



**R3D Resources Limited | ACN: 111 398 040 | ASX: R3D**

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6 June 2022

## **EPA Allows Progress of the Stage 2 Zeehan Application**

- **Tasmanian EPA has progressed the Stage 2 Zeehan Application to advertising.**
- **Further Information provided on the Nightflower Exploration Target including the addition of antimony**

R3D Resources Limited (ASX: R3D) (**R3D** or the Company), a significant copper-gold explorer and developer in the Chillagoe Region in Far North Queensland, is pleased to announce that the Tasmanian EPA has agreed to allow the Company to progress its Stage 2 application to the advertising stage. The Stage 2 application involves the potential granting of a permit to access the Northern Zinc Slag stockpile and to crush material from both the Northern and Southern stockpiles. Earlier this year, MRT granted permission to remove some minor heritage items from the Northern Stockpile area.

In addition, the Company has provided additional information with regards to the Digger Lode Exploration Target as part of the Nightflower Silver Project as advised to the ASX on 2 June 2022. The announcement quoted Ag Equivalents without stating the metal prices and metal recoveries used in the calculation. These parameters are outlined in this announcement although the target has now been estimated using average metal prices and exchange rates for 2021 and incorporates antimony grades which are material in the mineralisation style. Both of these factors have resulted in an adjustment to the exploration target, however as stated, the exploration target is only conceptual in nature and further exploration may not result in the delineation of an economic resource. It also doesn't include the Terrace lode which represents the southern portion of the Nightflower silver project.

**R3D Managing Director Stephen Bartrop advises:** *"Entering the 28-day advertising period is an important step in progressing the Stage 2 Application to potentially allow for the further exports of Zeehan low grade furnace/slag matte with the most recent shipment being completed in early May 2022. Elsewhere, we have updated the Digger Lode Exploration Target in the Nightflower Silver Project using average 2021 commodity prices as well as incorporating antimony grades from historical 'resource' reporting. Antimony is a deemed critical mineral by the Australian Dept. Industry, Science, Energy and Resources."*

### Nightflower Silver Project History

The Company reported on the Nightflower project on the 2 June 2022 including details of a revised Exploration Target. The project is located 40 km north of Chillagoe and is part of R3D's portfolio of projects in this region of Far North Queensland.

Nightflower has been known to contain high silver grades and has a colourful history with discovery outcrop pictured below in 1923. Apparently Messrs Archer and Stewart located the Nightflower in June 1923 and by October 1923 the then Premier of Queensland visited the Nightflower Lode to highlight the importance of the silver-lead find to the Chillagoe district at the time. On his return to Brisbane the Premier mentioned in an interview that the ore at Nightflower was very rich and a truck-load treated at Chillagoe gave about 30% of lead and 40 ounces of silver to the ton (*Source: Qld Govt Mining Journal Vol XXIV, Oct 1923*).



[P. L. Goddard, Photo.  
NIGHTFLOWER SILVER-LEAD LODE, MAIN OUTCROP.

*Figure 1. Early picture of the Nightflower gossan outcrop. Source: Qld Govt Mining Journal Vol XXIV, Oct 1923*

### Revision of the Digger Lode Exploration Target

In the announcement on the 2 June 2022 the Company presented an Exploration Target which included Silver Equivalents (Ag Eq) without providing the assumptions used in the Ag Eq formula. The Exploration Target relates to the Digger Lode and in this announcement has been referred to as the Digger Exploration Target. It differs from the Terrace Lode, a southern extension of the Digger Lode, and both are part of the Nightflower Silver Project.

### Recovery Assumption

The following table outlines the recovery assumptions presented in Askew Report on Stage 2 Reserves (1991) and which was commissioned by Risla Enterprises Pty Ltd. These recoveries have been used by R3D in estimating the factors used in the Ag Eq estimations.

#### Expected Recoveries as reported by Askew 1991

Recoveries	Pb to Pb concentrate	91%
	Ag to Pb concentrate	90%
	Au to Pb concentrate	70%
	Zn to Pb concentrate	30%
	Sb to Pb concentrate	80%
	Pb Concentrate grade	42% Pb

Based on run of mine ore with the following head grades:

Pb	5.30%
Ag	183 g/t
Au	0.7 g/t
Zn	3.0%
Sb	1.0%

Figure 2. Metal recoveries. Source: Askew 1991 in Surestone Pty Ltd's First Annual Report on EPM 6899 by Brett Duck in 1991.

The Pb concentrate is expected to be a saleable product and will the contained metals listed above being payable.

#### Metal Prices Assumed

The metal prices and AUD/USD exchange rate listed below are the average prices for 2021 (which varies from the spot prices used in the Ag Eq estimates reported in the 2 June 2022 announcement). A factor relating to the value of 1 gram of Ag has been estimated for each metal based on these average metal prices and the earlier recoveries.

Metal	Recovery (Source: Askew 1991)	Average Metal Prices - 2021 (US\$/oz or US\$/t)	AUD/USD	Factor
Ag (g/t)	90%	25.2	0.736	1
Au (g/t)	70%	1800	0.736	56
Cu (%)	80%	9297	0.736	10
Zn (%)	30%	2991	0.736	1
Pb (%)	90%	2188	0.736	3
Sb (%)	80%	9921	0.736	11

Figure 3. Average 2021 metal prices and exchange rate. Source: LME, Bloomberg, SP Angel

### Digger Lode Exploration Target - Revised

The following table provides the average metal grades at various cut-off grades using the wireframe modelling outlined in ASX announcement on the 2 June 2022.

Cutoff Ag (g/t)	Ag grade (g/t)	Au grade (g/t)	Cu %	Pb %	Zn %	Sb %
0	67	0.34	0.1%	1.8%	0.9%	1.0%
25	89	0.42	0.1%	2.3%	1.1%	1.0%
50	130	0.37	0.2%	3.5%	1.4%	1.0%
75	142	0.36	0.2%	3.8%	1.5%	1.0%
100	146	0.35	0.2%	3.9%	1.5%	1.0%

Figure 4: Metal grades at various cut-off Ag Eq grades

Cutoff Ag (g/t)	Tonnage	Ag grade (g/t)	Au grade (g/t)	Ag Eq (g/t)	Ag Eq Moz
0	7,332,131	67	0.34	105	24.8
25	5,360,372	89	0.42	134	23.0
50	3,243,848	130	0.37	177	18.4
75	2,873,043	142	0.36	189	17.4
100	2,749,081	146	0.35	193	17.0

Figure 5. Grade -Tonnage estimates at various cut-off grades for estimating the Digger Lode Exploration Target (Source: BMS). Note that the potential quantity and grade is conceptual in nature, and there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. Tables 1 & 2 JORC 2012 are available on our website and in the Prospectus. Comp Person: BMS – Geoff Reed, R3D – Tom Saunders. Ag Eq = Ag + (Au\*56) + (Cu\*10) + (Pb\*3) + (Zn\*1) + (Sb \*11).

Exploration Target Tonnage		Ag Grade (g/t)		Au Grade (g/t)		Ag Eq (g/t)		Ag Eq Contained Metal	
Low	High	Low	High	Low	High	Low	High	Low (Moz)	High (Moz)
2,749,081	5,360,372	89	146	0.35	0.42	134	193	17.0	23.0

Figure 6. Digger Lode Exploration Target for the Digger Lode. Note that the potential quantity and grade is conceptual in nature, and there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. Tables 1 & 2 JORC 2012 are available on our website and in the Prospectus. Comp Person: BMS – Geoff Reed, R3D – Tom Saunders. Ag Eq = Ag + (Au\*56) + (Cu\*10) + (Pb\*3) + (Zn\*1) + (Sb \*11).

This announcement has been approved by the Board of R3D Resources Limited.

Further Information:

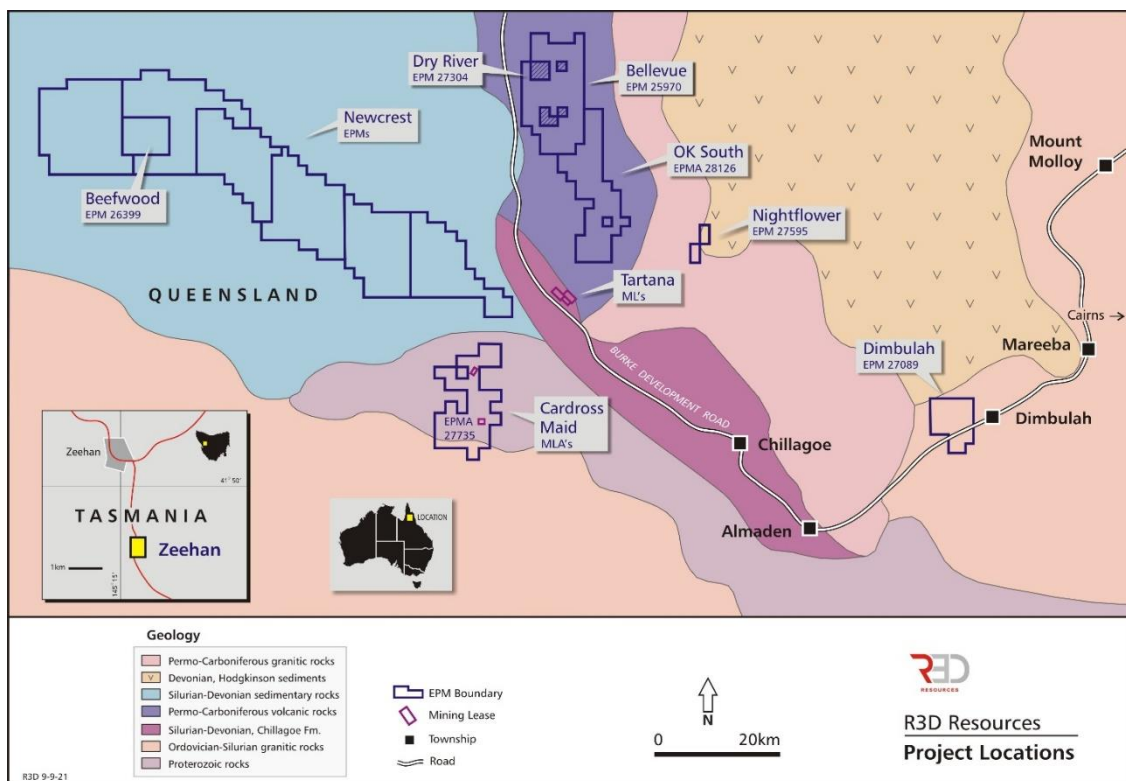
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Managing Director

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### About R3D Resources Limited

In July 2021 R3D Resources Limited acquired Tartana Resources Limited, a significant copper-gold explorer and developer in the Chillagoe Region in Far North Queensland. R3D owns several projects of varying maturity, with the most advanced being the Tartana mining leases, which contain an existing heap leach – solvent extraction – crystallisation plant. Work has commenced to restart this plant to provide future cash flow through the sale of copper sulphate. In Tasmania, Tartana has secured permitting to excavate and screen for export low-grade zinc furnace slag/matte from its Zeehan stockpiles in Western Tasmania and has been shipping zinc slag to South Korea. The next stage in this project requires Stage 2 permitting to crush the slag and access the northern stockpile.

These two projects have the potential to generate a cash flow to underpin the R3D’s extensive exploration activities in the Chillagoe region.



### Competent Person's Statement

The information in this announcement that relates to Exploration Results and Exploration Target is based on information compiled by Mr Wayne (Tom) Saunders and Mr Geoff Reed. Mr Saunders is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM), and a Member of the Australian Institute of Geologists (AIG). Mr Reed is Member of the Australian Institute of mining and Metallurgy (AusIMM (CP)), and a Member of the Australian Institute of Geologists (AIG). Both Mr Saunders and Mr Reed have sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration, and to the activity that is being 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.’ Mr Saunders is an employee of R3D Resources Limited, and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears. Mr Reed is a consultant to R3D Resources Limited and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

**Disclaimer Regarding Forward-Looking Statements**

This ASX announcement contains various forward-looking statements. All statements, other than statements of historical fact, are forward-looking statements. Forward-looking statements are inherently subject to uncertainties in that they may be affected by a variety of known and unknown risks, variables and factors that could cause actual values or results, and performance or achievements to differ materially from the expectations described in such forward-looking statements. R3D does not give any assurance that the anticipated results, performance or achievements expressed or implied in those forward-looking statements will be achieved.

**JORC Code, 2012 Edition**

**Section 1 Sampling Techniques and Data**

<b>Criteria</b>	<b>Commentary</b>
<i>Sampling techniques</i>	2008 drilling - core diamond sawn by experienced technician. Drill core cut consistently and systematically adjacent to orientation line one sample at a time to ensure representivity. Historic drill core also sawn, but no details.
<i>Drilling techniques</i>	Historic holes used for exploration target purposes are drill core, predominantly BQ.  Downhole (acid) surveys uncertain reliability, but holes short. Drill holes from 2008 drill programme comprise one hole drilled entirely in HQ, with the remainder collared in HQ until reasonable ground conditions encountered, then NQ2 to EOH. Core was oriented using ACE core orientation tool. Downhole camera surveys were completed at 30m and/or 50m intervals.
<i>Drill sample recovery</i>	Historic holes sample recovery for core sections assayed generally 95 - 100% with few exceptions (e.g. part DHNF6 Hastings 1972 report). 2008 drilling in Ozmin database, generally 100% recovery - rare exceptions. No concerns in regard to representivity or sample bias.
<i>Logging</i>	Historic drillhole data has been re-assessed and recoded in detail. 2008 drilling has also been logged in detail for the mineralised zones. Logging units for old and new holes match.  New holes have been logged for structure to enhance the geological model used for resource modelling. New holes have been photographed by core tray + detailed photography of mineralisation units as mapped.

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<i>Sub-sampling techniques and sample preparation</i>	2008 holes - Sawn half core sampled at either 1m intervals or by discrete geological units where required (niche representivity). Samples analysed by appropriate methods at a commercial laboratory. Assays were checked against geology log on return. Historic holes - sampling techniques considered acceptable.
<i>Quality of assay data and laboratory tests</i>	The methodology, nature, and quality of the assay data is considered representative (i.e. all metals released from host rock are reporting to the assay). Apart from routine laboratory quality controls, no in-house QA/QC (standards, duplicates) has been done for 2008 drilling. No quality control is known for the historical drilling. Pulps have been retained for check assaying purposes, and standards have been acquired to assist with quality control. Precision and accuracy have not been established for 2008 drilling.
<i>Verification of sampling and assaying</i>	Verification of significant intersections has been conducted by in-house personnel and independent consultant. Twinned holes have not been completed, and at this early stage not considered necessary.
<i>Location of data points</i>	Accuracy of drillhole collars for 2008 programme is +/-5m. A measure of accuracy is provided by a DGPS surveyed baseline in the vicinity of the drillholes. Errors still occur for historical holes which could be out by as much as 10m. Topographic control is likely to be +/-5m. It is considered there is enough data point control for our purposes.
<i>Data spacing and distribution</i>	Data spacing considered sufficient for an exploration target. Geology model well constrained.
<i>Orientation of data in relation to geological structure</i>	Drilling (past and present) has taken the orientation of the mineralised structure into careful consideration and drilled appropriately. The orientation of mineralised intersections is well controlled, understood, and taken into account for later true width measurements.
<i>Sample security</i>	Security protocols were in place in both Nightflower site and Axiom office Townsville. Axiom staff delivered all samples to the Townsville laboratory.
<i>Audits or reviews</i>	Nil

## Section 2 Reporting of Exploration Results

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

<b>Criteria</b>	<b>Commentary</b>
<i>Mineral tenement and land tenure status</i>	Option to Purchase with Mr Tom Saunders. Tenement is EPM 27595, located 30km N of Chillagoe NQ. Good landholder relations.
<i>Exploration done by other parties</i>	The main players are: - Hastings Exploration NL 1972 - report on drilling; Surestone Pty Ltd 1990 - Preliminary Feasibility Report by Breinar Minerals; James Askew Ass 1991 - Preliminary Report on Resource Estimate for Surestone Pty Ltd; Metallurgical testwork for Surestone by Risla;
<i>Geology</i>	Structurally controlled Ag-Pb-Zn-Sb Lode deposit in the Nightflower Caldera; refer Laing Permo-Carboniferous zoned polymetallic pipe Model.

Criteria	Commentary
<i>Drill hole Information</i>	RC Percussion Collaring. HQ and NQ Diamond Coring with high recoveries.
<i>Data aggregation methods</i>	Exploration results are reported within the Aqeq cutoff wireframes. The grades are compiled using length weighting with no top cutting.
<i>Relationship between mineralisation widths and intercept lengths</i>	The orientation of the mineralised structure is well controlled. The angle of intercept between drill hole and structure has been calculated for each hole where assay data used (Table available), this has been used to calculate true widths to apply to resource model and weighting of assays for grade estimates.
<i>Diagrams</i>	See ASX 2008 Axiom press releases.
<i>Balanced reporting</i>	Report is a balanced report combining the geology and metallurgical testing.
<i>Other substantive exploration data</i>	IP; Breinar bulk sample for Surestone and Robertson Research metallurgical studies; deleterious elements may include As Sb;
<i>Further work</i>	RC Drilling - lateral and depth extension, and large scale step-out drilling.

## APPENDIX 1 - DRILL HOLE TABLE

PROJECT	Hole_ID	Collar_E	Collar_N	Collar_RL	Final Dept	Dip	Azi_True	Hole_Type	Grid Datur	Year
NightFlower	NF72DD01	236880	8135517	397	99.7	-45	270	DD	GDA94	1972
NightFlower	NF72DD02	236941	8135695	385	81.1	-45	271	DD	GDA94	1972
NightFlower	NF72DD03	236961	8135897	400	75.3	-45	271	DD	GDA94	1972
NightFlower	NF72DD04	236714	8134995	400	90.8	-45	271	DD	GDA94	1972
NightFlower	NF72DD05	236834	8135497	407	57.0	-45	270	DD	GDA94	1972
NightFlower	NF72DD06	236868	8135553	397	41.9	-47	270	DD	GDA94	1972
NightFlower	NF72DD07	236755	8135361	415	47.9	-45	271	DD	GDA94	1972
NightFlower	NF72DD08	236790	8135414	415	53.6	-45	271	DD	GDA94	1972
NightFlower	NF72DD09	236646	8134728	415	47.1	-45	271	DD	GDA94	1972
NightFlower	NF72DD10	236903	8135512	398	152.4	-50	270	DD	GDA94	1972
NightFlower	NF72DD11	236832	8135465	410	90.5	-45	270	DD	GDA94	1972
NightFlower	NF72DD12	236894	8135575	391	72.2	-45	270	DD	GDA94	1972
NightFlower	NF72DD14	236680	8135500	420	197.2	-54	90.5	DD	GDA94	1972
NightFlower	NF72DD16	236895	8135544	394	161.5	-60	270.5	DD	GDA94	1972
NightFlower	NF08DD17	236893	8135503	412	186.2	-55	277	DD	GDA94	2008
NightFlower	NF08DD18	236911	8135513	410	206.7	-55	277	DD	GDA94	2008
NightFlower	NF08DD19	236900	8135544	406	137.6	-55	277	DD	GDA94	2008
NightFlower	NF08DD20	236850	8135434	421	164.4	-55	277	DD	GDA94	2008
NightFlower	NF08DD21	236968	8135518	410	294.1	-55	277	DD	GDA94	2008
NightFlower	NF08DD22	237029	8135546	409	329.7	-55	277	DD	GDA94	2008
NightFlower	NF08DD23	237100	8135567	408	595.4	-55	301	DD	GDA94	2008
NightFlower	NF08DD24	236900	8135544	406	140.6	-55	308	DD	GDA94	2008