



Rare Earth discovery at Target 21

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

Marmota (ASX:MEU) is very pleased to announce, as part of its Project X regional reconnaissance program, that **Target 21: ‘Manna from Heaven’ has yielded a new rare earth elements (REE) discovery** on EL6040 (100% owned).

- Rare earths are **hosted in ionic clays close to surface** ... and appear to be similar to published descriptions of the major Chinese clay-hosted REE deposits. China currently produces more than 90% of the world’s high-value rare earth magnet supply.
- **Multiple holes** intersected **Total Rare Earth Oxides (TREO) over 1000 ppm**, over a highly anomalous zone extending 2.8km from south to north, and up to 2.8km east to west.
- REE intersections are **remarkably close to surface**: as close as **8m from surface** [see [Table 1](#)].
- Highlights include: [4m average composites] [see [Table 1](#)]

2104 ppm TREO	from 8m downhole	37% MREO	[Hole 23MR139]
1761 ppm TREO	from 20m downhole	36% MREO	[Hole 23MR135]
1508 ppm TREO	from 20m downhole	33% MREO	[Hole 23MR125]
1219 ppm TREO	from 16m downhole	27% MREO	[Hole 23MR110]
1029 ppm TREO	from 12m downhole	28% MREO	[Hole 23MR111]
- An example of a significant ionic clay hosted REE deposit outside of China is Ionic Rare Earths (ASX:IXR) Makuutu project in Uganda with 532 mt @ 630 ppm TREO.

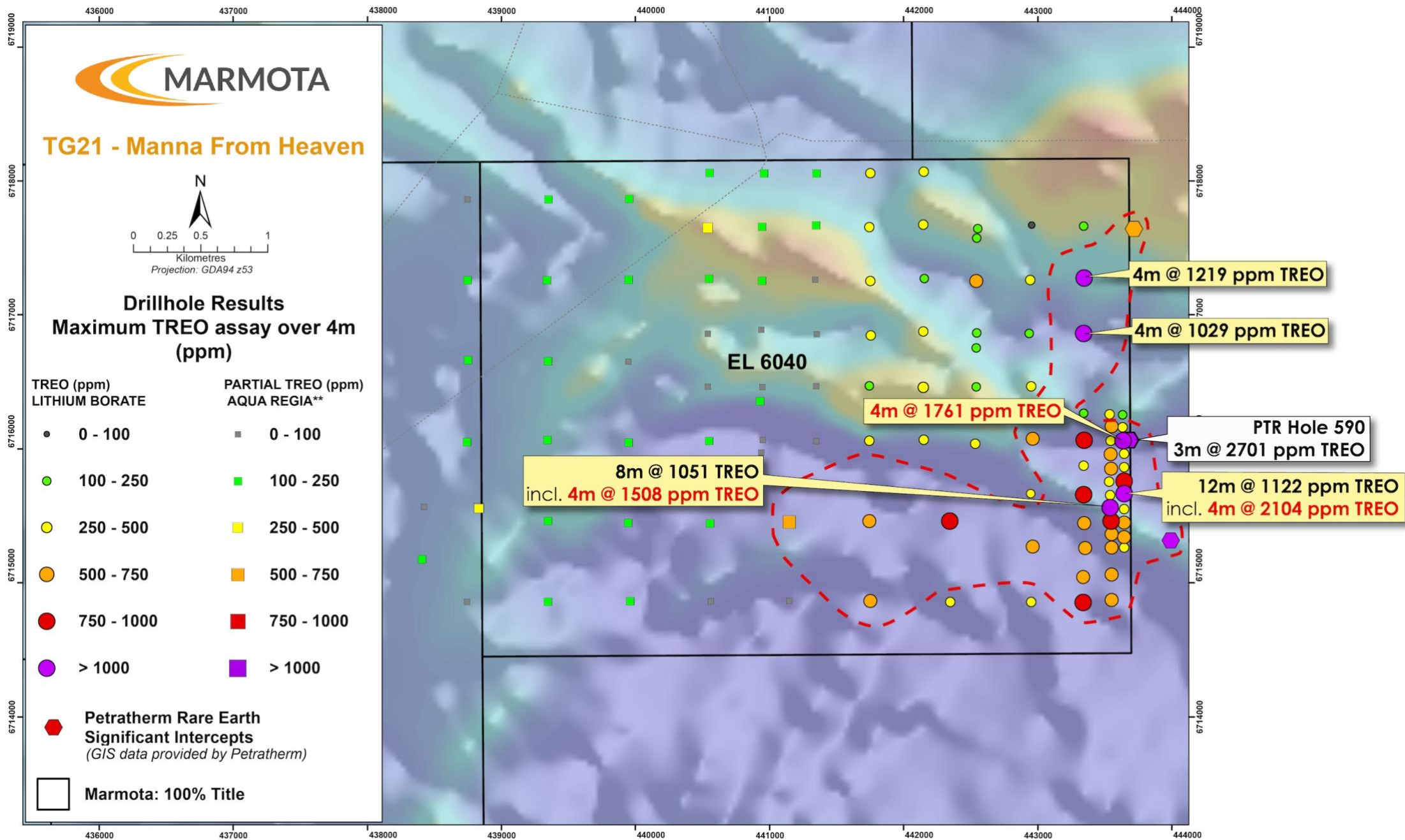


Figure 1: Maximum downhole TREOs over TMI image
Diagram shows large zone with majority holes ≥ 500 ppm TREO (see red dashed outline - -)

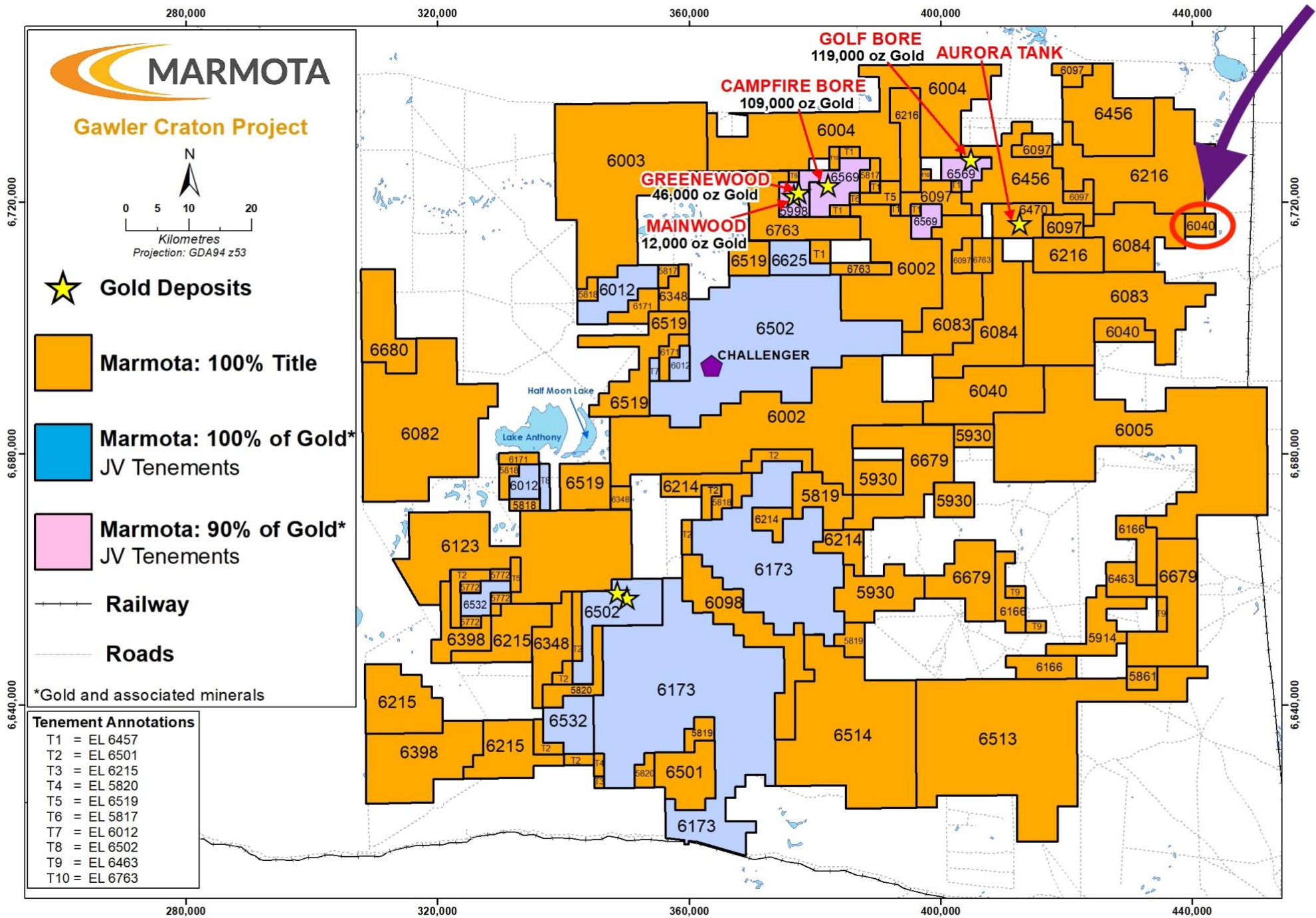


Figure 2: Location of REE discovery on tenement EL 6040

Table 1

Target 21: Reconnaissance REE program

Significant TREO Intersections > 1000 ppm

[over 4m or larger intervals]

Hole ID	Depth From	Depth To	Interval	TREO	High Value Magnetic Rare Earths (MREO)						NdPr ratio	
					Neodymium Nd ₂ O ₃	Praseodymium Pr ₆ O ₁₁	Dysprosium Dy ₂ O ₃	Terbium Tb ₄ O ₇	Total MREO		Nd ₂ O ₃ + Pr ₆ O ₁₁	
Hole ID	metres	metres	metres	ppm	ppm	ppm	ppm	ppm	% TREO	ppm	% TREO	
23MR139	8	20	12	1122	285	79	14	3	380	34%	364	32%
<i>Including</i>	12	16	4	2104	583	161	24	5	773	37%	744	35%
23MR135	20	24	4	1761	451	135	32	8	626	36%	587	33%
23MR110	16	20	4	1219	241	66	21	4	333	27%	308	25%
23MR111	12	16	4	1029	197	54	28	5	285	28%	251	24%
23MR125	16	24	8	1051	236	65	18	4	324	31%	301	29%
<i>Including</i>	16	20	4	1508	367	100	25	5	498	33%	468	31%

See Appendix 2 for hole collar details ¹

¹ TREO is an index that measures Total Rare Earth Oxides.

** Figure 1 note: Partial TREO Aqua Regia = CeO₂ + La₂O₃ + Nd₂O₃ + Pr₆O₁₁

High-value Magnet Rare Earths (MREO)

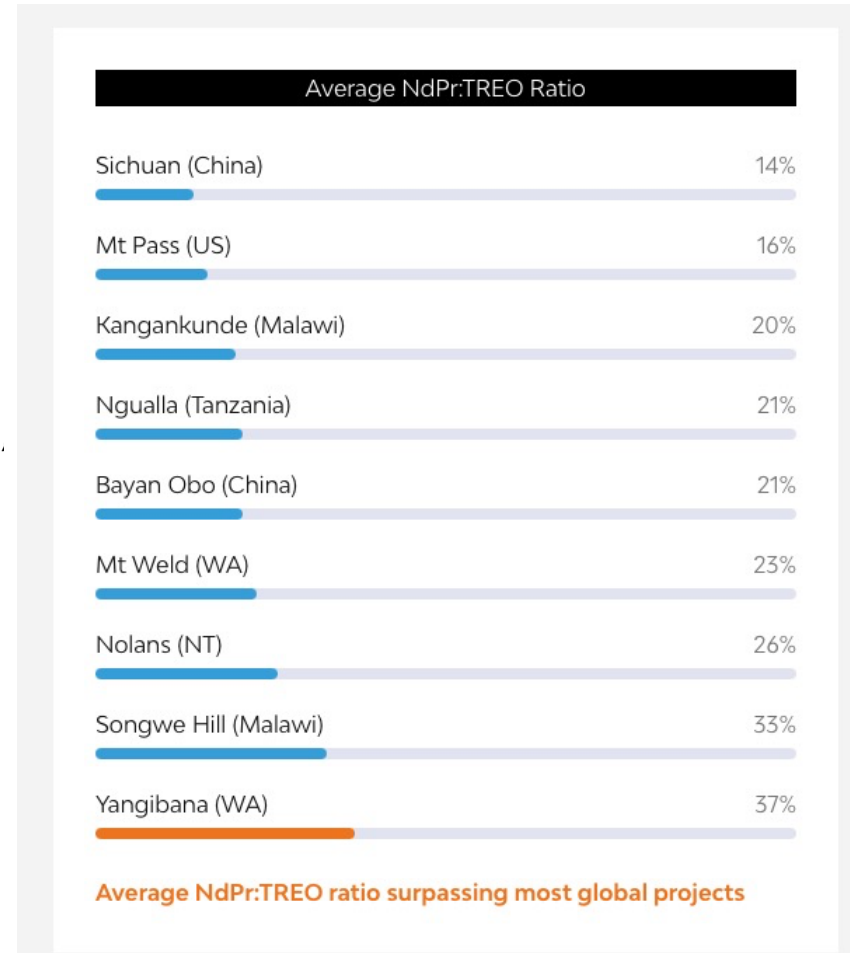
Assays returned multiple intercepts with > 30% high-value Magnet Rare Earth Oxides (MREO), as a proportion of the TREO for tested samples [see Table 1].

A related measure is the ratio of the high-value magnets Neodymium and Praseodymium to the total TREO:

$$\frac{\text{Neodymium} + \text{Praseodymium}}{\text{TREO}}$$

This ratio varies from 14% in Sichuan (China) to an apparent world best of 37%.

At Target 21 (Manna from Heaven), the ratio is close to the best cases, with multiple readings over 30%, a best case of 35%, and an average ratio of 30% for Table 1.



Source: Hastings Tech Metals web site: hastingstechmetals.com/yangibana-project/

Additional Detail

1. Location and Extent

- Target 21 lies adjacent to the largest and most exceptional of the **high-value magnetic REE results** drilled by Petratherm (Hole 590: 3m @ 2701 ppm TREO: see [Figure 1](#)) that is located **on the Marmota tenement boundary** [see [Figure 1](#)]. This is also why the target is called “Manna from Heaven”.
- Marmota’s regional reconnaissance program (Project X) included the drilling of 115 reconnaissance holes across the tenement. The average depth of drilling was 27m testing for REE mineralisation.

2. Highly prospective

- The rare earth intersections at Target 21 are remarkably close to surface, with significant intersections as shallow as 8m downhole.
- The close-to-surface nature of the mineralisation allows for rapid, low-cost exploration, and would also lead to lower mining costs.
- The REE mineralisation at Target 21 is clay hosted.

3. Advantages of ionic clay hosted REE

- China dominates global REE mining and processing: most of its supply comes from ionic clay-hosted deposits.
- Low-cost rapid exploration
- Low mining costs (soft material, no blasting required, minimal stripping)
- Relatively simple processing plant compared to hard rock deposits (no crushing or milling)
- Non-radioactive tailings

4. Broader Implications

- The combination of rare earth mineral bearing Archaean basement and overlying zones of intensely weathered basement provides large areas which are geologically highly prospective for potentially economic regolith clay-hosted ionic REE deposits.
- Primary REE mineralisation appears to have been released during basement weathering, transported in solution, and redeposited in large flat-lying layers within the clay-rich intensely weathered basement. These large, close to surface and regolith-hosted deposits are expected to be more economically viable than finding and developing primary mineralisation developed in basement.
- REE mineralisation is largely contained in the saprolite regolith zone which is composed of intensely weathered, clay-rich basement.
- Marmota is fortunate to hold tenure for the majority of the large area of the Mulgathing Complex metamorphic rocks surrounding the new discoveries.
- The close-to-surface regolith-hosted deposits offer great potential, and together with the results of others, show the presence of an emerging and large new REE province in which Marmota is ideally placed.

Comment

Marmota Chairman, Dr Colin Rose, said:

“ Target 21 has yielded Marmota’s highest rare earth TREOs, remarkably close to surface, and amongst the highest industry ratios of high-value magnetic rare earths to total TREOs. It is a model that suits us perfectly, close to surface with low cost exploration, and low cost potential mining.

With REE, once you have found them, the tricky and expensive part is the processing and that is an area that is changing and developing very rapidly with technological advances. We are delighted to add REE as another arrow in Marmota’s quiver, perhaps best developed when the REE market has matured further.

Marmota shareholders are fortunate to have an embarrassment of riches at the present time, with the Company’s advanced gold projects featuring outstanding bonanza grades close to surface, metallurgical optimisation already underway and the gold price at new record levels, and our Junction Dam uranium resource that is surging to grow together with extremely attractive uranium fundamentals, and the Boss mine next door recommencing production. ”

Follow Marmota on Twitter at: twitter.com/MarmotaLimited

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About Marmota Limited

Marmota Limited (ASX: MEU) is a South Australian mining exploration company focused on gold and uranium. Gold exploration is centred on the Company's gold discovery at Aurora Tank that is yielding outstanding intersections in the highly prospective and significantly underexplored Gawler Craton in the Woomera Prohibited Defence Area. The Company's flagship uranium resource is at Junction Dam adjacent to the Honeymoon mine.

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

Competent Persons Statement

Information in this Release relating to Exploration Results is based on information compiled by Aaron Brown, who is a Member of The Australian Institute of Geoscientists. He has sufficient experience 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 of Reporting of Exploration Results, Mineral Resources and Ore Reserves." Mr Brown consents to the inclusion in this report of the matters based on this information in the form and context in which they appear.

Where results from previous announcements are quoted, Marmota confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement 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.

For the purpose of ASX Listing Rule 15.5, the Board has authorised for this announcement to be released.

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"> <i>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.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverized to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i> 	<ul style="list-style-type: none"> A total of 115 AC holes were drilled for 3,077 m. Samples were collected at 1m intervals from the drilling cyclone and stored in separate bags at the drill site. Composite 4m samples were collected using a 50mm PVC tube ‘spear’ to collect representative samples from bags. Composite samples were an average weight of 2.1 kg which were pulverized to produce sub samples for lab assay by Aqua Regia and Lithium Borate Fusion. For Aqua Regia, a 40g sample was taken for digest and analysed by Inductively Coupled Mass Spectrometry (ICP-MS) and Inductively Coupled Plasma Atomic Emission Spectrometry (ICP-AES). For Lithium Borate Fusion, an aliquot of sample is fused with lithium metaborate at high temperature in a Pt crucible. The fused glass is then digested in nitric acid and analysed by ICP-MS. Only laboratory assay results were used to compile the table of intersections that appears in the report.
Drilling techniques	<ul style="list-style-type: none"> <i>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).</i> 	<ul style="list-style-type: none"> Drill Method was Air Core drilling. Hole diameters are 87mm.
Drill sample recovery	<ul style="list-style-type: none"> <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> <i>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.</i> 	<ul style="list-style-type: none"> Drill holes and sample depths were recorded in hard copy format during drilling including sample intervals. Qualitative assessment of sample recovery of drill samples was recorded. Sample recoveries were generally high, and moisture in samples minimal. No relationship is known to exist between sample recovery and grade, in part due to in-ground variation in grade. A potential bias due to loss/gain of fine/coarse material is not suspected.

Criteria	JORC Code explanation	Commentary
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 quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> • Representative drill holes were geologically examined by Marmota geologists. • The holes have not been geotechnically logged. • Geological logging is qualitative.
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"> • Composite samples averaging 2.1 kg were collected for laboratory assay. Samples were collected with a 50mm tube by diagonally spearing individual samples within bags. • It is considered representative samples were collected after homogenizing of sample through drilling cyclone and unbiased spearing of samples in bags. • Laboratory sample preparation includes drying and pulverizing of submitted sample to target of p80 at 75 µm. • No samples checked for size after pulverizing failed to meet sizing target in the sample batches relevant to the report. • Duplicate samples were introduced into the sample stream by the Company.
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 (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> • Bureau Veritas Minerals in Adelaide were used for analytical work. • Samples from exploratory holes on Target 21: Manna from Heaven tenements were analysed in the following manner: • Eastern portion of the Tenement was analysed for REE using Lithium Borate Fusion, and for Gold (and pathfinders) using Aqua Regia. • Eastern Portion Aqua Regia Digest: Analysed by Inductively Coupled Plasma Mass Spectrometry or Inductively Coupled Plasma Atomic Emission for Au, S, Ag, As, Bi, Cd, Co, Cs, Cu, Li, Mo, Ni, Pb, Pd, Pt, Sb, Se, Sr, Te, Zn. • Eastern Portion Lithium Borate Fusion: Analysed by Inductively Coupled Plasma Mass Spectrometry for Ca, Fe, Mg, Mn, V, Cr, Sn, W, U, Th, P, Ti, Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Nd, Pr, Sc, Sm, Tb, Tm, Y, Yb, Ga. • The western portion of Target 21 was analysed for a selected number of REE elements and Gold (and pathfinders) with the TREO calculation being a partial TREO using aqua regia as shown by the calculation in 'Verification of sampling and assaying' section of this JORC table.

Criteria	JORC Code explanation	Commentary																																				
		<ul style="list-style-type: none"> Western Portion of TG21 using Aqua Regia Digest: Analysed by Inductively Coupled Plasma Mass Spectrometry or Inductively Coupled Plasma Atomic Emission for Au, Ca, Fe, Mg, Mn, S, V, Ag, As, Bi, Cd, Co, Cr, Cs, Cu, Li, Mo, Ni, Pb, Pd, Pt, Sb, Se, Sn, Sr, Te, W, Zn, U, Th, Ce, La, Nd, Pr, Ga. For all 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 (blanks, standards, checks) at a ratio of greater than 1 QA/QC sample for every 10 samples. Both the Company and laboratory QA/QC samples indicate acceptable levels of accuracy and precision have been established. Duplicates were introduced into the sample stream by the Company. The laboratory completed repeat assays on various samples. Standard samples were introduced into the sample stream by the Company, while the laboratory completed standard assays also. 																																				
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"> An alternative company representative has checked the calculation of the quoted intersections. No twinned holes were drilled in the program. Assays were reported in Elemental form and converted to relevant oxide using James Cook University's Element-to-stoichiometric oxide conversion factors: <table border="1" data-bbox="1384 895 1899 1468"> <thead> <tr> <th>Element</th> <th>Oxide</th> <th>Factor</th> </tr> </thead> <tbody> <tr> <td>Cerium</td> <td>CeO₂</td> <td>1.2284</td> </tr> <tr> <td>Dysprosium</td> <td>Dy₂O₃</td> <td>1.1477</td> </tr> <tr> <td>Erbium</td> <td>Er₂O₃</td> <td>1.1435</td> </tr> <tr> <td>Europium</td> <td>Eu₂O₃</td> <td>1.1579</td> </tr> <tr> <td>Gadolinium</td> <td>Gd₂O₃</td> <td>1.1526</td> </tr> <tr> <td>Holmium</td> <td>Ho₂O₃</td> <td>1.1455</td> </tr> <tr> <td>Lanthanum</td> <td>La₂O₃</td> <td>1.1728</td> </tr> <tr> <td>Lutetium</td> <td>Lu₂O₃</td> <td>1.1371</td> </tr> <tr> <td>Neodymium</td> <td>Nd₂O₃</td> <td>1.1664</td> </tr> <tr> <td>Praseodymium</td> <td>Pr₆O₁₁</td> <td>1.2082</td> </tr> <tr> <td>Scandium</td> <td>Sc₂O₃</td> <td>1.5338</td> </tr> </tbody> </table>	Element	Oxide	Factor	Cerium	CeO ₂	1.2284	Dysprosium	Dy ₂ O ₃	1.1477	Erbium	Er ₂ O ₃	1.1435	Europium	Eu ₂ O ₃	1.1579	Gadolinium	Gd ₂ O ₃	1.1526	Holmium	Ho ₂ O ₃	1.1455	Lanthanum	La ₂ O ₃	1.1728	Lutetium	Lu ₂ O ₃	1.1371	Neodymium	Nd ₂ O ₃	1.1664	Praseodymium	Pr ₆ O ₁₁	1.2082	Scandium	Sc ₂ O ₃	1.5338
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		<table border="1"> <tr> <td>Samarium</td> <td>Sm₂O₃</td> <td>1.1596</td> </tr> <tr> <td>Terbium</td> <td>Tb₄O₇</td> <td>1.1762</td> </tr> <tr> <td>Thulium</td> <td>Tm₂O₃</td> <td>1.1421</td> </tr> <tr> <td>Yttrium</td> <td>Y₂O₃</td> <td>1.2699</td> </tr> <tr> <td>Ytterbium</td> <td>Yb₂O₃</td> <td>1.1387</td> </tr> </table> <ul style="list-style-type: none"> TREO is the sum of the oxides of the so-called heavy rare earths elements (HREO) and the so-called light rare earths elements (LREO). TREO = CeO₂ + Dy₂O₃ + Er₂O₃ + Eu₂O₃ + Gd₂O₃ + Ho₂O₃ + La₂O₃ + Lu₂O₃ + Nd₂O₃ + Pr₆O₁₁ + Sm₂O₃ + Tb₄O₇ + Tm₂O₃ + Y₂O₃ + Yb₂O₃ High Value Magnetic Rare Earths: MREO = Nd₂O₃ + Pr₆O₁₁ + Dy₂O₃ + Tb₄O₇ Partial TREO Aqua Regia where samples were completed for Aqua Regia and only a Partial TREO could be calculated: Partial TREO Aqua Regia = CeO₂ + La₂O₃ + Nd₂O₃ + Pr₆O₁₁ 	Samarium	Sm ₂ O ₃	1.1596	Terbium	Tb ₄ O ₇	1.1762	Thulium	Tm ₂ O ₃	1.1421	Yttrium	Y ₂ O ₃	1.2699	Ytterbium	Yb ₂ O ₃	1.1387
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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"> For exploration holes on Target 21, drillhole coordinate information was collected using a handheld GPS system with an autonomous accuracy of ± 3m utilising GDA 94 Zone 53. The area is generally of low topographic relief. Topographic control uses SRTM-derived Hydrological 1 Second Digital Elevation Model Version 1.0 															
Data spacing and distribution	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drill hole spacing is irregular as indicated in Appendix 2. 															
Orientation of data in relation to geological structure	<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"> Drill lines were new reconnaissance holes. Therefore, a sampling bias should not have occurred. 															

Criteria	JORC Code explanation	Commentary
Sample security	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> Company staff collected all laboratory samples. Samples submitted to the laboratory were transported and delivered by Company staff.
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> No audit of data has been completed to date.

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 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"> Commonwealth Hill (EL 6040) and Comet East (EL 6084) are 100% owned by Marmota Limited. These ELs are located approximately 80 km southwest of Coober Pedy in South Australia. There are no third-party agreements, non-government royalties, historical sites or environmental issues. Exploration is conducted within lands of the Antakirinja Matu-Yankunytjatjara Native Title Determination Area. The tenements are in good standing.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Previous exploration drill holes included: <ul style="list-style-type: none"> Aircore Drilling with 1-1.5m Diamond Tails by Afmeco Pty Ltd. (1981) following magnetic survey and regional interpretation to obtain fresh basement samples. Aircore drilling and Reverse Circulation by Minotaur Gold NL. focused on Gold, Base Metals (1997 to 1999). RAB Drilling by Redport Ltd. For Gold and Base Metals No previous REE exploration has occurred within these tenements
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> All drilling occurred within geology of the Christie Domain of the western Gawler Craton. The Christie Domain is largely underlain by late Archaean Mulgathing Complex which comprises meta-sedimentary successions interlayered with Banded Iron Formations (BIF), chert, carbonates and calc-silicates. In this program, Marmota targeted near surface ionic clay hosted REE mineralisation.
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"> The required information on drill holes is incorporated into Appendix 2 to the ASX Release.
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. 	<ul style="list-style-type: none"> Any intersections are calculated by simple averaging of 4m Composite Samples. Where aggregated intercepts are presented in the report, they may include shorter lengths of high-grade mineralisation; these shorter lengths are also tabulated.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> 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"> No metal equivalents are reported.
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 (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> Drill coverage is considered sufficient to establish approximate true widths, given the current geological understanding of mineralisation dip and strike. Mineralisation intersections are downhole lengths; exact true widths are unknown but are similar to the intersection lengths as the mineralised zones are approximately normal to hole inclinations.
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"> See Figures within ASX release
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"> A cut-off grade of 1000 ppm TREO was applied in reviewing assay results and deemed to be appropriate at this stage in reporting of exploration results. Reporting is considered balanced.
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 survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> See attached release Marmota is currently reviewing results received to date.

Drillhole collar summary: Target 21 – Manna from Heaven REE exploration holes

Tenement	Hole ID	Easting (MGA94 z53)	Northing (MGA94 z53)	RL	Dip	Azimuth (Mag)	EOH Depth (m)
EL 6040	23MR109	443,348	6,717,660	157	-90	0	26
EL 6040	23MR108	442,959	6,717,670	157	-90	0	12
EL 6040	23MR110	443,350	6,717,275	157	-90	0	30
EL 6040	23MR107	442,946	6,717,260	158	-90	0	16
EL 6040	23MR094	442,554	6,717,643	158	-90	0	9
EL 6040	23MR143	443,648	6,715,260	159	-90	0	30
EL 6040	23MR111	443,347	6,716,858	159	-90	0	21
EL 6040	23MR142	443,646	6,715,340	159	-90	0	30
EL 6040	23MR141	443,648	6,715,449	159	-90	0	30
EL 6040	23MR122	443,555	6,715,262	159	-90	0	25
EL 6040	23MR121	443,554	6,715,061	159	-90	0	19
EL 6040	23MR132	443,539	6,716,255	159	-90	0	24
EL 6040	23MR093	442,155	6,718,066	159	-90	0	30
EL 6040	23MR112	443,348	6,716,265	159	-90	0	26
EL 6040	23MR144	442,549	6,717,572	159	-90	0	13
EL 6040	23MR133	443,636	6,716,255	159	-90	0	37
EL 6040	23MR123	443,555	6,715,361	159	-90	0	36
EL 6040	23MR140	443,648	6,715,550	159	-90	0	34
EL 6040	23MR120	443,556	6,714,870	159	-90	0	32
EL 6040	23MR131	443,555	6,716,168	159	-90	0	33
EL 6040	23MR134	443,637	6,716,161	159	-90	0	23
EL 6040	23MR139	443,649	6,715,663	159	-90	0	33
EL 6040	23MR124	443,552	6,715,459	159	-90	0	36
EL 6040	23MR135	443,639	6,716,060	159	-90	0	27
EL 6040	23MR136	443,647	6,715,961	159	-90	0	33
EL 6040	23MR138	443,648	6,715,759	159	-90	0	18
EL 6040	23MR130	443,548	6,716,058	159	-90	0	29
EL 6040	23MR137	443,646	6,715,862	159	-90	0	33
EL 6040	23MR106	442,940	6,716,862	159	-90	0	25
EL 6040	23MR119	443,343	6,714,850	159	-90	0	33
EL 6040	23MR118	443,341	6,715,042	159	-90	0	27
EL 6040	23MR129	443,548	6,715,958	160	-90	0	37
EL 6040	23MR125	443,545	6,715,558	160	-90	0	37
EL 6040	23MR128	443,550	6,715,852	160	-90	0	30
EL 6040	23MR126	443,544	6,715,652	160	-90	0	37
EL 6040	23MR113	443,350	6,716,063	160	-90	0	32
EL 6040	23MR127	443,537	6,715,755	160	-90	0	30
EL 6040	23MR117	443,358	6,715,260	160	-90	0	33
EL 6040	23MR105	442,954	6,716,467	160	-90	0	20

EL 6040	23MR104	442,965	6,716,075	160	-90	0	21
EL 6040	23MR116	443,351	6,715,446	160	-90	0	42
EL 6040	23MR095	442,545	6,717,251	161	-90	0	32
EL 6040	23MR098	442,539	6,716,036	161	-90	0	24
EL 6040	23MR042	439,350	6,717,864	161	-90	0	30
EL 6040	23MR115	443,347	6,715,656	161	-90	0	27
EL 6040	23MR114	443,345	6,715,871	161	-90	0	24
EL 6040	23MR096	442,550	6,716,864	161	-90	0	11
EL 6040	23MR145	442,546	6,716,751	161	-90	0	15
EL 6040	23MR082	441,754	6,718,057	161	-90	0	27
EL 6040	23MR103	442,953	6,715,666	162	-90	0	30
EL 6040	23MR057	439,344	6,716,066	162	-90	0	19
EL 6084	23MR035	437,043	6,716,775	162	-90	0	53
EL 6084	23MR039	438,750	6,717,260	162	-90	0	30
EL 6084	23MR038	438,749	6,717,862	162	-90	0	21
EL 6040	23MR089	442,149	6,716,459	162	-90	0	21
EL 6040	23MR097	442,545	6,716,461	162	-90	0	27
EL 6084	23MR040	438,751	6,716,663	162	-90	0	40
EL 6040	23MR055	439,348	6,715,461	162	-90	0	13
EL 6084	23MR036	437,313	6,717,043	162	-90	0	23
EL 6040	23MR044	440,557	6,718,060	162	-90	0	30
EL 6040	23MR043	439,954	6,717,867	162	-90	0	30
EL 6040	23MR088	442,155	6,716,066	162	-90	0	23
EL 6040	23MR099	442,348	6,715,458	162	-90	0	36
EL 6040	23MR090	442,149	6,716,874	163	-90	0	27
EL 6040	23MR066	440,550	6,717,272	163	-90	0	15
EL 6040	23MR041	439,342	6,717,260	163	-90	0	21
EL 6040	23MR085	441,760	6,716,846	163	-90	0	16
EL 6040	23MR060	439,948	6,715,450	163	-90	0	30
EL 6040	23MR092	442,152	6,717,674	163	-90	0	22
EL 6040	23MR045	440,960	6,718,057	163	-90	0	33
EL 6040	23MR046	440,541	6,717,649	163	-90	0	30
EL 6040	23MR101	442,955	6,714,855	163	-90	0	42
EL 6040	23MR067	440,948	6,717,659	163	-90	0	18
EL 6040	23MR084	441,753	6,717,251	163	-90	0	23
EL 6040	23MR083	441,748	6,717,655	163	-90	0	30
EL 6040	23MR086	441,749	6,716,467	163	-90	0	12
EL 6040	23MR102	442,967	6,715,270	163	-90	0	31
EL 6040	23MR079	441,342	6,717,264	163	-90	0	27
EL 6040	23MR048	439,349	6,716,656	163	-90	0	38
EL 6040	23MR081	441,351	6,718,058	163	-90	0	27
EL 6040	23MR068	440,945	6,717,255	163	-90	0	36
EL 6040	23MR054	439,348	6,714,859	163	-90	0	31
EL 6040	23MR059	439,953	6,716,046	164	-90	0	22
EL 6040	23MR047	439,950	6,717,261	164	-90	0	23
EL 6040	23MR078	441,354	6,716,858	164	-90	0	21

EL 6040	23MR075	441,748	6,715,459	164	-90	0	45
EL 6040	23MR080	441,348	6,717,668	164	-90	0	45
EL 6084	23MR148	438,547	6,713,035	164	-90	0	19
EL 6040	23MR058	439,949	6,716,653	164	-90	0	34
EL 6040	23MR077	441,347	6,716,468	164	-90	0	24
EL 6040	23MR087	441,746	6,716,060	164	-90	0	22
EL 6040	23MR056	439,961	6,714,864	164	-90	0	24
EL 6084	23MR053	438,743	6,714,860	164	-90	0	22
EL 6040	23MR091	442,156	6,717,272	164	-90	0	24
EL 6040	23MR065	440,541	6,716,859	164	-90	0	18
EL 6040	23MR069	440,939	6,716,891	164	-90	0	16
EL 6040	23MR061	440,563	6,714,863	165	-90	0	22
EL 6084	23MR049	438,744	6,716,052	165	-90	0	39
EL 6040	23MR062	440,559	6,715,445	165	-90	0	36
EL 6040	23MR064	440,542	6,716,467	165	-90	0	26
EL 6040	23MR100	442,349	6,714,855	165	-90	0	24
EL 6040	23MR063	440,551	6,716,058	165	-90	0	42
EL 6040	23MR073	441,149	6,714,866	166	-90	0	32
EL 6040	23MR076	441,348	6,716,059	166	-90	0	24
EL 6040	23MR070	440,947	6,716,460	166	-90	0	6
EL 6040	23MR070a	440,904	6,716,427	166	-90	0	7
EL 6040	23MR072	441,149	6,715,455	166	-90	0	30
EL 6040	23MR146	440,932	6,716,356	166	-90	0	18
EL 6084	23MR052	438,411	6,715,176	167	-90	0	31
EL 6040	23MR074	441,756	6,714,862	167	-90	0	38
EL 6040	23MR147	440,940	6,715,975	167	-90	0	31
EL 6084	23MR050	438,832	6,715,559	167	-90	0	35
EL 6040	23MR071a	440,941	6,716,012	167	-90	0	4
EL 6040	23MR071	440,948	6,716,067	167	-90	0	6
EL 6084	23MR051	438,424	6,715,569	168	-90	0	23

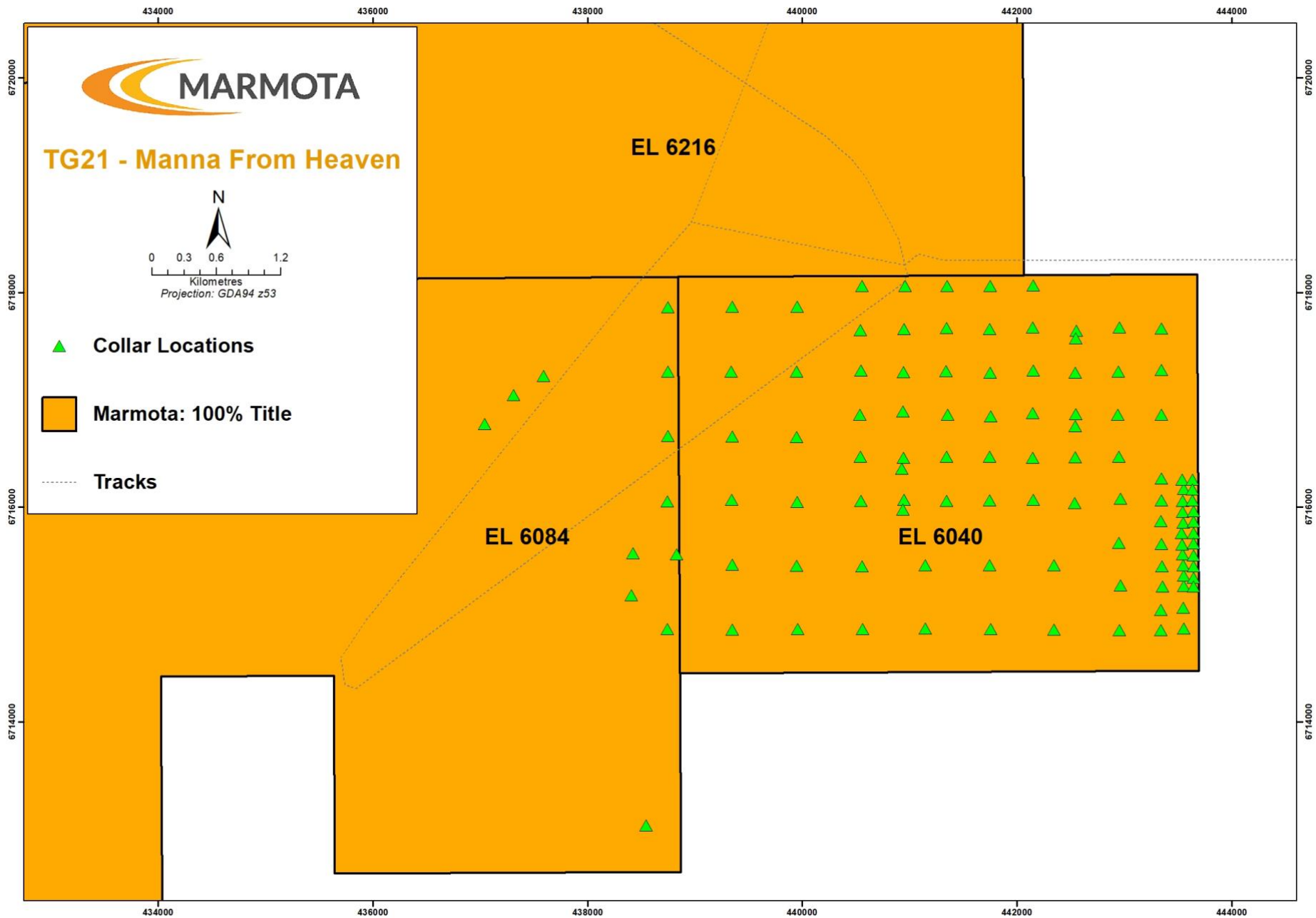


Figure 3: Target 21 REE drillhole collars ▲ Commonwealth Hill (EL 6040) and Comet East (EL 6084)