

West Melton Copper

Drilling Results Received

Marmota Energy Limited (ASX: MEU) ("Marmota")

KEY POINTS

- In April/May 2016, Marmota tested 4 new target areas **outside** of the Champion prospect, to test for additional copper mineralisation in the area surrounding the Champion prospect, on the West Melton tenement on the Yorke Peninsula.
- Targets were separate geophysical, geochemical and geological targets
- 24 RC holes were drilled over the 4 new copper targets
- Best results obtained were associated with the geochemical target (copper-in-calcrete anomaly)
- Results support Marmota's future focus and priority of working **inside** the Champion prospect (see ASX:MEU [16 June 2016](#), and the detailed report of Dr Kevin Wills on Champion itself)

Background

- Marmota has a 100% interest in West Melton (EL 4648) [see [Fig. 1](#)]
- Drilling was conducted over 4 targets on West Melton from 23 April 2016 to 6 May 2016 with 24 slim-lined RC holes for a total of 1,268 metres [see ASX Release: [21 April 2016](#)]

The 4 target areas were [see [Figures 1 and 2](#)]:

- Target 1: Copper-in-calcrete anomaly (holes WMAC30-38)
- Target 2: TEM geophysical anomaly, NE extension from Champion (holes WMAC39 and 48-52)
- Target 3: TEM geophysical anomaly (hole WMAC53)
- Target 4: Structural/geological (holes WMAC40-47)

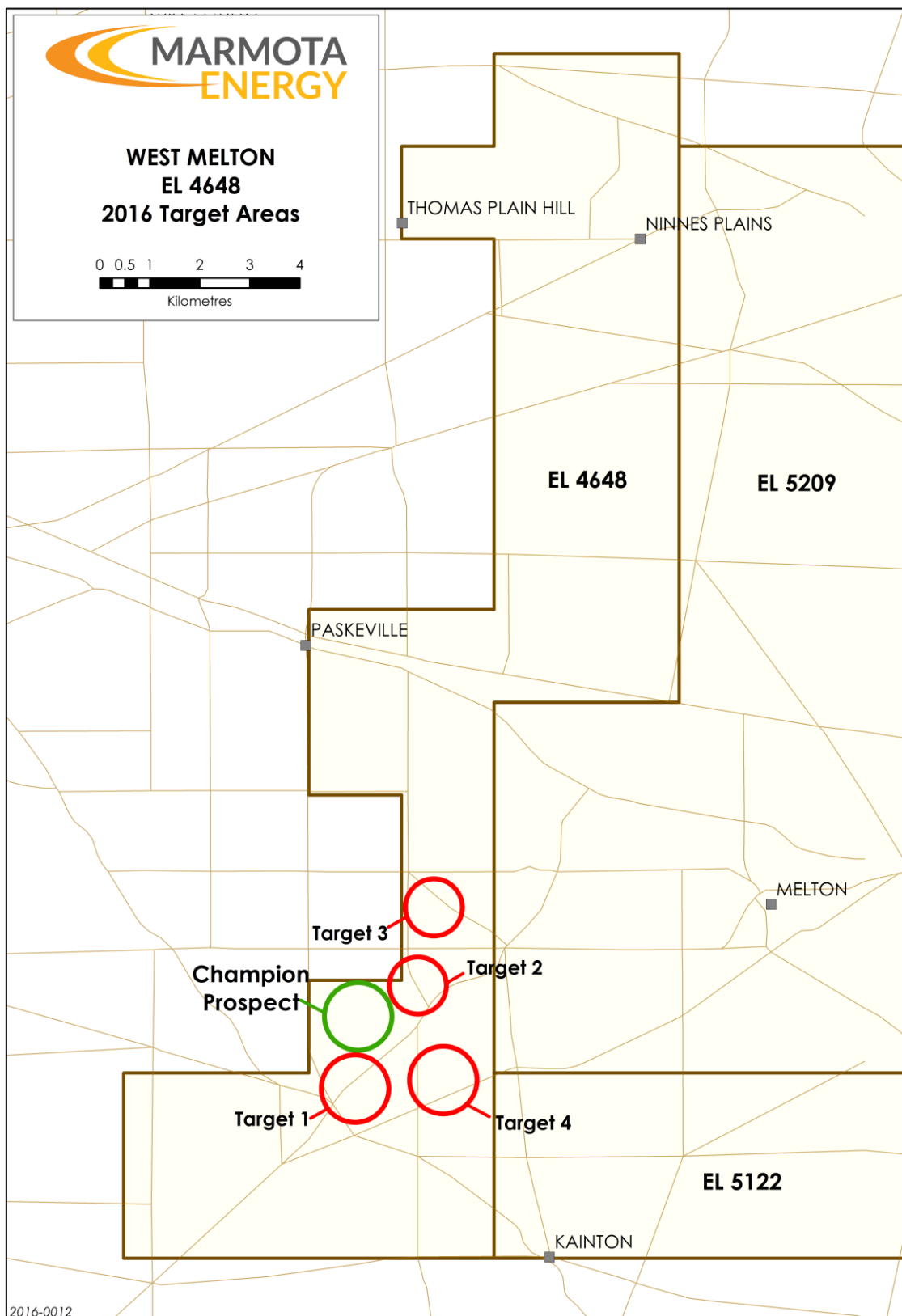


Figure 1: Four new Target Areas tested (all outside Marmota's Champion prospect)

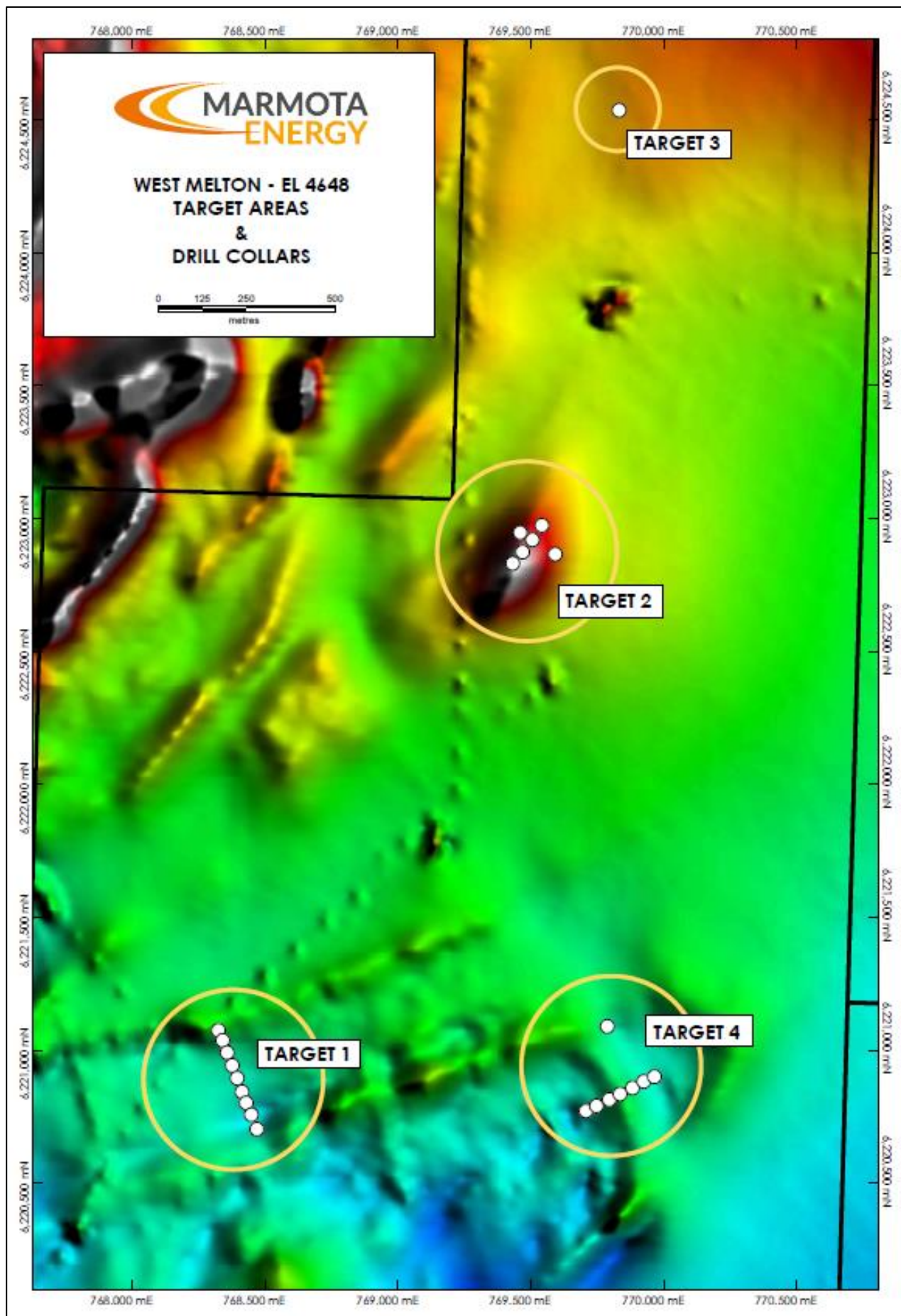


Figure 2: West Melton 2016 drill target areas with background magnetics (RTP)

2016 West Melton Drilling Program Results

Assay results from the West Melton drilling program have been received. No potentially economic mineralisation was intersected. No copper mineralisation was intersected at Targets 2-4.

Weak copper mineralisation was intersected at Target 1 confirming the effectiveness of copper-in-calcrete anomalies analogous to the Champion Prospect [see Fig. 3]. [The Champion prospect was discovered via testing copper-in-calcrete anomalies.]

Of particular note in Target 4 and Target 1 was the following:

Target 4

There was slightly elevated copper (up to 270 ppm) in hole WMAC045 and WMAC047 recorded where an inferred fault was intersected. No other holes in Target 4 intersected elevated copper values. Anomalous arsenic correlated with elevated copper results and to a lesser degree with silver.

Target 1: Geochemical copper-in-calcrete target

Target 1 was a geochemical copper-in-calcrete target. The drilling of Target 1 confirmed the surface calcrete geochemical anomaly overlies weak coincident copper supergene anomalism which was intersected in the drill holes. Although sub-economic, this result gives confidence to the surficial calcrete geochemical signatures and their ability to find mineralisation at depth in this region analogous to the Champion Prospect.

The supergene anomalism is coincident with moderately weathered, weakly oxidised metasediments. Weak underlying primary copper mineralisation in fresher schist is also seen at the end of hole in WMAC034. Silver and arsenic levels were marginally anomalous in holes with supergene copper mineralisation.

Drill Results

Drill hole details are set out in Table 1 below, with the best copper intercepts set out in Table 2 below.

More technical details regarding the drilling program are set out in the attached JORC Code Table 1 report which is attached at the end of this Release.

TABLES

Table 1: Drill hole details

HOLE ID	EASTING (GDA94 z53)	NORTHING (GDA94 z53)	ELEVATION (M)	AZIMUTH	INCLINATION	DRILLED DEPTH (M)
WMAC030	768,324	6,221,075	150	0	-90	50.0
WMAC031	768,341	6,221,037	150	0	-90	49.0
WMAC032	768,357	6,220,991	149	0	-90	50.0
WMAC033	768,376	6,220,943	147	0	-90	50.0
WMAC034	768,395	6,220,895	147	0	-90	50.0
WMAC035	768,413	6,220,844	146	0	-90	50.0
WMAC036	768,429	6,220,802	147	0	-90	50.0
WMAC037	768,448	6,220,758	148	0	-90	50.0
WMAC038	768,469	6,220,704	149	0	-90	50.0
WMAC039	769,431	6,222,831	154	0	-90	75.0
WMAC040	769,707	6,220,772	158	0	-90	30.0
WMAC041	769,746	6,220,791	158	0	-90	50.0
WMAC042	769,794	6,220,815	158	0	-90	50.0
WMAC043	769,835	6,220,836	157	0	-90	50.0
WMAC044	769,882	6,220,859	156	0	-90	50.0
WMAC045	769,924	6,220,883	155	0	-90	50.0
WMAC046	769,964	6,220,901	155	0	-90	50.0
WMAC047	769,787	6,221,090	156	0	-90	50.0
WMAC048	769,468	6,222,874	155	0	-90	75.0
WMAC049	769,505	6,222,920	154	0	-90	75.0
WMAC050	769,541	6,222,974	153	0	-90	75.0
WMAC051	769,591	6,222,866	154	290	-75	75.0
WMAC052	769,459	6,222,947	154	100	-75	14.0
WMAC053	769,831	6,224,535	155	0	-90	50.0

Table 2: Best intercepts (4 metre composite samples >500 ppm (0.05%) Copper) – Target 1

HOLE ID	FROM (M)	TO (M)	CU (PPM)
WMAC033	12	16	555
WMAC034	8	12	988
WMAC034	12	16	596
WMAC034	16	20	544
WMAC035	8	12	554

Forward Program

Copper

As highlighted in ASX:MEU release of **16 June 2016**, the future priority of Marmota's copper program will be ***inside*** the Champion Prospect (rather than outside it). The Champion Prospect has yielded high-grade copper mineralisation at shallow depths, including 6m at 2.56% copper from 27m.

The forward program of exploration work on the Champion Prospect is outlined in the ASX Release dated **16 June 2016**, which also provides the first Exploration Target Estimates at Champion. As noted there, the planned program should result in an Inferred Resource being able to be reported in accordance with the JORC Code and estimated by a Competent Person as defined in the JORC Code (2012) and also enabling a scoping study into a possible mine development.

Gold

Marmota's immediate focus is on gold exploration in its Gawler Craton gold tenements surrounding the Challenger gold mine, with a particular focus on the Aurora Tank Gold Project [see ASX:MEU **4 July 2016**]. A program is under preparation, and more detail will be available as soon as it is finalised.

Competent Persons Statement

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Dr Kevin Wills, who is a Member of the Australasian Institute of Mining and Metallurgy. Dr Wills is engaged by the Company as contractor and, has a minimum of five years' relevant experience in the style of mineralisation and type of deposit under consideration and 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". Dr Wills consents to the inclusion of the information in this report in the form and context in which it appears.

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About Marmota Energy Limited

Marmota Energy Limited (ASX: MEU) is a South Australian mining exploration company, focused on gold, copper and uranium. Gold exploration is centred on the Company's dominant tenement holding in the highly prospective and significantly underexplored Gawler Craton, near the Challenger gold mine, in the Woomera Prohibited Defence Area. The Company's cornerstone copper project is based at the Melton project on the Yorke Peninsula. The Company's largest uranium project is at Junction Dam adjacent to the Honeymoon mine.

For more information, please visit: www.marmotaenergy.com.au

Appendix 1

JORC Code, 2012 Edition – Table 1 report

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 (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. - Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. - 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 (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.	- Aircore drilling was used to obtain 4m grab samples of an average weight of 2 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). 4 metre composite samples were taken. - Only laboratory assay results were used to compile the table of intersections that appears in the report. - Ground magnetic surveys carried out using Geometrics G-856 magnetometer. Data acquired on 50 metre spaced lines with 25 metre spaced infill in east-west direction. With north-south tie lines. - Ground Gravity acquired over the Champion Prospect at 200x200 metre regular grid. - Calcrete sampling was undertaken as part of reconnaissance mapping and prospecting. Samples were taken on a 100x100 m spaced network over Target 1 and on a 400x400 m network over Targets 2-4. - Calcrete samples were obtained utilising a motorised hand auger to achieve the appropriate depth penetration to ensure high quality 1 kg calcrete sample was obtained for chemical assay. Samples pulverised to produce a 1 gram sample for Aqua Regia Digest and 100 gram sample for Cyanide Leach.
Drilling techniques	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).	- Drill method includes aircore blade in unconsolidated regolith, and aircore hammer (slimline RC) in hard rock. - Hole diameters are 90 mm.
Drill sample recovery	- Method of recording and assessing core and chip sample recoveries and results assessed. - Measures taken to maximise sample recovery and ensure representative nature of the samples. - 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.	- Qualitative assessment of sample recovery and moisture content of drill samples is recorded. - Sample system cyclone cleaned at the end of each hole and as required to minimise up-hole and cross-hole contamination. - No relationship is known to exist between sample recovery and grade.

Criteria	JORC Code explanation	Commentary
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. - Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. - The total length and percentage of the relevant intersections logged.	- All samples had preliminary geological logging completed by the on-site geologist. Further detailed geological logging was completed at the completion of the exploration program. The holes have not been geotechnically logged. - Geological logging is qualitative. - Chip trays containing 1 m geological subsamples were collected and photographed at the completion of the exploration program. 100% of any reported intersections in this announcement have had geological logging completed.
Sub-sampling techniques and sample preparation	- If core, whether cut or sawn and whether quarter, half or all core taken. - If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. - For all sample types, the nature, quality and appropriateness of the sample preparation technique. - Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. - 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. - Whether sample sizes are appropriate to the grain size of the material being sampled.	- Samples averaging 2 kg were collected for laboratory assay using a calibrated trowel. - Dry samples were homogenised by mixing prior to sampling. - Laboratory sample preparation includes drying and pulverising of submitted sample to target of p80 at 75 um. - No samples checked for size after pulverising failed to meet sizing target in the sample batches relevant to the report. - Duplicate samples were introduced into the sample stream by the Company, while the laboratory completed double assays on various samples. - Standard samples were introduced into the sample stream by the Company, while the laboratory completed standard assays also. - Both Company and laboratory introduced duplicate samples and indicate acceptable analytical accuracy. - Laboratory analytical charge sizes are standard sizes and considered adequate for the material being assayed.
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. - 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. - 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.	- Standard laboratory analysis completed with sample submitted for chemical assay were analysed in the following manner: - Select metals Aqua Regia Digest. Analysed by Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry. - Select metals Aqua Regia Digest. Analysed by Inductively Coupled Plasma Mass Spectrometry. - For laboratory samples the Company introduced QA/QC samples at a ratio of one QA/QC sample for every 25 drill samples. The laboratory introduced additional QA/QC samples (blanks, standards, checks) at a ratio of greater than 1 QA/QC sample for every 10 drill samples. - Both the Company introduced and laboratory introduced QA/QC samples indicate acceptable levels of accuracy and precision have been established. - Spot FPXRF readings undertaken with handheld Niton XRFXL3t instrument of

Criteria	JORC Code explanation	Commentary
		sample on-site only to confirm individual mineral species present, no calibration factors applied to the results observed. No Niton XRF results recorded as it was deemed unnecessary.
Verification of sampling and assaying	- The verification of significant intersections by either independent or alternative company personnel. - The use of twinned holes. - Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. - Discuss any adjustment to assay data.	- A Company geologist has checked the calculation of the quoted intersections in addition to the Competent Person. - No twinned holes were drilled in the program the subject of the Report in Attachment 1. - No adjustments have been made to the assay data.
Location of data points	- 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. - Specification of the grid system used. - Quality and adequacy of topographic control.	- Drill hole coordinate information was collected using hand held GPS with an autonomous accuracy of +/- 4 metres utilising GDA 94 Zone 53. - Area is proximately flat lying and topographic control uses SRTM 90 DEM.
Data spacing and distribution	- Data spacing for reporting of Exploration Results. - 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. - Whether sample compositing has been applied.	- Drill holes either targeted a geophysical anomaly or were advanced along traverses setup perpendicular to the orientation of the geochemical anomaly. - Drill hole spacing along traverses was generally 50m.
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. - 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 lines were orientated to cover calcrete geochemical and geophysical targets and traverses crossed the width of the geochemical anomaly or geophysical feature, therefore a sampling bias should not have occurred.
Sample security	The measures taken to ensure sample security.	- Company staff collected all laboratory samples. - Samples submitted to the laboratory were transported and delivered by Company staff.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	FPXRF analytical performance is reviewed by comparison against laboratory assays on an on-going basis.

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>	<i>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.</i> <i>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.</i>	- West Melton (EL 4648) is 100% owned by Marmota Energy Limited. EL 4648 is located on northern Yorke Peninsula in South Australia. - There are no third party agreements, non-government royalties, historical sites or environmental issues. - Underlying land title is Freehold land. - A subsequent ELA has been applied for (SELA 2015/00202). - The tenement is in good standing.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	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, BHP Minerals, and Phelps Dodge Corporation. The project also has a listed historic copper working (Areena) which was undertaken in 1863.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	Style of mineralisation in the region is considered to be either of Iron Oxide Copper Gold (IOCG) affinity, related to the 1590 Ma Hiltaba/GRV tectonothermal event, or Moonta Style where Cu-Au mineralisation is structurally controlled and maybe associated with significant metasomatic alteration of host rocks.
<i>Drill hole Information</i>	<i>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:</i> <i>easting and northing of the drill hole collar</i> <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length.</i> <i>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.</i>	The required information on drill holes is incorporated into Table 1 of the ASX Release.
<i>Data aggregation methods</i>	<i>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.</i> <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation</i>	- Any intersections are calculated by simple averaging of 4 m assays. - Where aggregated intercepts presented in the report include shorter lengths of high grade mineralisation, these shorter lengths are also tabulated. - No metal equivalents are reported.

Criteria	JORC Code explanation	Commentary
	<i>should be stated and some typical examples of such aggregations should be shown in detail.</i> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	
<i>Relationship between mineralisation widths and intercept lengths</i>	<i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>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').</i>	- Drill coverage is not currently considered sufficient to establish true widths due to uncertainty regarding mineralisation dip and strike. - Mineralisation intersections are downhole lengths, true width is unknown.
<i>Diagrams</i>	<i>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.</i>	See figures in release attached.
<i>Balanced reporting</i>	<i>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.</i>	Results in Table 2 of the ASX Release show downhole width of intersection of individual 4 m composite samples.
<i>Other substantive exploration data</i>	<i>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.</i>	See attached release. Geological observations are included in that report.
<i>Further work</i>	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	See attached release.