### New high grade copper discovery at 100% owned West Melton – Yorke Peninsula, South Australia

- Maiden drilling intercepts outstanding shallow high grade copper with best grades ranging up to 1.69% copper in assays received from the first four drill holes.
- Copper intercepted at shallow depths over large intervals in first assays received.
- Exploration is continuing with further assay results pending for remaining holes drilled.

#### West Melton copper-gold project

(Marmota Energy Limited 100%)

Marmota Energy Limited is pleased to report a new South Australian copper discovery with high grade copper assay results from the first holes drilled on the Company's wholly owned West Melton Copper-Gold Project on SA's Yorke Peninsula. The program was designed to test the significant copper and gold geochemical anomaly defined on the project only this year (see ASX announcement dated March 4). The target is also strongly coincident with shallow modelled geophysical anomalies.

Assay results have been received from the first 4 holes of 29 drilled, located in the northern end of the extensive copper and gold in-calcrete geochemical anomaly. The results represent a significant new copper discovery in what has been now named the 'Champion' prospect. The prospect has been named after the historic 'Champion Load' located at the nearby Areena copper workings on West Melton.

#### Outstanding grades intercepted in hole WMAC003 include (Table1):

#### 10 metres at 1.12% copper from 15 metres and

#### 15 metres at 1.29% copper from 29 metres. Combined 29 metres at 1.05% copper.

# Other significant intercepts include 18 metres at 0.61% copper in drill hole WMAC004, intercepted from just below the surface.

These initial results are of similar tenor to high grade intercepts at other prospects on adjoining tenements. The discovery of high grade copper on the West Melton project is considered a new copper discovery in the region with the nearest previous drilling located 4 km away.

The Phase 1 aircore program at West Melton has been designed to give initial broad spaced drill coverage of this never previously drill tested area. Drill holes were designed to test a variety of anomaly characteristics based on geophysical and calcrete geochemical results. Laboratory assay results are available for the first 4 drillholes completed with hole WMAC003 returning an outstanding intersection of **29 metres at 1.05%** copper.

The four holes assayed to date are part of a 2,000 metre program with further results pending. These assays now confirm that potential mineralised zones intercepted during Phase 1 are capable of hosting significant grades of copper mineralisation.

The 29 metre copper intersection in WMAC003 is considered to be highly significant being high grade commencing at a shallow depth including even higher grade subzones with grades reaching 1.69% copper. Assay results from WMAC001, 002 and 004 all intercepted significant grades of copper from just below the surface. These results are considered to be commensurate with the best intersections of current and past mineral explorers on the broader Yorke Peninsula region.

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Exploration is continuing at West Melton with further assay results to be announced when they are received from the laboratory. The next batch of results will contain assays from drilling that continued in a southerly direction from drill hole WMAC003 testing the core zone of the highest copper and gold in-calcrete anomalism.

The results from this Phase 1 program will be used to plan a follow up drilling program at the Champion prospect, along with exploration at other copper in-calcrete targets identified on the West Melton tenement.

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Dom Calandro MANAGING DIRECTOR

 Table 1. Table of significant copper assay results from first four drill holes of Phase 1 at West

 Melton.

Hole ID	Easting	Northing	Zone	Final Depth (m)	From (m)	To (m)	Interval (m)	Cu (%)
WMAC001	768717	6222506	53	91	3	15	12*	0.45
WMAC002	768736	6222454	53	103	3	15	12*	0.55
WMAC003	768654	6222407	53	100	0	12	12*	0.27
					15	44	29	1.05
				incl.	15	25	10	1.12
				Incl.	20	21	1	1.51
					21	22	1	1.59
					22	23	1	1.69
				incl.	29	44	15	1.29
WMAC004	768723	6222335	53	76	0	18	18*	0.61

Intersections are a combination of individual 1-metre samples with intercepts made up of 3-metre composite samples denoted by \*. Copper determined from 1m and 3m grab samples of an average weight of 1.0 kg which were pulverised to produce sub samples for lab assay (samples pulverised to produce a 25 g sample for Aqua Regia Digest and analysed by Inductively Coupled Mass Spectrometry and Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry). Introduced QA/QC samples indicate acceptable analytical quality. All holes listed above drilled vertically, intersections are downhole lengths. True widths are not known. For the purpose of this report the term significant refers to intercepts of grade 0.27% Cu and greater.

The results received are for the first 4 of 29 holes drilled only, results from the remaining holes drilled are awaited with full geological assessment of all results to be completed upon receipt of final assays.

#### About the project

The West Melton copper-gold project is located on northern Yorke Peninsula in South Australia adjacent to recent copper-gold discoveries. The project also lies within the world class, Olympic Copper Gold Province (Figure 2). The province is highly prospective for Iron Oxide Copper Gold (IOCG) deposits, with Olympic Dam, Prominent Hill mines, Carrapateena, Hillside projects and the historic Moonta-Wallaroo mines.

The Olympic Province hosts the three most significant copper discoveries in the past 10 years in Australia including Prominent Hill, Carrapateena and Hillside (in terms of total contained resource).

In addition to these discoveries, the Olympic Dam resource has grown significantly by 48 Mt of contained copper in the past ten years - more than the aggregate of all significant Australian copper discoveries in that time. The Melton projects are strategically located on Yorke Peninsula in South Australia, less than 200 km from Adelaide, with good access to infrastructure which includes road and ports. The Melton projects also cover the northern extension of the Pine Point Fault and contain a number of discrete magnetic and gravity features consistent with copper-gold mineralisation elsewhere along the fault.



#### Historic copper mine information

Workings were undertaken in 1863 at the Areena mine shaft located on the West Melton tenement. It was reported in a newspaper at the time, that 'very good quality yellow and grey ore with green carbonate intermixed' was extracted and was named the 'Champion Load'. The DMITRE database reports that malachite and chalcopyrite were extracted from the Areena workings.

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#### **Competent Persons Statement:**

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Dom Calandro as Managing Director of Marmota Energy Limited who is a member of the Australasian Institute of Geoscientists. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities 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. Calandro consents to the inclusion in the report of the matters based on his information in the form and context in which it appears

## Appendix 1

Table 1: Jorc Code 2012 Edition

### 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 (eg 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Aircore drilling was used to obtain 1m and 3m grab samples of an average weight of 1.0 kg which were pulverised to produce sub samples for lab assay (samples pulverised to produce a 25 g sample for Aqua Regia Digest and analysed by Inductively Coupled Mass Spectrometry and Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry).</li> <li>3 metre composite samples were dominantly undertaken, with 1 metre samples undertaken on selected intervals.</li> <li>Only laboratory assay results were used to compile the table of intersections that appears in the report.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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>	<ul> <li>Drill method includes aircore blade in unconsolidated regolith, and aircore hammer (slimline RC) in hard rock.</li> <li>Hole diameters are 90mm.</li> </ul>
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>Qualitative assessment of sample recovery and moisture content of drill samples is recorded.</li> <li>Sample system cyclone cleaned at the end of each hole and as required to minimise up-hole and cross-hole contamination.</li> <li>No relationship is known to exist between sample recovery and grade.</li> </ul>
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> </ul>	<ul> <li>All samples have had preliminary geological logging completed by the on-site geologist. The holes have not been geotechnically logged.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <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>Geological logging is qualitative.</li> <li>Chip trays containing 1m geological subsamples will be photographed at the completion of the exploration program.</li> <li>100% of any reported intersections in this announcement have had preliminary geological logging completed. Further detailed geological logging will be completed.</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>Samples averaging 1kg were collected for laboratory assay using a trowel.</li> <li>Dry samples were homogenised by mixing prior to sampling.</li> <li>Laboratory sample preparation includes drying and pulverising of submitted sample to target of p80 at 75 um.</li> <li>No samples checked for size after pulverising failed to meet sizing target in the sample batches relevant to the report.</li> <li>Duplicate samples were introduced into the sample stream by the Company, while the laboratory completed double assays on various samples.</li> <li>Standard samples were introduced into the sample stream by the Company, while the laboratory completed standard assays also.</li> <li>Both Company and laboratory introduced duplicate and introduced duplicate samples indicate acceptable analytical accuracy.</li> <li>Laboratory analytical charge sizes are standard sizes and considered adequate for the material being assayed.</li> </ul>
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Standard laboratory analysis completed with sample submitted for chemical assay were analysed in the following manner:         <ul> <li>Select metals AR25/OE Aqua Regia Digest. Analysed by Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry.</li> <li>Select metals AR25/MS Aqua Regia Digest. Analysed by Inductively Coupled Plasma Mass Spectrometry.</li> </ul> </li> <li>For laboratory samples the Company introduced QA/QC samples at a ratio of one QA/QC sample for every 30 drill samples. The laboratory introduced additional QA/QC samples</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>(blanks, standards, checks) at a ratio of greater than 1 QA/QC sample for every 10 drill samples.</li> <li>Both the Company introduced and laboratory introduced QA/QC samples indicate acceptable levels of accuracy and precision have been established.</li> <li>Spot FPXRF readings undertaken with handheld Niton XRFXL3t instrument of sample on-site only to confirm individual mineral species present, no calibration factors applied to the results observed. No Niton XRF results recorded.</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>A Company geologist has checked the calculation of the quoted intersections in addition to the Competent Person.</li> <li>No twinned holes were drilled in the program the subject of the report.</li> <li>No adjustments have been made to the assay data.</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>Drill hole coordinate information was collected using hand held GPS with an autonomous accuracy of +/- 4 metres utilising GDA 94, Zone 53.</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>Varied drillhole spacing was undertaken along lines. Spacing was generally 50 to 100m.</li> <li>No regular drill hole pattern was undertaken over the drilling area. Drill spacing was designed to test various geochemical and geophysical anomalies.</li> <li>Receipt of further analytical data is required before it will be possible to assess whether the drill spacings are adequate to establish geological grade and continuity.</li> </ul>
Orientation of data in relation to geological	<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</li> </ul>	<ul> <li>Drill lines were orientated to cover a NE-SW trending auger geochemical target. It is not yet possible to establish if drilling orientation has introduced a sampling bias</li> </ul>

Criteria	JORC Code explanation	Commentary
structure	of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	
Sample security	The measures taken to ensure sample security.	<ul> <li>Company staff collected all laboratory samples.</li> <li>Samples submitted to the laboratory were transported and delivered by Company staff.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>FPXRF analytical performance is reviewed by comparison against laboratory assays on an on-going basis.</li> </ul>

### Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<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>West Melton (EL 4648) is 100% owned by Marmota Energy Limited. EL 4648 is located northern Yorke Peninsula in South Australia.</li> <li>There are no third party agreements, non govt royalties, historical sites or environmental issues.</li> <li>Underlying land title is Freehold land.</li> <li>EL 4648 is in good standing.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Marmota has reviewed past exploration data over the region. The region in which EL 4648 is located has been the subject of mineral exploration in the past by various companies including Western Mining Corporation, North Broken Hill, MIM Exploration, BHP Minerals, and Phelps Dodge Corporation. The project also has a listed historic copper working (Areena) which was undertaken in 1863.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Style of mineralisation in the region is considered to be either of Iron Oxide Copper Gold (IOCG) affinity, related to the</li> </ul>

Criteria	JORC Code explanation	Commentary
		1590Ma Hiltaba/GRV tectonothermal event, or Moonta Style where Cu-Au mineralisation is structurally controlled and maybe associated with significant metasomatic alteration of host rocks.
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>The required information on drill holes is incorporated into Table 1 of the report.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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>Intersections are calculated by simple averaging of 1m and 3m assays.</li> <li>Where aggregated intercepts presented in the report include shorter lengths of high grade mineralisation, these shorter lengths are also tabulated.</li> <li>No metal equivalents are reported.</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 (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>Drill coverage is not currently considered sufficient to establish true widths due to uncertainty regarding mineralisation dip and strike.</li> <li>The footnote to Table 1 of the report states that intersections are downhole lengths and that true width is unknown.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	See figures in report attached.
Balanced	Where comprehensive reporting of all Exploration Results is not	<ul> <li>I he table 1 footnote indicates the criteria used to establish the</li> </ul>

Criteria	JORC Code explanation	Commentary
reporting	practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	drill intersection.
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>	<ul> <li>See attached report. Geological observations are included in the report.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or 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>	<ul> <li>See attached release. The Company is awaiting more assay results from the Phase 1 drilling program. Planning of a Phase 2 follow up program is underway.</li> </ul>