MOD RESOURCES LTD

# ASX ANNOUNCEMENT

**25 March 2019**

**ASX/LSE: MOD**

## MOD Delivers 61% Increase in T3 Open Pit Ore Reserve to 34.4Mt

- T3 open pit Ore Reserve increased to 34.4Mt at 1.0% Cu and 13.2 g/t Ag
- Ore Reserve contains 342.7kt (~756mlb) of copper and 14.6 Moz of silver
- 61% increase in total tonnage compared with the Pre-Feasibility Study
- 57% increase in contained copper and 107% increase in contained silver
- Open pit mine design in six stages provides a life of mine ("LOM") over 11 years
- Feasibility Study ("FS") on track for completion at end of March 2019

**MOD Resources Ltd (ASX/LSE: MOD)**, is very pleased to announce a substantial upgrade to the Ore Reserve within the planned, 100% owned, T3 (Motheo) open pit mine ("T3 Copper Project"). The T3 Copper Project Feasibility Study, which incorporates this revised Ore Reserve, is nearing completion, is expected to be announced before the end of March 2019 and will provide further detailed information on the T3 Copper Project.

The revised Ore Reserve demonstrates both the significant scale of the T3 deposit within the planned open pit and the substantial increase in contained copper and silver, compared with the Pre-Feasibility Study. The open pit is designed to be developed in stages to support a mine life that now extends beyond 11 years.

**MOD's Managing Director, Julian Hanna said:**

*"The T3 Copper Project is an outstanding project located in Botswana, arguably the best mining and investment jurisdiction in Africa. With this >60% increase in the size of the ore reserve, we have continued to improve on the already strong fundamentals identified within the Pre-Feasibility Study announced in January 2018."*

*"Since publication of the Pre-Feasibility Study, the Company has focused on developing a better understanding of the geology that underpins the proposed T3 open pit, conducted substantial additional drilling and continued to identify and define further copper mineralisation, improving what was already a robust investment case."*

*"The increase in the T3 open pit Ore Reserve is significant for MOD, our supportive shareholders and people in the Ghanzi District. The proposed six stage open pit mine and 3Mtpa conventional processing plant is expected to produce high-margin, high-quality copper concentrates for more than 11 years. This should generate strong returns for investors and provide potential to create increased employment opportunities and generate significant benefits for Botswana and local communities."*

The T3 Ore Reserve was updated as part of the T3 Copper Project FS. The modifying factors supporting the Ore Reserve were developed by experienced Competent Persons ("CP") from a range of disciplines and in accordance with the requirements of the JORC 2012 Code.

The T3 open pit Ore Reserves are contained within a conventional, six-staged, open pit design with a LOM stripping ratio of 5.7:1 (Figure 1).

During 2018 and since the release of the T3 Pre-Feasibility Study on 31 January 2018, the Company completed an infill and extensional drilling program (comprising approximately 90 additional holes) within a larger proposed pit shell boundary. The objective was to increase the density of drill hole spacing, improve confidence in the quality and continuity of the resource and facilitate a significant increase in the T3 open pit Ore Reserves.

The T3 open pit Ore Reserve comprises 34.4Mt at 1.0% Cu and 13.2g/t Ag, containing 342.7Kt of copper and 14.6Moz of silver. As a result of the increased drill pattern density (from approximately 100 metre centres to approximately 50 metre centres), the Company was successful in increasing copper and silver contained within the Ore Reserve by 61% and 107% respectively[1]. The Ore Reserves were calculated using US$2.91/lb copper and US$16.81/oz silver price.

MOD continues to progress a planned 60-hole resource infill drilling program within the boundaries of the first two stages of the proposed T3 Copper Project open pit, with the objective of upgrading early production into the higher confidence, JORC compliant Measured Resource category. Assay results for the first 11 infill holes were announced on 12 March 2019, with initial results from several holes intersecting wide intervals of high-grade copper mineralisation. A further revision to the T3 open pit Ore Reserve may be required when all results of the infill drilling program are received.

**Table 1: T3 Open Pit Ore Reserve (25 March 2019)**

| Ore Reserve Category | Tonnes (Mt) | Copper | | Silver | |
|---|---|---|---|---|---|
| | | Grade (%) | Kt | Grade (g/t) | Moz |
| Proven | - | - | - | - | - |
| Probable | 34.4 | 1.0 | 342.7 | 13.2 | 14.6 |
| **Total Ore Reserve** | 34.4 | 1.0 | 342.7 | 13.2 | 14.6 |

Notes:

1. The Probable Ore Reserve is based on the Indicated category of the Mineral Resource. No Inferred category has been included.
2. Proven Ore Reserves are expected to be defined following the definition of a Measured Resource from the in-fill drilling program.
3. The lowest grade of ore added to the process plant feed in the FS is 0.22% Cu.
4. Ore Reserves are calculated based on a copper price of US$2.91/lb and a sliver price of US$16.81/oz.
5. Ore loss and dilution were applied to the Mineral Resource model in a two-step process which resulted in an ore loss of approximately 9% and a diluted tonnage addition of approximately 8%.
6. Metallurgical testwork recoveries were applied in accordance to the recovery algorithms developed from the variability testwork program conducted during the feasibility study
7. Appropriate modifying factors were applied. All Material Assumptions for the T3 Open Pit Ore Reserve are given in Appendix 1.

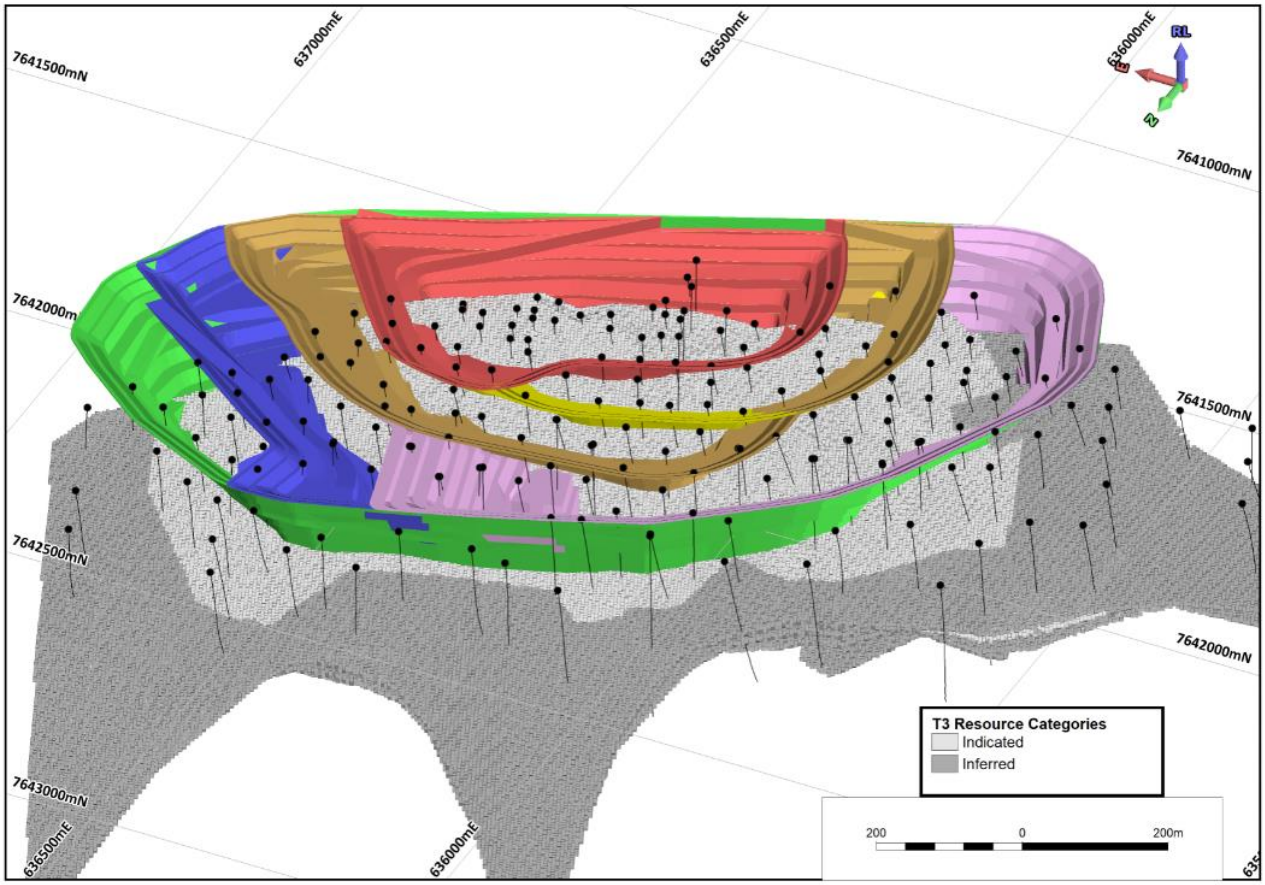
The Ore Reserve estimate uses modifying factors presented in the nearly completed FS which is on schedule for completion by the end of March 2019. The FS team consists of independent external consultants and experienced MOD employees and contractors. The components of the FS yet to be completed are not considered to have a material impact on this Ore Reserve statement. All modifying factors used for the Ore Reserve are within the tolerances expected for a FS.

The T3 Copper Project Feasibility Study financial modelling, currently being finalised, shows the project is economically viable under current assumptions and within a range of reasonable sensitivities to the assumptions. In the opinion of the CP's, cost assumptions and modifying factors applied in the process of estimating Ore Reserves are reasonable.

Material mining, processing, infrastructure, economic, commercial, environmental and social assumptions were considered during the Ore Reserve estimation process. Individual CP's take responsibility for these key areas.

[1] Compared to the T3 Pre-Feasibility Study as announced on 31 January 2018

**Figure 1: T3 Open Pit Design – Showing 6 Development Stages and Resource Drill Holes**




## T3 Copper Project

The proposed T3 open pit mine site is located approximately 80km north-east of Ghanzi and 200km south-west of Maun, Botswana. The proposed T3 mine and associated mining infrastructure lies within freehold farm land within PL190/2008. MOD's in-country operating company, Tshukudu Metals Botswana (Pty) Ltd has entered into a binding agreement to acquire the approximately 25km$^2$ area of the farm which will be the subject of a mining licence application expected in mid-2019.

The Mineral Resource has been defined along a >1.5km 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.

Mineralisation is continuous both along strike and down dip within the pit, dominated by chalcopyrite with chalcocite and bornite copper sulphides occurring in lesser amounts. Mineralisation extends from shallow depth (~25m depth) to the limit of drilling to date at approximately 480m vertical depth, well below the planned open pit depth.

The T3 mineralisation type is described as a sheeted vein deposit dipping at 20-30 degrees to the northwest 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, below the pit and down dip towards the north west. Drilling continues to test for potential underground extensions at depth across the T3 Copper Project.

## Mining Assumptions

The T3 Copper Project is proposed to be mined by conventional open pit mining methods and equipment. The Ore Reserve is supported by pit optimisation, pit design and production scheduling, developed as part of the FS The selected mining method, design and extraction sequence suit the T3 orebody characteristics, minimise dilution and ore loss, defer waste movement, conform to maximum rates of vertical mining advance and utilise planned process plant capacity.

The open pit mine schedule is based on realistic mining productivity factors, and material movements that take operational realities into consideration.

The mining operating costs are supported by contractor estimates based on a detailed request for quotation. These estimates were reviewed and validated internally by a shadow estimation process. The shadow estimate costs were used in the financial model and aligned closely to costs assumed in the earlier pit optimisation process.

## Geotechnical Modelling

Geotechnical modelling completed by independent consultant (SRK-UK) is based on field logging and laboratory testing of selected diamond drill core samples from purpose drilled geotechnical diamond drill holes. The open pit designs are based on the recommended geotechnical design parameters and assume dry slopes based on the assumption of adequate dewatering and/or depressurisation ahead of mining.

The geotechnical parameters were applied uniquely to each of the following three zones:

1) The top 20 metres (unconsolidated sands, calcrete and weathered material) has an Overall Slope Angle ("OSA") of 27 degrees;
2) The relatively shallow Footwall OSA of 35 degrees, effectively following the base of the ore zone below the first ~100 vertical metres of mining; and,
3) The hanging wall OSA is considerably steeper at 57 degrees.

Final walls are established on the footwall with the initial stages of mining. The likely performance of the hanging wall zone can be assessed by the interim hanging walls of the pit stages and adjusted as required.

## Hydrogeology

A separate hydrogeological report was prepared by independent consultants Knight Piesold which considered dewatering requirements (specifically targeting the Stage 1 pit), drawdown impacts on surrounding farms and capacity of the water supply borefield. The study identified that the groundwater at T3 is fresh, slightly alkaline and largely conforms to the in-country drinking water guidelines and has the potential to meet the T3 Copper Project water demand.

## Mining Ore Loss and Dilution

Mining ore loss and dilution modifying factors were implemented by regularising the mineral resource model to a Selective Mining Unit (SMU) with a block size of 5mE x 5mN x 2.5m RL. Sensitivity analysis utilising various SMU block sizes was completed and checked against a 1m skin around a 0.4% copper grade shell. An ore loss of approximately 9% and a diluted tonnage of approximately 8% was realised. The impact of ore loss and dilution has resulted in a 2.7% loss of contained copper metal within the reserve.

## Cut-off grade

The final pit design is based on a conservative Whittle pit shell defined by a revenue factor of 0.85 (85% of the assumed metal prices). The production schedule has targeted utilising a copper cut-off grade of 0.25% whereas the marginal break-even grade ranges between 0.18% to 0.20% copper, dependent on silver credits.

Low grade is classified as material between the marginal break-even grade and 0.25% copper grade. Low grade stockpiles will be utilised to maintain process plant feed rates during periods of high waste movement and to maintain a steady total material movement between periods.

## Infrastructure

The proposed mine site layout includes a single pit with haul roads connected to a single waste rock dump, mineralised waste dump, low grade stockpile and a run of mine ("ROM") pad. There are surface water diversion channels, surface dewatering bores, light and heavy vehicle workshop facilities, explosives storage, a planned 3.0mtpa processing plant, tailings storage facility, supply facilities, technical services facilities, and administration facilities. A detailed site layout plan will be included with the FS announcement.

The workforce will either reside locally in nearby townships or commute and reside at a dedicated camp in Ghanzi during rostered days on. The current accommodation camp consists of a 40-person self-contained unit accommodation camp. The camp will be expanded to accommodate 400 people, with additional temporary capacity during construction.

To meet the initial processing and dewatering requirements for the Stage 1 pit, a minimum of one production bore and 14 pit dewatering bores are required of which eight have already been installed. Pumping tests will be undertaken on all future bores and longer-term pumping tests will be undertaken on selected existing bores after FS completion and before commencing pit dewatering and pre-stripping activities.

The Botswana Government has awarded contracts for the extension of a 220kV grid power transmission line along the A3 highway that joins Toteng and Ghanzi, approximately 14 kilometres by road from the T3 Copper Project, scheduled to be available during the first quarter of 2020. MOD has maintained regular communication with the Botswana Power Corporation ("BPC") to confirm the scheduled availability of power. MOD plan to utilise grid power as the primary power supply for the T3 Copper Project.

## Metallurgical and Processing Assumptions

The process plant is designed for an annual average throughput of 3.0Mtpa. The copper recovery plant and associated service facilities will process ROM ore delivered to a single stage primary crusher. The crushed ore will be stockpiled and fed to a two-stage grinding circuit using SAG and ball milling. Copper minerals in the ground ore will be concentrated in a conventional copper flotation circuit, made up of roughing, regrind and a single stage of cleaning. Concentrate from the cleaning stage will be thickened then filtered on site prior to transporting to Walvis Bay in Namibia. From Walvis Bay the concentrate will be shipped to third-party smelters.

Grinding and flotation test-work has established mill design parameters and copper recovery estimates for the FS. The mill will process a total of 34.4Mt over more than 11 years at an average grade of 1.0% copper and 13.2g/t silver. Recoveries for copper and silver are 92.9% and 88.0% respectively, averaged over the mine life.

Tailings from the roughing and cleaning stages will be pumped to the engineered, HDPE lined tailing storage facility ("TSF") located south of the proposed mine. The TSF is designed to store approximately 34.4Mt of conventional thickened tailing.

A detailed flow sheet of the processing plant will be included with the FS announcement.

## Cost and Economic Assumptions

The capital cost estimate for the development of the T3 Copper Project has an accuracy level of ±15%.

Data for these estimates have been obtained from numerous sources including:

- Feasibility level engineering design
- Mine plan
- Topographical information obtained from site survey
- Geotechnical investigation
- Budgetary equipment proposals
- Budgetary unit costs from local contractors for civil, concrete, steel and mechanical works
- Data from recent completed similar studies and projects
- A preliminary mine closure plan (with costs developed from first principles)

The operating cost estimate includes all costs associated with operating the mine, process plant and general and administrative functions and has been developed to an accuracy level of ±15%.

The operating costs were determined from mining contractor and supplier quotes and built using first principles, and are developed using inputs from numerous sources including:

- Supplier quotations for processing consumables and maintenance rates
- Detailed scheduling of the fleet requirements
- Grinding power requirements derived from comminution testwork
- Reagent consumption from metallurgical testwork
- Reagent & consumable costs from supplier quotations
- Logistics & transport costs from supplier quotations
- Manning levels developed from typical organisation charts and work rosters
- Personnel salaries & overheads sourced from the Ghanzi region
- Previous study assessments

Concentrate treatment and refining charges (TC/RC) and copper payability are derived on the basis of recent annual benchmark data, less applicable discounts which is based on indicative non-binding offtake terms, and as adopted by the industry. An allowance has been made for all government royalties, including 3% for copper and 5% for silver on a net smelter return basis.

A long-term copper price forecast of US$3.08/lb (in real 2019 terms) is applied in the financial modelling for the Ore Reserve estimation process. This price forecast is derived from the latest consensus Bloomberg pricing from more than 30 financial institutions, with the average price point selected for the financial analysis.

Net present value (“NPV”) and free cashflow analysis of the Ore Reserve is based on assumed commodity prices and other current key assumptions which indicates the project is financially viable, capable of generating strong returns.

Sensitivity analysis indicates the project is most sensitive to copper price, copper grade and copper recovery.

## Social and Environmental

Studies and investigations by Karunya Consulting and Loci Environmental Consulting have confirmed that there were no rare, threatened or priority conservation significant flora or vegetation communities identified during the Environmental and Social Impact Assessment. Habitats suitable for supporting free roaming wildlife including several conservation significant species were identified and mitigation of impacts by mining on these during operations have been adequately addressed in the Draft Environmental and Social Impact Assessment submitted to the Department of Environmental Affairs on 24 December 2018.

Knight Piesold Consulting conducted geochemical test work on tailings, waste rock and mineralised waste and expects that the majority of waste rock characterised will be non-acid forming and not prone to leaching. Further column test work to adequately assess leachability of heavy metals is required on mineralised waste (containing elevated levels of lead and zinc mineralisation). Any materials ultimately identified as potentially acid forming and/or prone to metal leaching drainage will be managed through detailed engineering design of the waste storage facility if required.

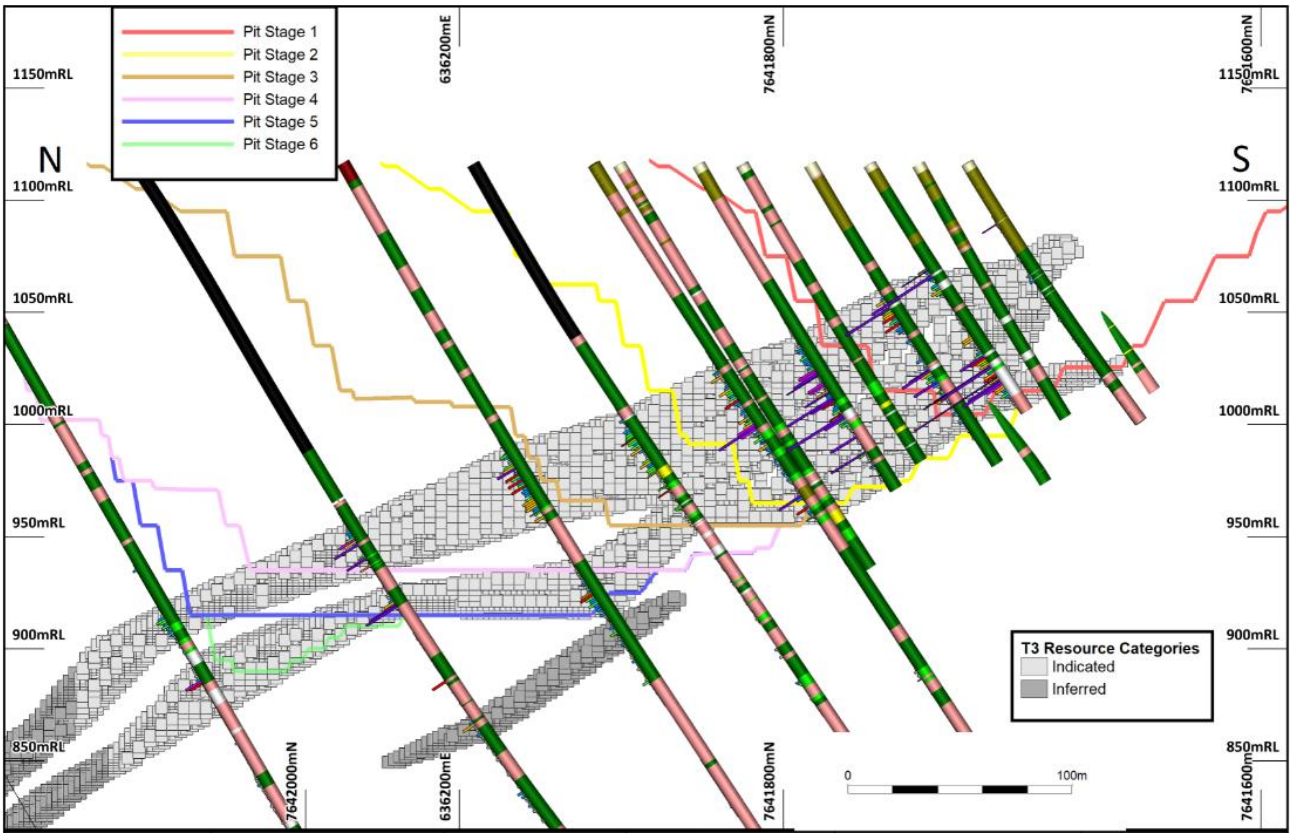
## T3 Mineral Resource

In July 2018 MOD released an updated Mineral Resource estimate for the T3 Copper Project (Table 2 and Figure 2). The March 2019 Ore Reserve update statement is a subset of these previously announced resources. See ASX announcement dated 16 July 2018 for full details of the resource estimate.

**Table 2: T3 Revised Mineral Resource – different cut-off grades (16 July 2018)**

| JORC Category | Cut-off Cu (%) | Tonnes | Grade Cu (%) | Grade Ag (g/t) | Contained Cu (Kt) | Contained Ag (Moz) |
|---|---|---|---|---|---|---|
| Indicated | 0.25 | 50,040,000 | 0.92 | 13.0 | 461.3 | 20.95 |
| | 0.4 | 36,631,000 | 1.14 | 15.8 | 417.0 | 18.60 |
| | 0.5 | 27,139,000 | 1.38 | 19.3 | 374.5 | 16.82 |
| | 1 | 14,154,000 | 2.06 | 31.4 | 291.9 | 14.30 |
| | 1.5 | 10,962,000 | 2.29 | 35.8 | 250.7 | 12.61 |
| Inferred | 0.25 | 27,667,000 | 0.68 | 10.3 | 187.3 | 9.18 |
| | 0.4 | 23,524,000 | 0.74 | 11.0 | 173.3 | 8.30 |
| | 0.5 | 19,884,000 | 0.79 | 11.5 | 156.9 | 7.35 |
| | 1 | 3,511,000 | 1.58 | 21.8 | 55.6 | 2.46 |
| | 1.5 | 1,640,000 | 2.04 | 29.3 | 33.5 | 1.55 |
| **TOTAL** | **0.25** | **77,706,000** | **0.83** | **12.1** | **648.6** | **30.14** |
| | **0.4** | **60,155,000** | **0.98** | **13.9** | **590.4** | **26.90** |
| | **0.5** | **47,023,000** | **1.13** | **16.0** | **531.5** | **24.17** |
| | **1** | **17,665,000** | **1.97** | **29.5** | **347.6** | **16.77** |
| | **1.5** | **12,602,000** | **2.25** | **34.9** | **284.2** | **14.16** |

**Figure 2: Cross-Section of the Staged T3 open pit used in the Feasibility Study**




-ENDS-

For and on behalf of the Board.

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## About MOD Resources

MOD Resources Ltd (**ASX/LSE: MOD**) is a dual listed copper exploration and development company with a dominant land position within the Kalahari Copper Belt in Botswana. The Company is focussed on the 100% MOD owned T3 Copper Project, expecting to release a Feasibility Study in the first quarter of 2019. In parallel with the development of the T3 Copper Project, MOD continues its exploration program across several priority drill targets and within untested areas of interesting and potentially significant Cu-Zn soil anomalies.

The Company is continuing to engage with interested parties in relation to T3 funding opportunities and is targeting to begin development of the T3 Copper Project in 2H 2019, with a vision of commencing production in the mid-term while focussing on generating strong, consistent and predictable returns for shareholders.

MOD has a social licence to operate within Botswana as well as within the host community of Ghanzi. MOD will continue to work collaboratively with regulators and members of the Ghanzi District to ensure that any social investments and developments are targeted to create a positive and lasting legacy.

### Forward Looking Statement - Inferred Resources

The Company notes that there is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that in-fill drilling of the T3 deposit will result in confirmation of additional Measured and Indicated Mineral Resources being realised. A substantial in-fill drilling program is in progress with the objective to upgrade Indicated Mineral Resources to the higher confidence, Measured Resource category.

While MOD considers all the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct. The Company has concluded it has a reasonable basis for providing the forward-looking statements included in this announcement.

### Competent Person's Statements

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.

The information in this announcement that relates to the Mine Planning aspects of the T3 Copper Project, specifically the mining cost and productivity inputs, the development of the mining ore loss and dilution parameters, the optimisation of the mineral resource model, pit and dump designs and the production schedule, supporting the Ore Reserve defined in this announcement, is based on information reviewed by or compiled by Mr Carl Murray, Principal Consultant for SRK Consulting (Australasia) Pty Ltd. Mr Murray is a Fellow member of the Australasian Institute of Mining and Metallurgy and has reviewed the technical information in this announcement that is based on the above defined areas of responsibility. Mr Murray has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and the activity 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 Murray consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Metallurgy for the T3 Mineral Resource described in this release is reviewed and approved by Mr Peter Hayward, Diploma of Metallurgy, Senior Metallurgist for Sedgman Pty Ltd. Mr Hayward is a Fellow of the Australian Institute of Mining and Metallurgy and has reviewed the technical information in this report. Mr Hayward 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 Hayward consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.

The information in this announcement that relates to Geotechnical Modelling of the T3 Mineral Resource described in this release is reviewed and approved by Mr Neil Marshall, CEng, MSc, BSc (Hons), Principal Geotechnical Engineer and Corporate Consultant of SRK (UK) Ltd. Mr Marshall is a registered member of the Institute of Mining, Metallurgy and Materials (IOM3) and a Chartered Engineer and has reviewed the technical information in this report. Mr Marshall 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 Marshall consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.

The information in this announcement that relates to geochemistry, civils (waste stockpiles and the TSF) and the T3 Mineral Resource described in this release is reviewed and approved by Mr David Morgan, BSc Civil Engineering, MSc Irrigation Engineering, Managing Director for Knight Piésold. Mr Morgan is a registered member of the Australasian Institute of Mining and Metallurgy (Australasia, 202216) and has reviewed the technical information in this report. Mr Morgan 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 Morgan consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.

The Social content in this announcement that relates to the Draft Environmental and Social Impact Assessment has been reviewed and approved by Ms Louanne Munz, Community Consultant for MOD Resources Ltd. A current member of AusIMM, Ms Munz is a community practitioner with over 30 years in the resources sector, specialising in business processes that recognise and satisfy corporate social responsibility and comply with IFC Performance Standards on Social Sustainability. Ms Munz qualifies as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves and consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.

The information in this announcement that relates to the Draft Environmental and Social Impact Assessment and the Conceptual Mine Closure Plan, excluding of the social components, described in this release is reviewed and approved by Ms Catherine Galli, BSc Agric (Hort), CenvP, GAICD, Principal Environmental Consultant of Rescology Environmental Consulting (Australia). Ms Catherine Galli is a registered member of the Australasian Institute of Mining and Metallurgy (AUSIMM), a certified Environmental Practitioner (CenvP) and member of the Environmental Institute of Australia and New Zealand (EIANZ). Ms Galli has sufficient experience in environmental impact assessment, environmental management, ecology and mine closure planning relevant to the project, which is 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. Ms Galli consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.

The information in this announcement that relates to the financial modelling (and inputs) as described in this release is reviewed and approved by Mr Jeffery Bowen, BSc (Hons), Manager Project Development for MOD Resources Ltd. Mr Bowen is a registered member of the Australian Institute of Mining and Metallurgy and has reviewed the technical information in this report. Mr Bowen has over 20 years industry experience in both operations and project development activities, with sufficient experience 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 Bowen consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.

## 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.

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## JORC Code, 2012 Edition
## Table 1 Reporting of Mineral Resource Estimate from Botswana Copper/Silver Project
## Section 1 Sampling Techniques and Data
**(Criteria in this section apply to all succeeding sections)**

| 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.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *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* | • 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.<br>• Drilling has been conducted entirely by Tshukudu Metals, the local wholly owned, subsidiary of MOD Resources. Drilling commenced in early 2016 and is ongoing.<br>• 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.<br>• 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 ± 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.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *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.* | • 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%.<br>• 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.<br>• 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.* | • 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): |

| Criteria | JORC Code explanation | Commentary |
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| | • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | - Major lithological unit<br>- Oxidation (weathering) state<br>- Alteration – style, intensity and mineralogical assemblage<br>- Mineralisation – mineralogy, intensity, style (disseminated etc)<br>- Veining<br>- RQD parameters<br>- Breaks per-metre<br>- Notable structures – foliation, folding, schistosity, brecciation etc.<br>• All core was also photographed both wet and dry.<br>• Logging is both qualitative (lithology, structure, alteration etc.) and quantitative (RQD, breaks per metre, mineralisation assemblages).<br>• Drill holes are logged in full. |
| ***Subsampling techniques and sample preparation*** | • *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all subsampling stages to maximise representivity of samples.*<br>• *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.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • Where core has been sampled, half core has been collected.<br>• 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.<br>• 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 µm.<br>• 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 µm. The two batches of milled material are then combined and homogenised using the cone and quarter method.<br>• Both procedures are considered to represent industry standard practices and are considered appropriate for the style of mineralisation.<br>• 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.<br>• For sample preparation undertaken by ALS Laboratories, every 20$^{th}$ 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.<br>• Samples are taken via ½ 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 ½ core samples with a high level of correlation for assay results returned.<br>• 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 |
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| ***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.*<br>• *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.*<br>• *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 precision have been established.* | • Samples analysed by Set Point laboratories were assayed for total and non-sulphide Cu,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.<br>• 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.<br>• 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.<br>• Not Applicable – no geophysical tools, *spectrometers or handheld XRF instruments were used.*<br>• 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). 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.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | • 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.<br>• Twinned holes have been drilled into the T3 deposit, and visual validation of the results indicates suitably coincident downhole metal distributions and observable intersections.<br>• 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™ 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.<br>• 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.<br>• Data to be used for the purposes of Mineral Resource estimation are then loaded into a Microsoft Access™ database structure and validated within Surpac for relational integrity and other routine validation steps (from-to overlaps errors etc.)<br>• MOD resources are currently implementing the commercially available GeoBank geological database management package to replace the spreadsheet structure for data storage.<br>• 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* | • 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. |

| Criteria | JORC Code explanation | Commentary |
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| | *other locations used in Mineral Resource estimation.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | • 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.<br>• 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.<br>• 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 distribution*** | • *Data spacing for reporting of Exploration Results.*<br>• *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.*<br>• *Whether sample compositing has been applied.* | • Not Applicable – Not reporting exploration results.<br>• 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.<br>• Samples have been composited to 1 m intervals, with acceptance of short residuals down to 0.4 m. The overwhelming majority of raw sample intervals within the data are 1 m. |
| ***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.*<br>• *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.* | • 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.<br>• 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.<br>• 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.<br>• 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 |
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| **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.*<br>• *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.* | • Tshukudu Metals (100% MOD owned) holds 100% of 25km$^2$ of the T3 Copper Project within PL190/2008. The balance of the PL190/2008 is held by Tshukudu Metals in Trust for Tshukudu Exploration.<br>• In the December 2018 quarter, the Botswanan Minister for Minerals, Water and Energy extended the license validity for PL190/2008 to September 30, 2020. |
| **Exploration done by other parties** | • *Acknowledgment and appraisal of exploration by other parties.* | • Previous exploration in the T3 Dome area by other parties was confined to airborne magnetics and widely spaced soil sampling (Discovery Metals) |
| **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, considered to be part of the Kalahari style of deposits.<br>• 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** | • *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:*<br>- *Easting and northing of the drillhole collar*<br>- *Elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar*<br>- *Dip and azimuth of the hole*<br>- *Downhole length and interception depth*<br>- *Hole length.*<br>• *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.*<br>• *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. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | • *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | |
| **Relationship between mineralisation widths and intercept lengths** | • *These relationships are particularly important in the reporting of Exploration Results.*<br>• *If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.*<br>• *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.<br>• 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).*<br>• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | • Drilling at the T3 deposit is ongoing, as the deposit remains open along strike, down dip, and at depth. Current infill drilling is focussed on the conversion of Indicated to Measured resource category.<br>• Not Applicable – Exploration results are not being reported. |

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

| Criteria | JORC Code explanation | Commentary |
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| **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.*<br>• *Data validation procedures used.* | • Collected data is reviewed and validated at numerous stages throughout storage and collection. Compilation for use in Mineral Resource estimation occurs within Microsoft Access™ for use in Surpac V6.6.<br>• Creation of a valid drill hole 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.*<br>• *If no site visits have been undertaken, indicate why this is the case.* | • The Competent Person; Mr Bradley Ackroyd has visited site numerous times over the past 12 months. During the site visits, drilling, sampling, logging, density measurement and sample preparation procedures were observed and reviewed.<br>• Discussions were held with site geological personnel regarding Quality Assurance procedures, and the nature of the deposit geology.<br>• No material concerns were identified during the site visits.<br>• Not Applicable. |
| **Geological interpretation** | • *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*<br>• *Nature of the data used and of any assumptions made.*<br>• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*<br>• *The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology.* | • 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.<br>• 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.<br>• Geological interpretation has been derived from diamond and RC drill holes which currently intersect the deposit.<br>• Logged lithology and Cu Assay data were used in conjunction to define lithology and mineralisation models.<br>• 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.<br>• Continuity of geology and mineralisation can be identified across numerous sections and between drill holes on section by both visual and geochemical characteristics.<br>• The current deposit model is heavily controlled by host lithologies. Mineralisation is 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. |
| **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 1,800 m, and a maximum downdip extent of 850 m. The reported mineral resource lies within 500 m 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,* | • Modelling was undertaken in Surpac V6.6 software.<br>• 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 1.50% Cu cut-off, and the logged presence of significant quartz ± carbonate |

| Criteria | JORC Code explanation | Commentary |
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| | *include a description of computer software and parameters used.*<br>• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*<br>• *The assumptions made regarding recovery of by-products.*<br>• *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).*<br>• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*<br>• *Any assumptions behind modelling of selective mining units.*<br>• *Any assumptions about correlation between variables.*<br>• *Description of how the geological interpretation was used to control the resource estimates.*<br>• *Discussion of basis for using or not using grade cutting or capping.*<br>• *The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.* | 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.<br>• 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.<br>• 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.<br>• 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.<br>• 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.<br>• A maiden resource estimate was produced for the T3 deposit in September 2016, and then subsequently updated in August 2017.<br>• 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.<br>• Mining is yet to take place at T3, and so production records are not available for comparison.<br>• 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.<br>• The potentially deleterious elements As, Pb, Zn and Mo have been estimated within the T3 deposit for use in mining studies.<br>• 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.<br>• 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. |

| Criteria | JORC Code explanation | Commentary |
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| | | • 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.<br>• Consequently, data were treated in a univariate sense.<br>• 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.<br>• 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.<br>• Generally, grade caps represent limitation of the uppermost < 1% of a dataset (cuts were generally made at > 99$^{th}$ percentile).<br>• 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.<br>• 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.<br>• MOD announced the T3 Mine Feasibility Study Update on 16 October 2018 which included additional metallurgical testwork results relating to grind size and reagent optimisation. |
| **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. 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.*<br>• *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.*<br>• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.* | • 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.<br>• Of the 26,310 samples available within the current T3 database, 17,674 were measured for density via the immersion method.<br>• Average densities were assigned to waste lithologies having been referenced from the AusIMM Field Geologist's Handbook. |
| **Classification** | • *The basis for the classification of the Mineral Resources into varying confidence categories.*<br>• *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).*<br>• *Whether the result appropriately reflects the Competent Person's view of the deposit.* | • 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 & 2018 drilling programs in confirming the geological interpretation and continuity of mineralised horizons modelled in previous iterations of the T3 model.<br>• 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.<br>• 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. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **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.*<br>• *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.*<br>• *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.* | • 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.<br>• The Mineral Resource statement relates to a global estimate of in-situ tonnes and grade.<br>• The deposit has not and is not currently being mined. |

## Section 4 Estimation and Reporting of Ore Reserves

## (Criteria listed in section 1, and where relevant in section 2 and 3, also apply to this section.)

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Mineral Resource estimate for conversion to Ore Reserves** | • *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.*<br>• *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.* | • MOD Resources Ltd (MOD) has reported (in this Table 1) a Mineral Resource Estimate (MRE) prepared by MOD Resources Ltd for the T3 Copper Project in Botswana, in accordance with the 2012 JORC Code.<br>• The T3 Copper Project copper deposit is located in the Ghanzi district of north-western Botswana, contained fully within the PL190/2008 Prospecting licence lease.<br>• The MRE contains estimates for a range of elements (Cu, Ag, Pb, Zn, As, Mo, S, acid soluble Cu), some of which are utilised to determine the recovered copper and silver metal.<br>• The Mineral Resource classifications have been applied to the MRE based on consideration of the confidence in the geological interpretation, the quality and quantity of the input data, the confidence in the estimation technique, and the likely economic viability of the mineralised material.<br>• Indicated and Inferred Mineral Resources have been defined.<br>• The MRE is reported inclusive of Ore Reserves and is intended to be used for MOD's 2019 Ore Reserve estimate. |
| **Site visits** | • *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*<br>• *If no site visits have been undertaken indicate why this is the case.* | • Carl Murray has completed a site visit to the T3 Copper Project in June 2018. The proposed mining operation foot print and supporting infrastructure areas were inspected. A visual inspection of diamond core of both mineralised and un-mineralised material types within the potential mining footprint was completed, with access to onsite technical personnel to clarify questions and observations.<br>• Peter Hayward completed a site visit to the T3 Project and core farm in October 2018. The T3 lease and supporting infrastructure areas were inspected. A visual inspection of both mineralised and un-mineralised diamond core was completed, with access to on-site technical personnel to clarify questions and observations.<br>• Jeffery Bowen completed a site visit to the T3 Project and core farm in May 2018. The following activities were completed:<br>- The T3 lease and supporting infrastructure areas were inspected (including the proposed process plant, TSF and WRD)<br>- A visual inspection of both mineralised and un-mineralised diamond core was completed<br>- A visual inspection the existing accommodation village (under construction)<br>- Access to on-site technical personnel to clarify questions and observations.<br>• Neil Marshall carried out a visit to the T3 Copper Project in March 2018. During the visit core drilling activities on the mine site were observed. The core farm was visited and borehole core, both mineralised and unmineralized, was inspected for geotechnical conditions. Technical discussions were held with on site geological personnel to understand the geological and structural setting of the deposit<br>• David Morgan completed a site visit to the T3 Project and core farm in February 2019. The following activities were completed:<br>- The T3 lease and supporting infrastructure areas were |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | inspected, including the proposed locations for the WRD, tailings storage facility (TSF) and process plant.<br>- Surface soils at the site were inspected to assess the extent of infiltration and surface water runoff.<br>- A visual inspection of both mineralised and un-mineralised diamond core was completed, with access to on-site technical personnel to clarify questions and observations.<br>- Core within the waste zones was inspected and assessed as future construction materials for the TSF embankment structural zones.<br>- Calcrete exposures (off site) were inspected as potential construction materials.<br>• Louanne Munz completed a site visit to the T3 Copper project and surrounding communities in July 2018. The following reconnaissance activities were completed during the visit:<br>- Stakeholder meetings<br>- Review partnership opportunities with local NGOs<br>- Visited local communities close to project site<br>- Visited potential community projects seeking funding<br>- Reviewed existing community infrastructure in townsites<br>• Catherine Galli of Rescology Environmental Consulting conducted a site visit of the T3 Copper Project in March 2019. This was done in conjunction with Loci Environmental Consultants and included the following:<br>- Inspection of areas proposed for placement of key mining infrastructure within the proposed mining lease area<br>- Inspection of the existing exploration camp, laydown area and proposed mine accommodation camp<br>- Inspection of drill core and the core yard<br>- Meetings with Department of Environmental Affairs, Department of Forestry and Range Resources and Ketsile Molokokomme (Tshukudu Community Relations Manager)<br>- A brief tour of Kuke and D'Kar villages.<br>• The topography in the mining area is relatively flat covered by approximately 2 to 5 metres of Kalahari sands. Vegetation comprises of Grassland Savanna, Scrubland Savannah and Open Canopy Woodland. There are no steep gradients, incised valleys, water ways, fresh or salt lakes. |
| **Study status** | • *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.*<br>• *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.* | • MOD completed a Pre-Feasibility Study (PFS) on 31 January 2018.<br>• The Ore Reserve estimate is the result of a Feasibility Study (FS) completed by a team consisting of MOD personnel and independent external consultants.<br>• The mining operation and mine plan has been found to be technically achievable.<br>• Financial modelling completed as part of the FS shows that the project is economically viable under current assumptions.<br>• All material modifying factors have been considered and included in the FS study that supports the Ore Reserve estimate. |
| **Cut-off parameters** | • *The basis of the cut-off grade(s) or quality parameters applied.* | • The copper cut-off grade is variable based on a variable metal recovery, dependant on the copper/silver head |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | grade, sulphur content, copper to lead-zinc ratio and acid soluble copper percentage.<br>• For the majority of the Life of Mine (LOM), MOD has defined a cut-off grade for the FS of 0.3% copper. Material between the marginal cut-off grade and 0.3% copper is utilised in the project as required to maintain process plant feed tonnage while also controlling total material movement requirements. Some material between the marginal breakeven (which covers processing cost only) and 0.3% copper remains on a Low Grade stockpile at the end of the LOM plan and is classified as waste for the purpose of this Ore Reserve estimate.<br>• The marginal breakeven copper grade is approximately 0.18% to 0.20% copper. |
| **Mining factors or assumptions** | • *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).*<br>• *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.*<br>• *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.*<br>• *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).*<br>• *The mining dilution factors used.*<br>• *The mining recovery factors used.*<br>• *Any minimum mining widths used.*<br>• *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.*<br>• *The infrastructure requirements of the selected mining methods.* | • The PFS mining factors were initially used as the basis of the FS and updated by SRK and MOD as required.<br>• SRK completed an update to ore loss and dilution to reflect the detail of the updated MRE, required production rate and the mining fleet selected.<br>• MOD has sourced updated mining cost and other inputs from interested mining contractors through a detailed "Request for Quote" process.<br>• The mining method proposed uses established medium-scale open pit mining equipment operating and a pit staging logic. This mining equipment is readily available in the African mining environment with appropriate local skilled labour.<br>• All mining activities including the short term mining plan and some statutory requirements will be contractor based using conventional drill, blast, load and haul mining methods. MOD will retain direct control of ore quality and the medium/long term mine plan.<br>• The open pit is relatively deep at approximately 250 metres from surface.<br>• The geotechnical parameters have been defined by SRK (UK) using purpose drilled and logged diamond holes and numerical modelling techniques. The results from this work were used for the pit designs, that have been verified as geotechnically compliant by the team that developed the parameters.<br>• Ground water: A hydrogeological report has been prepared by independent consultants Knight Piesold which considered dewatering requirements, drawdown impacts on surrounding farms and capacity of the water supply borefield. The study identified that the groundwater at T3 is fresh, slightly alkaline and largely conforms to the in-country drinking water guidelines and has the potential to meet the Project water demand<br>• The footwall pit design generally follows the bedding of the ore while the hanging wall is relatively steep.<br>• The mining operation is proposed to be supported by a close spaced RC grade control program drilling multiple benches in each instance to minimise the impact on bench turnover rates.<br>• Inferred mineralisation and undefined material is not included in the Ore Reserves other than when presenting as dilution.<br>• There are no areas within the mining lease that restrict mining access or operations. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Metallurgical factors or assumptions** | • *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.*<br>• *Whether the metallurgical process is well-tested technology or novel in nature.*<br>• *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.*<br>• *Any assumptions or allowances made for deleterious elements.*<br>• *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.*<br>• *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?* | • Conventional crushing, grinding and sulphide flotation processing is proposed which will yield a saleable, silver bearing Cu concentrate with a LOM grade of 30.5% Cu. The process is well tested, widely used in the mining industry and there are no novel steps in the flowsheet.<br>• Proposed treatment route has been applied to similar style orebodies around the world.<br>• Variability samples that represent differing mineralisation types, lithologies and spatial distributions were tested.<br>• Deleterious elements such as As, Bi, Pb and Zn were assayed for and tracked through the testwork program. Hg was assayed for in selected feed and final concentrate samples.<br>• Bulk samples were prepared that represent the overall orebody, production schedules for PFS Pit stages 1 to 4<br>• 49 variability tests were carried out to evaluate metallurgy performance with variations to copper mineralisation, deleterious elements, copper head grades, and spatial distribution. From the variability tests recovery and grade algorithms were developed for copper, silver, and sulphur, as well as the penalty elements lead, zinc, molybdenum, arsenic and bismuth. A mass recovery algorithm was developed for final concentrate recovery<br>• Where penalty ranges of deleterious elements are reached, allowances have been made in the financial model to capture the impact on revenue.<br>• Composite samples representing the first 4 pit stages were subjected to locked cycle testwork.<br>• The Cu and Ag recoveries for the Ore Reserve were based on the FS metallurgical testwork. The LOM Cu metallurgical recovery is 92.9% and 88.0% for Ag. |
| ***Environmental*** | • *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.* | • Key environmental baseline studies have been completed on the T3 project including flora, fauna and biodiversity assessments.<br>• In addition, waste rock characterisation, groundwater modelling and water management studies have been completed with further assessment required to support the Feasibility Study.<br>• Geochemical test work was conducted on tailings, waste rock and mineralised waste. Testwork indicated that the majority of waste rock characterised will be non-acid forming and not prone to leaching. Further column test work to adequately assess leachability of heavy metals is required on mineralised waste (containing elevated levels of lead and zinc mineralisation). Any materials ultimately identified as potentially acid forming and/or prone to metal leaching will be managed through detailed engineering design of the waste storage facility if required.<br>• Waste rock and tailings storage locations have been selected based on suitable geographical characteristics and proximity to the pit and plant.<br>• A conceptual mine closure plan has been developed by Rescology Environmental Consultants with the principal objective being to create, safe, stable and non-polluting land forms. |
| ***Infrastructure*** | • *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.* | • The T3 project area is well served with infrastructure. The A3 major bitumen highway is within 14km of the project as is the proposed HV power supply (currently under construction by BPC and due for completion Q1 2020).<br>• Raw and process water will be sourced from the open-pit |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | development and from water bores.<br>• Unskilled and skilled labour will be sourced principally in Botswana.<br>• Ownership of the land and easements required for access and development are well advanced, with an agreements with landholders in place.<br>• An upgrade to the existing site access road from the National A3 Highway of approximately 14km length is required and has been costed in the FS.<br>• Expansion of the existing 40 bed accommodation camp located near Ghanzi, to a 400 bed camp has been costed in the FS. |
| ***Costs*** | • *The derivation of, or assumptions made, regarding projected capital costs in the study.*<br>• *The methodology used to estimate operating costs.*<br>• *Allowances made for the content of deleterious elements.*<br>• *The source of exchange rates used in the study.*<br>• *Derivation of transportation charges.*<br>• *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.*<br>• *The allowances made for royalties payable, both Government and private.* | • The project cost has been derived by the FS.<br>• The mining operating cost are supported by contractor estimates in response to a MOD Request for Quote for the FS. MOD have separately defined the mining costs utilised in the FS, using the contractor responses as a benchmark check.<br>• Mine closure and rehabilitation liability costs have been included in the financial model having been built from first principles and based on areas of disturbance. These commitments are in line with the preliminary closure plan submitted as part of the ESIA.<br>• The capital costs in 2019 (USD) for infrastructure including necessary facilities, a tailings storage facility, access road upgrade, Ghanzi accommodation, processing plant, a 14km power line to access the national power grid (line extension currently under construction and due for completion by BPC Q1 2020) and Mining Contractor establishment have been estimated by appropriately experienced industry consultants and contractors. Sustaining capital costs have been similarly estimated.<br>• The operating costs in 2019 (USD) for the processing, mining and site administration functions at 3.0Mtpa of Ore have been estimated by appropriately experienced industry consultants and contractors.<br>• The operating and capital costs were estimated using the following exchange rate assumptions, sourced from consensus forecast (Aug 2018)<br>AUD:USD 0.71<br>USD:BWP 10.5<br>USD:ZAR 13.8<br>CAD:USD 0.75<br>EUR:USD 1.14<br>• Concentrate transportation charges have been applied based on road transport to Walvis Bay then sea freight to China<br>• Treatment and refining charges (TC/RC), potential penalties and other deductions have been applied based on advice from independent consultant BPDT & Co. using current market trends and preliminary terms provided by potential off-takers.<br>• The deleterious elements reporting to concentrate have had a penalty cost applied in the financial model.<br>• Government royalties have been applied at the rates of 5% and 3% respectively for Ag and Cu. No other royalties apply.<br>• JV partner Metal Tiger is entitled to a capped smelter |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | royalty of US$2m at a 2% NSR rate. |
| ***Revenue factors*** | • *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.*<br>• *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.* | • The ultimate pit design was based on a conservative Whittle pit shell at a Revenue Factor of 0.85 times the applied copper and silver metal prices<br>• The assumptions on revenue and associated value drivers are supported by both consensus estimates for the proposed life of mine.<br>• For commercial confidentiality reasons, some specific assumptions and inputs are not shown.<br>• Metal prices applied to estimate the Ore Reserve Case final pit limits were US$2.91/lb Cu and $16.81/oz Ag (based on consensus data August 2018).<br>• Concentrate transportation charges total US$128/t concentrate<br>• TC/RC's of US$72.7/t concentrate and $0.07/lb Cu and $0.40/oz Ag were applied.<br>• Estimated metal payabilities for copper and silver are based on industry standards and work completed by independent consultant BPDT & Co.<br>- 90% for Ag<br>- 96.5% for Cu |
| ***Market assessment*** | • *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.*<br>• *A customer and competitor analysis along with the identification of likely market windows for the product.*<br>• *Price and volume forecasts and the basis for these forecasts.*<br>• *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.* | • The copper supply demand fundamentals continue to be strong with a supply shortage being forecast by most leading independent commentators over the short to medium term.<br>• MOD has had significant interest from metal traders and smelters to purchase the copper concentrate that is planned to be produced from the T3 Project.<br>• The March 2019 Bloomberg consensus commodity price forecasts have been used for copper pricing. MOD has reviewed the commentary from leading market commentators to review the trends and factors that could affect supply and demand into the future. |
| ***Economic*** | • *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.*<br>• *NPV ranges and sensitivity to variations in the significant assumptions and inputs.* | • SRK has been provided confidential financial information demonstrating the economic viability of the project based on this Ore Reserve.<br>• The FS discount rate of 8% real assumes a mix of debt and equity financing. This is similar to other base metals projects and approximates the Company's weighted average cost of capital<br>• Copper and silver prices were based on consensus long term commodity price forecasts from (Bloomberg March 2019):<br>• The Ore Reserve estimate is based on a FS level of accuracy with inputs from the open pit mining, processing, sustaining capital and contingencies scheduled and costed to generate the Ore Reserve cost estimate.<br>• Cost inputs have been estimated from quotations and/or by competent specialists.<br>• The Ore Reserve returns a positive NPV based on the FS and associated modifying factors |

| Year | US$/lb (real) |
|---|---|
| 2021 | 3.11 |
| 2022 | 3.16 |
| 2023 | 3.11 |
| Long Term (LT) | 3.08 |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | • Sensitivity analysis has indicated that the main project drivers are copper price, copper feed grade and copper recovery |
| ***Social*** | • *The status of agreements with key stakeholders and matters leading to social licence to operate.* | • Terms have been agreed to purchase the land on which the T3 deposit is located (~25 km$^2$ of Farm 153 NL) with a formal purchase agreement executed in April 2018 with the current land owner<br>• Stakeholder mapping and initial stakeholder engagement commenced during the PFS. More formal social baseline and engagement processes formed part of the ESIA studies.<br>• Feedback from stakeholders have focused on the key issues of employment, location of camps, potential impacts on water supply and closure strategies. There are currently no identified social issues that may materially impact the progress of the T3 Project through to its final execution and delivery. |
| ***Other*** | • *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:*<br>• *Any identified material naturally occurring risks.*<br>• *The status of material legal agreements and marketing arrangements.*<br>• *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.* | • The relevant prospecting licence PL 190/2008 is in good standing and expires on 30 September 2020. The licence is in good standing both in expenditure and work completed. Converting a part of PL 190/2008 to a Mining License is required and no adverse issues are expected. An approved ESIA is required before conversion.<br>• Government approvals are required including Department of Environmental Affairs approving an ESIA to take the project into production.<br>• The Scoping Terms of Reference document submitted was approved by the DEA Q3 2018.<br>• The ESIA was submitted to the DEA December 24, 2018. The ESIA is currently under review by the DEA and their appointed review committee. The DEA provided feedback to the ESIA March 11, 2019. MOD is currently responding to comments. The ESIA is being updated and will be resubmitted to the DEA where upon final approval is subject to public review. Following a 4-week public review period, the DEA may elect to issue final approval.<br>• Upon final ESIA approval (and completion of the FS), a mining license application can be made.<br>• Further work is required by MOD to assess impacts on the environment by the pit lake created at mine closure.<br>• The national permitting and approvals process is well defined, well understood, involves public participation and is transparent. Land access and landowner agreements are in place and ongoing engagement and consultation continues with key stakeholders. Strategic plans to support the Environmental Social Management System are in the development phase and will address impacts identified in the draft Environmental Social Impact Assessment. |
| ***Classification*** | • *The basis for the classification of the Ore Reserves into varying confidence categories.*<br>• *Whether the result appropriately reflects the Competent Person's view of the deposit.*<br>• *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).* | • The primary basis for the Ore Reserve classifications is the Mineral Resource estimation classifications.<br>• The indicated resources within the pit limits converted to probable ore reserves.<br>• The applied processes of reporting the Probable classifications are considered appropriate for the classification applied and reflect the Competent Person's view of both the deposit and the proposed mining operation. |
| ***Audits or reviews*** | • *The results of any audits or reviews of Ore Reserve estimates.* | • The Feasibility Study which forms the basis of the Ore Reserve estimate was subjected to various reviews and audits: |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | - Metallurgical testwork was reviewed by MOD's consulting metallurgist and confirmed to be adequate to support the process plant design.<br>- The pit designs were further reviewed by the independent geotechnical consultants to confirm the appropriate application of the prescribed design parameters<br>- Financial modelling is being carried out by an experienced independent consultant and reviewed by Azure Capital |
| ***Discussion of relative accuracy/ confidence*** | • *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.*<br>• *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.*<br>• *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.*<br>• *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.* | • The accuracy of and confidence in the Ore Reserve are considered appropriate.<br>• The FS mining studies included sensitivity analyses which demonstrated a robust project over plausible input parameter ranges.<br>• No production or reconciliation data is yet available for comparison. |