

Westpoint Hill – Re-test of critical values

Marmota Energy Limited (ASX: MEU) (“Marmota”)

Key Points

- Re-assay of residue samples from the original 800m October 2015 sampling repeats exceptional gold-in-calcrete assays.
- Re-assay of residue samples from the December infill sampling repeats low results.

Background

- In October 2015, Marmota’s calcrete sampling (on 800m grid) at Westpoint Hill identified exceptional gold-in-calcrete anomalous assay results of 70ppb to 107ppb. These high gold-in-calcrete results (107ppb, 80ppb and 70ppb) were re-assayed and verified by the laboratory in October 2015.
- In December 2015, Marmota undertook and completed a detailed infill calcrete sampling program at Westpoint Hill [see ASX:MEU 24 Nov 2015] [see Fig. 3]. The infill assay results [ASX:MEU 17 Feb 2016] appear statistically inconsistent with the earlier assay results for the target area, received from the same laboratory, and reported to the ASX in October 2015. In particular, the new results did not return anomalous gold occurrences in or around the previously reported significant gold-in-calcrete anomalies.
- Marmota has acted to verify the above laboratory results.

Verification

Marmota has initiated a number of avenues of investigation:

- 1) The scope for contamination of samples in the field or at the Laboratory;
- 2) An urgent re-assay of a subset of the residue samples from both October 2015 and the December Infill program, by 2 different methods;¹
- 3) Engaged an independent Geochemist to review data from both sampling programs and new data; and
- 4) Collection of duplicate field samples for selected samples for analysis at an independent laboratory.

¹ The high gold-in-calcrete values (107ppb, 80ppb, 70ppb) were already re-checked in October 2015, by the laboratory, prior to ASX release. They have now been re-checked from a different pulp.

Re-assay of Critical Residues

Item (2) above is the urgent re-assay of a subset of the residue samples from both October 2015 and the December Infill program, by 2 different methods. Those results have now been received.

8 samples from the October 2015 program (including the 3 high values) and 7 samples from the December infill calcrete sampling program were re-submitted for assaying from the residues of the original samples. These residues were pulverized samples, as no coarse residues remained (100% of all material submitted was pulverized). The sample locations selected are shown on the map in **Figure 1** below and marked by yellow dots. New pulps were taken to test the October 2015 and the December infill program results.

Each sample was subjected to:

- a) *fire assay* for gold and
- b) *aqua regia assay* for a suite of elements including gold.

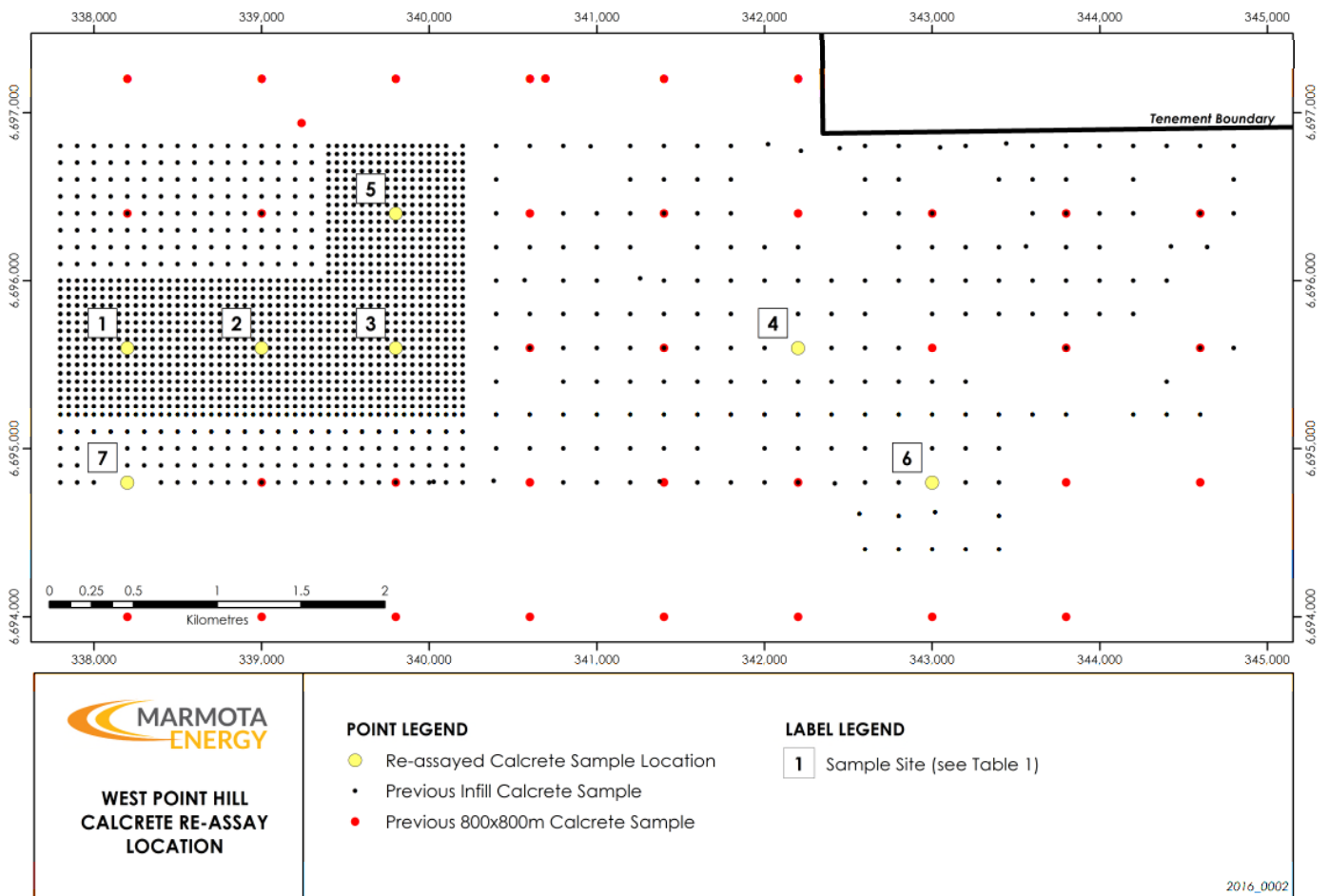


Figure 1: Re-assayed sample locations

Table 1 below provides the results of the original assays and the re-assays, for the selected sample locations. For greater detail, see the appended JORC Table 1.

October 2015 Samples

Sample Location on Fig 1	Sample Number	Original Assay Oct 2015 Au ppb	Re-assay Fire: 19 Feb Au ppb	Re-assay Aqua regia: 21 Feb Au ppb
Sample 1	M5203	107	97	96
Sample 2	M5204	80	79	73
Sample 3	M5205	20	7	7
Sample 4	M5208	18	4	4
Sample 5	M5214	70	80	73
Sample 6	M5239	4	3	4
Sample 7	M5266	X	X	X
Not on map	M5276	4	4	4

Table 1(a)

Notes: "X" means below detection limit of 1ppb

Two features are apparent:

1. There is very strong evidence to support that the exceptional gold-in-calcrete assays returned from the October 2015 samples are statistically valid measures of those calcrete samples (highlighted in red).
2. The two medium values have been reduced (highlighted in blue).

December 2015 Infill Samples

Sample Location on Fig 1	Sample Number	Original Assay Feb 2015 Au ppb	Re-assay Fire: 19 Feb Au ppb	Re-assay Aqua regia: 21 Feb Au ppb
Sample 1	4761	1	1	3
Sample 2	4777	X	1	2
Sample 3	4793	X	2	2
Sample 4	5521	1	2	4
Sample 5	4166	X	2	3
Sample 6	5295	X	3	3
Sample 7	5355	X	X	1

Table 1(b)

Note: Locations may differ by up to 10m from original 800m grid (not perfect twins)

Variation between October and December programs

The Company is seeking to resolve and understand the difference between the October and December assay results. Avenues being explored include:

i) Different Methodologies

The original October sample data was collected by *hand-held* auger.

The new in-fill December sample data was collected by *truck mounted mechanical* auger. Discussions with the contractor who undertook the infill calcrete sampling program, revealed that the methodology he adopted, using a vehicle-mounted auger rig, led to the samples being acquired at a slightly lower depth than the methodology adopted for the October 2015 (hand-held auger) sampling program. There is an established research literature that notes that the distribution of gold-in-calcrete is significantly influenced by sampling depth:

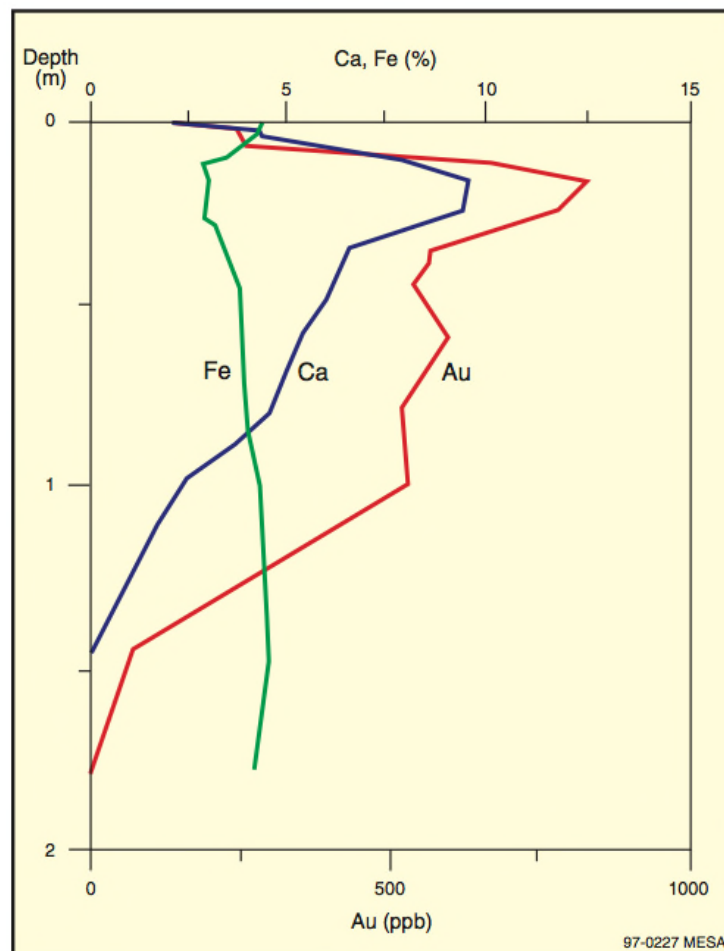


Figure 2: Distribution of gold, calcium and iron (Bounty Mine) as a function of depth. Source: Lintern (1997)²

² Lintern, M.J. (1997, p.5), "Calcrete sampling for gold exploration", MESA Journal 5, April 1997.

ii) Variability in calcrete

The distribution of gold-in-calcrete is low-level and can also be variable. As observed by Lintern³:

“A broad Au anomaly (>5 ppb, >4 sq km) is present in the calcrete overlying the Challenger mineralisation (Figure 6.12A). This was outlined from a regional survey based on a 1.6 km square grid with a peak Au concentration of 180 ppb. Importantly, if calcrete had been sampled a few metres E or W the Au concentration would have been an order of magnitude smaller and the anomaly downgraded in importance.”

The Company is seeking to determine whether the difference in sampling method (*handheld auger vs truck mounted mechanical auger*), depth and location might reasonably account for the differences in results. Further samples are being collected for this purpose.

Possibility of Contamination

Marmota’s technical director met with both the laboratory and those involved in the sampling program and concluded that the likelihood of accidental contamination in the field or in the laboratory for either sets of samples was remote and was unlikely to explain the differences in results. Protocols for collection and handling of samples in the field were adequate, the preceding samples in laboratory sample preparation had negligible gold content, and laboratory protocols to avoid contamination during sample preparation are also adequate.

Geochemist Review

Marmota has engaged an independent geochemist, Dr Nigel Brand, to review the data in relation to the October 2015 calcrete sampling program and the December infill program.

Dr Brand notes that:

- there is evidence to suggest that sampling depth can affect the concentration of element distribution with increasing concentration with depth (*e.g.* Bi) and decreasing concentration with depth (*e.g.* Ca)
- based on this evidence and the knowledge that Au concentration can be significantly controlled by depth and location, it is extrapolated that gold distribution from the infill calcrete sampling program may reflect the variation in sample depth

Forward Program

In the light of the above outcomes, and further information still being sourced, the Board is working on a forward program.

³ Lintern, M.J. (2002, p.49), “Calcrete sampling for mineral exploration” in: Chen, X.Y., Lintern, M.J. and Roach, I.C. (2002) “*Calcrete: characteristics, distribution and use in mineral exploration*”

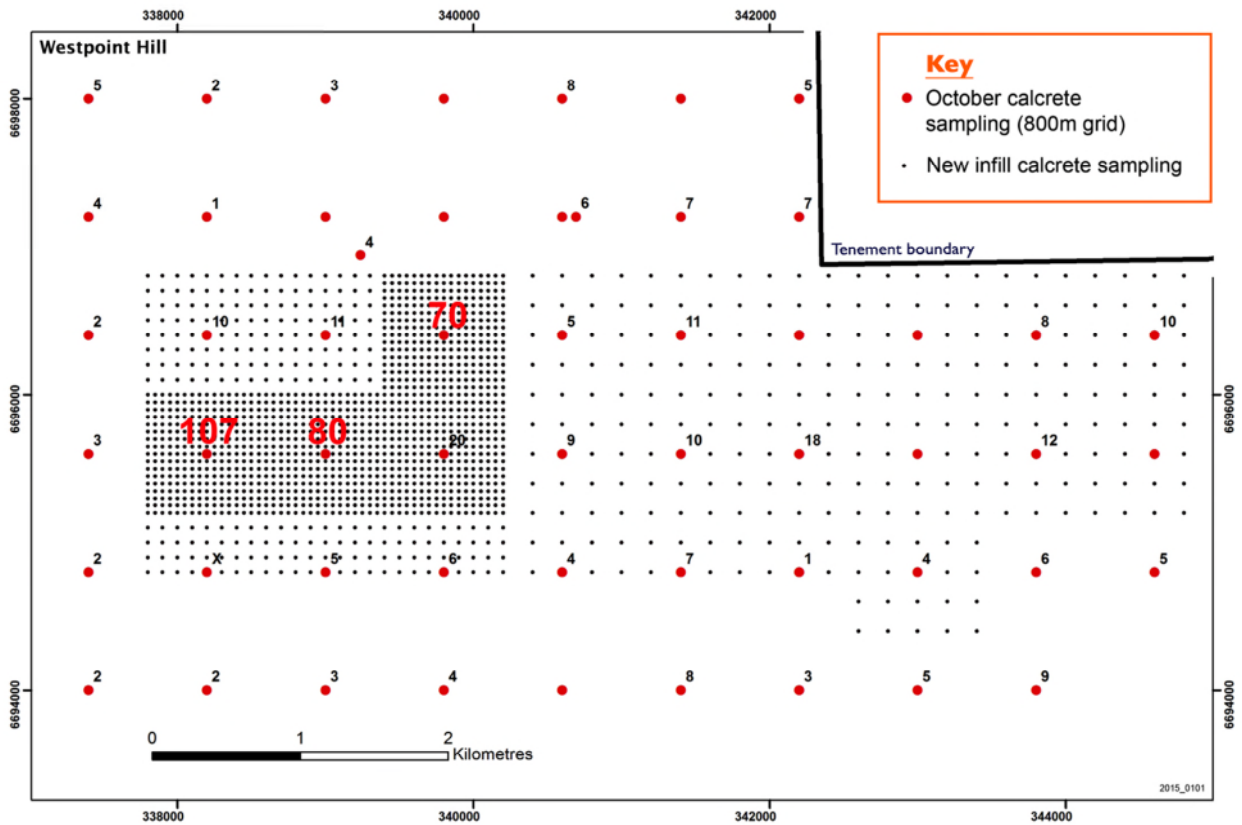


Figure 3: ● Previous (800m grid) sampling carried out in October 2015 (red dots) and ● NEW high detail infill calcrete sampling points: 1580 targets (black dots)

Competent Persons Statement

The information in this release that relates to Exploration Results and Mineral Resources is based on information compiled by Dan Gray as Senior Project Geologist 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 Gray consents to the inclusion in the report of the matters based on his information 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 centered 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Calcrete samples were collected on a pre-planned grid pattern of varying dimensions depending upon target. The grids were oriented on an east-west/north-south direction. Calcrete samples were obtained from varying depths ranging from surface to 3m. Samples were sieved and only good quality calcrete (nodular or massive) was taken for geochemical analysis. Samples obtained were ~1kg in weight. Samples are annotated with descriptions including, location, type of calcrete, depth, level of HCl reaction, terrain, rock outcrop occurrence and any notes relating to potential contamination.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> The 2 sampling programs consisted of both hand held and 4WD mounted mechanical auger's used to obtain calcrete samples. In both cases, the auger blade is 20cm in diameter with a maximum reach of 6m for the 4WD mounted auger, and 110cm for the hand held auger.
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Samples were taken by hand and sieved so that a good quality calcrete only sample obtained for geochemical analysis. Samples averaging 1kg in weight were taken, which are considered to be representative for this sampling medium (calcrete).
Logging	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Recorded data at each sample point included sample number, GDA94 Zone 53 Co-ordinates, calcrete type, sample depth, level of HCl reaction, terrain, rock outcrop or float occurrence and any notes relating to potential contamination eg near roads.

Criteria	JORC Code explanation	Commentary
	<p>quantitative in nature. Core (or costean, channel, etc) photography.</p> <ul style="list-style-type: none"> The total length and percentage of the relevant intersections logged. 	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No sub sampling was undertaken during the calcrete sampling program.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> A certified and accredited global laboratory (Intertek Genalysis) was used for all assays. Samples from the Westpoint Hill Target were subject to analysis using 2 analysis methods. Samples were analysed by ARU25/MS; 25gram Aqua Regia digest, unfiltered. Analysed by Inductively Coupled Plasma Mass Spectrometry and ARU25/OE; 25gram Aqua Regia digest, unfiltered. Analysed by Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry. Samples were also analysed by FA25/MS; 25gram lead collection fire assay in new pots. Analysed by Inductively Coupled Plasma Mass Spectrometry. Internal certified laboratory QA/QC is undertaken by Intertek Genalysis. Intertek Genalysis provided blanks and standard lab checks
Verification of sampling and assaying	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Field data is captured on field sheets and transferred to digital medium.. All data is managed in-house by Marmota Energy. Laboratory assay data is not adjusted.
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All samples are located using hand held GPS with an accuracy generally within +/- 5m. All coordinates are recorded in GDA94, Zone 53.
Data spacing and	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. 	<ul style="list-style-type: none"> Samples were collected at different grid spacings as identified in the ASX Release in

Criteria	JORC Code explanation	Commentary
<i>distribution</i>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • which is considered to be appropriate spacing for progressing the target to the next stage of exploration. • Calcrete sampling only – no association or reliance should be made on level of mineralisation • Samples were not composited.
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • It is not considered that the sampling method (grid calcrete sampling) should introduce a sampling bias.
<i>Sample security</i>	<ul style="list-style-type: none"> • The measures taken to ensure sample security. 	<ul style="list-style-type: none"> • Each sample was put into individually numbered calico bags which were tied and placed into polyweave bags. • Samples remained at the remote field camp until Marmota staff returned them to Adelaide and the samples dropped off at the Intertek Genalysis Laboratory in Wingfield, Adelaide.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> • The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> • No audits or reviews have been undertaken.

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 style="list-style-type: none"> • 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. • 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. 	<ul style="list-style-type: none"> • Lake Anthony (EL5060) is 100% owned by Marmota Energy Limited. • The project is located in the Gawler Craton of South Australia. • There are no third party agreements, no government royalties, historical sites or environmental issues. • Underlying land title is Crown Lease. • EL 5060 is in good standing.
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> • Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> • Marmota has reviewed past exploration data over the region. The region in which EL 5060 is located have been the subject of mineral exploration in the past by various companies including Dominion, Hindmarsh Resources Limited, Deep Yellow Limited as well as regional exploration drilling conducted by the South Australian Department of Mines and Energy.
<i>Geology</i>	<ul style="list-style-type: none"> • Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> • Style of mineralisation in the region is considered to be Challenger style gold mineralisation.

Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul style="list-style-type: none"> • 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 style="list-style-type: none"> ○ easting and northing of the drill hole collar ○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar ○ dip and azimuth of the hole ○ down hole length and interception depth ○ hole length. • 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. 	<ul style="list-style-type: none"> • N/A, no drilling conducted.
Data aggregation methods	<ul style="list-style-type: none"> • 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. • 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. • The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> • N/A, no drilling conducted.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • 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'). 	<ul style="list-style-type: none"> • N/A, no drilling conducted.
Diagrams	<ul style="list-style-type: none"> • 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 style="list-style-type: none"> • N/A, no significant discovery reported.
Balanced reporting	<ul style="list-style-type: none"> • 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 style="list-style-type: none"> • N/A, no significant discovery reported.
Other substantive exploration data	<ul style="list-style-type: none"> • Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical 	<ul style="list-style-type: none"> • See attached release.

Criteria	JORC Code explanation	Commentary
	<p><i>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></p>	
<i>Further work</i>	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • See attached release.