



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

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28 January 2022

## **High Grade 4.54% Cu Near Surface Assay Received During Drilling Programme Copper Sulphate Plant Scoping Study Parameters**

### **Highlights**

#### ***Drilling***

- **Drilling intersected several +0.5% Cu zones with the highest grade at 4.54% Cu over 1 metre (m) and the longest downhole intersection being 9m at 0.71% Cu in drillhole RDD003**
- **Drilling demonstrates strike continuity and potential depth extensions to mineralisation in the pit and assists in mapping alteration trends**
- **Separate oxide and sulphide exploration targets for future drilling to upgrade targets to resource status refined**

#### ***Copper Sulphate Plant***

- **Copper Sulphate plant first production expected following 6-month refurbishment period**
- **Refurbishment capital estimated at \$1.36m with attractive business economics**
- **Target production of 6,000-7,000 tonnes per annum**
- **Upgrade of leach pad copper mineralisation to an Inferred Resource**
- **Discussion underway with two offtake partners**

R3D Resources Limited (R3D or the Company) is pleased to provide an update on its three-hole diamond drilling programme conducted late last year on the Tartana mining leases and which has contributed to a refinement of exploration targets. R3D has also provided initial scoping study parameters for restarting copper sulphate production from the existing Tartana heap leach – solvent extraction – crystallisation plant.

Dr Stephen Bartrop, CEO and Managing Director of R3D observed, *“the drilling of the two untested IP targets have been a priority and the intersections have recovered broad areas of copper mineralisation which may develop further along strike and up-dip. The results support the view that the mineralising system is larger than first envisaged.*

“Meanwhile work on restarting the copper sulphate plant has been encouraging with the economics outlined by the scoping studies suggesting an attractive business, particularly with the outlook for the copper price over the next few years.”

### Exploration Drilling Update

In the September Quarterly Activities Report (announced on the 29 October 2021) the Company reported the completion of a three-hole deep drilling programme outlined in Figure 1. The drilling has focused on both testing deeper targets as well as mapping alteration association with mineralisation for future targeting and as consequence the assay suite has been more comprehensive than usual. The combination of this and current industry demand for analysis has created significant delays and the assay results have still only been recently partially received.

Drillhole	Type	Collar Co-ordinates			Dip	Azimuth	Hole length	Core size
		X	Y	RL				
RDD001	Diamond	2089450	8126105	233	-75	202	522.9	HQ to 111.6m NQ to end of hole
RDD002	Diamond	2089444	8125770	241	-67	203	693.8	HQ to 50.6m NQ to end of hole
RDD003	Diamond	2089444	8125770	241	-60	38	450.9	HQ to 74.6m NQ to end of hole

Figure 1 – Drillholes completed as part of the Tartana copper exploration.

Figure 2 lists the assays received to-date and which includes more than 1100 individual assays including assay results being received this week.

Drillhole	From (m)	To (m)	Number of Assays Received	
RDD001		20	40	20
RDD002		0	693.8	694
RDD003		0	320	319
RDD003		359	393	35
RDD003		409	450.9	41
				1109

Figure 2 – Drillholes sections where assay data from SGS has now been received.

Figure 3 lists the significant intersections from the drilling to-date and Figure 4 is a cross-section highlighting the position of the intersections from the current drilling along with historical drillhole intersections.

Drillhole	From	To	Intersection	Cu (%)	Ag (ppm)	Au (ppm)	Co (ppm)	Comments
RDD001	38	39						52.8 Only assays between 20 and 40 m depth have been received
RDD002	185	187	2	0.55%	8.8	0.03	17.7	
RDD002	219	221	2	0.71%	4.5	0.02	31.9	
RDD002	301	303	2	0.44%	4.7	0.04	37.8	
RDD002	316	317	1	1.17%	6.5	0.02	30.6	
RDD002	321	322	1	0.40%	3.7	0	16.7	
RDD002	328	331	3	0.64%	3.4	0.02	29.9	
RDD002	343	344	1	0.99%	5.9	0.02	24.5	
RDD002	351	353	2	0.59%	2.3	0	15	
RDD002	380	382	2	0.35%	4.7	0	11.7	
RDD002	388	390	2	0.35%	3.5	0.01	10	
RDD002	298	390	92	0.16%	2.8	0.03	17	
RDD002	453	454	1	0.82%	27.4	0.02	57	
RDD002	504	505	1	0.56%	7.6	0.02	23.4	
RDD002	589	591	2	1.66%	32.6	0.09	501.0	RDD002 did not test the entire section of the pit due to hole deviation however this 53.3 narrow zone does suggest mineralisation in the pit can extend to at least 500 m depth below the surface.
RDD003	20	21	1	4.54%	48.4	0.06	501.0	
RDD003	127	131	4	0.52%	4.0	0.02	38.5	
RDD003	143	152	9	0.71%	7.1	0.03	40.9	
RDD003	200	201	1	0.55%	3.8	0.02	23.6	
RDD003	206	208	2	0.35%	6.7	0.04	43.0	
RDD003	224	227	3	0.60%	5.4	0.02	17.9	
RDD003	239	242	3	0.46%	4.8	0.24	54.3	
RDD003	127	246	119	0.17%	2.9	0.03	20	Broad zone of sulphide mineralisation incorporating above intersections
RDD003	291	292	1	0.32%	29.1	0.00	51.1	

Figure 3 – Drill intersections from the recent drilling campaign.

The intersections have provided encouragement as:

- Based on the assays received to-date, both RDD002 and RDD003 have reported broad copper mineralised intersections i.e. RDD002 (92m @ 0.16%) and RDD003 (119m @ 0.17% Cu) which have numerous narrow higher grades zones as outlined in Figure 3. These mineralised zones are outside the existing open pit exploration target and represent zones requiring further exploration.
- Due to hole deviation RDD002 was unable to test the mineralised sequence directly below the open pit. However, the mineralisation that was intersected (2m at 1.66% Cu, 32.6 g/t Ag) was more than 450m below mineralisation at the surface suggesting the likelihood the copper mineralisation intersected in the pit will continue to similar depths.
- Several zones from RDD001 reaffirm the NNE strike continuity of the mineralisation allowing a refinement of the exploration targets.

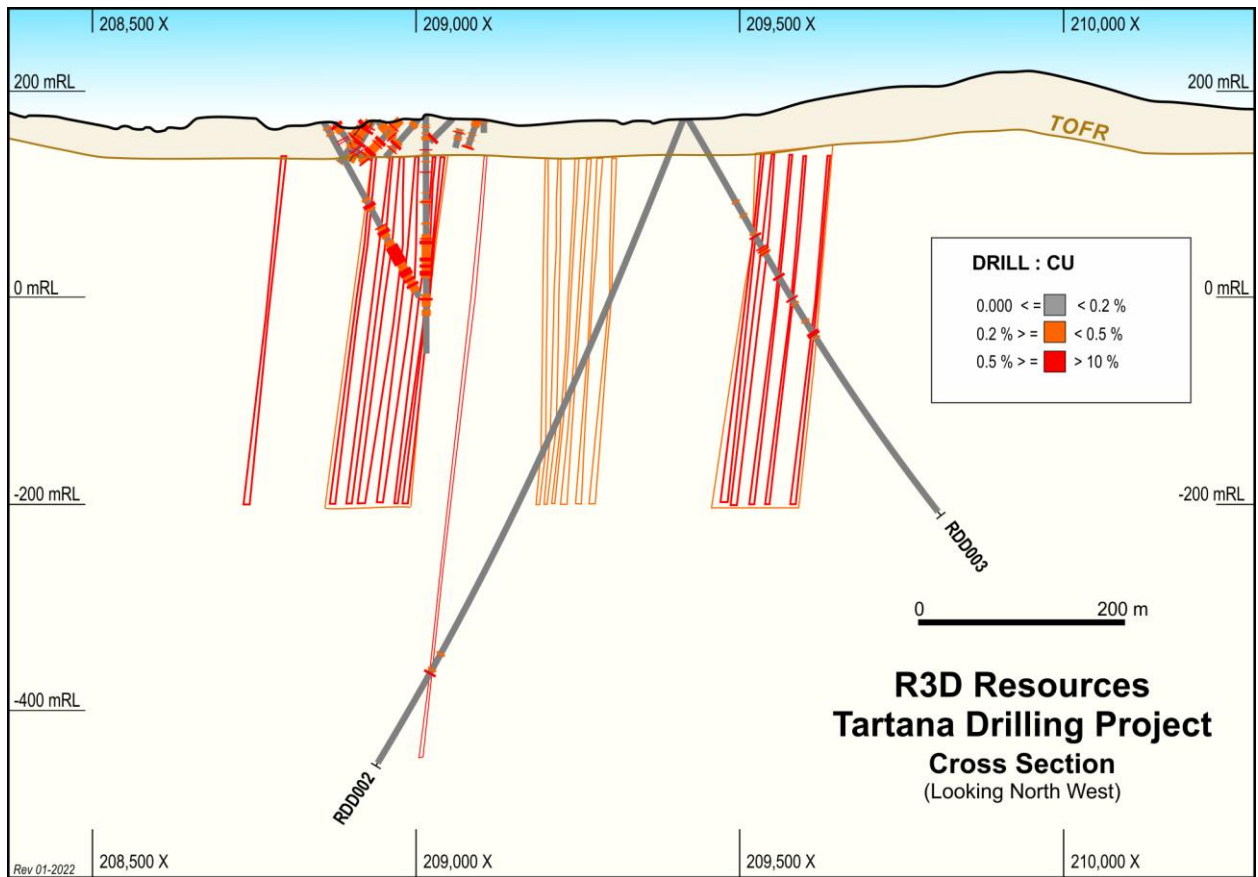


Figure 4. Cross section showing the path of drillholes RDD002 and RDD003.

### Exploration Target and Resource Update

In conjunction with the drilling campaign, the Company has been reviewing historical drilling and incorporated both wireframe and block modelling in its review of exploration targets. The targets are presented in Figure 4 and summarised in the following tables. JORC 2012 tables are presented in Appendix 1.

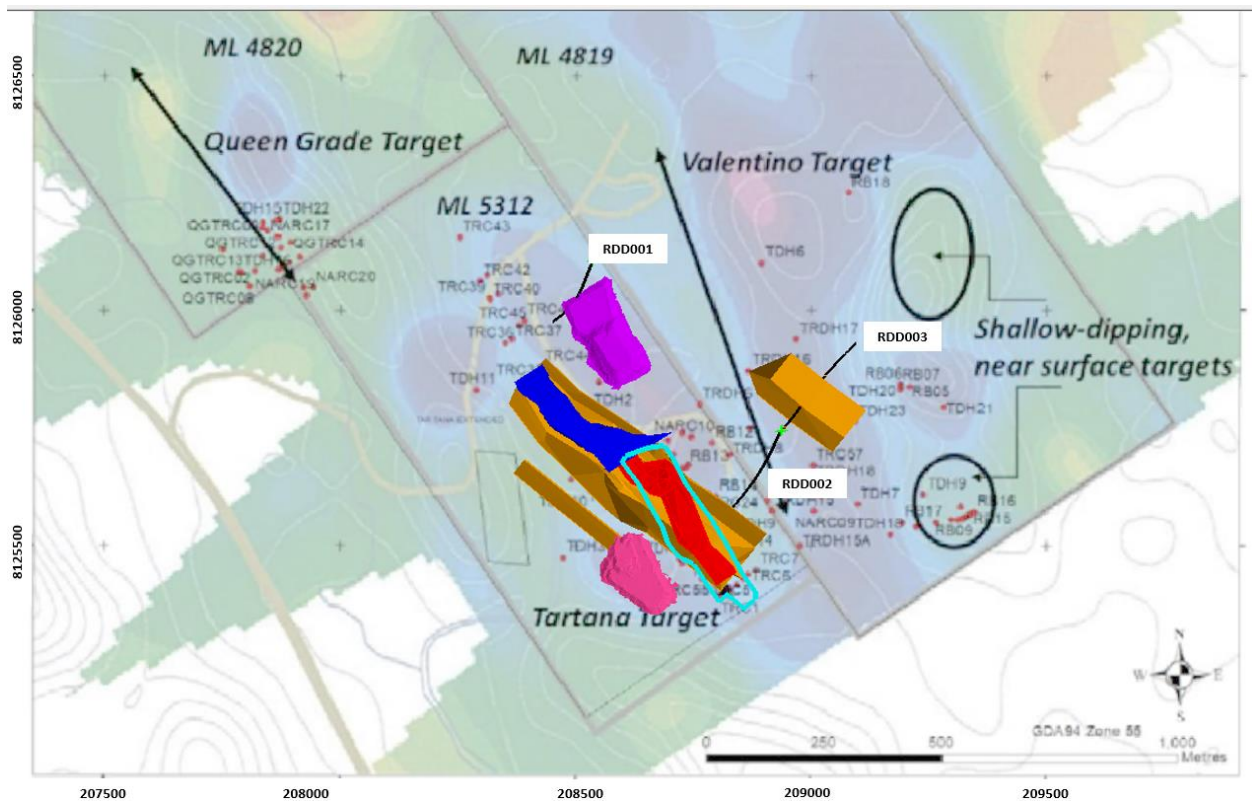


Figure 5. Plan view of exploration targets in brown on a resistivity map. The Valentino and Tartana target were originally estimated by SRK (see Prospectus dated 26 May 2021). Note: The potential quantity and grade is conceptual in nature, and there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

#### Inferred Resource and Exploration Targets – Open Pit Area

The open pit area has been segregated into the following categories:

- Shallow oxide exploration target north of the pit (blue on Figure 5)
- Supergene inferred resource (previously reported and red area on Figure 5)
- Exploration target west of the open pit
- Exploration target comprising bulk tonnage copper sulphide mineralisation below and along strike from the pit (brown area on Figure 5)

The following tables summarise these categories. JORC 2012 tables are located in Appendix 1.

**Table 1. Shallow Copper Oxide Target.** Note: 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.

Shallow oxide copper exploration target parameters									
Target	Strike (m)		Width (m)		Depth		Density		
	low	high	low	high	low	high	low	high	
	220	270	50	60	25	35	2.6	2.8	
Shallow oxide copper exploration target									
	Tonnage Mt		Grade (@ 0.2% Cu cut off)		Contained Cu				
	Low	High	low	high	t	t			
Total	0.7	1.5	0.2	0.4	1,400	6,000			

**Table 2: Estimated supergene copper resource at various copper cut-off grades**

Classification	Cut-off grade Cu%	Ore tonnes kt	Cu grade Cu%	Cu tonnes
Inferred	0.5	175.6	1.5	2,634
Inferred	1.0	139.3	1.7	2,368
Inferred	1.5	79.8	2.1	1,676

Source: BMS, 2020

**Table 3. Western exploration target based on hole TDH14.** Note: 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.

Western (TDH14) exploration target parameters									
Target	Strike (m)		Width (m)		Depth		Density		
	low	high	low	high	low	high	low	high	
	240	280	2.5	3	260	300	2.6	2.8	
Western (TDH14) Exploration target									
Target	Tonnage kt		Grade (@ 0.5% Cu cut off)		Contained Cu				
	Low	High	low	high	t	t			
Total	400	700	1.5	1.9	6,000	13,300			

**Table 4. Copper Sulphide exploration target.** Note: 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.

Copper Sulphide exploration target parameters below oxide/supergene zones									
Target	Strike (m)		Width (m)		Depth		Density		
	low	high	low	high	low	high	low	high	
	500	600	80	90	260	300	2.6	2.8	
Copper Sulphide exploration target									
Target	Tonnage Mt		Grade (@ 0.2% Cu cut off)		Contained Cu				
	Low	High	low	high	t	t			
Total	27	45	0.4	0.6	108,000	270,000			

In the east of the open pit, drillhole RDD003 has intersected a number of mineralised horizons which can be grouped as an exploration target, but which potentially lie within the broader Valentino exploration target. It is not clear whether these mineralised zones are parallel to mineralised zone in the open pit or have a different trend which follows SRK's interpreted exploration target which follows the resistivity low (see Figure 5).

There is also scope for supergene mineralisation at shallow depths to occur above the top of fresh rock (TOFR) and which is evident in other historic shallow drilling.

**Table 5. Valentino area exploration target around RDD003.** Note: 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.

Valentino area exploration target parameters around RDD003 and below TOFR								
Target	Strike (m)		Width (m)		Depth		Density	
	low	high	low	high	low	high	low	high
	100	150	22	25	260	300	2.6	2.8
Valentino area exploration target around RDD003 and below TOFR								
Target	Tonnage Mt		Grade (@ 0.5% Cu cut off)		Contained Cu			
	Low	High	low	high	t	t		
Total	1.5	3	0.6	0.8	9,000	22,500		

**Table 6. Queen Grade Exploration Target.** Note: 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.

Queen Grade Project Exploration Target Parameters								
Target	Strike (m)		Width (m)		Depth below oxide		Density	
	low	high	low	high	low	high	low	high
	200	400	10	25	50	100	2.7	2.9
Queen Grade Exploration Target								
Target	Tonnage Mt		Grade (@ 0.2% Cu cut off)		Contained Zn ('000t)			
	Low	High	low	high	low	high		
Total	0.3	3	4	10	11	290		

#### Further Work

As well as testing significant targets, the recent drilling programme has provided important data which supports the Company's priorities for the Tartana mine site. In relation to providing copper feedstock for the heap leach – solvent extraction – crystallisation plant to produce copper sulphate, these are:

1. Converting oxide mineralisation to the north of the open pit to resource status
2. Upgrading the supergene inferred resource within the confines of the historical open pit.

Other priorities are:

1. Conversion of the large copper sulphide exploration target to an inferred resource
2. Upgrading of other exploration targets including Valentino copper-gold and Queen Grade zinc target.

One important aspect of the recent drilling is that the holes have been designed to enable shallow wedging which can significantly reduce future drilling costs in these areas.

#### Heap Leach Resource Upgrade

Late last year the Company commissioned a LIDAR survey of the Tartana mining leases, and this has enabled the Company to accurately determine the heap volumes of the spent heap leach material currently on the heap leach pads. In 2020 the Company also conducted a 10-hole sampling programme using an excavator to a depth of 4.1m. These samples have been composited, assayed, and subject to bottle roll tests to test for leachable copper.



<b>Bottle roll test composite feed grades from heap leach sampling</b>	<b>% Cu</b>
LT01	0.334
LT02	0.452
LT03	0.483
LT04	0.596
Average	0.466

Figure 6. Composite copper grades from the sampling of material on the heap leach pads from Core Metallurgy Pty Ltd.

With the Lidar survey defining the heap leach material volume and density measurements conducted on site, R3D is pleased to report the following inferred resource.

<b>Mineral Resources</b>	<b>Classification</b>	<b>Cut-off Grade % Cu</b>	<b>Ore kt</b>	<b>Cu grade %</b>	<b>Contained Cu tonnes</b>
Heap leach resources on pad	Inferred	n/a	292.5	0.47	1364

Figure 7. Inferred resource on the heap leach pads See Appendix 1 for JORC 2021 tables.

This new resource continues to add to R3D's copper inventory on the mining leases which can provide a copper feedstock to the solvent extraction – crystallisation plant. JORC 202 Tables are provided in Appendix 1.

### Heap Leach – Solvent Extraction - Crystallisation Plant Update

The Company has continued to advance the potential restart of the Heap Leach – Solvent Extraction – Crystallisation plant which produced copper sulphate for more than a decade prior to being placed on care and maintenance in 2014.

The recent focus has been on scoping the refurbishment costs and pre-production timetable. The Company is pleased to announce the following initial scoping project parameters for steady state production, expected after a 12 month ramp up period after commissioning.

#### Project Parameters

Production Rate	6,000 - 7,000 tpa
Pre-production time	6 months
Refurbishment capex excluding working capital	\$1.21 million
Working capital	\$205,000
Indicative copper sulphate price (based on US\$9,741/t Cu price)*	\$3,513 A\$ per tonne
Preliminary copper sulphate production costs excluding copper sourcing	\$854 A\$ per tonne

\* the price of copper sulphate is based on the LME copper price plus a premium

Figure 8. Initial scoping study parameters for the refurbishment of the solvent extraction – crystallisation plant.

*The Scoping Study referred to in this report is based on low-level technical and economic assessments and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised.*

As the copper sulphate price is directly linked to the LME copper price, the recent increase in copper price has improved the economics of restarting production. The Company is in discussion with two separate offtake parties, both of which have expressed a potential interest in providing project financing.



In terms of long lead capital items, these have been identified and represent only moderate cost items and can be ordered relatively quickly.

### **Copper Sources**

The Company has identified further sources of copper units for the solvent extraction – crystallisation plant which can support its future production (see Figure 9). The Company believe its traditional sources (existing copper in ponds/heaps, supergene resources and exploration targets) can provide a base supply for production over the next few years. However, the plant also provides the opportunity to process other copper feedstocks.

The plant is equipped with a hopper/ball mill feed system and tank leaching which can feed directly into the SX circuit. This provides options for treating other copper containing materials which may range from scrap copper, copper sulphide complexes as well as materials such tech components including circuit boards. The combination of a base supply of copper from R3D's traditional sources supplemented with potentially cheap and lucrative other copper sources may enhance the profitability of the business. It may also provide a recycling route for copper and other metals in waste tech components.

#### **Copper sources**

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Copper already contained in ponds

Copper contained in heaps on the pad (inferred resource)

Supergene copper mineralisation within open pit (inferred resource)

Oxide copper exploration targets north and east of the open pit

Supergene exploration target at Valentino

Cardross oxide mineralisation on the Cardross mining lease application

Third party ore suppliers

Alternative copper feedstocks including E-waste

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*Figure 9. Potential copper sources to supply copper for copper sulphate production.*

Other interesting options being investigated include the re-processing of the spent heap leach resource reported above and which is currently sitting on the heap leach pads. While the Company had initially envisaged simply restarting the irrigation system with sulphuric acid used to leach residual copper remaining in the heaps, it may be more advantageous to lightly crush the heap leach material followed by an acid wash and final rinse before being deposited in a new tailings/dump area. This may significantly improve copper recoveries and metallurgical testwork to assist in developing this process is currently being investigated.

The attraction of the reprocessing of the material on the heap leach pads is that it is already crushed and easy to handle and can be relocated to free up pad space for future production.

### **Stephen Bartrop**

Managing Director

**R3D Resources Limited**

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

## **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 is shipping zinc slag to South Korea. 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 Inferred Resource is based on information compiled by Mr Wayne (Tom) Saunders who is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM), and a Member of the Australian Institute of Geologists (AIG). Mr Saunders has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration, and to the activity that is being undertaken 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.

The information in this announcement that relates to Exploration Targets is based on information compiled by Mr Geoff Reed who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Reed has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration, and to the activity that is being undertaken 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 Reed is a Geological Consultant, part-time personnel of Bluespoint Mining Services Pty Ltd and consents to the inclusion in the 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.

### Drill Collars

Drillhole	Type	Collar Co-ordinates			Dip	Azimuth	Hole length	Core size
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### Significant Intersections

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## JORC Code, 2012 Edition

### Section 1 Sampling Techniques and Data

Criteria	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>Half core sampling</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>HQ75 Diamond Core utilizing a UDR650 Drill Rig</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>Initial recoveries are exceeding 99%</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>Preliminary logging has been completed for normal drill coring control. Drilling is currently ongoing but expected to be completed within the week. Detailed geological and structural logging commenced 19/10/2021</li> </ul>

Criteria	Commentary
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>All core has been washed and cleaned of drill mud and polymers.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>No samples dispatched as yet. Contract with laboratory in place to complete ore grade base metal assays. Gold and trace elements to be test by a low level ICP with follow up Fire Assay gold on all samples grading greater than 0.1 ppm Au.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>No repeat assays or laboratory assays undertaken.</li> <li>R3D currently has external gold and copper porphyry standards on site as well as internal field duplicates.</li> <li>These are planned to be inserted at a rate of each 20<sup>th</sup> sample (5%).</li> <li>Repeat and other QAQC steps will be based on assay results.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>Handheld GPS reading 10+ satellites with a nominal accuracy of 3m was used for initial location of all collars.</li> <li>R3D has just completed a drone LIDAR over the whole of the four mining leases. This will enable to improve accuracy of the collar location down to 40mm. R3D are awaiting the final LIDAR results which are in final compilation and correlation phase.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>Sampling is currently planned to be on one metre intervals over all mineralised zones. Unmineralised zone will be sampled at longer intervals but not exceeding three metres.</li> <li>All three holes are testing IP anomalies and geology previously untested in all previous drilling and mining operations</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>The drilling was designed to test the three highest IP anomalies at Tartana. These are separate to the lower intensity IP that captures the exploration target and copper intersections at the copper mine location.</li> <li>Holes one and two are broadly at 75-90 degrees to the structural trends of the copper mineralisation. Hole three, testing the main Valentino shear, is at right angles to the main shear orientation. However, the holes are designed to test complex shear zoned so final orientations will be determined by the detailed logging.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>Security is in place at the mine site and a reliable transport agent has been engaged to transport the samples to the laboratory in Townsville.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>N/A at this orientation phase.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>ML's 4819, 4820, 5312 and 20489 wholly owned by Tartana Resources Limited.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Numerous mining operations and exploration programmes. Refer to Independent Geologists Report in 2021 prospectus. The high level IP anomalies and the geological zones tested have not been drilled before.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>Sheared clastic sediments of the Chillagoe Formation intruded by high level stocks and acid porphyries with complex quartz carbonate veining. R3D recognize that Tartana is a porphyry copper system but also believe that it is part of a larger mineralising cluster within a 35 sq km area extending out of the mining lease footprint.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>Drilling has been completed by a Townsville based drilling contractor with a high level of competence and industry recognition.</li> <li>Other than the collar casing installation, all drilling was diamond core on HQ (75mm) core with recovery rates exceeding 99% (where recoveries have been completed).</li> <li>Downhole surveys are completed at a maximum interval of 30m downhole spacing with spacing in hole one at closer spacing as part of the testing of hole direction and mineralisation.</li> <li>The core is oriented for geological structural analysis both at core recovery runs but also at the survey points. Several zones of broken core have been encountered so orientation results will be affected in those areas.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>N/A at this stage</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>R3D is planning to sample all mineralised zones (as defined by as a minimum of 1% total sulphide and/or shearing and alteration) at one metre intervals. Non mineralised sections (as defined by the detailed geological and structural logging will be completed at a longer interval but will not exceed three metres.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>See main body of report.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>Not applicable at this early phase</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>Refer to Independent Geologists Report in the 2021 Prospectus</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>Planning is underway to undertake infill drilling on both the Supergene Inferred Resource and also the copper exploration target as detailed in the Prospectus. COVID and border restrictions have made availability of both suitable drill rigs and technical staff in 2021 especially leading up to the wet season.</li> </ul>

## Heap Leach Inferred Resource Reporting JORC Code, 2012 Edition

### Section 1 Sampling Techniques and Data

Criteria	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>Excavator bulk sampling using a 1 bcm bucket.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>100%</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>All samples were geologically logged using the same coding for past Majestic and Outokumpu drill logs and geological mapping.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>Samples were laid out in a 1 or 1.1 metre intervals and were sampled by cone and quarter. Each sample contained 1 cubic metre of sample.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>Core Metallurgical have undertaken a complete suite of metallurgical assaying including head grade, leach test and final assaying</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>Bulk samples – minimum of 20 kg/sample interval; average 25kg.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>Pit distribution is a star pattern equidistant across the upper and lower lifts of the heaps and centred on the pile.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>All samples 1.0-1.1 metre intervals. Hole depth is 4.0-4.1 to avoid bottom drainage layer at 6.0 metres.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>Right angles (Vertical).</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>Security protocols were in place in both Tartana and Brisbane laboratories. Reputable shipping company used.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>Review undertaken by Core Laboratories to optimize sampling and testing methodology</li> </ul>

### Section 2 Reporting of Exploration Results

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

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>ML's 4819, 4820, 5312 and 20489. All held by Tartana Resources Limited, a 100% owned subsidiary of R3D Resources Limited.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Extensive exploration and mining completed within the tenement footprint (see prospectus). No testing directly on heap leach. Grade of lower lift (0.85% Cu) and upper lift (0.75% Cu) pers comm previous operator. Heap Leach was fully operational but not completely leached.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>-50mm crushed interbedded shale and sandstone and minor porphyries with veining. Weathered oxide copper – red ochre, limited malachite and azurite.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>Excavator</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>Aggregation by Core Laboratories to optimize leach testing.</li> </ul>

Criteria	Commentary
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>All sample interval were within the mineralised zones.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>See attached.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>Report is a balanced report combining the geology and metallurgical testing.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>Oxide ore that was the source of the material on the heap was drilled by Majestic Resources and Solomon Copper RC programmes. Additionally, costean, pit face sampling and blast hole sampling by pXRF for grade control by Solomon Copper (previous operator).</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>Further auger work is planned to increase hole density prior to plant restart to generate indicated resources. Combined with metallurgy and engineering to go to reserve status</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	Commentary
<i>Database integrity</i>	<ul style="list-style-type: none"> <li>All drill data currently in spreadsheets.</li> <li>Survey control completed using 1cm Lidar survey last quarter 2021</li> <li>All modelling completed within a Vulcan wire frame</li> </ul>
<i>Site visits</i>	<ul style="list-style-type: none"> <li>Extensive visits over 40 years</li> </ul>
<i>Geological interpretation</i>	<ul style="list-style-type: none"> <li>Crushed, mined and stacked interbedded sediments and minor porphyries</li> </ul>
<i>Dimensions</i>	<ul style="list-style-type: none"> <li>Dimension completed by Lidar and Vulcan Wireframe. 196,000 bcm.</li> </ul>
<i>Estimation and modelling techniques</i>	<ul style="list-style-type: none"> <li>1cm accuracy Lidar completed late 2021.</li> <li>The lifts are turned over by excavator during leaching operations for both permeability and also to stop compaction. As such the lifts are well homogenized. The upper lift contained a small portion of grey to black shales (est. 15%) from the final southern pit mining else the geology is well weathered shales and sandstones with minimal clay fractions</li> </ul>
<i>Moisture</i>	<ul style="list-style-type: none"> <li>Moisture varies between 4 and 15% except when active irrigation when producing. Minimal moisture noted in sampling programme but just damp.</li> </ul>
<i>Cut-off parameters</i>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<i>Mining factors or assumptions</i>	<ul style="list-style-type: none"> <li>Previously crushed and screened to minus 50mm</li> </ul>
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"> <li>Core Metallurgy (Brisbane) have undertaken a complete set of leach tests in 2021</li> </ul>
<i>Environmental factors or assumptions</i>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>



Criteria	Commentary
<i>Bulk density</i>	<ul style="list-style-type: none"> <li>• Insitu large scale density determinations by water displacement at matching pit locations.</li> </ul>
<i>Classification</i>	<ul style="list-style-type: none"> <li>• Inferred due to the systematic hole pattern, homogenisation of the geology in the lifts and the consistent grade from the metallurgical testing</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• Nil</li> </ul>
<i>Discussion of relative accuracy/ confidence</i>	<ul style="list-style-type: none"> <li>• An additional pitting and/or augering programme is planned for 2022 for sampling only to increase confidence prior to plant restart.</li> <li>• Copper carbonates in the ponds and circuit and copper contained in the liquor is excluded from this resource statement.</li> </ul>