

# ASX ANNOUNCEMENT

2 July 2018

ASX: MOD

## Major Increase in T3 Resource to 60Mt Containing ~590Kt Copper

- Total Mineral Resource at T3 (at 0.4% Cu cut-off) now comprises 60Mt @ 0.98% Cu and 14g/t Ag containing 590Kt copper and 27Moz silver
- Revised resource represents 44% increase in contained copper (at 0.4% cut-off) compared with re-evaluation of previous resource (announced 24 August 2017) at same cut-off grade
- 46% of the revised total resource (at 0.4% Cu cut-off) is now classified in the high confidence Indicated Mineral Resource category
- The resource upgrade appears to support and potentially exceeds the Expansion Case open pit model reported in the PFS (announced 31 January 2018)
- Drilling is continuing to extend high grade underground potential outside the planned T3 Pit

**MOD Resources Ltd (ASX: MOD)** today announced a substantial 44% increase in the total Mineral Resource at T3 (Motheo) compared with the previous resource estimated at the same 0.4% Cu cut-off grade. The revised resource estimate was prepared by leading independent resource consultants, CSA Global.

The T3 Project forms part of a joint venture with AIM-listed Metal Tiger Plc (30%) and is located within an extensive holding of licences operated by in-country subsidiary, Tshukudu Metals Botswana (Pty) Ltd (Tshukudu) in the central Kalahari Copper Belt in Botswana.

The upgraded resource follows completion of a 90-hole program of infill and extensional diamond core drilling around the planned pit at T3. The drilling program also included holes to test for potential underground extensions outside the planned pit.

Assuming a 0.4% Cu cut-off grade, the total revised resource tonnage now exceeds 60Mt and contains ~590Kt copper, representing a major step up from previous resources. Assuming the 0.5% Cu cut-off grade used in the previous resource estimate (announced 24 August 2017), the revised resource estimate also represents a 31% increase in total resource tonnes to 47Mt and a 30% increase in contained copper to 531.5Kt Cu, compared with the previous resource estimate.

In addition, there has been a significant increase in copper grades at higher cut-off grades, compared with the previous resource estimate. For example, at a cut-off grade of 1.0% Cu, the grade of the revised resource has increased from 1.43% Cu to 1.97% Cu.

The new resource upgrade also provides further confidence in the project with ~46% of the total resource now classified in the Indicated Resource category.

MOD's Managing Director, Mr Julian Hanna, said the revised resource has far exceeded expectations and as a result MOD's project development team is reviewing how the expanded resource could impact the T3 Project. "As a minimum, this upgrade would appear to support the compelling Expansion Case pit model announced in the Pre-Feasibility Study, which was based on average annual production of 28Ktpa copper over a 12 year mine life. We are very encouraged by the new resource and believe there is potential that production and mine life could be extended beyond the Expansion Case," Mr Hanna added.

"The new 60Mt resource also provides further confidence in the potential for significant discoveries that may exist in similar 'buried domes' within the T3 Dome Complex where a major drilling campaign is underway."



The T3 Project Feasibility Study remains on-track for completion at the end of Q1 2019, following robust outcomes of the Pre-Feasibility Study (PFS) (announced 31 January 2018) where the Base Case suggested an EBITDA of ~US\$730m (~A\$960m) over 9 years and the Expansion Case indicated potential for generating ~\$US1.1b (A\$1.45b) EBITDA over approximately 12 years.

### **REVISED MINERAL RESOURCE ESTIMATE**

The revised Mineral Resource estimate is summarised in Table 1 and includes estimates based on five different cut-off grades.

The optimal marginal cut-off for Ore Reserves is under review as part of the Feasibility Study with consideration of a cut-off of approximately 0.4% Cu.

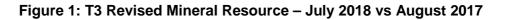
JORC Category	Cut-off Cu%	Tonnes	Grade Cu%	Grade Ag g/t	Contained Cu (Kt)	Contained Ag (Moz)
	0.25	34,544,000	1.13	16.00	391.5	17.39
	0.4	27,897,000	1.32	18.00	369.3	16.46
Indicated	0.5	22,636,000	1.53	22.00	345.8	15.68
	1	14,004,000	2.07	32.00	290.1	14.25
	1.5	10,949,000	2.29	36.00	250.5	12.60
	0.25	43,163,000	0.60	9.00	257.1	12.75
	0.4	32,259,000	0.69	10.00	221.0	10.43
Inferred	0.5	24,388,000	0.76	11.00	185.7	8.48
	1	3,661,000	1.57	21.00	57.4	2.52
	1.5	1,654,000	2.04	29.00	33.7	1.55
	0.25	77,706,000	0.83	12.00	648.6	30.14
	0.4	60,155,000	0.98	14.00	590.4	26.90
TOTAL	0.5	47,023,000	1.13	16.00	531.5	24.17
	1	17,665,000	1.97	30.00	347.6	16.77
	1.5	12,602,000	2.25	35.00	284.2	14.16

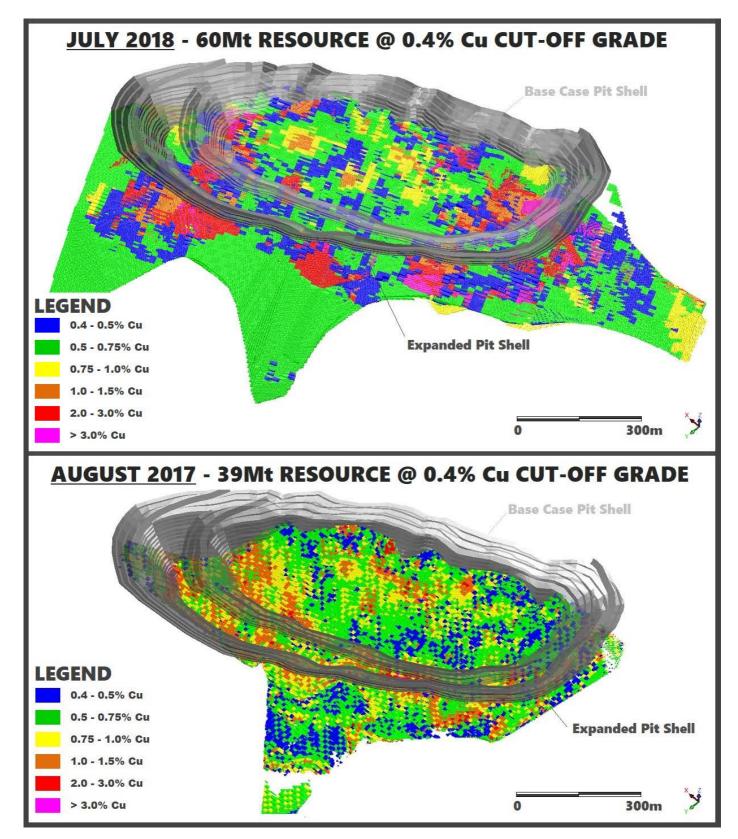
Table 1: T3 Revised Mineral Resource – at different cut-off grades

The substantial increase in the revised resource combined with higher confidence from the percentage increase in the Indicated Resource category, is expected to impact both the life of mine at T3 and potentially the annual production rate compared with the current PFS model. The design throughput of the T3 process plant will be reviewed ahead of commencing Feasibility Study process engineering.

In Figure 1, PFS Base Case and Expansion case pit shells overlay the block models for the revised 60Mt Mineral Resource compared with a re-evaluation of the previous 39Mt Mineral Resource (announced 24 August 2017, refer Table 3), using the same 0.4% Cu cut-off grade.









Assuming the 0.4% Cu cut-off grade, the width of the revised T3 resource within the planned pit is up to 100m true width as shown in the T3 Deposit cross-section in Figure 2 below. This highly favourable geometry is one of many reasons why T3 represents such a compelling project for open pit mining.

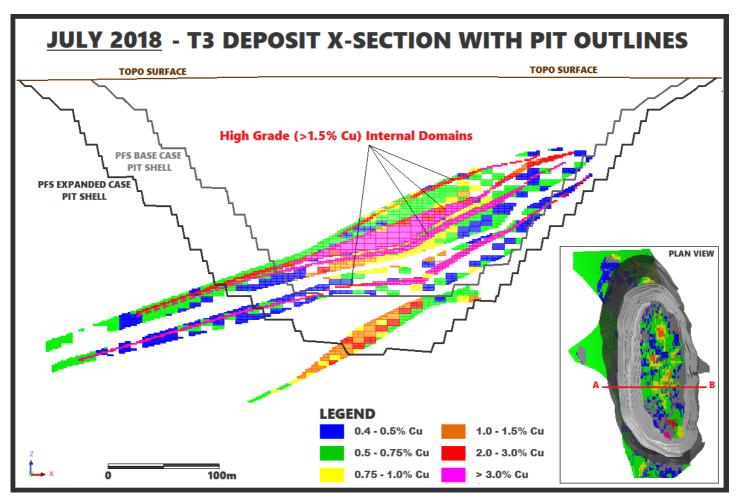


Figure 2: T3 Deposit Cross-Section with Pit Outlines (July 2018)

-ENDS-

For and on behalf of the Board.

Julian Hanna Managing Director Mark Clements Executive Chairman and Company Secretary

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#### **About MOD Resources**

**MOD Resources Ltd (ASX: MOD)** is an Australian-listed copper company actively exploring in the Kalahari Copper Belt, Botswana. MOD owns 70% of a UK incorporated joint venture company, Metal Capital Limited with AIM-listed Metal Tiger Plc (30%).

Metal Capital's wholly owned subsidiary, Tshukudu Metals Botswana (Pty) Ltd (Tshukudu) is the Botswana operating company which owns the T3 copper/silver deposit where a discovery RC drill hole intersected 52m @ 2.0% Cu and 32g/t Ag from shallow depth in March 2016.

MOD announced a substantial maiden copper/silver resource at T3 on 26 September 2016. Total cost of discovery of T3 and delineation of the maiden resource was an exceptionally low US\$1.7 million, equivalent to only US 0.22 cents/lb copper contained within the resource.

On 6 December 2016, MOD announced results of its scoping study for an open pit mine at T3. MOD announced an updated resource of 36Mt at 1.14% Cu containing 409kt copper on 24 August 2017.

Results of a pre-feasibility study for a very robust long life open pit mining and processing operation were announced on 31 January 2018. MOD has commenced the T3 Pit Feasibility Study and is conducting a substantial drilling program testing the potential of numerous high priority 'buried domes' along the T3 Dome Complex, T20 Dome and across the Company's wider regional holdings.

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

The information in this announcement that relates to Geological Data and the T3 Mineral Resource described in this release is reviewed and approved by Mr Bradley Ackroyd, BSc (Hons), Manager Mine Geology for MOD Resources Ltd. Mr Ackroyd is a registered member of the Australian Institute of Geoscientists and has reviewed the technical information in this report. Mr Ackroyd has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and the activity, which it is 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 Ackroyd consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.

#### **No New Information**

To the extent that this announcement contains references to prior exploration results and Mineral Resource estimates, which have been cross referenced to previous market announcements made by the Company, unless explicitly stated, no new information is contained. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

#### **Exploration Targets and Results**

This announcement refers to Exploration Targets as defined under Sections 18 and 19 of the 2012 JORC Code. The Exploration Targets quantity and quality referred to in this announcement are conceptual in nature. There has been insufficient exploration at Exploration Targets, which include EM targets and conductive domes mentioned in this announcement to define a Mineral Resource and it is uncertain if further exploration mill result in the Exploration Targets being delineated as a Mineral Resource. This announcement includes several drill hole intersections, which have been announced by MOD Resources Limited previously.





#### **Forward Looking Statements and Disclaimers**

This announcement includes forward-looking statements that are only predictions and are subject to risks, uncertainties and assumptions, which are outside the control of MOD Resources Limited.

Examples of forward looking statements included in this announcement are: 'The resource upgrade appears to support and potentially exceeds the Expansion Case open pit model reported in the PFS (announced 31 January 2018)' and 'Drilling is continuing to extend high grade underground potential outside the planned T3 Pit' and 'As a minimum, this upgrade would appear to support the compelling Expansion Case pit model announced in the Pre-Feasibility Study, which was based on average annual production of 28Ktpa copper over a 12 year mine life. We are very encouraged by the new resource and believe there is potential that production and mine life could be extended beyond the Expansion Case,' and 'The new 60Mt resource also provides further confidence in the potential for significant discoveries that may exist in similar 'buried domes' within the T3 Dome Complex where a major drilling campaign is underway.' and 'The T3 Project Feasibility Study remains on-track for completion at the end of Q1 2019' and 'The substantial increase in the revised resource combined with higher confidence from the percentage increase in the Indicated Resource category, is expected to impact both the life of mine at T3 and potentially the annual production rate compared with the current PFS model. The design throughput of the T3 process plant will be reviewed ahead of commencing Feasibility Study process engineering.' and 'This highly favourable geometry is one of many reasons why T3 represents such a compelling project for open pit mining.'

Actual values, results, interpretations or events may be materially different to those expressed or implied in this announcement. Given these uncertainties, recipients are cautioned not to place reliance on forward-looking statements in the announcement as they speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and ASX Listing Rules, MOD Resources Limited does not undertake any obligation to update or revise any information or any of the forward-looking statements in this announcement or any changes in events, conditions or circumstances on which any such forward-looking statement is based.

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#### T3 - MINERAL RESOURCE STATEMENT – from 24 August 2017

#### 1. Geology and Geological Interpretation

The copper and silver mineralization which is the basis for the T3 Mineral Resource is interpreted to be a Proterozoic or early Palaeozoic age, vein related sediment hosted deposit which is different to other known deposits and mines in the central Kalahari Copper Belt in Botswana.

The Mineral Resource has been defined along >1km long strike length and the copper and silver sulphide mineralisation occur in veins and disseminations within host rocks that include mudstone, siltstone, sandstone and marl units considered part of the D'Kar Formation. Footwall to the copper/silver resource is generally defined by low-grade disseminated lead and zinc mineralisation within sediments also considered part of the D'Kar Formation.

Mineralisation is highly continuous and is dominated by mainly chalcopyrite with chalcocite and bornite copper sulphides occurring in lesser amounts. Mineralisation extends from shallow depth (~35m depth) to the limit of drilling to date at ~480m vertical depth. Minor malachite and chrysocolla oxide mineralisation occurs near surface between approximately 25-50m depth.

The T3 mineralisation type can be described as a sheeted vein deposit dipping at 20-30 degrees to the north with varying widths of disseminated mineralisation around the veins. The deposit may represent multiple stacked, mineralised veins and units, thrusted one upon the other.

This interpretation opens up potential for resource extensions along strike east and west, as well as at depth towards the north and down dip. Drilling continues to test for potential underground extensions at depth across the T3 deposit.

#### 2. Drilling Technique

The drilling results referred to in this release were drilled by diamond core drilling rigs. HQ3 diameter drill core was drilled for the shallow drill holes and geotechnical holes and NQ for the deeper drill holes. Triple tube drilling was used for the shallow drill holes to maximise core recovery in oxidized sediments intersected at shallow depth.

#### 3. Sampling, Sub Sampling and Analytical Techniques

Drill core was logged, split by diamond saw and sampled on site. Samples of drill core were taken from half core and sampled at 1m lengths or less as dictated by lithological contacts, and assayed for Cu, Ag, Pb, Zn, Mo, AsCu and S at Setpoint and ALS laboratories in Johannesburg. Samples of HQ3 core were taken from quarter core samples and sent for analysis.

Standards, blanks and duplicates were inserted into the sample stream at a ratio of 1:10. The remaining half portion of drill core was retained on site at Tshukudu's core logging facility in Ghanzi, Botswana.

Prior to March 2017, samples were submitted to Set Point Laboratories in Johannesburg for analysis. Entire samples submitted to Set Point Laboratories were prepared using an initial crush to a particle size less than 15 mm via jaw crusher, with a further coarse crush stage to a fineness of 80% passing less than 2 mm. Samples were then split using a Jones riffle splitter, with the analytical split milled using a tungsten bowl mill to 90% < 106  $\mu$ m.

From March 2017 onwards, samples were submitted for ALS Laboratories for sample preparation. Samples were submitted to both the Johannesburg preparation facility, and the on-site preparation facility at MOD's yard in Ghanzi. Samples are first crushed in their entirety to 70% passing less than 2 mm using a jaw crusher. The entire sample is then milled in two batches to greater than 85% passing less than 75  $\mu$ m. The two batches of milled material are then combined and homogenised using the cone and quarter method.

Both sample preparation procedures are considered to represent industry standard practices and are considered appropriate for the style of mineralisation.



Samples analysed by Set Point laboratories were assayed for total and non-sulphide Cu and Ag, Mo, Pb and Zn. Total Cu and other elements were assayed by ICP-OES from a 1 gram pulp sample prepared with 3- acid digest and diluted to 100 ml. Analyses are reported to a 10 ppm detection limit. Non-sulphide Cu is analysed from a 1 gram pulp sample digesting with a combination of sulphuric acid and sodium sulphite, then assayed via ICP-OES. Results are reported to a 10 ppm detection limit.

Samples analysed by ALS Laboratories were also assayed for total and non-sulphide Cu, Ag, Mo, Pb and Zn. Prepared and analysed using ALS method ME-ICP61 for total Cu other elements, with an overrange trigger to ME-OG62 for high-grade Cu samples. Pulps charges of 0.25 grams are prepared using a four-acid digest, and an ICP-AAS finish. Non-sulphide Cu is analysed via method AA05, utilising a sulphuric acid leach with an ICP-AAS finish.

Both non-sulphide methods are considered partial and are conducted for the purposes of determining the acid-soluble Cu component of the sample. Other methods used are considered to be effectively total in their reporting of elemental concentrations.

#### 4. Resource Criteria and Assumptions

The resource estimate was classified in accordance with the Australasian Code for Reporting of Exploration results, Mineral Resources and Ore Reserves (JORC Code, 2012).

Geological interpretation was based on drill hole lithology and assay grade data which was completed on 29 cross-sections using Surpac software. The geological and mineralisation interpretations for the T3 deposit were generated by MOD Resources and reviewed by CSA Global. CSA Global have produced resource tables at multiple copper cut-off grades as reported in Table 1.

The Mineral Resource estimate was based on a number of factors and assumptions:

- A review of the QAQC data was completed and considered satisfactory for Measured Indicated and Inferred Category Resources.
- Mineralisation was defined by zones identified from downhole lithological and analytical data.
- Grade domaining was applied by constructing hard boundaries at a nominal 0.25% Cu lower cut-off grade, consistent with the geological interpretation of the area. Internal to the main mineralised bodies, separate high-grade domains were defined using a nominal 1.5% Cu cut-off, and the logged presence of significant quartz ± carbonate veining. Review of drill core supports the existence of these high-grade, vein dominated domains.
- Using parameters derived from modelled variograms, Ordinary Kriging (OK) was used to estimate average block grades for Cu, Ag, Pb, Zn, AsCu, S and Mo.
- A parent cell size of 10 m E by 20 m N by 5 m RL was adopted with standard sub-celling to 5 m E by 2.5 m N by 1.25 m RL to maintain the resolution of the mineralised lenses whilst restricting the overall size of the model.
- A three-pass estimation search was conducted, with expanding search ellipsoid dimensions with each successive pass. First passes were conducted with ellipsoid radii corresponding to either twothirds, or the complete range of variogram structures for the variable in questions. This selection was based upon quantitative analysis of estimation parameters foreach variable, for each domain. Pass two was conducted with 150% of the dimensions of pass 1 and pass three was conducted with dimensions corresponding to 200% of the variographic ranges. Blocks within the model unestimated after three passes were assigned average values on a per-domain basis.



- Validation checks included statistical comparison between drill sample grades and OK block estimate results for each domain. Visual validation of grade trends for each element along the drill sections was also completed in addition to swath plots comparing drill sample grades and model grades for northings, eastings and elevation. These checks show good correlation between estimated block grades and drill sample grades.
- Bulk density values for mineralisation have been determined via a multiple linear regression formula, accounting for the concentrations of each of the main variables under consideration (Cu, Ag, Pb, Zn, As, Mo). Densities are determined on a dry basis. Of the 26,310 samples available within the current T3 database, 17,674 were measured for density via the immersion method.
- The relative accuracy is reflected in the resource classification that is in line with industry acceptable standards. It is a revised global resource estimate with no production data.
- This Resource is a revised resource estimate compared with the previous resource estimate announced 24 August 2017.

Table 2: Parameters for diamond core drill holes used in T3 Revised Resource Estimation (additional to holes listed in Tables 4 and 5 in previous resource announcment - 24 August 2017)

Drill Hole ID	WGS84_34S_E	WGS84_34S_N	RL (m)	EOH (m)	Azi (UTM)	Dip	COLLAR SURVEY
MO-G-72D	635762.469	7641699.831	1115.825	232.52	160.00	-60.00	DGPS
MO-G-73D	635697.369	7641846.950	1115.103	319.55	160.00	-60.00	DGPS
MO-G-74D	636613.286	7642382.668	1116.327	406.83	160.00	-60.00	DGPS
MO-G-75D	635726.652	7641771.364	1115.762	334.58	160.00	-60.00	DGPS
MO-G-76D	636579.501	7642465.606	1115.502	505.80	160.00	-60.00	DGPS
MO-G-77D	635612.779	7641651.837	1115.637	361.70	160.00	-60.00	DGPS
MO-G-78D	635585.776	7641725.159	1115.799	400.75	160.00	-60.00	DGPS
MO-G-79D	636548.556	7642534.942	1115.094	535.88	160.00	-60.00	DGPS
MO-G-80D	635385.708	7641680.078	1115.166	535.58	160.00	-60.00	DGPS
MO-G-81D	636632.275	7642192.534	1117.138	319.45	160.00	-60.00	DGPS
MO-G-82D	635671.376	7641751.648	1115.878	392.00	160.00	-60.00	DGPS
MO-G-83D	636477.499	7642442.865	1115.686	532.79	160.00	-60.00	DGPS
MO-G-84D	636595.295	7642295.113	1116.772	367.55	160.00	-60.00	DGPS
MO-G-85D	636590.703	7642018.665	1116.438	295.60	160.00	-60.00	DGPS
MO-G-86D	635349.443	7641769.945	1115.325	406.58	160.00	-60.00	DGPS
MO-G-87D	635769.978	7641650.808	1115.626	304.73	160.00	-60.00	DGPS
MO-G-88D	636557.767	7642114.799	1116.880	256.50	160.00	-60.00	DGPS
MO-G-89D	636558.289	7642382.158	1115.511	402.50	160.00	-60.00	DGPS
MO-G-90D	636733.936	7642604.564	1115.340	514.90	160.00	-60.00	DGPS
MO-G-91D	635783.938	7641592.104	1115.905	206.99	160.00	-60.00	DGPS
MO-G-92D	635239.300	7641771.496	1115.181	409.75	160.00	-60.00	DGPS
MO-G-93D	636529.772	7642193.075	1116.815	313.97	160.00	-60.00	DGPS
MO-G-94D	636108.834	7641889.223	1116.038	340.70	160.00	-60.00	DGPS
MO-G-95D	635843.000	7641742.245	1115.864	316.60	160.00	-60.00	DGPS



	000070.040	7040400 005	4440.004	000 50	400.00	<u> </u>	DODO
MO-G-96D	636673.248	7642102.025	1116.661	208.50	160.00	-60.00	DGPS
MO-G-97D	635275.007	7641677.623	1115.385	352.55	160.00	-60.00	DGPS
MO-G-98D	636666.785	7642499.281	1115.279	380.19	160.00	-60.00	DGPS
MO-G-99D	636193.513	7641926.721	1116.150	339.93	160.00	-60.00	DGPS
MO-G-100D	636698.170	7642149.502	1116.757	292.60	160.00	-60.00	DGPS
MO-G-101D	635876.975	7641669.184	1115.686	199.70	160.00	-60.00	DGPS
MO-G-102D	635521.533	7641616.448	1115.827	262.60	160.00	-60.00	DGPS
MO-G-103D	636431.641	7642155.518	1116.393	340.88	160.00	-60.00	DGPS
MO-G-104D	636677.337	7642047.817	1116.812	211.60	160.00	-60.00	DGPS
MO-G-105D	635878.074	7641621.737	1115.805	214.60	160.00	-60.00	DGPS
MO-G-106D	636591.312	7642984.760	1114.326	599.35	160.00	-60.00	DGPS
MO-G-107D	635536.350	7641812.666	1115.368	340.58	160.00	-60.00	DGPS
MO-G-108D	635810.690	7641839.468	1115.452	346.80	160.00	-80.00	DGPS
MO-G-109D	636633.548	7642024.826	1116.551	169.65	160.00	-60.00	DGPS
MO-G-110D	636409.628	7642060.248	1117.080	268.83	160.00	-60.00	DGPS
MO-G-111D	636601.121	7641972.925	1116.407	181.60	160.00	-60.00	DGPS
MO-G-112D	635901.304	7641877.223	1115.676	349.80	160.00	-80.00	DGPS
MO-G-113D	636503.640	7642087.972	1116.987	277.83	160.00	-60.00	DGPS
MO-G-114D	636519.448	7641945.506	1116.316	190.70	160.00	-60.00	DGPS
MO-G-115D	636277.375	7642012.820	1117.233	316.93	160.00	-85.00	DGPS
MO-G-116D	636025.900	7641961.424	1116.100	349.80	160.00	-80.00	DGPS
MO-G-117D	635040.719	7641672.280	1114.384	424.82	160.00	-60.00	DGPS
MO-G-118D	635924.537	7641937.467	1115.569	424.70	160.00	-80.00	DGPS
MO-G-119D	635973.893	7641672.479	1116.029	178.53	160.00	-60.00	DGPS
MO-G-120D	636168.583	7641728.327	1116.392	190.60	160.00	-60.00	DGPS
MO-G-121D	636209.204	7642044.695	1116.700	289.73	160.00	-76.00	DGPS
MO-G-122D	636428.931	7642155.235	1116.652	346.83	160.00	-80.00	DGPS
MO-G-123D	636275.399	7641721.859	1116.600	139.50	160.00	-60.00	DGPS
MO-G-124D	636323.652	7642157.503	1116.335	307.68	160.00	-60.00	DGPS
MO-G-125D	636145.382	7642203.046	1116.019	718.60	160.00	-60.00	DGPS
MO-G-126D	636479.334	7641835.163	1116.553	124.48	160.00	-60.00	DGPS
MO-G-127D	636236.748	7641774.081	1116.120	172.50	160.00	-60.00	DGPS
MO-G-128D	636195.221	7642338.437	1115.593	376.70	160.00	-60.00	DGPS
MO-G-129D	636469.149	7641864.887	1116.154	157.55	160.00	-60.00	DGPS
MO-G-130D	636181.201	7641684.314	1116.822	403.50	340.00	-60.00	DGPS
MO-G-131D	636419.080	7641871.982	1116.148	181.56	160.00	-60.00	DGPS
MO-G-132D	636319.968	7642155.434	1116.635	313.70	160.00	-78.00	DGPS
MO-G-133D	636044.932	7642194.466	1115.402	424.45	160.00	-74.00	DGPS
MO-G-134D	636430.076	7641843.606	1116.391	160.58	160.00	-60.00	DGPS
MO-G-135D	636382.839	7641807.321	1116.375	151.35	160.00	-60.00	DGPS
MO-G-136D	636441.377	7641806.319	1116.660	121.60	160.00	-60.00	DGPS
MO-G-130D	636266.801	7641699.958	1116.722	121.50	160.00	-60.00	DGPS
WO-G-137D	000200.001	1041099.900	1110.722	121.00	100.00	-00.00	DGF3

## Major Increase in T3 Resource to 60Mt Containing ~590Kt Copper



MO-G-138D	636396.791	7641767.331	1116.704	109.58	160.00	-60.00	DGPS
MO-G-139D	635632.545	7642011.317	1115.127	496.70	160.00	-60.00	DGPS
MO-G-140D	636253.014	7641728.949	1116.630	145.30	160.00	-60.00	DGPS
MO-G-141D	636356.853	7641781.298	1116.473	142.60	160.00	-60.00	DGPS
MO-G-142D	636524.509	7641891.528	1116.233	142.60	160.00	-60.00	DGPS
MO-G-143D	635822.121	7642071.317	1114.799	442.50	160.00	-60.00	DGPS
MO-G-144D	636739.576	7642174.534	1116.610	271.55	160.00	-60.00	DGPS
MO-G-145D	635591.797	7641937.217	1115.407	403.50	160.00	-60.00	DGPS
MO-G-146D	636703.845	7642267.494	1116.869	355.65	160.00	-60.00	DGPS
MO-G-147D	636111.811	7642164.131	1115.913	349.60	160.00	-60.00	DGPS
MO-G-148D	635915.595	7641557.731	1116.639	154.90	160.00	-60.00	DGPS
MO-G-149D	636665.991	7641975.552	1116.453	151.90	160.00	-60.00	DGPS
MO-G-150D	636778.365	7642110.518	1116.604	184.55	160.00	-60.00	DGPS
MO-G-151D	636068.758	7641684.440	1116.527	155.62	160.00	-60.00	DGPS
MO-G-152D	635523.209	7641910.229	1114.831	350.32	160.00	-60.00	DGPS
MO-G-153D	635845.495	7641859.319	1115.406	265.65	160.00	-60.00	DGPS
MO-G-154D	636180.462	7642117.864	1116.508	316.80	160.00	-65.00	DGPS
MO-G-155D	636456.397	7641963.886	1116.303	220.85	160.00	-60.00	DGPS
MO-G-156D	636528.645	7642197.316	1116.785	319.80	160.00	-80.00	DGPS
MO-G-157D	636075.971	7642092.520	1115.946	358.60	160.00	-60.00	DGPS
MO-G-158D	636238.392	7642110.806	1116.492	349.70	160.00	-70.00	DGPS
MO-G-159D	636774.955	7642223.959	1116.714	265.60	160.00	-60.00	DGPS
MO-G-160D	635891.460	7641765.592	1115.755	268.91	160.00	-60.00	DGPS
MO-G-161D	636611.487	7642244.943	1116.939	352.73	160.00	-60.00	DGPS

JORC	Cut-off	Tonnes	Grade	Grade	Contained	Contained
Category	Cu%		Cu%	Ag g/t	Cu (Kt)	Ag (Moz)
	0.5	8,954,000	1.27	12.50	113.45	3.60
Measured	1	6,548,000	1.45	13.58	94.62	2.86
	1.5	2,179,000	1.90	17.91	41.49	1.25
	0.5	11,202,000	1.19	12.50	133.43	4.50
Indicated	1	7,240,000	1.42	14.07	102.52	3.28
	1.5	2,200,000	1.89	18.07	41.62	1.28
	0.5	15,810,000	1.03	13.09	162.04	6.65
Inferred	1	6,786,000	1.42	16.59	96.09	3.62
	1.5	2,108,000	1.91	20.66	40.16	1.40

	0.5	35,966,000	1.14	12.79	408.93	14.79
TOTAL	1	20,574,000	1.43	14.73	293.18	9.74
	1.5	6,487,000	1.90	18.84	123.25	3.93



#### THE JORC CODE ASSESSMENT CRITERIA

The JORC Code (2012) describes a number of criteria, which must be addressed in the Public Report of Mineral Resource estimates for significant projects. These criteria provide a means of assessing whether or not parts of or the entire data inventory used in the estimate are adequate for that purpose. The resource estimate stated in this document was based on the criteria set out in Table 1 of that Code. These criteria are discussed as follows:

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	Samples collected for analysis for the T3 project comprise both RC chip samples and half-cut diamond core of either HQ or NQ diameter. Holes are spaced throughout the deposit at a nominal 50 m along the strike of the deposit, and also on section, with this extending to 100 m at the peripheries of the deposit. Drilling has been conducted entirely by Tshukudu Metals, the local wholly owned, subsidiary of MOD Resources. Drilling commenced in early 2016 and is ongoing.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Core is sawn along a cut line as defined by the logging geologist, which is marked to intersect the core orthogonal to the dominant foliation orientation. Core is then routinely sampled along the same side of the line as cut to ensure sampling consistency.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information	In the instance of RC drilling, individual 1 metre samples were collected directly from a rig mounted splitter directly into calico bags of approximately 3-5 kg in weight. Samples were obtained using a 5 inch face sampling hammer. In the instance of diamond core, half-core samples were collected via cutting with a dedicated core-saw. Samples were collected nominally on 1 metre intervals, with a tolerance of $\pm$ 0.5 m for short samples accounting for breaks in lithology. Short samples greater than 0.5 m were considered individually for subsequent processing, while sample less than 0.5 m in length were combined with the preceding sample for further analysis. Diamond core was collected either at HQ3 or NQ diameters; with HQ3 being the preferred diameter for the first (approximately) 30 m of each hole. Samples ranged from 1-5 kg in weight.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).	Both RC and diamond drilling have been employed at the T3 project, with the overwhelming majority of the drilling having been completed using diamond core drilling techniques, at either an HQ3 or an NQ diameter. RC drill holes were completed using a 5 inch hammer.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	RC drill sample recoveries were recorded by weighing of each sample bag, and back calculating recovery using a nominal density and hole diameter. RC drilling sample recoveries were consistently high. Diamond drill hole recoveries were quantitatively recorded using length measurements of core recoveries per-run. Core recoveries routinely exceeded 95%.



Criteria	JORC Code explanation	Commentary
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	RC samples were collected directly from a rig mounted splitter and collected into individual metre samples in calico bags. Diamond core was cut using a diamond saw, held in alignment to the blade with a purpose-built core holder. Core was cut along a cut-line marked by the supervising geologist, which was marked orthogonal to the dominant foliation. Core was consistently sampled along the same side of this cut line for all holes.
	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.	No bias is considered to have been introduced as a result of poor or preferential recovery within RC samples, and the steps taken during sampling procedures of diamond drill core sampling have been designed to ensure no bias has been potentially introduced.
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.	<ul> <li>Both core and RC samples are logged in their entirety using a standardised set of logging codes. RC samples were logged on a per-metre basis, while diamond core was logged to measured and identified lithological contacts. Logging captured an appropriate level of including data minimum (but not always limited to): <ul> <li>Major lithological unit</li> <li>Oxidation (weathering) state</li> <li>Alteration – style, intensity and mineralogical assemblage</li> <li>Mineralisation – mineralogy, intensity, style (disseminated etc)</li> <li>Veining</li> <li>RQD parameters</li> <li>Breaks per-metre</li> <li>Notable structures – foliation, folding, schistosity, brecciation etc.</li> </ul> </li> </ul>
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging is both qualitative (lithology, structure, alteration etc.) and quantitative (RQD, breaks per metre, mineralisation assemblages).
	The total length and percentage of the relevant intersections logged.	Drill holes are logged in full.
Subsampling techniques	If core, whether cut or sawn and whether quarter, half or all core taken.	Where core has been sampled, half core has been collected.
and sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Where RC chips have been sampled, they have been collected directly from a rig mounted splitter. Sufficient air was provided by the RC drilling method to maintain dry sample.



Criteria	JORC Code explanation	Commentary
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Prior to March 2017, samples were submitted to Set Point Laboratories in Johannesburg for analysis. Entire samples submitted to Set Point Laboratories were prepared using an initial crush to <15 mm via jaw crusher, with a further coarse crush stage to $80\% < 2$ mm. Samples were then split using a Jones riffle splitter, with the analytical split milled using a tungsten bowl mill to $90\% < 106 \mu$ m.
		From March 2017 onwards, samples were submitted for ALS Laboratories for sample preparation. Samples were evenly submitted to both the Johannesburg preparation facility, and the on-site preparation facility at MOD's yard in Ghanzi. Samples are first crushed in their entirety to 70% <2 mm using a jaw crusher. The entire samples are then milled in two batches to >85% pass <75 $\mu$ m. The two batches of milled material are then combined and homogenised using the cone and quarter method.
		Both procedures are considered to represent industry standard practices and are considered appropriate for the style of mineralisation.
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	No documented quality assurance protocols have been reviewed for sample preparation conducted by Set Point Laboratories. This does not preclude the conduct of quality control monitoring during this time period, however a review of their procedures is warranted to confirm steps taken to ensure sample representivity.
		For sample preparation undertaken by ALS Laboratories, every 20 <sup>th</sup> sample prepared at both the coarse crush, and milling stages is screened for consistency. Any failure triggers the re-crush / mill of the previous three samples. If any one of those samples should also fail, then the entire submitted batch is re-crushed / milled. Between each batch the coarse crushing equipment is cleaned using blank quartz material. LM2 ring mills are cleaned with acetone and compressed air between each sample.
	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.	Samples are take via $\frac{1}{2}$ core sawn along core axis, which is considered statistically representative of the drill core returned for each metre drilled. Duplicate sampling test work has been undertaken for the remaining $\frac{1}{2}$ core samples with a high level of correlation for assay results returned.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Entire RC sample bags / half-core samples have been prepared for analysis. These samples volumes are considered adequate for the rock type, mineralisation style (disseminated sulphides), thickness and consistency of the intersections, sampling methods and assay value ranges for the target elements at T3.



Criteria	JORC Code explanation	Commentary
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.	Samples analysed by Set Point laboratories were assayed for total and non-sulphide Cu and Ag, Mo, Pb and Zn. Total Cu and other elements were assayed by ICP-OES from a 1 gram pulp sample prepared with 3- acid digest and diluted to 100 ml. Analyses are reported to a 10 ppm detection limit. Non- sulphide Cu is analysed from a 1 gram pulp sample digesting with a combination of sulphuric acid and sodium sulphite, then assayed via ICP-OES. Results are reported to a 10 ppm detection limit.
		Samples analysed by ALS Laboratories were also assayed for total and non-sulphide Cu, Ag, Mo, Pb and Zn. Prepared and analysed using ALS method ME-ICP61 for total Cu other elements, with an over-range trigger to ME-OG62 for high- grade Cu samples. Pulps charges of 0.25 grams are prepared using a four-acid digest, and an ICP-AAS finish. Non-sulphide Cu is analysed via method AA05, utilising a sulphuric acid leach with an ICP-AAS finish.
		Both non-sulphide methods are considered partial and are conducted for the purposes of determining the acid-soluble Cu component of the sample. Other methods used are considered to be effectively total in their reporting of elemental concentrations.
	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.	Not Applicable
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and	MOD Resources monitor precision and accuracy throughout their sample chain of custody through the use of coarse and pulp duplicates, and the insertion of certified reference materials (CRMs) into the sample stream (including blanks).
	precision have been established.	CRMs are sourced from Ore Research Laboratories in Australia, and with the exception of the blank, span a range of Cu grades appropriate to the T3 project mineralisation. Control samples are inserted alternately at a rate of 1 in 10.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	A selection of core – including holes with substantial high- grade intersections was viewed by the Competent Person during April 2018. Visual validation of the results from these holes matches the intercepts appropriately.
	The use of twinned holes.	Twinned holes have been drilled into the T3 deposit, and visual validation of the results indicates suitably coincident downhole metal distributions and observable intersections.



Criteria	JORC Code explanation	Commentary
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Logging data (including geotechnical parameters) are first recorded on paper, then scanned to preserve a digital image. Original documents are filed in hardcopy. Data logged to paper is also entered into a Microsoft Excel <sup>TM</sup> spreadsheet template which has been specifically designed for the capture of T3 deposit logging data. Spreadsheets are compiled into a central storage folder within MOD's server. Samples sheets are similarly prepared initially in hard copy, then digitally entered into an Excel spreadsheet.
		Assay data are received electronically from the laboratory and are loaded into the template for Assay results within the spreadsheet structure currently maintained. A series of macros are used to ensure relational integrity during the load process.
		Data to be used for the purposes of Mineral Resource estimation are then loaded into a Microsoft Access <sup>™</sup> database structure and validated within Surpac for relational integrity and other routine validation steps (from-to overlaps errors etc.)
		MOD resources are currently implementing the commercially available GeoBank geological database management package to replace the spreadsheet structure for data storage.
	Discuss any adjustment to assay data.	No adjustments have been made to Assay data.
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	<ul> <li>Drill holes are initially set-out prior to drilling using a hand-held GPS. Subsequent to completion, holes are capped and marked with a marker peg.</li> <li>Periodically, collar locations are surveyed by Afrogeodata Surveys Pty Ltd - a commercial contract land surveyor using Leica VIVA GNSS GPS System instrumentation, which provides sub decimetre accuracy. Down hole surveying is completed on all diamond drill holes via north-seeking gyroscopic survey.</li> </ul>
	Specification of the grid system used.	Collars are marked out and picked up in the Botswanan National Grid in UTM format. Subsequent Mineral Resource Modelling has been conducted in a local Mine grid, which is rotated 70 degrees to the North to align the Strike of the T3 deposit along local North.
	Quality and adequacy of topographic control.	Topographic control is provided by the GPS survey system used for collar pickup. The topography of the T3 deposit area is very flat, and significant variations in topography within the project are not apparent.
Data spacing and	Data spacing for reporting of Exploration Results.	Not Applicable – Not reporting exploration results.
distribution	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.	Drill holes spacings range from a nominal 40-50 metres between sections, and also between collars on each section, out to a nominal 80 – 100 metres at the peripheries of the deposit. Given the style of mineralisation encountered, this drill hole spacing is considered adequate for the establishment of a Mineral Resource and has been accounted for within the classifications applied to said Mineral Resource.
	Whether sample compositing has been applied.	Samples have been composited to 1m intervals, with acceptance of short residuals down to 0.4m. The overwhelming majority of raw sample intervals within the data are 1m.



Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Drill holes have been oriented to intersect T3 mineralisation approximately orthogonal to the known dip of the deposit. No bias is considered to have been introduced to the sample dataset as a result of drilling orientation.
	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.	Not Applicable.
Sample security	The measures taken to ensure sample security.	Samples are collected at the end of each shift by MOD staff and driven directly from the rig to MOD's storage and logging yard in Ghanzi, which is a secure compound. Samples are either prepared to pulp stage on-site at MOD's core logging and storage facility, within a purpose built commercially operated facility (ALS Laboratories) or couriered to a commercial laboratory (also ALS Laboratories) in Johannesburg by MOD staff. Sample security is not considered to be a significant risk to the T3 project.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Umpire analyses of both a subset of the earlier Set Point Laboratories collected assay data, and also a more recent subset of ALS derived data have been submitted for analysis to verify the original values. Results of these umpire analyses are pending. The Competent Person; Mr Bradley Ackroyd, has also observed and reviewed the core collection, cutting and sample preparation procedures in operation, and considers them to be in alignment with industry "best practice" methods, and well suited to the style of mineralisation encountered at T3.

## JORC 2012 Table 1 Section 2 – Key Classification Criteria

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.	PL190/2008 is a granted prospecting License which is 100% held by Discovery Mines Pty Ltd; a wholly owned subsidiary of Tshukudu Metals Botswana Pty Ltd (Tshukudu). Tshukudu is in turn a wholly owned subsidiary of Metal Capital Limited, which is a joint venture between MOD Resources Ltd (70%) and Metal Tiger PLC (30%).
	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.	In November 2016, the Botswanan Minister for Minerals, Water and Energy extended the license validity for PL190/2008 to 31 December 2018.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Very limited exploration was conducted by Discovery mines in the Early 2000's in the form of regional (widely spaced) soil sampling, and two diamond drill holes.



Criteria	JORC Code explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	The T3 deposit is a stratabound, sediment hosted Cu-Ag deposit of presumed Late Proterozoic / Early Palaeozoic age, and is considered to be part of the Kalahari style of deposits. Mineralisation is characterised by finely disseminated sulphides, dominated by pyrite and chalcopyrite within the siltstones / mudstones of the D'Kar Formation. It also hosts accessory Pb, Zn, As and Mo. Mineralisation forms tabular, stratiform lenses which parallel the local bedding planes of the host lithology. Quartz ± carbonate vein sets occur within the thicker lenses and are also sub-parallel to the local bedding plane. These vein sets comprise veins which range in estimated true thickness from a few centimetres to metres and are usually mineralised. The average grade of veins is typically higher than that of the surrounding disseminated sulphide material, and they contain chalcopyrite, bornite and secondary chalcocite / covellite. Mineralisation appears to be laterally continuous between drill holes both along strike and down dip.
Drillhole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</li> <li>Easting and northing of the drillhole collar</li> <li>Elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar</li> <li>Dip and azimuth of the hole</li> <li>Downhole length and interception depth</li> <li>Hole length.</li> </ul>	Not Applicable - Exploration results are not being reported.
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	Not Applicable - Exploration results are not being reported.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	Not Applicable - Exploration results are not being reported.
	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.	Not Applicable - Exploration results are not being reported.
	The assumptions used for any reporting of metal equivalent values	Not Applicable - Exploration results are not being reported.

## Major Increase in T3 Resource to 60Mt Containing ~590Kt Copper



Criteria	JORC Code explanation	Commentary
Relationship between mineralisation	These relationships are particularly important in the reporting of Exploration Results.	Not Applicable - Exploration results are not being reported.
widths and intercept lengths	If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.	Not Applicable - Exploration results are not being reported.
	If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').	Not Applicable - Exploration results are not being reported.
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 drillhole collar locations and appropriate sectional views.	Relevant maps and diagrams are included in the body of the report.
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.	Not Applicable - Exploration results are not being reported.
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.	Results have been received for locked cycle test work on composite samples for T3 ore domains. Ore intervals from a total of 22 drill holes were used to prepare representative composites for the PFS test work program. Results for copper were excellent with recoveries ranging from 93.3% to 96.3% into concentrate grades containing 33.1% to 48.6% Cu. Silver recoveries and concentrate grades were also very good, notably in chalcocite and bornite ores which host most of the high-grade silver mineralisation. Penalty elements were at acceptable levels e.g. arsenic ranged from 254ppm to 1905ppm.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Drilling at the T3 deposit is ongoing, as the deposit remains open along strike, down dip, and at depth.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Not Applicable – Exploration results are not being reported.

## JORC 2012 Table 1 Section 3 – Key Classification Criteria

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	Collected data is reviewed and validated at numerous stages throughout storage and collection. Compilation for use in Mineral Resource estimation occurs within Microsoft Access <sup>™</sup> for use in Surpac V6.6.



Criteria	JORC Code explanation	Commentary
	Data validation procedures used.	Creation of a valid drillhole database in Surpac requires relational logic validation ensuring no from – to overlaps or data exceeding hole depth. Additionally, the drill hole database is validated for spurious survey deviations, missing survey / assay / lithology / collar data, before being finally validated visually before use in mineral resource modelling.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	The Competent Person; Mr Bradley Ackroyd has visited site numerous times over the past 6 months. During the site visits, drilling, sampling, logging, density measurement and sample preparation procedures were observed and reviewed. Discussions were held with site geological personnel regarding Quality Assurance procedures, and the nature of the
		deposit geology.
		No material concerns were identified during the site visits.
	If no site visits have been undertaken, indicate why this is the case.	Not Applicable.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	The geological and mineralisation interpretations for T3 were generated by MOD Resources and reviewed by the Competent Person before use. Interpretations were found to be of a high standard. The geology of the T3 deposit, and the nature of Kalahari style Cu – Ag mineralisation is well understood.
		The geological interpretation currently in existence for the T3 deposit holds a high level of interpretive confidence and is supported by evidence observable within the drill core.
	Nature of the data used and of any assumptions made.	Geological interpretation has been derived from diamond and RC drill holes which currently intersect the deposit.
		Logged lithology and Cu Assay data were used in conjunction to define the lithology and mineralisation models.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	The deposit geometry is stratabound, and heavily controlled by the host rock bedding / foliation. Alternative interpretations for the geometry of the deposit are unlikely to offer materially different results to those current.
	The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology.	Continuity of geology and mineralisation can be identified across numerous sections and between drill holes on section by both visual and geochemical characteristics.
		The current deposit model is heavily controlled by the host lithologies, with mineralisation being principally confined to the D'Kar formation silty sedimentary unit. Consequently, the bedding of this unit has a strong influence on the geometry of the deposit. Within the D'Kar formation, a nominal grade cut- off of 0.25% Cu has been applied to the model to define coherent bodies of mineralisation which generally parallel the host rock bedding orientation. This interpretation has been verified against the diamond core which is available from the deposit.



Criteria	JORC Code explanation	Commentary
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	The T3 deposit currently has a strike length of approximately 1,800m, and a maximum downdip extent of 850m. The reported mineral resource lies within 500m of surface, beginning immediately below the transported overburden (approximately 10 metres in thickness).
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen, include a description of computer software and parameters used	Modelling was undertaken in Surpac V6.6 software. Discrete mineralised bodies were defined on the basis of a nominal 0.25% Cu lower cut-off, modelled consistent with the geological interpretation of the area. Internal to the main mineralised bodies, separate high-grade domains were defined using a nominal 1,5% Cu cut-off, and the logged presence of significant quartz ± carbonate veining. Review of drill core supports the existence of these high-grade, vein dominated domains. Contact analysis between the high grade domains and the surrounding low grade mineralisation also support their definition as discrete domains. Contact analysis indicated a hard boundary between the vein dominated internal high-grade domains and the surrounding disseminated mineralisation. Input data for all domains were reviewed for the application of grade caps, to limit the influence of spuriously high-grade outliers within he data. This analysis was completed using a combination of GeoAccess and Supervisor software. All relevant variables; Cu, Ag, Pb, Zn, As, Mo, S, acid soluble Cu, were estimated via univariate ordinary kriging on a per- domain basis, using only input data from the relevant domain. An oriented "ellipsoid" search was used to select data for interpolation. For T3, search ellipse orientation was defined per-domain, and based on variographic anisotropic orientations. Individual ellipses were produced for each variable under consideration. Where domains did not contain sufficient data densities to produce meaningful variographic results, the semivariogram models and search orientations were used from the closest neighbouring domain with such parameters defined, based upon proximity and domain geometry.
		A three-pass estimation search was conducted, with expanding search ellipsoid dimensions with each successive pass. First passes were conducted with ellipsoid radii corresponding to either two-thirds, or the complete range of variogram structures for the variable in questions. This selection was based upon quantitative analysis of estimation parameters foreach variable, for each domain. Pass two was conducted with 150% of the dimensions of pass 1 and pass three was conducted with dimensions corresponding to 200% of the variographic ranges. Blocks within the model un- estimated after three passes were assigned average values on a per-domain basis.

## Major Increase in T3 Resource to 60Mt Containing ~590Kt Copper



Criteria	JORC Code explanation	Commentary
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	A maiden resource estimate was produced for the T3 deposit in September 2016, and then subsequently updated in August 2017. The geometry of mineralisation modelled in previous estimates is comparable to that of the current estimate, and tonnages are also comparable, after taking into consideration the additional drilling available for the most recent update. Mining is yet to take place at T3, and so production records are not available for comparison.
	The assumptions made regarding recovery of by-products.	Silver has been estimated as a by-product within the T3 deposit. It is assumed that silver will be recovered only where copper is being mined.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	The potentially deleterious elements As, Pb, Zn and Mo have been estimated within the T3 deposit for use in mining studies.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	A parent cell size of 10 m E by 20 m N by 5 m RL was adopted with standard sub-celling to 5 m E by 2.5 m N by 1.25 m RL to maintain the resolution of the mineralised lenses whilst restricting the overall size of the model. The block size is considered to be appropriate given the dominant drill hole spacing, style of mineralisation and proposed mining methods.
	Any assumptions behind modelling of selective mining units.	While the estimate has not been designed to estimate recoverable resources at an SMU scale, consideration has been made for the likely SMU which may be used during mining, and an appropriately proportioned parent block has been utilised for the current Mineral Resource estimate in order to facilitate greater model versatility.
	Any assumptions about correlation between variables	An assessment of the correlation between the nine variables under consideration was made and, with the exception of a moderately strong correlation between Pb and Zn, revealed very low correlations in the intrinsic sense. H-Scatter plot analysis of the most correlated of the remaining variable sets at various lag distances did not reveal any spatial correlation. Consequently, data were treated in a univariate sense.
	Description of how the geological interpretation was used to control the resource estimates.	The geometry of disseminated sulphide horizons, and where observed in logging, the geometry of stacked vein layers, formed the basis for mineralisation interpretations. Hard boundaries were used between mineralisation domains, and between the high-grade internal vein units and the surrounding disseminated mineralisation. The latter selection of hard boundaries is supported by contact analyses.



Criteria	JORC Code explanation	Commentary
	Discussion of basis for using or not using grade cutting or capping.	With the exception of Acid soluble Cu ratio values, all variables were assessed for the need to grade cap the input data prior to estimation. Assessment of grade caps was made on a per-domain basis, by assessing box and whisker plots, mean variance plots and grade histograms. Caps were applied where the Competent Person deemed it necessary. Prior to capping grades, the spatial location of the likely outliers was made to determine the possibility for a discrete subset of high values which may represent a statistically and spatially significant group. In all cases where grade caps were applied, the values that were capped represented discrete, isolated extreme grades.
		1% of a dataset (cuts were generally made at > 99 <sup>th</sup> percentile).
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	Validation checks included statistical comparison between drill sample grades and OK block estimate results for each domain. Visual validation of grade trends for each element along the drill sections was also completed in addition to swath plots comparing drill sample grades and model grades for northings, eastings and elevation. These checks show good correlation between estimated block grades and drill sample grades. No reconciliation data is available as no mining has taken place.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages are reported on a dry basis.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	The Mineral Resource has been reported above a cut-off of 0.4% Cu. It is the opinion of the Competent Person that this cut-off grade represents a suitable assessment of a potential lower economic cut-off, when consideration of the likely mining methods for the current T3 Mineral Resource are considered. For comparison to previous estimates, various higher cut-offs have also been reported.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	Preliminary mining studies for the T3 deposit have shown that the currently defined Mineral Resource could be economically mined using open-cut methods at the currently reported average Cu grade.



Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	MOD announced results from locked cycle flotation test work of T3 sulphide ores on 3 October 2017. Locked cycle flotation test work confirmed the excellent metallurgical response that was achieved in batch test work that was carried out as part of the Scoping Study (announced on 6 December 2016). The results demonstrated high concentrate grades, between 33% and 48% Cu, can be achieved at high recoveries, between 93.3% and 96.2% Cu, for all three copper sulphide domains (chalcopyrite, bornite and chalcocite) in disseminated and vein hosted mineralisation within the T3 resource. Silver recoveries were also very good (up to 92.2%) from samples of high-grade chalcocite ores.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered, this should be reported with an explanation of the environmental assumptions made.	It has been assumed that the waste material produced as a result of open-cut mining will be stored in dry stacked waste dumps on site, adjacent to the mining operation. The sulphide content of the mineralisation poses the risk for potentially acid generating waste to be produced. It has been assumed that the treatment and appropriate storage of this waste will not pose any significant impediment to the sustainable mining of the deposit and would be correctly managed in accordance with regulatory conditions imposed by the Botswanan government.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	Bulk density values for mineralisation have been determined via a multiple linear regression formula, accounting for the concentrations of each of the main variables under consideration (Cu, Ag, Pb, Zn, As, Mo). The formula developed is presented in the main body of this report. Densities are determined on a dry basis.
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.	Of the 26,310 samples available within the current T3 database, 17,674 were measured for density via the immersion method.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Average densities were assigned to waste lithologies having been referenced from the AusIMM Field Geologist's Handbook.



Criteria	JORC Code explanation	Commentary
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	The Mineral Resource was classified as Indicated and Inferred taking into account the level of geological understanding of the deposit, quality of samples, density data, drill hole spacing, sampling and assaying processes, and the success of the late 2017 and 2018 drilling programs in confirming the geological interpretation and continuity of mineralised horizons modelled in previous iterations of the T3 model.
	Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	The classification reflects areas of lower and higher geological confidence in mineralised lithological domain continuity based the intersecting drill sample data numbers, spacing and orientation. Overall mineralisation trends are reasonably consistent within the various lithology types over numerous drill sections.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Internal audits were completed by CSA Global which verified the technical inputs, methodology, parameters and results of the estimate.
Discussion of relative accuracy/ confidence	Where appropriate, a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	The Mineral Resource accuracy is communicated through the classification assigned to various parts of the deposit. The Mineral Resource estimate has been classified in accordance with the JORC Code, 2012 Edition using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this Table.
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	The Mineral Resource statement relates to a global estimate of in-situ tonnes and grade.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	The deposit has not and is not currently being mined.