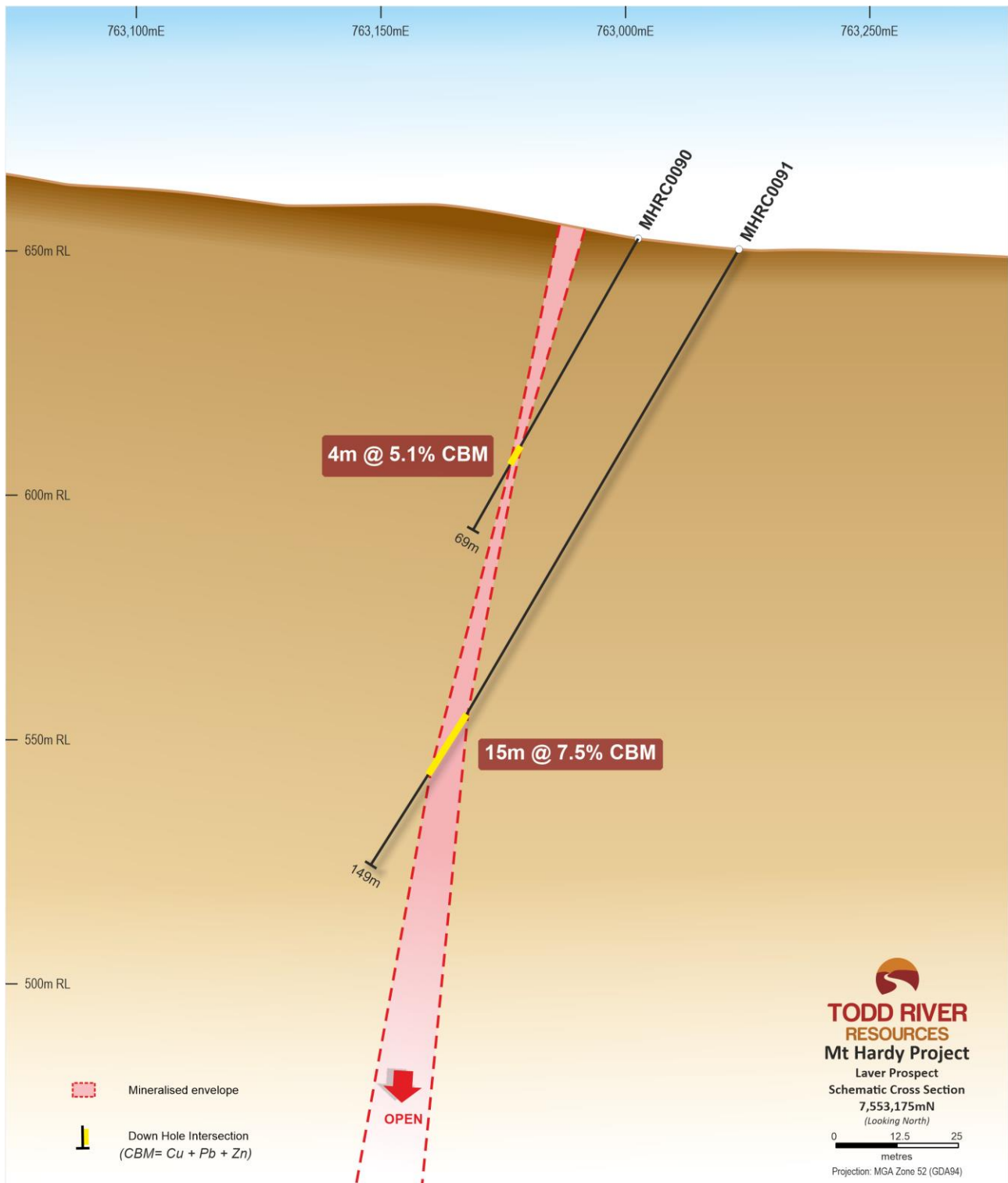


Figure 4 – Laver X-section from the northern traverse showing combined base metal grades – individual grades can be found on Page 2 of this announcement and in Appendix A.

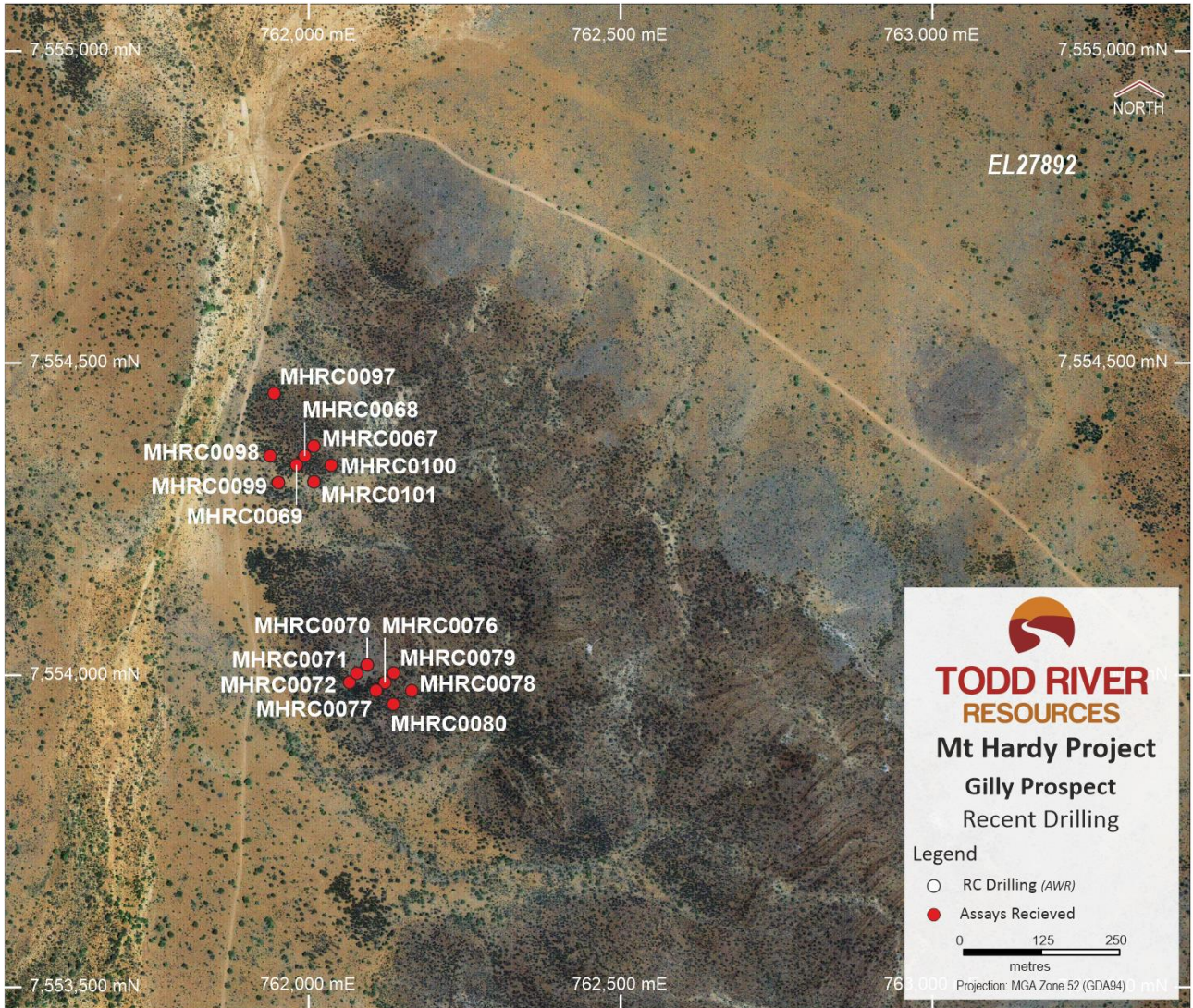


Figure 5 – location of Gilly and Gilly North drill collars

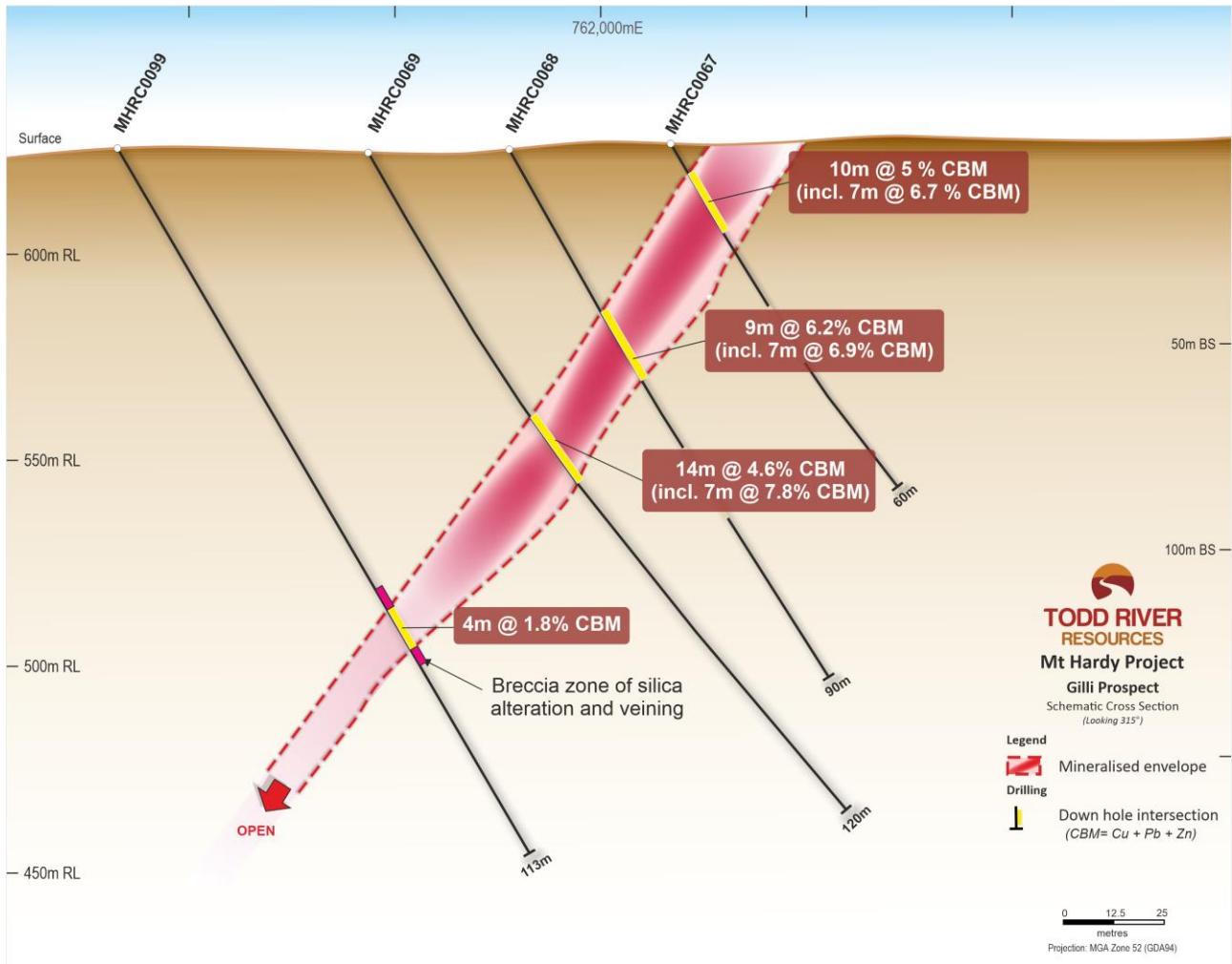


Figure 6 – X-section of the original drilling at Gilly North including MHRC0099 showing combined base metal grades. Individual grades can be found in Appendix A.

Table 1 – Collar information for the completed RC holes at Mt Hardy to date

hole_id	Prospect	GDA_EAST	GDA_North	GDA_RL	Depth (m)	Dip	Azimuth
MHRC0067	Gilly Nth	762009	7554368	657.35	60	-60	48
MHRC0068	Gilly Nth	761991.9	7554352	655.31	90	-60	48
MHRC0069	Gilly Nth	761976.6	7554338	654.29	120	-60	48
MHRC0070	Gilly	762089.8	7554019	661.03	60	-60	46
MHRC0071	Gilly	762077.4	7554005	659.47	74	-60	47
MHRC0072	Gilly	762062.8	7553989	657.74	122	-60	51
MHRC0073	Hendrix Sth	762041	7552784	662.18	60	-60	122
MHRC0074	Hendrix Sth	762023.1	7552795	660.73	90	-60	122
MHRC0075	Hendrix Sth	762006.7	7552806	660.05	126	-60	124
MHRC0076	Gilly	762116.5	7553990	661.23	89	-60	47



MHRC0077	Gilly	762103.6	7553976	660.09	121	-60	49
MHRC0078	Gilly	762166.1	7553978	669.62	60	-60	50
MHRC0079	Gilly	762135.2	7554006	665.28	83	-60	48
MHRC0080	Gilly	762142	7553955	665.83	120	-60	48
MHRC0081	Hendrix NW	762007.8	7552905	670.09	59	-60	64
MHRC0082	Hendrix NW	762041.5	7552924	666.76	90	-60	238
MHRC0083	Hendrix NW	762057.2	7552932	665.31	105	-60	240
MHRC0084	Linda Jane	763977.8	7558528	641.54	59	-60	47
MHRC0085	Linda Jane	763932.41	7558539.32	639.2	60	-60	47
MHRC0086	Linda Jane	763917.63	7558525.51	638.46	84	-60	51
MHRC0087	Linda Jane	763902.37	7558511.53	637.98	119	-61	47
MHRC0088	Linda Jane	763957.5	7558505.71	640.65	77	-60	45
MHRC0089	Linda Jane	763946.78	7558494.69	639.96	100	-61	45
MHRC0090	Laver	763202.73	7553174.99	673.44	69	-60	272
MHRC0091	Laver	763223.3	7553177.17	671.74	149	-60	280
MHRC0092	Laver	763166.09	7553080.19	673.48	41	-59	99
MHRC0093	Laver	763146.14	7553082.39	673.62	90	-60	99
MHRC0094	Laver	763127	7553083.95	674.11	95	-60	97
MHRC0095	Laver	763126.33	7553009.16	682.37	90	-60	99
MHRC0096	Laver	763087.86	7553008.28	676.82	121	-60	98
MHRC0097	Gilly North	761963.44	7554384.62	654.69	42	-57	50
MHRC0098	Gilly North	761936.09	7554356.03	652.88	90	-60	49
MHRC0099	Gilly North	761951.03	7554315.61	653.46	113	-61	48
MHRC0100	Gilly North	762030.16	7554337.07	655.9	64	-61	45
MHRC0101	Gilly North	762009.14	7554314.37	654.6	90	-61	47



Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled by Andrew Thompson, who is an employee of S2 Resources and carrying out work for Todd River Resources under a Shared Services Agreement between the companies. Mr Thompson is a member of the Australian Institute of Mining and Metallurgy (MAusIMM) and has sufficient experience of relevance to the style of mineralization and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Thompson consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

About Todd River Resources

Todd River Resources (ASX: TRT) is an Australian-based resources company that has recently announced a maiden zinc-copper Mineral Resource estimate at Hendrix and a new base metals discovery at Gilly North, within its 100%-owned Mt Hardy Project, located 300km north west of Alice Springs.

With a strong management team, solid capital structure and well-funded for ongoing exploration, Todd River is well placed to pursue additional base metal mineralisation at Mt Hardy and progress exploration activities across its exploration portfolio.

While Todd River's main focus is at Mt Hardy, the Company holds an extensive precious and base metal project portfolio which includes the Rover gold project, the McArthur Copper-Zinc Project and the large Manbarrum Zinc resource.



Appendix A – Analytical Results MHRC0090 – MHRC0093

hole_id	depth_from	depth_to	Interval	Ag_ppm	Cu_%	Pb_%	Zn_%	CBM%
MHRC0067	5	6	1	4	0.2	0.1	3.0	1.1
MHRC0067	6	7	1	5	0.3	0.1	1.1	1.4
MHRC0067	7	8	1	14	0.6	0.3	0.6	1.4
MHRC0067	8	9	1	163	0.6	2.9	1.0	4.4
MHRC0067	9	10	1	25	0.3	0.5	2.5	3.2
MHRC0067	10	11	1	19	3.3	0.5	5.1	8.8
MHRC0067	11	12	1	23	2.0	0.1	11.3	13.4
MHRC0067	12	13	1	7	1.1	0.1	6.5	7.6
MHRC0067	13	14	1	10	1.6	0.0	3.9	5.5
MHRC0067	14	15	1	8	1.3	0.0	2.8	4.1
MHRC0068	36	37	1	3	0.5	0.1	0.7	1.3
MHRC0068	37	38	1	15	1.7	0.1	2.6	4.3
MHRC0068	38	39	1	8	1.0	0.1	1.3	2.3
MHRC0068	39	40	1	3	0.1	0.1	0.5	0.8
MHRC0068	40	41	1	6	0.4	0.2	3.2	3.8
MHRC0068	41	42	1	7	0.5	0.1	28.2	28.8
MHRC0068	42	43	1	12	0.7	0.2	5.9	6.9
MHRC0068	43	44	1	3	0.3	0.1	2.0	2.3
MHRC0069	46	47	1	11	1.6	0.0	3.3	5.0
MHRC0069	47	48	1	25	1.2	0.4	4.4	6.0
MHRC0069	48	49	1	11	0.9	0.1	18.7	19.7
MHRC0069	49	50	1	4	0.3	0.1	3.7	4.0
MHRC0069	50	51	1	18	3.3	0.1	9.0	12.4
MHRC0069	51	52	1	11	1.7	0.1	2.3	4.1
MHRC0069	52	53	1	8	0.5	0.1	2.9	3.5
MHRC0069	53	54	1	3	0.6	0.0	1.0	1.6
MHRC0069	54	55	1	7	1.2	0.0	0.8	2.0
MHRC0069	55	56	1	4	0.7	0.0	0.8	1.6
MHRC0071	23	24	1	35	0.2	1.1	2.8	4.1
MHRC0071	24	25	1	21	0.2	0.4	2.6	3.3
MHRC0071	25	26	1	35	0.9	0.6	10.6	12.1
MHRC0071	26	27	1	9	0.8	0.1	7.6	8.5
MHRC0071	27	28	1	1	0.0	0.0	0.6	0.7
MHRC0071	28	29	1	1	0.0	0.0	0.0	0.1
MHRC0071	29	30	1	7	0.4	0.1	4.5	5.0
MHRC0071	30	31	1	0	0.0	0.0	0.5	0.5
MHRC0071	31	34	3	1	0.2	0.0	0.9	1.1



hole_id	depth_from	depth_to	Interval	Ag_ppm	Cu_%	Pb_%	Zn_%	CBM%
MHRC0072	49	50	1	9	0.7	0.1	7.6	8.5
MHRC0072	50	51	1	13	0.3	0.2	1.1	1.6
MHRC0073	28	29	1	15	0.3	0.5	0.4	1.2
MHRC0073	29	30	1	17	0.7	0.5	3.4	4.6
MHRC0073	30	31	1	39	0.8	1.6	3.5	5.9
MHRC0073	31	32	1	25	0.6	0.8	1.5	2.8
MHRC0073	32	33	1	24	1.0	0.5	1.5	3.0
MHRC0074	59	60	1	7	0.0	0.5	1.0	1.6
MHRC0074	60	61	1	1	0.1	0.0	0.3	0.4
MHRC0074	61	62	1	12	0.1	0.7	2.3	3.0
MHRC0074	62	63	1	8	0.1	0.4	1.5	2.1
MHRC0074	63	64	1	3	0.1	0.1	0.4	0.6
MHRC0074	64	65	1	3	0.1	0.1	1.2	1.4
MHRC0075	82	83	1	6	0.2	0.2	1.3	1.7
MHRC0075	83	84	1	10	0.2	0.4	1.8	2.3
MHRC0075	84	85	1	5	0.2	0.2	1.0	1.3
MHRC0075	85	86	1	17	0.2	0.9	5.0	6.0
MHRC0075	86	87	1	11	0.2	0.6	3.2	4.0
MHRC0075	87	88	1	11	0.2	0.6	1.8	2.6
MHRC0075	88	89	1	15	0.3	0.6	3.1	4.0
MHRC0075	89	90	1	8	0.3	0.2	1.2	1.7
MHRC0075	90	91	1	2	0.2	0.0	0.4	0.7
MHRC0075	91	92	1	7	0.4	0.2	1.8	2.3
MHRC0075	92	93	1	12	0.3	0.4	1.8	2.5
MHRC0075	93	94	1	57	0.5	2.6	5.4	8.5
MHRC0075	94	95	1	29	0.2	1.7	5.5	7.4
MHRC0075	95	96	1	28	0.3	2.3	4.5	7.0
MHRC0075	96	97	1	18	0.1	1.7	2.1	3.9
MHRC0075	97	98	1	10	0.2	0.5	3.9	4.6
MHRC0075	98	99	1	7	0.2	0.3	1.6	2.1
MHRC0075	99	100	1	2	0.1	0.1	0.3	0.5
MHRC0075	100	101	1	17	0.3	0.4	4.7	5.3
MHRC0075	101	102	1	3	0.1	0.1	1.4	1.7
MHRC0075	102	103	1	3	0.1	0.1	1.2	1.4
MHRC0075	103	104	1	1	0.0	0.0	0.5	0.6
MHRC0075	104	105	1	2	0.1	0.1	2.7	2.9
MHRC0075	105	106	1	5	0.1	0.3	2.4	2.7
MHRC0075	106	107	1	6	0.1	0.3	1.6	2.0
MHRC0075	107	108	1	15	0.3	0.7	2.5	3.4
MHRC0075	108	109	1	16	0.1	0.9	2.6	3.6



hole_id	depth_from	depth_to	Interval	Ag_ppm	Cu_%	Pb_%	Zn_%	CBM%
MHRC0075	109	110	1	3	0.1	0.1	1.1	1.4
MHRC0076	28	29	1	10	0.2	0.2	1.3	1.7
MHRC0076	29	30	1	54	0.5	1.2	4.4	6.0
MHRC0076	30	31	1	3	0.1	0.1	0.3	0.5
MHRC0076	31	32	1	23	0.4	0.4	1.3	2.1
MHRC0076	32	33	1	45	1.8	0.6	8.0	10.4
MHRC0076	33	34	1	3	0.3	0.1	2.2	2.6
MHRC0076	34	35	1	1	0.0	0.1	0.2	0.3
MHRC0076	35	36	1	17	0.6	0.2	5.8	6.6
MHRC0076	36	37	1	3	0.2	0.1	1.4	1.6
MHRC0076	37	38	1	76	0.3	0.6	0.2	1.0
MHRC0076	38	39	1	212	0.3	2.0	0.6	2.9
MHRC0078	48	49	1	14	0.3	0.2	3.1	3.5
MHRC0078	49	50	1	3	0.1	0.1	0.9	1.0
MHRC0079	39	40	1	2	0.2	0.0	1.7	1.8
MHRC0079	40	41	1	10	0.8	0.0	7.2	8.0
MHRC0079	41	42	1	3	0.2	0.0	1.7	1.9
MHRC0081	33	34	1	62	0.6	3.0	2.9	6.5
MHRC0081	34	35	1	41	0.6	3.2	4.3	8.1
MHRC0081	35	36	1	21	0.9	5.2	3.7	9.8
MHRC0081	36	37	1	5	0.2	1.2	1.2	2.6
MHRC0082	34	35	1	32	3.4	2.3	2.6	8.3
MHRC0082	35	36	1	7	0.3	0.6	0.5	1.4
MHRC0082	36	37	1	3	0.1	0.4	0.5	1.0
MHRC0082	37	38	1	233	1.8	12.2	6.3	20.3
MHRC0082	38	39	1	76	0.7	4.9	2.3	7.8
MHRC0083	64	65	1	73	0.4	4.8	6.0	11.1
MHRC0083	65	66	1	9	0.2	0.4	1.4	2.1
MHRC0085	6	7	1	5	0.2	0.8	0.2	1.3
MHRC0085	7	8	1	5	0.3	0.7	0.5	1.5
MHRC0090	49	50	1	17	0.7	0.5	0.6	1.7
MHRC0090	50	51	1	54	1.7	2.5	6.3	10.6
MHRC0090	51	52	1	30	0.8	1.5	2.7	5.0
MHRC0090	52	53	1	21	0.3	0.9	2.0	3.2
MHRC0091	111	112	1	15	0.4	0.4	10.7	11.5



hole_id	depth_from	depth_to	Interval	Ag_ppm	Cu_%	Pb_%	Zn_%	CBM%
MHRC0091	112	113	1	43	0.4	2.0	19.3	21.7
MHRC0091	113	114	1	60	0.9	2.2	5.1	8.2
MHRC0091	114	115	1	36	0.3	1.3	2.9	4.5
MHRC0091	115	116	1	3	0.2	0.1	1.2	1.5
MHRC0091	116	117	1	10	1.0	0.2	4.5	5.7
MHRC0091	117	118	1	18	0.3	0.7	1.0	2.1
MHRC0091	118	119	1	31	0.2	1.6	2.8	4.6
MHRC0091	119	120	1	46	0.4	3.8	10.4	14.6
MHRC0091	120	121	1	83	0.5	6.8	12.3	19.7
MHRC0091	121	122	1	43	0.3	3.1	5.6	9.0
MHRC0091	122	123	1	20	0.2	1.1	1.5	2.8
MHRC0091	123	124	1	10	0.5	0.5	0.6	1.6
MHRC0091	124	125	1	3	0.1	0.2	0.2	0.4
MHRC0091	125	126	1	17	0.1	0.7	3.2	4.0
MHRC0092	12	13	1	42	0.8	1.5	0.2	2.5
MHRC0092	13	14	1	36	0.9	2.6	0.7	4.2
MHRC0092	14	15	1	4	0.2	0.4	0.5	1.1
MHRC0093	22	23	1	16	0.6	0.5	4.7	5.8
MHRC0093	23	24	1	5	0.1	0.4	0.5	1.0
MHRC0095	53	54	1	3	0.8	0.1	4.7	5.5
MHRC0095	54	55	1	8	0.5	0.3	1.9	2.7
MHRC0096	102	103	1	19	0.6	2.1	3.9	6.6
MHRC0096	103	104	1	6	0.4	1.0	5.9	7.2
MHRC0096	104	105	1	11	0.1	1.7	3.6	5.4
MHRC0097	19	20	1	6	0.5	0.0	1.5	2.0
MHRC0098	51	52	1	18	2.4	0.0	8.5	10.9
MHRC0099	78	79	1	11	0.3	0.2	2.5	3.0
MHRC0099	79	80	1	5	0.4	0.1	2.8	3.3
MHRC0099	80	81	1	4	0.6	0.0	1.6	2.2
MHRC0099	81	82	1	6	0.9	0.0	0.6	1.5
MHRC0100	37	38	1	4	0.4	0.0	2.7	3.1
MHRC0101	53	54	1	7	0.4	0.2	0.8	1.4
MHRC0101	54	55	1	7	0.5	0.1	1.1	1.6



Appendix B JORC Table One – Section One. Sampling Techniques and Data Mount Hardy Drilling – Reverse Circulation Drilling

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report.	Reverse Circulation (RC) drill samples were taken from the rotary splitter mounted on the rig cyclone. All samples from 2019 drilling have been submitted to Genalysis/Intertek Laboratories for industry standard preparation (whole sample crushed to >85% <75um) and analysis by both ICP for base metals and Fire Assay for precious metals.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Reverse Circulation (RC) drilling with samples collected at 1m intervals
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Average of >95% recovery in all intervals. No issues of fines loss were observed. No issues relating to preferential loss/gain of grade material have been noted.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.	RC chips were geologically logged for lithology, mineralogy, colour, weathering, alteration, and mineralisation. All holes were logged in full.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled.	All RC holes were sampled from the rotating splitter under the drill cyclone, taking a 2-4kg split from the bulk 15-25kg 1m interval. The sample preparation for all samples follows industry best practice, with oven drying of samples prior to coarse crushing and pulverization (to >85% passing 75 microns) of the entire sample Field duplicates have been taken every 50 th sample. Further sampling (second half, lab umpire assay) will be conducted if it is considered necessary. The sample size (2-5 kg) is considered to be adequate for the material and grainsize being sampled and the style of mineralisation being drilled
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether	Three certified base metal standards and a certified blank sample were analysed during at a rate of 1 in 25 samples. Standards were GBM399-7, GBM399-2, and GBM908-10 – low, medium and high grade for base metal respectively. Blank GLG312-2 was used. pXRF results for the standards and the blank were acceptable, and no calibration factors have been applied.



	acceptable levels of accuracy (ie lack of bias) and precision have been established.	All samples are to be analysed at Genalysis Intertek by ICP technique, lab codes 4A/OE33 and FA25/OE04. The four acid digest for the ICP data is considered a "total" result. Base metal standards and Blanks were inserted into the laboratory batch, results are awaited. Given the above QA/QC work the data is considered to be a total result for the base metals reported (Cu, Pb, Zn), and to have acceptable levels of accuracy and precision.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	Sampling was conducted by the field geologist and verified by the Exploration Manager on site prior to dispatch. All data was entered into standardized spreadsheets on field laptops and uploaded into the company database. No adjustments have been made to the primary assay data
Locations of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control.	All drilling collars were located up using a DGPS unit with accuracy of ca. 1m for Easting, Northing and RL. All coordinate data for the Mount Hardy project are in MGA_GDA94 Zone 52.
Data spacing and distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	At this early stage of exploration hole spacings vary as dictated by target size and position. No compositing has been applied to the exploration results. Sampling was of an exploratory and reconnaissance nature and spacings are insufficient to establish continuity or define Resources.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Drilling intersections at Mount Hardy vary in the relationship to the mineralisation orientation. All holes were designed to give the best possible (as close to perpendicular) intersection, however most drilled prospects only have a few holes and so the orientation is not well defined. In practise the intersections are at worst oriented at 45 degrees to the plane of the mineralisation (when it is known).
Sample security	The measures taken to ensure sample security.	All RC samples were under company supervision at all times prior to delivering to Genalysis/Intertek laboratories in Alice Springs
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No sampling audits have been conducted at Mount Hardy

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The Mount Hardy prospects are located on tenements EL 27892, EL 28694 and EL 29219 held by Todd River Metals Pty Ltd, which is wholly-owned by Todd River Resources Limited. All tenements are in good standing with no known impediments
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Between 2012 and 2016 significant work was conducted by TNG Limited, and has been reported to the ASX in several ASX Releases (Mentioned in the text). In 2017 Todd River



		completed one drilling program and has reported results in several ASX releases (such as
Geology	Deposit type, geological setting and style of mineralisation.	Exploration at Mount Hardy conducted by Todd River Resources has aimed to identify structurally controlled base metal mineralisation, similar to that already outlined at Mount Hardy and elsewhere in the Arunta at Jervois or Barrow Creek. Both areas are underlain by the Paleoproterozoic Lander Rock Beds schists and gneisses and have been intruded by Mesoproterozoic granites and are cut by major shear zones.
Drill hole Information	<p>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</p> <ul style="list-style-type: none"> o Easting and northing of the drill collar o Elevation of RL (Reduced Level – elevation above sea level in metres) of the drill collar o Dip and azimuth of the hole o Down hole length and interception depth o Hole length 	<p>Hole location details for the current program are shown in Table 1.</p> <p>Interval and grade values reported here have been determined from averages of multiple portable XRF results and so approach a representative result.</p> <p>Laboratory analyses will be reported as available.</p>
Data aggregation methods	<p>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</p> <p>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p>No grade results are reported here.</p> <p>No maximum or minimum cuts applied.</p>
Relationship between mineralisation widths and intercept lengths	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</p>	<p>Orientation not well defined. Expected true thickness ca. 70-80% or drill/intercept interval.</p>
Diagrams	<p>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</p>	<p>Detailed diagrams and sectional views of the mineralisation are contained in the release.</p>
Balanced reporting	<p>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</p>	<p>All received results are reported here. ALL data used is included in Appendix A.</p>
Other substantive exploration data	<p>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</p>	<p>No substantial new information is available other than that reported above.</p>
Further work	<p>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</p>	<p>Samples from the ongoing drilling have been submitted for analysis and will be reported when available.</p> <p>Drilling will continue at Mount Hardy over the coming few weeks, with sample submission and analytical results reported as available.</p>