

# ASX ANNOUNCEMENT

9 July 2018

**ASX: MOD** 

# Significant Copper in Second Hole into A4 Dome

- Strong visible copper mineralisation intersected in veins within a zone extending up to 67m down hole width in the large A4 Dome
- MO-A4-003D is targeting the core of A4 Dome, 1.8km west of the first mineralised hole, MO-A4-001D (announced 12 June 2018)
- Mineralised veins commence at approximately 232m and extend to approximately 299m down hole depth and the hole is being deepened to test other EM targets
- Chalcopyrite is the dominant sulphide in the veins, with localised bornite and chalcocite occurring deeper in the vein zone
- A4 Dome is first of seven 'buried domes' to be drilled in T3 Dome Complex as part of a major drilling campaign, with five drill rigs now operating

**MOD Resources Ltd (ASX: MOD)** is pleased to announce the second hole to test the target sequence within the A4 Dome (MO-A4-003D) has intersected potentially significant visible copper mineralisation in veins within a zone extending up to 67m down hole width.

A4 Dome lies within the ~700km<sup>2</sup>T3 Dome Complex and forms part of a joint venture with AIM-listed Metal Tiger Plc (30%). The JV holds extensive licences operated by in-country subsidiary, Tshukudu Metals Botswana (Pty) Ltd (Tshukudu) extending 200km along the centre of the Kalahari Copper Belt.

MO-A4-003D is currently at 334m depth and is being deepened to >600m to test other conductive features defined from airborne electromagnetic (EM) data within the core of the A4 Dome (Figure 2). The hole will also test the prospective Ngwako Pan Formation (NPF) contact inferred below the target sequence.

Intersecting visible copper sulphides at A4 Dome is particularly significant as it reinforces the use of airborne EM that has identified many 'buried domes', several with similar geometry to the Company's flagship development project at T3. Drilling at the A4 Dome is the start of a major drilling campaign testing for vein hosted deposits at seven of these newly discovered domes as announced on 15 May 2018.

MOD's Managing Director, Mr Julian Hanna said, "Our geologists are excited that MO-A4-003D has intersected a mineralised stockwork vein system, within what appears to be a large, intact dome. This opens up the possibility that any copper that was deposited in the A4 Dome is still there."

Mr Hanna added, "The wider significance is that this hole has also confirmed the benefits of using state-ofthe-art EM to successfully target copper within these previously unrecognised domes."



Figure 1: MO-A4-003D drill core at 243.1m depth showing massive chalcopyrite in quartz/carbonate vein



MO-A4-003D is located 1.8km west of the first hole at the A4 Dome, MO-A4-001D, which also intersected vein hosted mineralisation at the eastern end of the dome (announced 12 June 2018).

Another drill hole, MO-A4-002D, located 1.0km west of MO-A4-001D is currently at 328m depth and nearing the interpreted target sequence, and MO-A4-004D located 150m north of MO-A4-003D has just commenced (Figures 2 and 4).

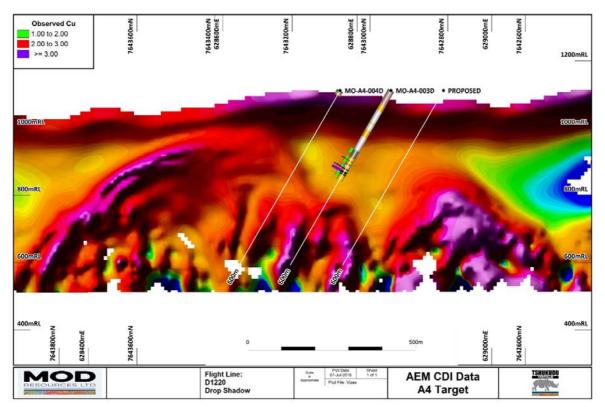


Figure 2: Interpreted EM section across A4 Dome showing MO-A4-003D drill trace with histograms of visible copper. (Note: Histograms do not represent copper grades and assays are required to determine mineralised vein grades)



Figure 3: MO-A4-003D drill core from 254.6-260.6m depth showing chalcopyrite in quartz/carbonate veins

Drill core is now being processed through Tshukudu's sample preparation facility in Ghanzi and the site team is making arrangements to have this assayed as soon as possible.



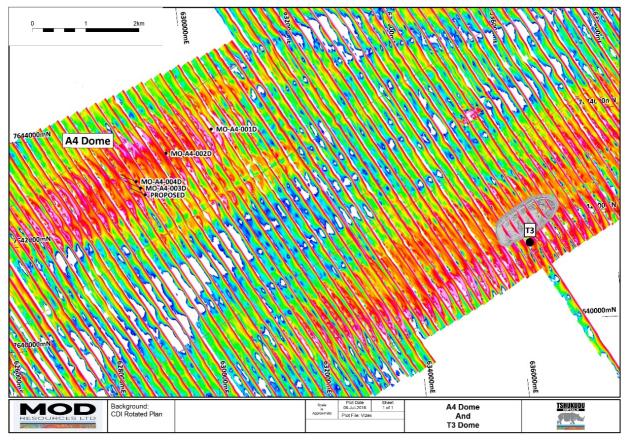


Figure 4: EM CDI sections at 200m spacing showing A4 Dome, A4 drill holes, T-Rex Dome and T3 Pit Project

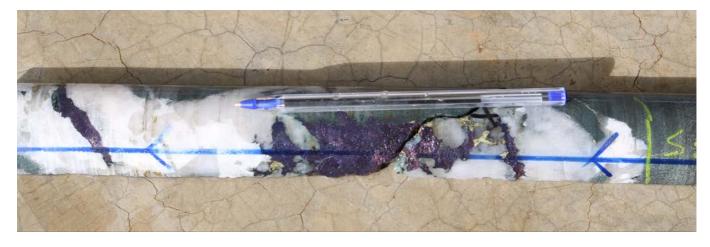


Figure 5: MO-A4-003D drill core at 279.4m depth showing bornite in quartz/carbonate veins

For and on behalf of the Board.

Julian Hanna Managing Director Mark Clements Executive Chairman and Company Secretary

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#### About MOD Resources

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

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

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

On 6 December 2016, MOD announced results of its scoping study for an open pit mine at T3.

MOD announced an updated resource at T3 comprising 36Mt at 1.14% Cu containing 409kt copper, on 24 August 2017. MOD announced a further resource upgrade, comprising 60Mt @ 0.98% Cu and 14 g/t Ag containing ~590.4 Kt copper and 26.9 Moz silver, on 2 July 2018.

Results of a pre-feasibility study for a robust long life open pit mining and processing operation at T3 were announced on 31 January 2018. MOD is progressing the T3 Pit Feasibility Study due for completion Q1 2019 and is conducting a substantial drilling program exploring for similar T3 Type deposits at numerous other targets along the T3 Dome Complex. In addition, Tshukudu is advancing other high priority exploration targets at the extensive T20 Dome and across the Company's wider regional holdings.

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

The information in this announcement that relates to Geological Data and the T3 Mineral Resource described in this release is reviewed and approved by Mr Bradley Ackroyd, BSc (Hons), Manager Mine Geology for MOD Resources Ltd. Mr Ackroyd is a registered member of the Australian Institute of Geoscientists and has reviewed the technical information in this report. Mr Ackroyd has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and the activity, which it is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Ackroyd consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.

#### **No New Information**

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

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

This announcement refers to Exploration Targets as defined under Sections 18 and 19 of the 2012 JORC Code. The Exploration Targets quantity and quality referred to in this announcement are conceptual in nature. There has been insufficient exploration at Exploration Targets, which include EM targets and conductive domes, including the A4 Dome mentioned in this announcement, to define a Mineral Resource and it is uncertain if further exploration will result in any Exploration Targets being delineated as a Mineral Resource.



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

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

Examples of forward looking statements included in this announcement are: 'MO-A4-003D has intersected potentially significant visible copper mineralisation in veins within a zone extending up to 67m down hole width.' and 'MO-A4-003D is currently at 334m depth and is being deepened to >600m to test other conductive features defined from airborne electromagnetic (EM) data within the core of the A4 Dome. The hole will also test the prospective Ngwako Pan Formation (NPF) contact inferred below the target sequence.' and 'Intersecting visible copper sulphides at A4 Dome is particularly significant as it reinforces the use of airborne EM that has identified many 'buried domes', several with similar geometry to the Company's flagship development project at T3. Drilling at the A4 Dome is the start of a major drilling campaign testing for vein hosted deposits at seven of these newly discovered domes as announced on 15 May 2018.' and 'Our geologists are excited that MO-A4-003D has intersected a mineralised stockwork vein system, within what appears to be a large, intact dome. This opens up the possibility that any copper that was deposited in the A4 Dome is still there.' and 'The wider significance is that this hole has also confirmed the benefits of using state-of-the-art EM to successfully target copper within these previously unrecognised domes.' and 'Drill core is now being processed through Tshukudu's sample preparation facility in Ghanzi and the site team is making arrangements to have this assayed as soon as possible.'

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

This announcement has been prepared by MOD Resources Limited. The document contains background information about MOD Resources Limited current at the date of this announcement. The announcement is in summary form and does not purport to be all-inclusive or complete. Recipients should conduct their own investigations and perform their own analysis in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained in this announcement.

The announcement is for information purposes only. Neither this announcement nor information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of shares in any jurisdiction.

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This announcement does not constitute investment advice and has been prepared without taking into account the recipient's investment objectives, financial circumstances or particular needs and the opinions and recommendations in this announcement are not intended to represent recommendations of particular investments to particular persons.

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#### JORC Code, 2012 Edition Table 1 Reporting Exploration Results 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	<ul> <li>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 down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g 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.</li> </ul>	<ul> <li>Drill core from MO-A4-003D will be sampled in 1m intervals or as appropriate to align with the geological contacts</li> <li>All samples will be geologically logged by a suitably qualified geologist on site</li> <li>Samples will be submitted to ALS Laboratories in Johannesburg</li> </ul>
Drilling techniques	<ul> <li>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.).</li> </ul>	The diamond drilling referred to in this release was either drilled by HQ diameter drill core or NQ diameter drill core
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Diamond drilling recorded recovery. Core recovery was good</li> </ul>



Criteria	JORC Code explanation	Commentary
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>During the core logging geologists follow MOD's standard operating procedure for RC and Diamond logging processes. The metre interval (from and to) is recorded and the data below is described within the drill logs: <ul> <li>Major rock unit (colour, grain size, texture)</li> <li>Weathering</li> <li>Alteration (style and intensity)</li> <li>Mineralisation (type of mineralisation, origin of mineralisation, estimation of % sulphides/oxides)</li> <li>Veining (type, style, origin, intensity)</li> </ul> </li> <li>Data is originally recorded on paper (hard copies) and then transferred to Excel logging sheets</li> <li>Logging is semi quantitative based on visual estimation</li> <li>For diamond drilling the geological logging process documents lithological and structural information as well as geotechnical data such as RQD, recovery and specific gravity measurements</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>All NQ diameter core samples for the drill hole intersections will be taken as half core samples. HQ diameter drill core samples will be taken as quarter core samples</li> <li>MOD takes photos of all core samples on site</li> <li>MOD has implemented an industry-standard QA/QC program. Drill core is logged, split by sawing and sampled at site. Samples are prepped at the ALS sample-prep lab onsite, bagged, labelled, sealed and shipped to ALS laboratories in Johannesburg, SA.</li> <li>At the onsite prep-lab the split for analysis is milled to achieve a fineness of 90% less than 106 µm (or a fineness of 80 % passing 75 µm. Prep QC: At least one out of every 10 samples of every batch is screened at 75µm or 106µm, whichever is applicable, to check that 80% of the material passes. The % loss for samples screened should be &lt;2%</li> <li>Field duplicates, blanks and standards are inserted at a ratio of 1:10. ALS also has its own internal QA/QC control to ensure assay quality</li> </ul>

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Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Field duplicates, blanks and standards are inserted at a ratio of 1:10 on site</li> <li>No analysis for Cu and Ag by HF-HNO3-HCIO4 acid digestion, HCI leach and ICP-AES. ME-ICP61 as well as Nonsulfide Cu by sulfuric acid leach and AAS: Cu-AA05 has been done to date.</li> <li>Results will be reported as down hole widths</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic protocols).</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>15-20% QA/QC checks are inserted in the sample stream, as lab standards, blanks and duplicates</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The collar coordinates of the drill hole were taken by handheld GPS and is reflected in Table 1</li> <li>Down hole surveys will be done on all diamond holes</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Samples of drill core for assaying will be taken throughout at a maximum of 1m intervals</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>Drilling planned at right angles to known strike and at best practical angle to intersect the target mineralisation at approximately right angles</li> </ul>

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Criteria	JORC Code explanation	Commentary		
Sample security	<ul> <li>The measures taken to ensure sample security.</li> </ul>	<ul> <li>Pulps will be tagged, logged and transported to ALS laboratory in Johannesburg.</li> </ul>		
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	MOD's sampling procedure is done according to standard industry practice		

## **Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>PL190/2008 is a granted Prospecting Licence held by 100% by Discovery Mines (Pty) Ltd which is wholly owned by Tshukudu Metals Botswana (Pty) Ltd which is wholly owned by Metal Capital Limited which is owned 70% MOD Resources Ltd and 30% Metal Tiger Plc.</li> <li>In November 2016, the Minister of Minerals, Water and Energy extended the licence date to 31 December 2018</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Limited previous exploration in the area of drilling apart from widely spaced soil sampling conducted by Discovery Mines, as well as two previously drilled, diamond drill holes
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	The visible copper mineralisation intersected in drill holes on PL190/2008 is interpreted to be a Proterozoic or early Palaeozoic age vein related sediment- hosted occurrence similar to other known deposits and mines in the central Kalahari Copper Belt
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul> <li>Information relating to the diamond drill hole described in this announcement are listed in Table 1 of the release</li> <li>All diamond drill holes are surveyed</li> <li>There is no material change to this drill hole information</li> </ul>



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Significant copper and silver intersections will be compiled and reported by MOD when assay results are received from the laboratory</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>True widths are estimated and are subject to confirmation by further drilling</li> <li>Down hole widths are used throughout</li> </ul>
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 drill hole collar locations and appropriate sectional views.	<ul> <li>Figure 4: Airborne EM image of A4 Dome and T-Rex Dome showing stacked CDI sections at 200m spacing and also shows location of planned T3 Pit and A4 Dome drill holes</li> <li>Figure 2: Interpreted EM section across A4 Dome showing reported traces of visible sulphides as histograms below conductive Marker Unit (black bar) in MO-A4-003D</li> </ul>
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.	<ul> <li>The accompanying document is considered to be a balanced report with a suitable cautionary note</li> </ul>
Other substantive exploration data	<ul> <li>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.</li> </ul>	All substantive data is reported



Criteria	JORC Code explanation	Commentary			
Further work	<ul> <li>The nature and scale of planned further work (tests for lateral, depth extensions or large- scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	• Any further work on A4 Dome and PL190/2008 will be dependent on results from diamond drilling programs along strike and down dip from the current A4 target.			

Drill Hole ID	WGS84_34S_E	WGS84_34S_N	RL (m)	EOH (m)	Azi (UTM)	Dip	COLLAR SURVEY
MO-A4-001D	630352	7643992	1112	517.85	150.00	-70.00	GPS
MO-A4-002D	629422	7643581	1112	In-Progress	150.00	-60.00	GPS
MO-A4-003D	628851	7642946	1112	In-Progress	330.00	-60.00	GPS
MO-A4-004D	628778	7643075	1112	In-Progress	330.00	-60.00	GPS
PROPOSED	628929	7642811	1112	Proposed	330.00	-60.00	GPS

Table 1: Parameters for diamond core drill holes described in this release

