

DRILLING AND EXPLORATION UPDATE – MT HARDY COPPER-ZINC PROJECT, NT

Latest assays confirm high-grade core at Hendrix copper-zinc discovery

Key Points:

- High grade core within a thick zone of base metal sulphides intersected in the central zone at Hendrix.
- 3.04m @ 18.0% Zn, 3.0% Cu, 6.2% Pb, 148g/t Ag from 519.16m down-hole within a broader zone of 22.2m @ 31g/t Ag, 0.7% Cu, 1.1% Pb and 3.7% Zn from 509m in MHDD0056
- Four additional diamond holes completed with assays awaited.
- Strong down-hole EM conductor identified at Lennox (EM2) prospect.
- Moving loop and fixed-loop EM continues in high-priority areas at Mt Hardy.
- Drilling planned at both the Lennox and Browns prospects this month.

Todd River Resources Limited (ASX: TRT; “Todd River” or “the Company”) is pleased to announce that it has received additional assay results from the ongoing drilling program at its 100%-owned **Mt Hardy Copper-Zinc Project** in the Northern Territory (Figure 1), where further drilling has also been completed.

The Company has planned approximately 5,000m of Reverse Circulation (RC) and diamond drilling as part of the current phase of exploration, targeting strike extensions and in-fill at the Hendrix high-grade copper-zinc discovery and other high priority targets at Mt Hardy.

Commenting on the ongoing exploration at Mt Hardy, Todd River’s Managing Director, Will Dix, said:

“Drilling continues to deliver some very encouraging results from the central zone at Hendrix and we continue to expand the mineralisation there.”

“In addition, we are progressing exploration at other prospects within the Mt Hardy Project and we are excited about what some of the initial reviews of previous drilling is turning up, especially at the Lennox and Browns Prospects where we will be drilling later this month.”



Diamond Drilling

Analytical results have been received for hole MHDD0056 which returned the following intercept:

- **3.04m @ 18.0% Zn, 3.0% Cu, 6.2% Pb, 148g/t Ag from 519.16m down-hole within a broader zone of 22.2m @ 31g/t Ag, 0.7% Cu, 1.1% Pb and 3.7% Zn from 509m in MHDD0056**

Importantly, this intersection confirms that the central core of the mineralisation at Hendrix comprises high-grade base metal sulphides. Appendix 2 contains the full analytical results for this hole.

Results have also been received for hole MHDD005 which intersected minor mineralisation associated with stringer zones of sulphides above and within a pegmatite intrusion which appears to impact on the mineralisation in this location. The intersection returned:

- **5.93m @ 1.32% Cu, 0.12% Zn, 0.22% Pb and 19g/t Ag from 537.17m downhole.**

Further holes have been completed at Hendrix with analytical results still pending for MHDD0057 and MHDD0058. Drillhole MHDD0057 intersected a number of brecciated massive sulphide zones over varying widths between 2 and 6m from 518m to 541m. The sulphides intersected include sphalerite, galena and minor chalcopyrite. MHDD0058, which was drilled well north of the main mineralisation, only intersected minor stringer mineralisation.

Table 1 shows the collar information for new diamond holes completed at Hendrix:

Hole ID	Easting	Northing	AHD-m	DIP	Azimuth	Total Depth
MHDD0057	761883	7553022	643	-79	117.0	604
MHDD0058	761859	7553160	640	-68	111.0	553
MHDD0059	761899	7552939	550*	-77	111.0	568

* *In Progress*

Figure 2 shows the mid-point pierce point locations for all drilling including the 2019 holes completed to date at Hendrix.

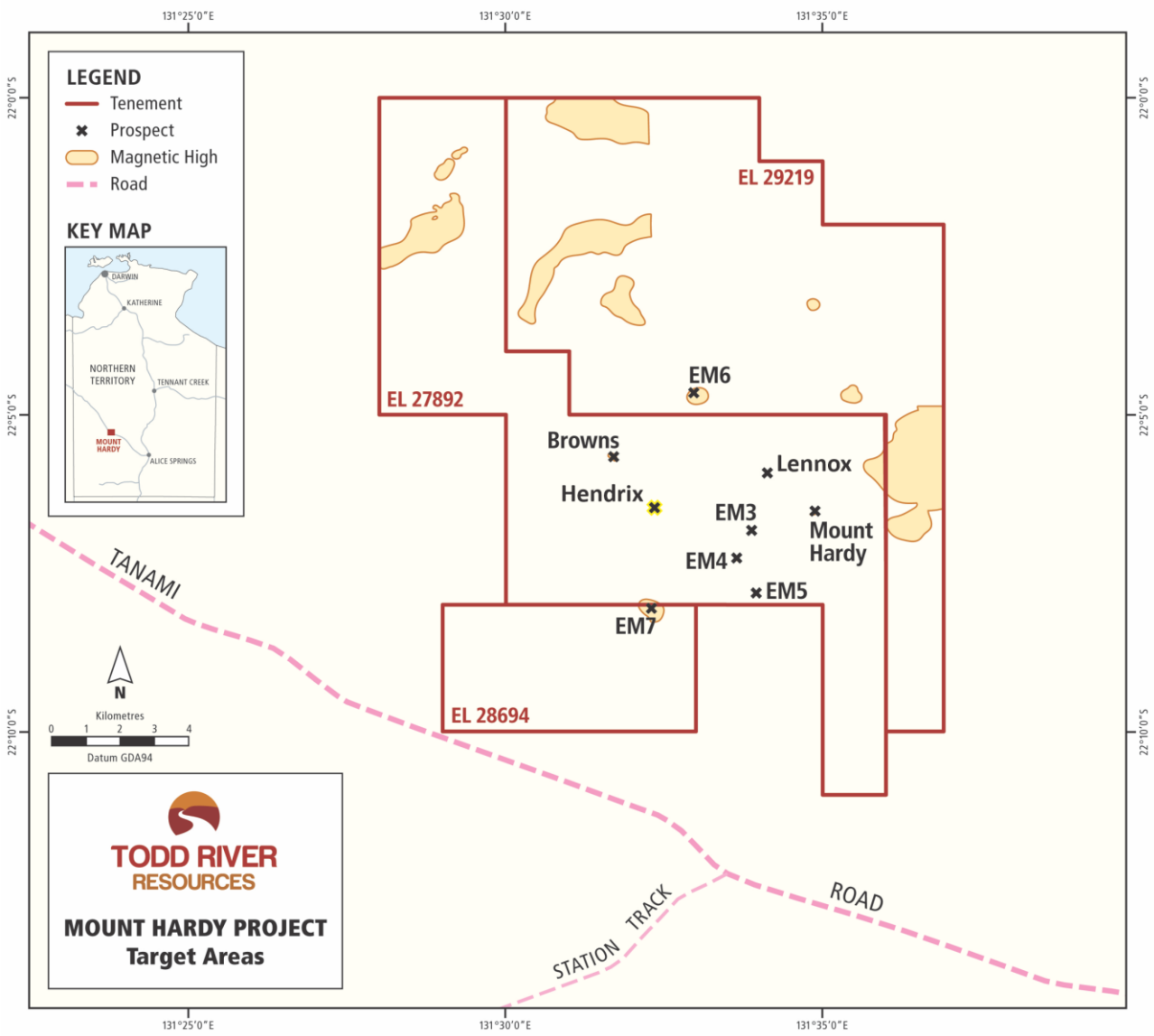


Figure 1 – Mt Hardy Project showing the location of the main drill target area, Hendrix and additional prospects in the project area.

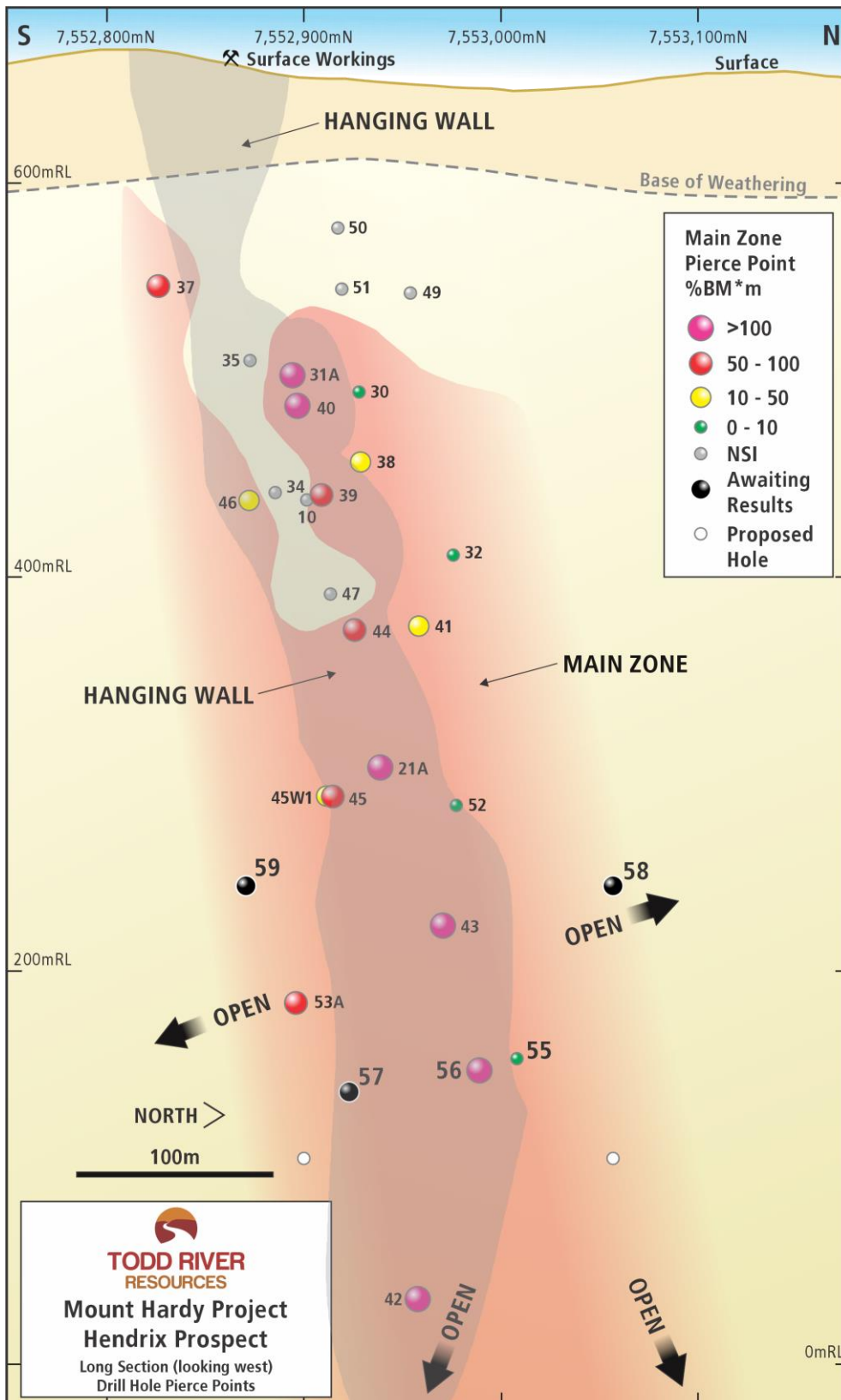


Figure 2 – Mt Hardy Project, Hendrix Prospect area long projection looking west showing current and planned drilling for the remainder of 2019.



Lennox Prospect (Formerly EM2)

Further work reviewing historical drilling from the Mt Hardy Project has identified additional exploration opportunities at the Lennox Prospect (formerly referred to as EM2).

A review of previous drilling and down-hole EM data from 2012 to 2018, including investigation of a deeper EM plate that was defined from DHEM on MHDD0029, has highlighted the following:

- MHDD0033, drilled in 2018, was designed to intersect a significant conductor. The hole did not swing in azimuth as expected and, as a result, intersected the top of the northern edge of the plate (furthest away from MHDD0029).
- The hole intersected two narrow zones of stringer sulphides (see photos below) near the target depth and returned the assays shown in Table 2. The lowermost intercept sits within 8 metres of original down-hole EM modelled plate from MHDD0029.
- Follow-up down-hole TEM on MHDD033 has defined a strong in-hole conductor with off-hole indication that the centre of the conductor is located further south and below the hole.
- The modelled plate is 240m x 120m in size, with moderate conductance.

Table 2 – MHDD0033 assay results from 2018

Hole_ID	Depth_From	Depth_To	Zn_%	Pb_%	Cu_%	Ag_ppm
MHDD0033	324	324.7	1.07	0.53	0.01	2.3
MHDD0033	357	358	1.04	0.49	0.04	2.5



Photo 1 – MHDD0033 Approximately 324m down-hole



Photo 2 – MHDD0033 Approximately 357m down-hole



While the raw assay results are low grade, they are heavily diluted because the narrow sulphide zone was sampled as part of a full one metre sample and diluted by wallrock, so when normalised back to massive sulphide, they would both be significantly higher.

The Company's view is that it is unlikely that such narrow intervals are continuous enough to produce a conductor plate so large, even at moderate conductance, so it is likely that the body has more substance elsewhere within the plate, and the intersections represent peripheral margins similarly to what is seen at the edges of the Hendrix mineralisation further west.

In order to target the large untested EM plate, two holes have been designed. The first is a shallow hole to test between MHDD0029 and MHDD0033, and the second a deeper hole to test the centre of the EM plate shown in Figure 3 below (DHEM of MHDD0029 shown as green plate and the refined DHEM plate from MHDD0033 shown as blue plate).

Drilling of these initial holes at Lennox will be completed by the end of May.

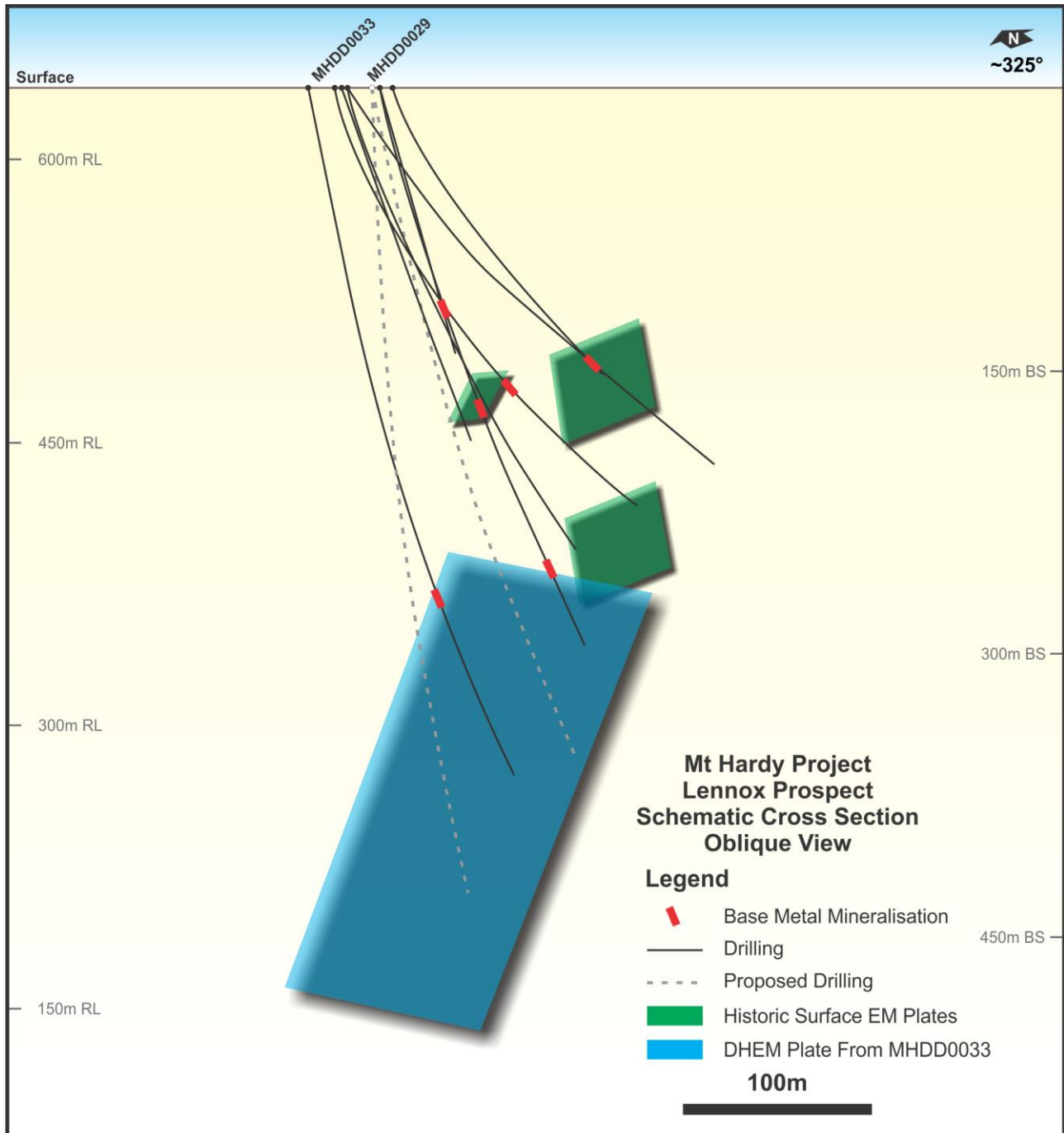


Figure 3 – Oblique view of the Lennox area showing existing drilling and DHEM plates along with the two holes designed to further test the prospect.

Ground Geophysics

Moving loop and fixed-loop EM continues in high-priority areas at Mt Hardy. A campaign of down-hole EM surveying will also commence shortly.



It is anticipated that drill testing of a number of regional targets following modelling of the moving loop TEM data and the specific design of drill holes will commence around the end of May.

**Will Dix,
Managing Director – Todd River Resources**

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Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled by John Bartlett, who is an employee of S2 Resources and carrying out work for Todd River Resources under a Shared Services Agreement between the companies. Mr Bartlett 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 Bartlett 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 zinc-copper discovery, Hendrix, at its 100% owned Mt Hardy Project, located 300km north west of Alice Springs.

With a strong management team, tight capital structure and fully funded for exploration in 2019, 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 1

JORC Table One – Section One. Sampling Techniques and Data Mount Hardy Drilling – RC and Diamond 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. Diamond drill samples were half core cut and sampled on 1m intervals. All samples from 2018 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. Portable XRF results reported here are taken from whole core analyses at 0.25 and 0.5m intervals.
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 of pre-collars with NQ sized diamond drill tails. Most intervals has been oriented, except where broken ground in encountered.
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 >90% 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 and core was geologically logged for lithology, mineralogy, colour, weathering, alteration, structure 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. All sampled core was sawn and half core submitted. 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.	Three certified base metal standards and a certified blank sample were analysed during pXRF sampling, at a rate of 1 in 25 samples.



	<p>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 acceptable levels of accuracy (ie lack of bias) and precision have been established.</p>	<p>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.</p> <p>Analytical results for the standards and the blank were acceptable, and no calibration factors have been applied.</p> <p>All samples were 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. Given the above QA/QC work the results are considered to be a total result for the base metals reported (Cu, Pb, Zn), and to have acceptable levels of accuracy and precision.</p>
Verification of sampling and assaying	<p>The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes.</p> <p>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.</p>	<p>Sampling was conducted by the field geologist and verified by the Exploration Manager on site prior to cutting/dispatch.</p> <p>All data was entered into standardized spreadsheets on field laptops and uploaded into the company database.</p> <p>No adjustments have been made to the primary assay data</p>
Locations of data points	<p>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.</p> <p>Quality and adequacy of topographic control.</p>	<p>All drilling collars were located up using a standard GPS unit with accuracy of ca. 5m for Easting, Northing and RL</p> <p>All coordinate data for the Mount Hardy project are in MGA_GDA94 Zone 52.</p>
Data spacing and distribution	<p>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.</p> <p>Whether sample compositing has been applied.</p>	<p>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.</p> <p>Sampling was of an exploratory and reconnaissance nature and spacings are insufficient to establish continuity or define Resources.</p>
Orientation of data in relation to geological structure	<p>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</p> <p>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.</p>	<p>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).</p>
Sample security	<p>The measures taken to ensure sample security.</p>	<p>All core and samples were under company supervision at all times prior to delivering to Genalysis/Intertek laboratories in Alice Springs</p>
Audits or reviews	<p>The results of any audits or reviews of sampling techniques and data.</p>	<p>No sampling audits have been conducted at Mount Hardy</p>

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 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



	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.	know 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.. In 2017 through September 2018 Todd River completed two drilling programs and has reported results in several ASX releases (such as 26 April and 7 November 2018).
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	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: <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 	Hole location details are shown in Table 1. Interval and grade values reported here have been determined from averages of multiple portable XRF results and so approach a representative result. Laboratory analyses will be reported as available.
Data aggregation methods	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. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated.	All results are length weighted averages. No maximum or minimum cuts applied.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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').	Orientation not well defined. Expected true thickness ca. 60-80% or drill/intercept interval.
Diagrams	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.	See Figures 2 and 3.
Balanced reporting	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.	Analytical results are reported in this release.. All data used is included in Appendix 1.
Other substantive exploration data	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.	No substantial new information is available other than that reported above.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	Samples from the remaining Hendrix drilling have been submitted for analysis and will be reported when available.



Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.

Drilling will continue at Hendrix at Mount Hardy over the coming few weeks, with sample submission and analytical results reported as available. Regional drilling will also commence in the next few weeks

Appendix 2 – Analytical Results MHDD0053A

hole_id	depth_from	depth_to	Interval	Zn_pct	Pb_pct	Cu_pct	Ag_ppm	Sum BM (%)
MHDD0056	317.5	318.5	1	0.01	0.01	0.00	-0.5	0.02
MHDD0056	318.5	319.3	0.8	0.01	0.01	0.00	-0.5	0.02
MHDD0056	319.3	320.3	1	0.01	0.01	0.00	-0.5	0.02
MHDD0056	320.3	320.93	0.63	0.81	1.06	0.02	3.8	1.88
MHDD0056	320.93	322	1.07	0.27	0.13	0.02	-0.5	0.42
MHDD0056	322	323	1	0.14	0.04	0.00	-0.5	0.18
MHDD0056	323	324	1	0.02	0.01	0.00	-0.5	0.03
MHDD0056	331	332	1	0.01	0.01	0.00	-0.5	0.02
MHDD0056	332	333	1	0.01	0.01	0.00	-0.5	0.02
MHDD0056	333	333.96	0.96	0.27	0.20	0.02	1.8	0.49
MHDD0056	333.96	335	1.04	5.46	4.20	0.30	46.4	9.95
MHDD0056	335	335.62	0.62	6.37	4.59	0.25	47.9	11.22
MHDD0056	335.62	336.22	0.6	0.07	0.10	0.01	-0.5	0.17
MHDD0056	336.22	337.2	0.98	0.04	0.04	0.00	-0.5	0.08
MHDD0056	337.2	338.2	1	0.03	0.08	0.00	-0.5	0.11
MHDD0056	338.2	339.23	1.03	0.13	0.52	0.13	3.7	0.78
MHDD0056	339.23	340.29	1.06	2.36	1.31	0.07	9	3.75
MHDD0056	340.29	341.3	1.01	5.96	3.39	0.03	21.8	9.39
MHDD0056	341.3	342.25	0.95	0.16	0.11	0.07	0.8	0.35
MHDD0056	342.25	343	0.75	0.48	0.12	0.15	1.3	0.75
MHDD0056	343	343.58	0.58	2.20	6.16	0.08	53.8	8.45
MHDD0056	343.58	344.36	0.78	0.59	0.65	0.16	5.2	1.40
MHDD0056	344.36	345	0.64	0.28	0.44	0.01	2	0.73
MHDD0056	345	346	1	0.03	0.01	0.02	-0.5	0.06
MHDD0056	346	347	1	0.01	0.01	0.00	-0.5	0.02
MHDD0056	347	348	1	0.01	0.01	0.00	-0.5	0.01
MHDD0056	348	349	1	0.04	0.01	0.00	-0.5	0.05
MHDD0056	349	350	1	0.01	0.01	0.00	-0.5	0.02
MHDD0056	350	351	1	0.17	0.03	0.00	-0.5	0.20
MHDD0056	351	352	1	1.92	0.58	0.82	6.4	3.33
MHDD0056	352	353	1	1.02	0.20	0.01	1.3	1.24



MHDD0056	353	354	1	0.02	0.01	0.00	-0.5	0.04
MHDD0056	441.36	442.2	0.84	0.23	0.05	0.03	0.7	0.32
MHDD0056	442.2	443.2	1	0.05	0.04	0.00	-0.5	0.08
MHDD0056	443.2	444.16	0.96	0.03	0.01	0.04	-0.5	0.08
MHDD0056	444.16	445.2	1.04	0.02	0.01	0.00	-0.5	0.03
MHDD0056	445.2	446.3	1.1	0.03	0.05	0.01	-0.5	0.09
MHDD0056	446.3	447	0.7	1.33	0.03	0.03	-0.5	1.40
MHDD0056	447	448	1	0.03	0.01	0.00	-0.5	0.04
MHDD0056	448	448.5	0.5	0.73	0.20	0.04	2.7	0.97
MHDD0056	448.5	449.5	1	1.83	0.91	0.17	12.8	2.91
MHDD0056	449.5	450.3	0.8	0.05	0.35	0.08	7.2	0.48
MHDD0056	450.3	451.21	0.91	0.21	0.33	0.05	2.5	0.59
MHDD0056	451.21	452	0.79	0.05	0.06	0.02	1.9	0.14
MHDD0056	452	452.62	0.62	0.14	0.20	0.28	18.2	0.62
MHDD0056	452.62	453.6	0.98	0.05	0.06	0.03	1	0.13
MHDD0056	453.6	454.58	0.98	0.02	0.04	0.13	2.9	0.19
MHDD0056	454.58	455.6	1.02	0.02	0.01	0.00	-0.5	0.03
MHDD0056	455.6	456.58	0.98	0.01	0.01	0.00	-0.5	0.02
MHDD0056	482.5	483.5	1	0.17	0.01	0.01	-0.5	0.19
MHDD0056	483.5	484.5	1	0.04	0.02	0.01	-0.5	0.07
MHDD0056	484.5	485.55	1.05	0.02	0.01	0.01	-0.5	0.03
MHDD0056	485.55	486.6	1.05	0.09	0.21	0.56	14.6	0.86
MHDD0056	486.6	487.7	1.1	0.04	0.04	0.01	1.2	0.09
MHDD0056	487.7	488.65	0.95	0.22	0.07	0.05	1.4	0.34
MHDD0056	488.65	489.7	1.05	1.00	0.48	0.04	10.5	1.51
MHDD0056	489.7	490.76	1.06	1.84	1.14	0.14	28.8	3.12
MHDD0056	490.76	491.71	0.95	0.04	0.01	0.00	-0.5	0.05
MHDD0056	491.71	492.7	0.99	0.02	0.01	0.00	-0.5	0.03
MHDD0056	508	509	1	0.01	0.01	0.00	-0.5	0.03
MHDD0056	509	510	1	2.17	0.66	0.21	23	3.04
MHDD0056	510	511	1	0.18	0.09	0.06	3.2	0.33
MHDD0056	511	512	1	0.36	0.21	0.03	9.5	0.60
MHDD0056	512	513.03	1.03	6.15	0.16	0.58	9.1	6.89
MHDD0056	513.03	514	0.97	0.51	0.05	0.25	2.1	0.81
MHDD0056	514	515	1	0.70	0.06	0.54	3.3	1.30
MHDD0056	515	516	1	0.28	0.05	0.02	1.1	0.36
MHDD0056	516	517	1	0.03	0.01	0.01	-0.5	0.05
MHDD0056	517	518.1	1.1	1.64	0.15	0.35	7.7	2.14
MHDD0056	518.1	519.16	1.06	0.81	0.36	0.32	10.8	1.49
MHDD0056	519.16	520.18	1.02	25.80	2.71	3.86	91	32.37
MHDD0056	520.18	521.16	0.98	20.34	7.34	3.45	155.9	31.13



MHDD0056	521.16	522.2	1.04	8.03	8.52	1.79	195.5	18.35
MHDD0056	522.2	523.23	1.03	3.24	2.14	0.89	74.9	6.26
MHDD0056	523.23	524	0.77	0.51	0.09	0.09	1.8	0.69
MHDD0056	524	525	1	0.09	0.03	0.02	0.8	0.14
MHDD0056	525	526.14	1.14	2.82	0.20	0.50	10.8	3.52
MHDD0056	526.14	527	0.86	0.58	0.08	0.12	2	0.79
MHDD0056	527	528	1	2.37	0.76	0.25	23.7	3.38
MHDD0056	528	529	1	0.21	0.03	0.24	3.4	0.48
MHDD0056	529	530	1	1.48	0.37	0.54	25.3	2.40
MHDD0056	530	531.2	1.2	1.48	0.57	0.18	22	2.23
MHDD0056	531.2	532	0.8	0.07	0.01	0.01	0.5	0.09
MHDD0056	532	533	1	0.02	0.01	0.00	-0.5	0.03
MHDD0056	533	534	1	0.03	0.01	0.00	-0.5	0.05
MHDD0056	534	535.2	1.2	0.78	0.20	0.06	7.1	1.03
MHDD0056	535.2	536	0.8	0.10	0.03	0.01	0.8	0.14
MHDD0056	536	537	1	0.02	0.01	0.00	-0.5	0.03
MHDD0056	537	538	1	0.04	0.02	0.01	-0.5	0.06
MHDD0056	538	539	1	0.08	0.01	0.00	-0.5	0.10
MHDD0056	539	540	1	0.02	0.02	0.01	-0.5	0.05
MHDD0056	540	541	1	0.02	0.01	0.01	-0.5	0.04
MHDD0056	541	542	1	0.32	0.22	0.09	11.2	0.63
MHDD0056	542	543	1	0.07	0.04	0.00	1.3	0.11
MHDD0055	292.85	293.53	0.68	0.01	0.01	0.00	-0.5	0.01
MHDD0055	293.53	294.52	0.99	0.01	0.01	0.00	-0.5	0.03
MHDD0055	294.52	295.15	0.63	0.12	0.04	0.01	-0.5	0.16
MHDD0055	295.15	296	0.85	0.02	0.03	0.01	-0.5	0.06
MHDD0055	296	297	1	0.38	0.05	0.01	-0.5	0.44
MHDD0055	304	305.1	1.1	0.00	0.01	0.00	-0.5	0.01
MHDD0055	305.1	306.2	1.1	0.01	0.01	0.00	-0.5	0.01
MHDD0055	306.2	307.15	0.95	0.02	0.01	0.00	-0.5	0.02
MHDD0055	307.15	307.7	0.55	0.04	0.01	0.06	-0.5	0.11
MHDD0055	307.7	308.6	0.9	0.01	0.02	0.01	-0.5	0.03
MHDD0055	308.6	309.5	0.9	0.06	0.03	0.00	-0.5	0.09
MHDD0055	309.5	310.4	0.9	3.03	2.71	0.60	16.4	6.34
MHDD0055	310.4	311.45	1.05	1.59	1.86	0.35	20.3	3.80
MHDD0055	311.45	312.4	0.95	0.01	0.03	0.00	-0.5	0.05
MHDD0055	312.4	313.2	0.8	0.02	0.04	0.00	-0.5	0.07
MHDD0055	313.2	314	0.8	0.11	0.02	0.00	-0.5	0.12
MHDD0055	314	315	1	0.00	0.01	0.00	-0.5	0.01
MHDD0055	315	316	1	0.00	0.01	0.00	-0.5	0.02
MHDD0055	316	317	1	0.24	0.32	0.02	1.6	0.57



MHDD0055	317	318	1	0.01	0.01	0.00	-0.5	0.02
MHDD0055	318	319	1	0.02	0.01	0.00	-0.5	0.03
MHDD0055	481	482	1	0.01	0.00	0.00	-0.5	0.01
MHDD0055	482	482.95	0.95	0.00	0.00	0.00	-0.5	0.01
MHDD0055	482.95	484	1.05	0.00	0.01	0.00	-0.5	0.01
MHDD0055	484	485	1	0.00	0.00	0.00	-0.5	0.00
MHDD0055	518	519	1	0.02	0.02	0.01	0.8	0.05
MHDD0055	519	520	1	0.01	0.01	0.00	-0.5	0.01
MHDD0055	520	521	1	0.00	0.01	0.01	-0.5	0.02
MHDD0055	521	522	1	0.00	0.00	0.01	-0.5	0.02
MHDD0055	522	523	1	0.00	0.00	0.03	-0.5	0.04
MHDD0055	523	524	1	0.01	0.00	0.00	-0.5	0.02
MHDD0055	524	525	1	0.01	0.01	0.01	-0.5	0.02
MHDD0055	525	525.9	0.9	0.01	0.01	0.01	-0.5	0.03
MHDD0055	525.9	527	1.1	0.01	0.17	0.01	5.3	0.18
MHDD0055	527	528.2	1.2	0.01	0.01	0.07	1.7	0.09
MHDD0055	528.2	529	0.8	0.01	0.02	0.03	1	0.05
MHDD0055	529	530	1	0.00	0.04	0.02	0.8	0.06
MHDD0055	530	531	1	0.00	0.01	0.03	-0.5	0.04
MHDD0055	531	532	1	0.04	0.02	0.56	3.1	0.62
MHDD0055	532	533	1	0.02	0.03	0.16	2.4	0.21
MHDD0055	533	534	1	0.01	0.03	0.18	2.2	0.22
MHDD0055	534	535	1	0.01	0.01	0.10	1	0.12
MHDD0055	535	536	1	0.01	0.01	0.04	0.6	0.05
MHDD0055	536	536.66	0.66	0.02	0.08	0.22	6.5	0.31
MHDD0055	536.66	537.17	0.51	0.03	0.02	0.30	3	0.35
MHDD0055	537.17	538	0.83	0.11	0.13	1.57	18.6	1.81
MHDD0055	538	538.73	0.73	0.15	0.21	2.04	22.2	2.41
MHDD0055	538.73	539.9	1.17	0.13	0.69	0.69	32.2	1.51
MHDD0055	539.9	541	1.1	0.05	0.03	0.48	4.3	0.56
MHDD0055	541	542	1	0.17	0.13	2.21	23.8	2.52
MHDD0055	542	543.1	1.1	0.14	0.05	1.36	12.4	1.55
MHDD0055	543.1	544	0.9	0.02	0.00	0.01	-0.5	0.03
MHDD0055	544	545	1	0.02	0.00	0.01	-0.5	0.03