

Gold Mountain Limited  
(ASX: GMN)

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#### Projects

##### Lithium Projects (Brazil)

Cococi region  
Custodia  
Iguatu region  
Jacurici  
Juremal region  
Salinas region  
Salitre  
Serido Belt

##### Copper Projects (Brazil)

Ararenda region  
Sao Juliao region  
Iguatu region

##### REE Projects (Brazil)

Jequie

##### Copper Projects (PNG)

Wabag region  
Green River region

ASX Announcement/Press Release | 21 March 2024

Gold Mountain Limited (ASX:GMN)

## Down Under Project Update: GMN observes rocks prospective for REE

Gold Mountain Limited (ASX: GMN) ("Gold Mountain" or "the Company" or "GMN") is pleased to announce it has visually identified numerous occurrences of both leucogranites and of charnockite in five of its tenements and silicified and sheared rocks that are often associated with good REE values.

#### Highlights

- Charnockite and leucogranites identified as well as sheared and silicified rocks
- Stream sediment sampling and mapping progressing well
- Favourable weathering profiles present
- Satellite imagery interpretation is in progress at present

GMN is delighted to announce that it has identified widespread charnockite and leucogranites in the five tenements in which stream sediment sampling is progressing. Charnockite is widespread and leucogranites have been identified at three locations in three separate tenements.

Sheared and silicified rocks have also been identified. The sheared rock found is a type that is often associated with high REE values according to one of our personnel with over 4 years experience working on REE in the region. Channel sampling of those exposures has been undertaken and samples are being prepared for dispatch.



Figure 1. Boulders of charnockite and a broken face showing bluish grey charnockite under a weathered outer skin.

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Figure 2. Outcrop and broken face of undeformed leucogranite with cream coloured weathered outer skin.

The silicified rocks will also be sampled as they are also can be associated with high grade REE values.



Figure 3. Silicified charnockite and a quartz vein or layer in the silicified charnockite.



Sampling commenced in tenements that are within 1.4 km of high-grade mineralisation drilled and reported by Brazilian Rare Earths in their Prospectus (lodged ASX 13 November 2023). There is no guarantee that GMN will have similar levels of results to results achieved by BRE, however they do assist in forming a basis for planned and targeted exploration.

GMN has three teams operating on the Down Under Project REE tenements at present and progress on sampling and mapping is as planned.

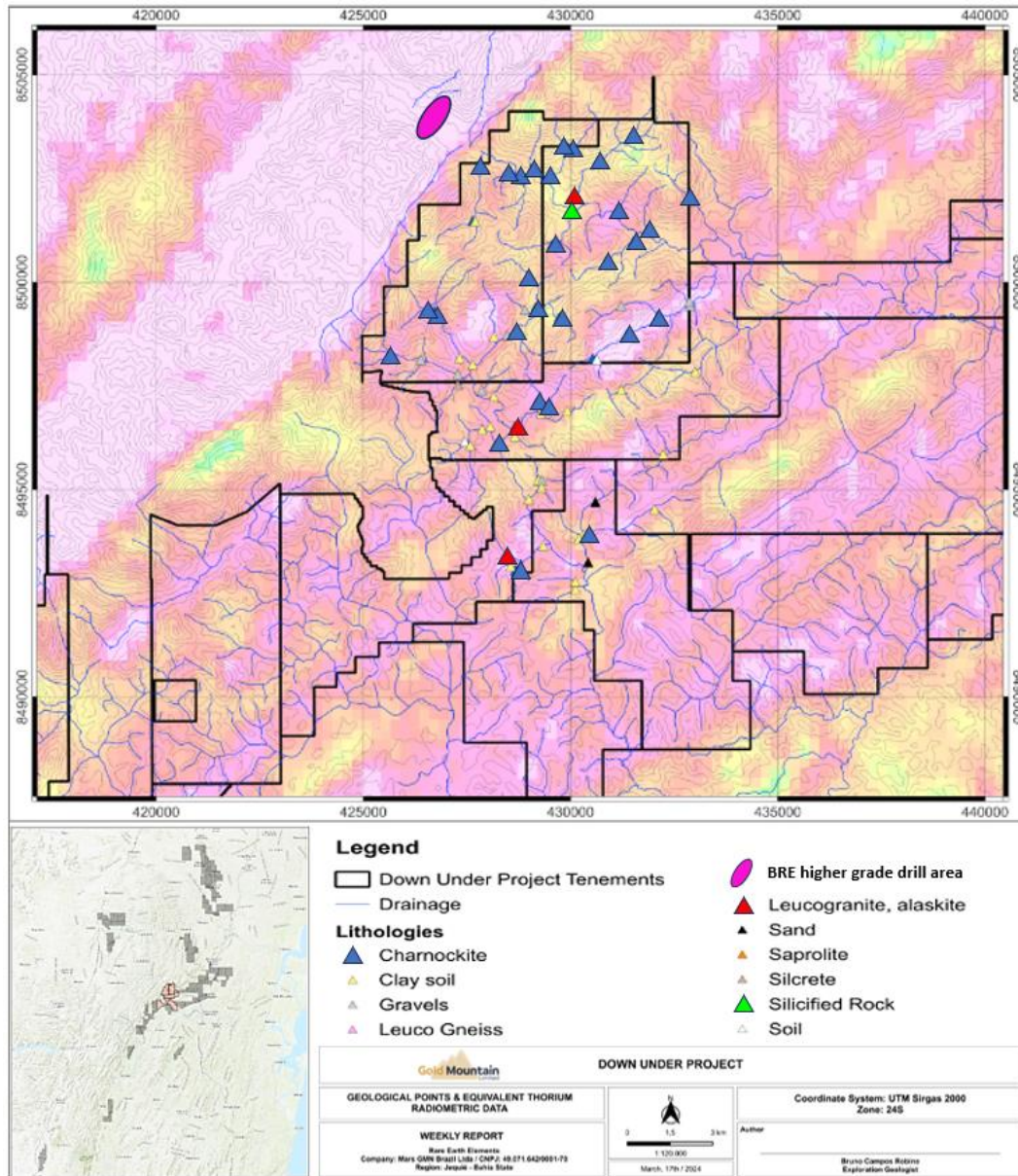


Figure 4. Mapping of charnockites, leucogranites and silicified rocks. BRE mineralisation reported in Prospectus lodged with ASX November 13, 2023.



The site of shearing that was channel sampled is shown in figure 5. Samples of the Mottled zone, Saprolite and Saprock have all been sampled.

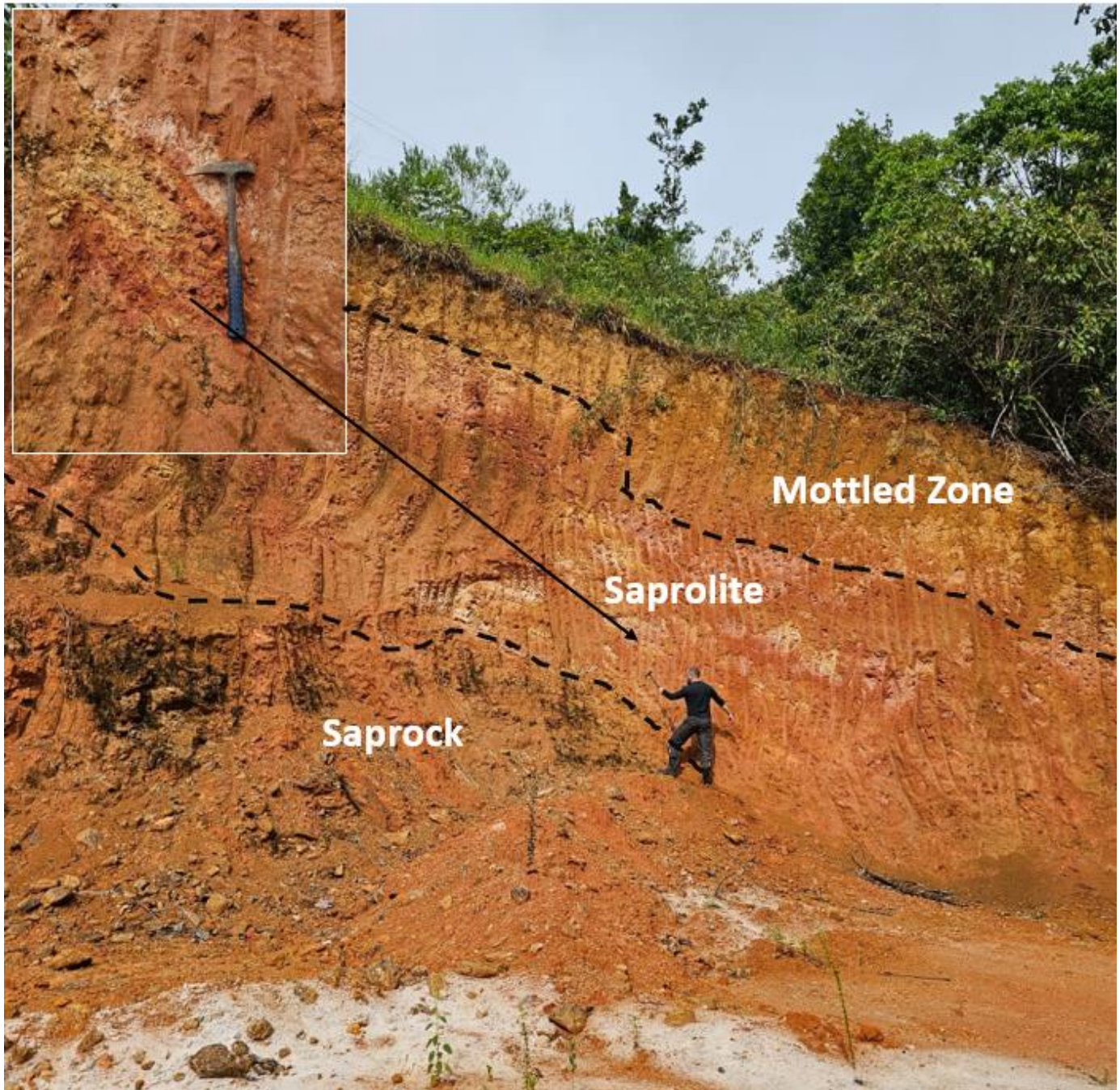


Figure 5. Weathered profile showing the mottled, saprolite and saprock zones. Channel sampling of each zone was undertaken. The inset shows a probable core stone.



Figure 6 shows the locations of the weathered profile sampled and the silicified charnockite which was also sampled.

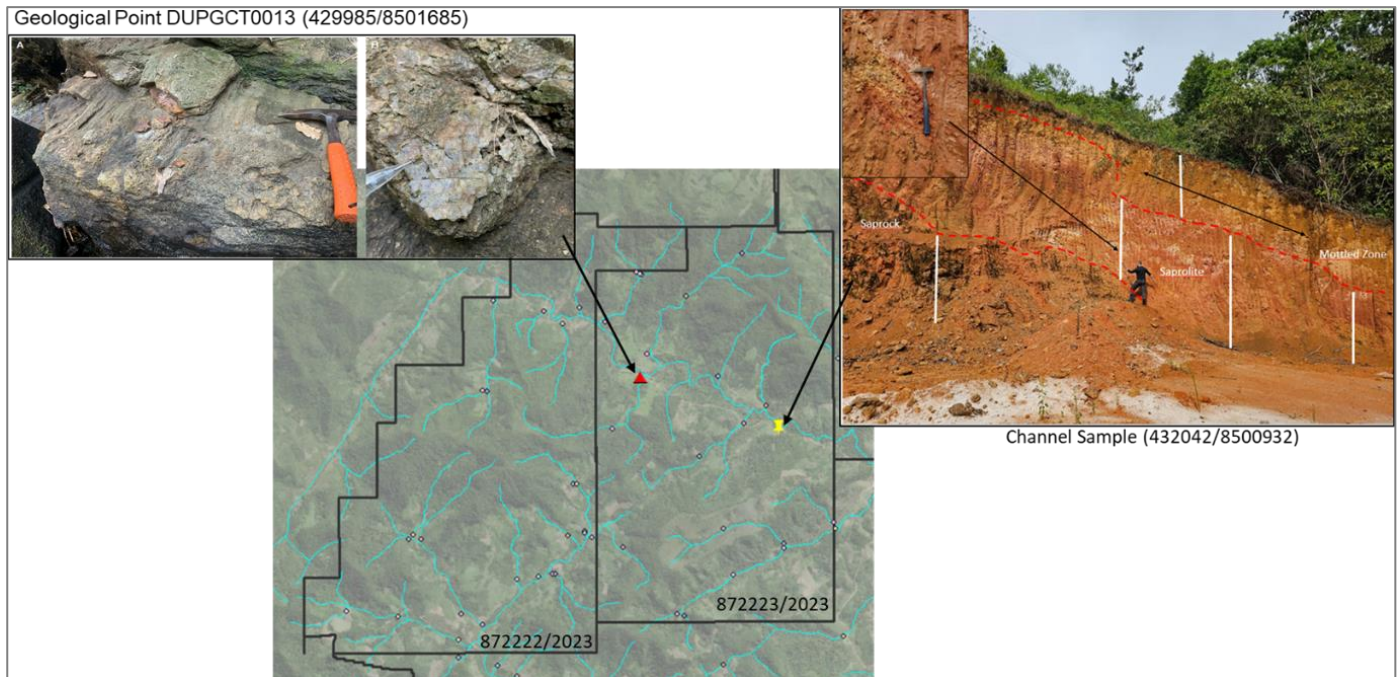


Figure 6. Location of the silicified charnockite and the channel sampled exposure with the initially planned sample locations in white.

Stream sediment sampling is progressing well with a total area in excess of 64 km<sup>2</sup> sampled by 20<sup>th</sup> March. Figure 7 shows sampling progress to date.

Drainage sampling has been divided into a high priority area and an unranked area that will be further refined following the results of the current multispectral study of the tenements. The multispectral study is currently in progress with results expected in approximately two weeks.

The multispectral study will then allow surfaces to be discriminated into lateritised and non lateritised so the focus for IAC deposits will then be clearly focussed. Potential for high grade hard rock deposits will still remain but in areas without laterite, it becomes a lower priority.

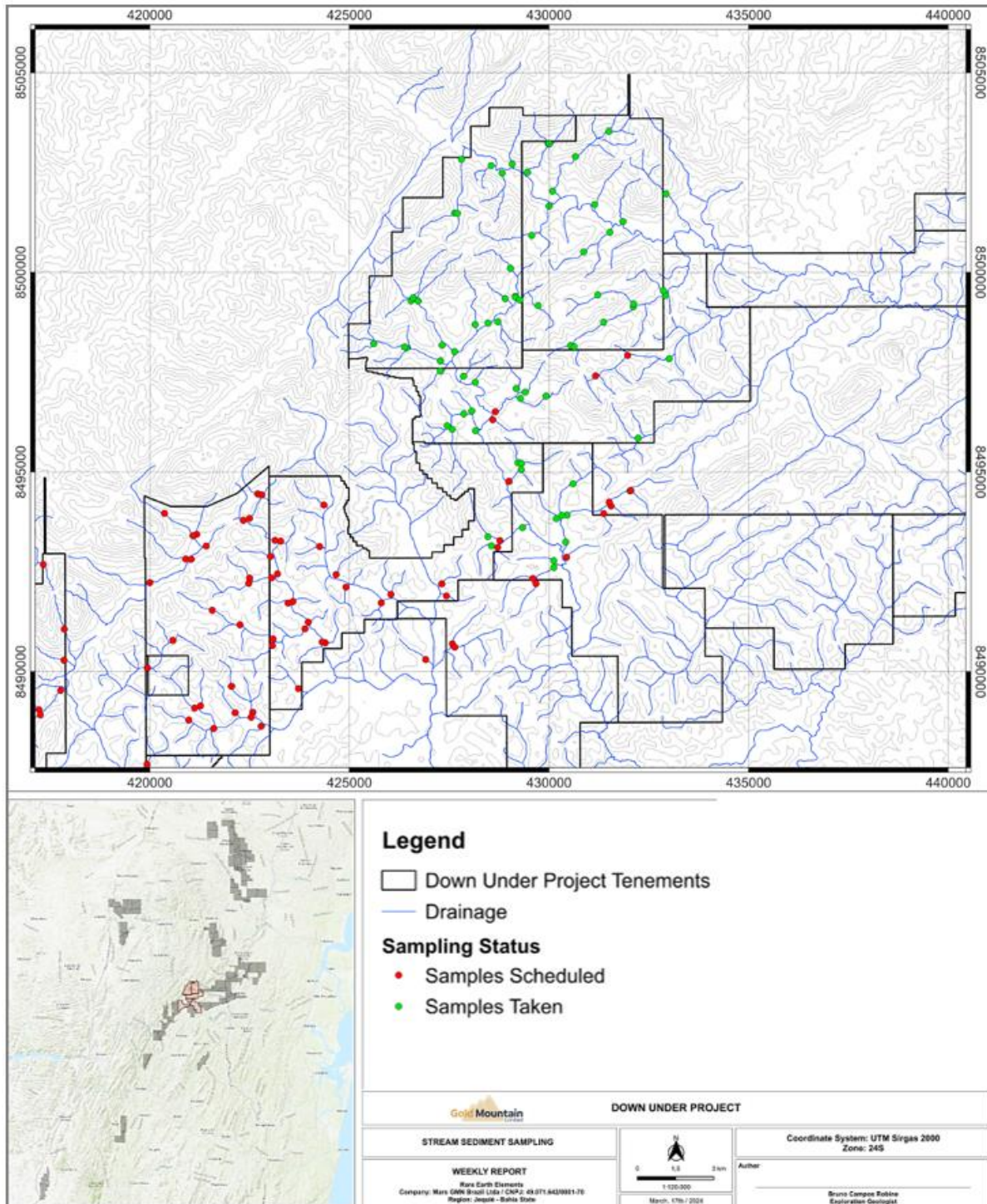


Figure 7. Drainage sampling over 64 km<sup>2</sup> of the highest priority tenement area.

Future program will consist of rapid stream sediment coverage of our tenements to focus on the most anomalous areas. Road cuts and other exposures of laterite will be sampled when favourable rock types are found and there is an anomalous thorium response.

Please note visual observations of the presence of rock or mineral types, and abundance should never be considered proxy or substitute for petrography and laboratory analysis where mineral types, concentration or grades are the factor of principal economic interest. Visual observations and estimates also provide no information regarding impurities or delirious physical properties relevant to valuations. At this stage it is too early for the Company to make a determinative view on the abundance of any of these minerals. These abundances will be determined more accurately through petrographic and chemical analysis. Observed presence of known REE bearing minerals does not necessarily equate to rare earth mineralisation. It is not possible to determine the concentration of mineralisation by visual estimation, and this will be determined by chemical analysis. The first batch of assays are expected by late April to early May.

- END -

**This ASX announcement has been authorised by the Board of Gold Mountain Limited**

**For further information, please contact:**

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### **About Us**

Gold Mountain (ASX:GMN) is a mineral explorer with projects based in Brazil and Papua New Guinea (PNG). These assets, which are highly prospective for a range of metals including rare earth elements, lithium, nickel, copper and gold, are now actively being explored.

Gold Mountain has gradually diversified its project portfolio. The Company has a 75% holding in a package of highly prospective rare earth element, copper and lithium licenses located within the eastern Brazilian lithium belt, spread over parts of the Borborema Province and São Francisco craton in north-eastern Brazil including in Salinas, Mines Gerais.

In PNG, Gold Mountain is exploring the Wabag Project, which covers approximately 950km<sup>2</sup> of highly prospective exploration ground in the Papuan Mobile belt. This project contains three targets, Mt Wipi, Monoyal and Sak Creek, all lying within a northwest-southeast striking structural corridor. The three prospects have significant potential to host a porphyry copper-gold-molybdenum system and, or a copper-gold skarn system. Gold Mountain's current focus is Mt Wipi, which has been subjected to several phases of exploration, and the potential to host a significant copper-gold deposit is high. The current secondary targets are, in order of priority, Monoyal and Sak Creek.

Gold Mountain has also applied for a 491 km<sup>2</sup> exploration licence at Green River where high grade Cu-Au and Pb-Zn float has been found and porphyry style mineralisation was identified by previous explorers. Intrusive float,



considered to be equivalent to the hosts of the majority of Cu and Au deposits in mainland PNG, was also previously identified.

### Competent Persons Statement

The information in this ASX release is based on information compiled by Peter Temby, a Competent Person who is a Member of Australian Institute of Geoscientists. No exploration results are included in this announcement apart from presenting mapping done as a part of stream sediment sampling. Peter Temby is an independent consultant working currently for Mars Mines Ltd. Peter Temby confirms there is no potential for a conflict of interest in acting as the Competent Person. Peter Temby has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity 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'. Peter Temby 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 JORC Code, 2012 Edition – Table 1

#### Section 1 - Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code Explanation	Commentary
<p><i>Sampling techniques</i></p>	<ul style="list-style-type: none"> <li>▪ <i>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.</i></li> <li>▪ <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>▪ <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>▪ <i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>Stream sediment sampling, rock and channel sampling has been carried out by Gold Mountain Ltd. No results have been received to date.</i></li> <li>▪ <i>Style of mineralisation sought is Ion Adsorbed Clay type REE mineralisation as well as lag deposits of REE mineralisation derived from hard rock sources in the weathering profile.</i></li> <li>▪ <i>High grade hard rock deposits of REE hosted by mafic to ultramafic host rocks are also a style of mineralisation being sought.</i></li> </ul>



Criteria	JORC Code Explanation	Commentary
	<p><i>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.</i></p>	
<p><i>Drilling techniques</i></p>	<ul style="list-style-type: none"> <li>▪ <i>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).</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>No drilling undertaken</i></li> </ul>
<p><i>Drill sample recovery</i></p>	<ul style="list-style-type: none"> <li>▪ <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>▪ <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>▪ <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></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>No drilling undertaken</i></li> </ul>
<p><i>Logging</i></p>	<ul style="list-style-type: none"> <li>▪ <i>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.</i></li> <li>▪ <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>No drilling undertaken</i></li> </ul>

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li>▪ <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	
<p><i>Sub-sampling techniques and sample preparation</i></p>	<ul style="list-style-type: none"> <li>▪ <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>▪ <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>▪ <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>▪ <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>▪ <i>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.</i></li> <li>▪ <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>No drilling undertaken</i></li> </ul>
<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> <li>▪ <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>▪ <i>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.</i></li> <li>▪ <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>No analyses have been received.</i></li> <li>▪ <i>Regional airborne radiometrics available via the Brazilian ANM have been used as a background image on regional mapping work.</i></li> <li>▪ <i>No spectrometer has been used in this initial work but will be used in the near future.</i></li> </ul>



Criteria	JORC Code Explanation	Commentary
	<i>levels of accuracy (ie lack of bias) and precision have been established.</i>	
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>▪ <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>▪ <i>The use of twinned holes.</i></li> <li>▪ <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>▪ <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>No samples analysed</i></li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>▪ <i>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.</i></li> <li>▪ <i>Specification of the grid system used.</i></li> <li>▪ <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>Data points are measured by hand held Garmin 65 Multiband instruments with accuracy to 3 metres</i></li> <li>▪ <i>Grid system used is SIRGAS 2000 which is equivalent to WGS84 for hand held GPS instruments.</i></li> <li>▪ <i>Elevations are measured by hand held GPS.</i></li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>▪ <i>Data spacing for reporting of Exploration Results.</i></li> <li>▪ <i>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.</i></li> <li>▪ <i>Whether sample compositing has been applied.</i></li> </ul>	<i>No sampling undertaken</i>

Criteria	JORC Code Explanation	Commentary
<p><i>Orientation of data in relation to geological structure</i></p>	<ul style="list-style-type: none"> <li>▪ <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>▪ <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>No drilling undertaken.</i></li> </ul>
<p><i>Sample security</i></p>	<ul style="list-style-type: none"> <li>▪ <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>Samples taken are kept secure at the Office /accommodation used by the team at Jequie in the tenement region. Samples are then dispatched by reliable courier services in sealed boxes to ALS in Belo Horizonte for analysis.</i></li> </ul>
<p><i>Audits or reviews</i></p>	<ul style="list-style-type: none"> <li>▪ <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>Reviews of sampling techniques have been undertaken previously in Australia, Botswana and Brazil for different commodities. Orientation samples have been taken to ensure the techniques remain valid for REE.</i></li> </ul>



## 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"> <li>▪ <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></li> <li>▪ <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></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>GMN holds 57 granted tenements and 5 tenement applications in the Down Under Project. GMN has 100% ownership of the EL applications.</i></li> <li>▪ <i>There are no known serious impediments to obtaining a licence to operate in the area. Parts of the tenements overlap a Conservation area APA Caminhos Ecologicos da Boa Esperanca however there is no current restriction on the exercise of exploration or mining activities in this area. An APA is a form of conservation unit for sustainable use of part of its natural resources compatible with nature conservation. A management plan for this APA has not yet been made.</i></li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>▪ <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>No known exploration for REE has been carried out on the exploration licence application areas. No known exploration for other minerals is known over the licence areas</i></li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>▪ <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>The mineralisation in the region consists of Ionic adsorbed clay and residual heavy mineral concentrations of REE elements associated with deeply weathered profiles over Middle Archean ortho and para granulite facies rocks and Late Archean high K ferroan A type granitoid sequences. The Archean sequences were metamorphosed to granulite facies in the Transamazonian orogeny and then intruded by Paleoproterozoic post tectonic charnockitic granites. Concentrations of REE minerals are present in the Later Archean A type granitoids and in small mafic intrusive bodies. Mineralisation is predominantly Ionic Adsorbed Clay type. Post tectonic intrusive bodies are known to carry REE mineralisation</i></li> </ul>

Criteria	JORC Code Explanation	Commentary
		<p><i>so the age of mineralisation and the host rocks may be very different.</i></p>
<p><i>Drill hole Information</i></p>	<ul style="list-style-type: none"> <li>▪ <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> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>▪ <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></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>No drilling undertaken</i></li> </ul>
<p><i>Data aggregation methods</i></p>	<ul style="list-style-type: none"> <li>▪ <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></li> <li>▪ <i>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.</i></li> <li>▪ <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>No drilling or sample aggregation undertaken, no cut off grades applied</i></li> </ul>



Criteria	JORC Code Explanation	Commentary
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>▪ <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>▪ <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>▪ <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></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>No drilling undertaken</i></li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>▪ <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></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>No drilling undertaken; plan views of stream sediment sample locations are provided</i></li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>▪ <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></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>No sampling results reported</i></li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>▪ <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></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>Geological observations are reported to put the work carried out into context</i></li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>▪ <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>Additional work is regional stream sediment sampling, radiometric mapping, channel sampling and grid soil auger sampling and</i></li> </ul>

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"><li>▪ <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></li></ul>	<p><i>mapping of outcrop to define areas for resource drilling.</i></p> <ul style="list-style-type: none"><li>▪ .</li></ul>