August 2019

## Investor Update – Drilling New Targets at Mt Hardy

Will Dix, Managing Director, August 2019.



## TODD RIVER RESOURCES

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#### **Competent Person's Statement**

- The information in this announcement that relates to exploration results is extracted from ASX Announcements titled:
  - "Geophysics points to additional mineralisation at Mt Hardy" lodged on 3 September 2018
  - "EM1 Mineralisation Further Extended at Mt Hardy" lodged on 29 November 2018
  - "Excellent Results from Metallurgical Testwork at Mt Hardy" lodged on 27 February 2019
  - "Diamond Drilling Update Mt Hardy Project, NT" Lodged on 9 April 2019
  - "Sampling Identifies 7 Areas of Mineralisation at Mt Hardy" Lodged on 29 July2019
  - "Drilling to recommence at Mt Hardy" Lodged on 26 August 2019

which are available to view at <u>www.trrltd.com.au</u> and <u>www.asx.com.au</u>. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. 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.

The information in this announcement that relates to the estimation and reporting of the Hendrix Resource is extracted from the ASX announcement titled "Maiden Mineral Resource Estimate at Mt Hardy" lodged on 10 July 2019 which is available to view at <u>www.trrltd.com.au</u> and <u>www.asx.com.au</u>. The Company confirms that it is not aware of any new information or data that materially affects the information included in this presentation. 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 announcements.



## Significant Growth Potential At Mt Hardy

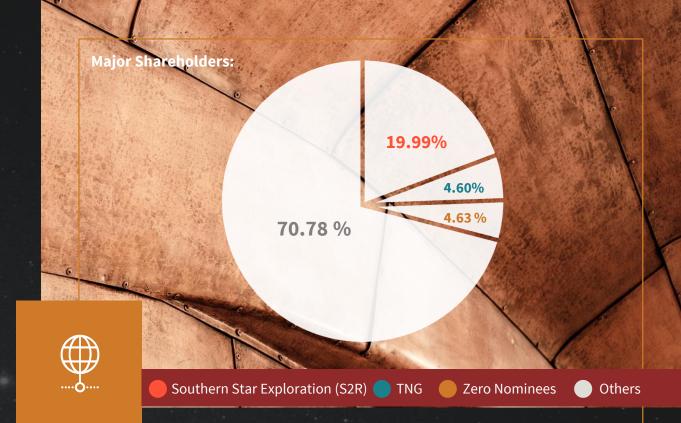
## The drilling program commencing in September underpinned by the Hendrix resource will focus on six key priorities:

- Adding to the mineral inventory around Hendrix by shallow drill testing the next extensional targets to the south and the north west
- Testing new electromagnetic conductors north and south of the main Hendrix mineralisation
- RC drilling at Gilly, Laver and Linda-Jane
- Further mapping to determine the extent of the targets
- Focused geophysics in selected areas to better define drill targets
- Drilling to test the depth extent and continuity of the mineralisation observed at surface

#### **Key Corporate and Financial Data**

## **Todd River Resources: Corporate Overview**

ASX code:	TRT
Shares on issue:	151.5M
Market Capitalisation (at 3.5c):	\$5.5M
Unlisted Options (various pricings):	24.5M
Listed Options (\$0.25 March 2020):	31.4M
Cash (June 2019):	\$1.4M



Maiden JORC Mineral Resource: 2.6Mt @ 10.5% ZnEq\* for 175,000 tonnes of zinc, 22,500 tonnes of copper and 40,000 tonnes of lead provides a robust platform for growth.

\*see ASX announcement lodged July 10 2019

#### **Key Corporate and Financial Data**

## Board of Directors

#### **Edward Fry** Non-executive Chairman

Mr Fry has extensive experience within the Australian resource sector and is a specialist in Indigenous and Native Title issues. Mr Fry is the Chairman of Indigenous Business Australia, Chair of the Indigenous Land Corporation, Chair of the Indigenous Advisory Board at Broadspectrum Australia (since 2010), a Deputy Chair of the Aboriginal Foundation of South Australia Inc (since 2007). During his career he also held senior executive roles with Normandy Mining Ltd.

Will Dix Managing Director

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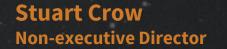


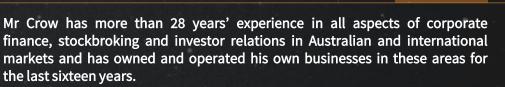
Mr Dix is a geologist with 25 years' experience in base metal, gold and uranium exploration and mining. Earlier in his career, he spent nine years with the highly successful international nickel producer LionOre Mining International in a variety of exploration, mining and management roles.



#### Mark Bennett Non-executive Director

Mark is currently the Managing Director of ASX listed S2 Resources. Previously Mark was the managing director and CEO of Sirius from its inception to its merger with Independence Group. Mark is a two times winner of the Association of Mining and Exploration Companies "Prospector Award" for his discoveries which include the Thunderbox Gold Mine, the Waterloo nickel mine and most recently the world class Nova-Bollinger nickel-copper mine.





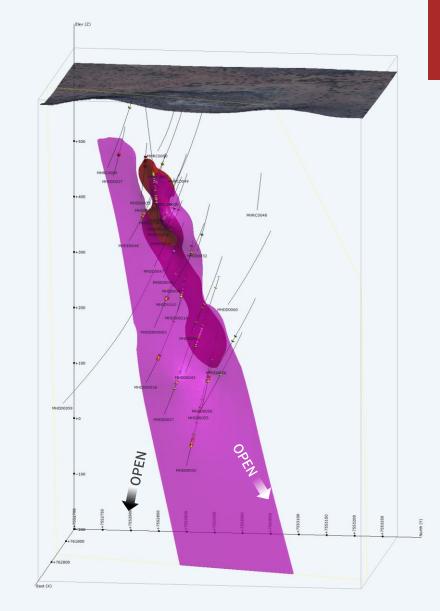


#### Hendrix Mineral Resource

## Significant Growth Potential at Hendrix

- Mineral Resource estimate at Hendrix 2.6Mt @ 10.5% Zn Equivalent\*
- Mineral Resource contains approximately 175,000 tonnes of zinc, 22,500 tonnes of copper and 40,000 tonnes of lead
- Solid foundation for growth of inventory at Hendrix, which is open at depth and to the south, and at nearby targets
- Significant exploration potential remains at Hendrix and across the Mt Hardy Project
- New phase of drilling set to commence in August/September

\*See ASX Announcement lodged 10 July 2019



#### Hendrix Geological Wireframe

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**New Prospective Areas of Mineralisation** 

## Mt Hardy Seven New Areas of Mineralisation

Surface Sampling Identifies Mineralisation

Surface sampling has identified seven new areas of base metal surface mineralisation within the Mt Hardy copper-zinc project Up to 41.4% Combined BM

Assays have returned grades of up to 41.4% combined base metals\*

\*Cu+Pb+Zn

5 Priority Targets for immediate Drilling

No previous drill holes into new high priority areas of surface mineralisation Follow-up Exploration September 2019

All seven areas will be followed up in a detailed exploration program of geophysics and drilling starting in September 2019



Mt Hardy Project

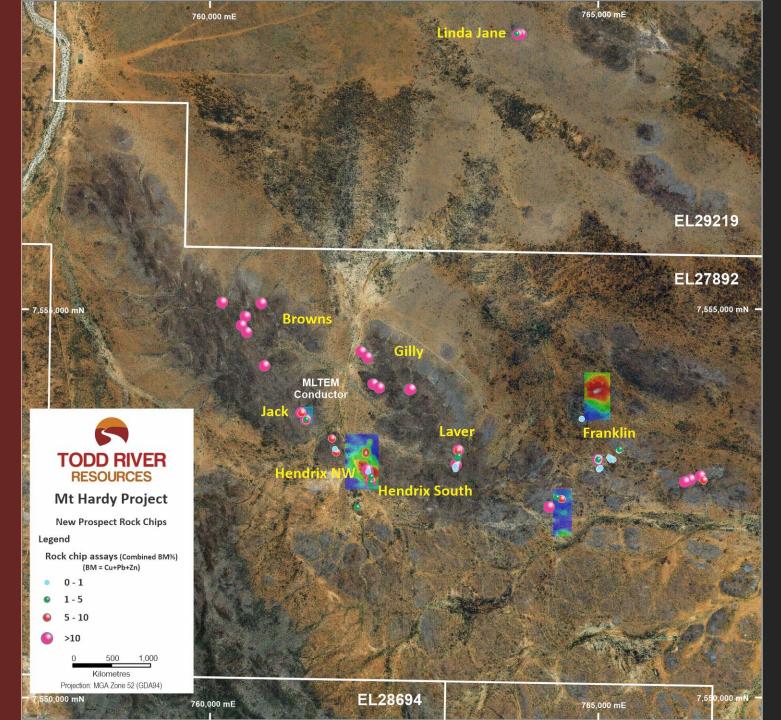


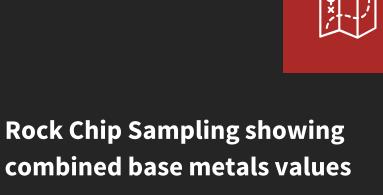
## Upcoming Exploration at Mt Hardy 7 New Prospects Identified

Prospect:	Priority:	Next Phase:	Comment:
Hendrix South	1	RC Drilling	High grade outcropping mineralization to be tested by multiple RC holes to 180m below surface
Hendrix NW	1	RC Drilling	Tightly folded outcropping mineralization similar to Hendrix to be tested by RC holes to 150m
Gilly	1	RC Drilling	Extensive surface breccia over >250m on multiple surfaces – 1,000m RC to test several positions
Jack	3	RC Drilling	Subtle EM conductor associated with surface mineralisation – Less extensive than other targets
Laver	2	RC Drilling	Significant strike of gossanous material – preliminary drilling to focus on thicker zones
Linda-Jane	2	RC Drilling	Parallel zones of Cu and Zn mineralization to be tested by fence of RC holes
Franklin	3	Mapping/Geophysics	Further mapping and sampling to determine extent and continuity

# of Mineralisation New Areas

9





combined base metals values Highlights trends and hot spots Significant amount of tenure under cover (north) Regional RC drilling starting in

Regional RC drilling starting in September at Hendrix S and NW, Gilly, Linda-Jane and Laver

#### **New Target Areas**

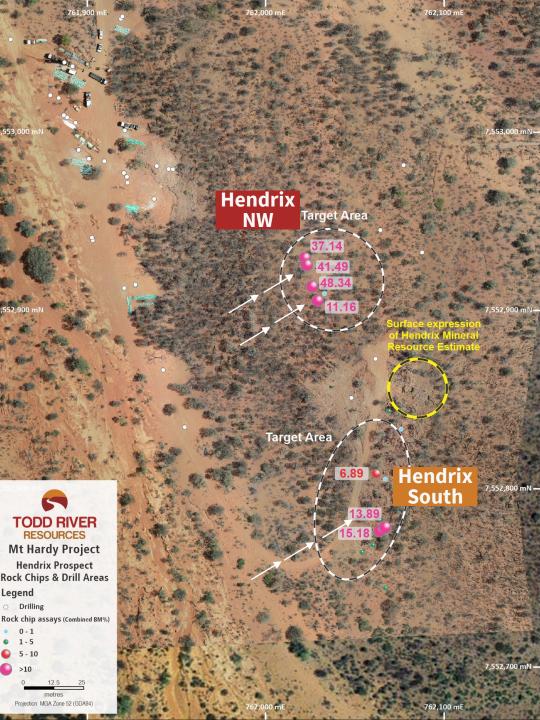
## New Targets at Hendrix

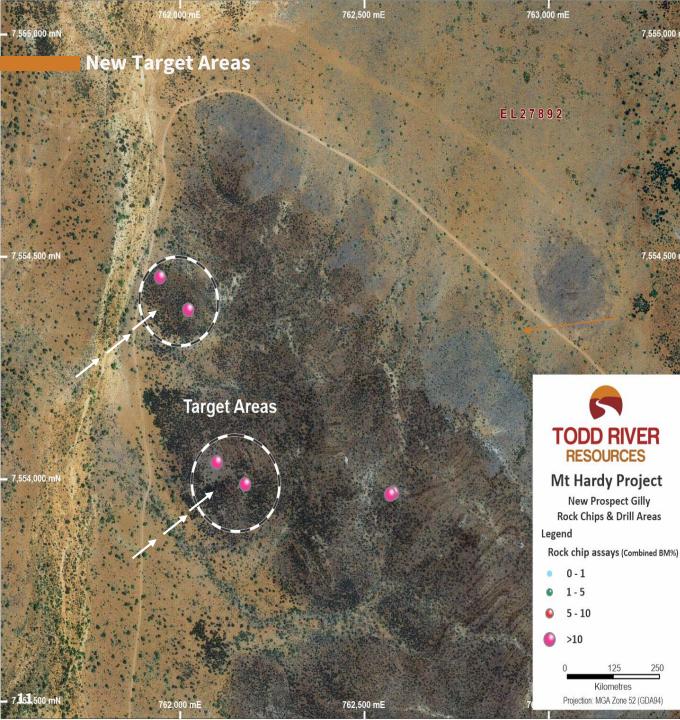
#### **Hendrix South**

- Main brecciates quartz-rich unit over a strike of more than 100m
- Rock chip sample assay results up to 4.2% Zn, 8.17% Pb, 2.59% Cu, 89 g/t Ag
- Single fence of holes to test high grade surface mineralisation

#### **Hendrix North West**

- Similar breccia-style mineralisation observed at surface
- Assay results up to 10.1% Zn, 25.4% Pb, 10.1% Cu, 858 g/t
- 800m of RC drilling to test beneath high grade surface mineralisation





## **Gilly Prospect**

- Widespread mineralized surface breccia over +500m
- All samples assay at >20% Cu+Pb+Zn

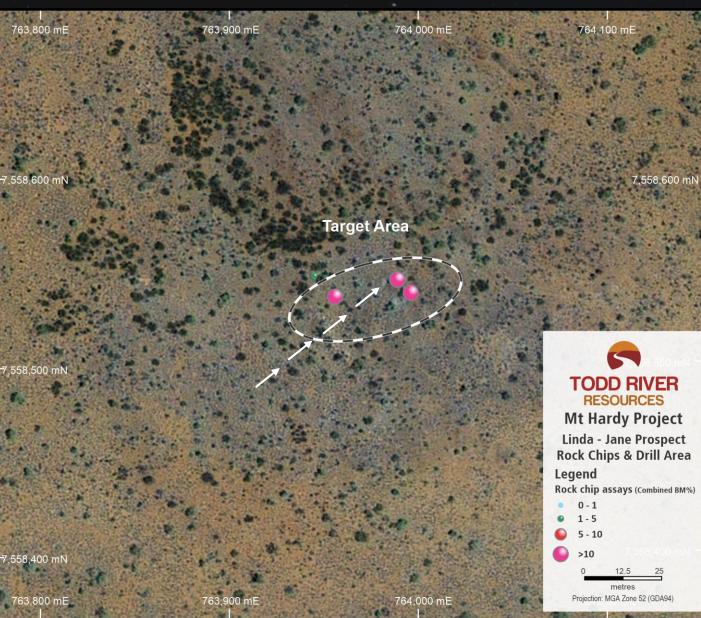
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- Drilling is designed to test near surface mineralisation
- Approximately 1,000m of RC drilling to test thickest zones to 150m

#### **Other Prospects**





## Linda-Jane Prospect

- Identified from historic maps surface occurance well north of the Hendrix area on isolated outcrop
- Several small prospecting pits containing oxide copper and other base metal gossans
- Base metal assays up to 33.9% combined Cu+Pb+Zn
- Drilling of a single fence of RC holes to test depth continuity
- Geophysics to be completed north and south where no outcrop

763,100 mE

#### New Target Areas

**Target Area** 

Target Area

5

TODD RIVER RESOURCES Mt Hardy Project Laver Prospect Rock Chips & Drill Areas

Mineralised trend Rock chip assays (Combined BM%)

Projection: MGA Zone 52 (GDA9-

Legend

0-1
1-5
5-10
>10



## **Laver Prospect**

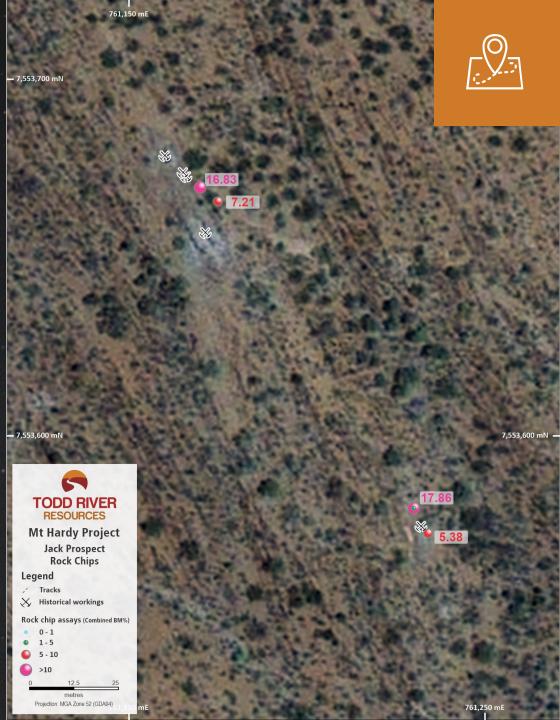
• Cu-Pb occurrence 1.1km to the east-northeast of the Hendrix deposit

- Breccia extends over 250m in strike
- Rock chip sampling assay results of up to 12.7% Zn, 7.9 Pb, 3.1 Cu, 154 g/t Ag
- Several anomalous Au results to a peak of 0.35 g/t Au
- Drilling to focus on the thicker zones of the breccia
- Multiple holes into several high priority areas

New Target Areas

## **Jack Prospect**

- Located 1.2 km to the northwest of the Hendrix deposit
- Rock chip assay results up to 1.5% Zn, 1.8% Pb, 14.6% Cu, 149 g/t Ag
- Highly anomalous Au results of up to 0.91 g/t Au
- Subtle EM conductor associated with the mineralisation
- Immediate drill target



Mt Hardy Project



# Next Steps At Mt Hardy

The August and September exploration program is underway targeting new high priority targets:

- RC drill testing the new targets immediately south and northwest of Hendrix to commence in September
- RC drill testing recently identified surface mineralization at Gilly, Laver and Linda-Jane
- Ground based geophysics to explore north of the main outcropping areas under cover
- Re-sampling all historic RAB and aircore spoils that mainly assayed for gold (northern covered area)
- Further mapping and sampling over additional areas of outcrop

#### **New Target Areas**

## Focus on Base Metals and Gold

#### Petermann Range: Gold & Base Metals

 Exploration Agreement currently being negotiated with the objective to be commencing on-ground exploration during Q3 2019 –
 Desk Top Work already Commenced

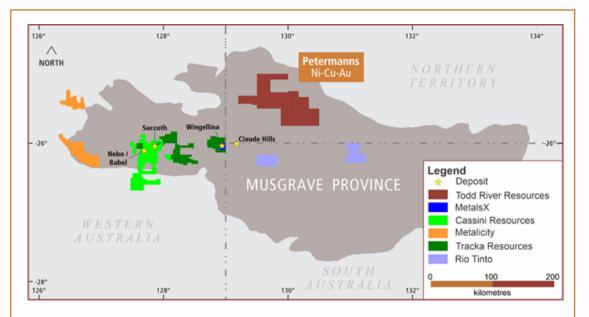
#### **McArthur River: Copper-Lead-Zinc**

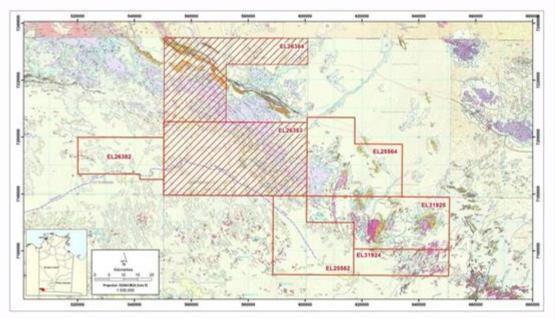
 CSIRO collaboration and Adelaide University Honours Projects to review geophysics and refine stratigraphy –
 No On Ground Work Planned for 2019

#### Manbarrum Project

• Considering a number of strategies to move the project forward







### Petermann Range Project – Substantial Musgrave Land Holding

- 5,100km<sup>2</sup> of tenure
- 2,800km<sup>2</sup> proceeding to grant
- Additional 2,300km<sup>2</sup> remaining moratorium
- Significant Land Position in the Central Musgrave Province with no modern Exploration for 40 Years
- Exploration Agreement with the Traditional Owners currently being negotiated. Chairman Eddie Fry Key for a strong Company-TO Relationship
- First Pass Mapping, Broad Surface Sampling and Airborne Geophysics over Priority Areas. Planned and ready to commence once Land Access approved: **Aiming for 2020 Field Session**
- Longer Lead Time but Elephant Country

Contact



## TODD RIVER RESOURCES

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**ASX Code: TRT** 

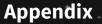


		Metal Grade				Metal Tonnes				
Cutoff Zn %	Tonnage	ZnEq %	Zn %	Cu %	Pb %	Ag g/t	Zn (t)	Cu (t)	Pb (t)	Ag (oz)
0.5	2,700,000	10.3	6.5	0.9	1.5	34	176,000	23,200	40,000	3,000,000
1.0	2,600,000	10.4	6.6	0.9	1.5	34	175,000	22,700	40,000	2,900,000
1.5	2,600,000	10.5	6.7	0.9	1.5	35	175,000	22,500	40,000	2,900,000
2.0	2,500,000	10.7	6.8	0.9	1.6	35	173,000	22,000	40,000	2,900,000
2.5	2,500,000	10.8	7.0	0.9	1.6	35	172,000	21,500	39,000	2,800,000
3.0	2,400,000	11.0	7.1	0.9	1.6	36	170,000	21,100	38,000	2,800,000
3.5	2,300,000	11.2	7.2	0.9	1.6	36	167,000	20,600	37,000	2,700,000
4.0	2,200,000	11.5	7.5	0.9	1.6	37	162,000	19,900	35,000	2,600,000
4.5	2,000,000	12.0	7.8	1.0	1.7	39	153,000	18,800	34,000	2,400,000
5.0	1,700,000	12.7	8.2	1.0	1.8	41	142,000	17,300	32,000	2,300,000

**\*Note:** Zinc Equivalent (ZnEq%) is based on the following formula: ZnEq % = Zn% + (Cu% x (5900/2550)) + (Pb% x (1900/2550)) + (Ag ppm x ((15/31.103475)/(2550/100))) Zn = \$2,550 USD/ tonne Where: Cu = \$5,900 USD / tonne Pb = \$1,900 USD / tonne

Ag = \$15 USD / ounce

Appropriate rounding has been applied.



## Mount Hardy Copper-Zinc Project – First Pass Metallurgy

- Excellent recoveries achieved
- Metals separated into individual products
- High quality concentrates produced







Lead Concentrate

**Zinc Concentrate** 

## **Outcomes:**

- 3 separate high quality Concentrates Produced **Copper, Lead and Zinc**
- Zinc concentrate values (55%) indicate a premium product with low impurities
- Recoveries exceeding **85%** with improvement expected through optimisation of the flowsheet
- No sign of significant deleterious elements in any of the 3 concentrates
- Further work at a time to be determined to focus on improving overall grades and recoveries