TARUGA

ANSTO METALLURGICAL
EXTRACTIONS UP TO 70% OF MAGNET RARE EARTHS

HIGHLIGHTS

- The first batch of metallurgical samples from Morgans Creek clay-hosted REE prospect have been evaluated at ANSTO Minerals (ANSTO)
- Initial results show that extractions of up to **70% of the Magnet Rare Earth Oxides (MREO)**[1] (**Nd + Pr + Dy + Tb**), **60% of the Heavy Rare Earths Oxides (HREO)**[2] and 59% of the Total Rare Earth Oxides (TREO)[3] were achieved in a sulphuric acid leach[4]
- Samples were intentionally selected to represent variability across the prospect, with best extractions coming from the target unit, the Yednalue Formation
- **Average 52% of Magnet Rare Earth Oxides extraction in Yednalue Formation**, with promising extractions in the upper, middle and lower portions of the unit suggesting metallurgical continuity, and that **REE mineralisation is easily leachable** with moderate acid addition:
  - **58% MREO extraction in the upper portion** of the unit between 3-4 metres depth
  - **70% MREO extraction in the middle portion** of the unit between 17-18m depth
  - **59% MREO extraction in the lower portion** of the unit between 35-36m depth
- The results provide confidence to proceed with further optimisation testwork and drilling at Morgans Creek in Q1 2023
- Highly experienced rare earth specialist, Mr. Gavin Beer, has been retained by Taruga to assist with ongoing flowsheet optimisation

CEO Thomas Line commented: "*These initial metallurgical results have confirmed the presence of easily leachable rare earths in the target unit at Morgans Creek, and provided us with confidence to continue with further optimisation and drilling in Q1 2023. We know that rare earth deposits hold considerable variation in mineralogy, and as such, each potential deposit requires unique consideration when it comes to commercial viability. TAR continues to pursue excellence in its field by conducting open and transparent metallurgical testwork to investigate the value of this discovery for our shareholders. Morgans Creek holds a unique assemblage of highly valuable magnet and heavy rare earths, and thus far, our partnership with ANSTO continues to affirm our confidence in the potential development of a commercially viable process flowsheet for these materials. We are very pleased to be working with Mr. Gavin Beer, who is a highly regarded and experienced metallurgist with over 15 years global experience working on rare earth processing.*

Figure 1*. Taruga CEO Thomas Line visiting the ANSTO Minerals Division REE-clay leaching facility.*

[1]Magnet Rare Earth Elements (MREE) (Dy + Tb + Nd + Pr)

[2]Heavy rare earth elements (HREE) (Eu, Gd + Tb + Dy + Ho + Er + Tm + Yb + Lu + Y)

[3]Total Rare Earth Elements (TREE) 15 rare earth elements including Y (Ce, La, Lu, Nd, Pr, Sm, Dy, Er, Eu, Gd, Ho, Tb, Tm, Yb, Y)

[4]50g/L sulphuric acid at atmospheric pressure and 50 degrees Celsius.

***Table 1**. Initial metallurgical leach results from Morgans Creek (50g/L sulphuric acid leach).*

Yednalue Fm -Hydrothermal Hill				
Sample ID	33265	29926	33249	21413
Depth (m)	18	36	4	3
TRE+Y (ppm)	1025	2137	5739	1023
TRE-Ce (ppm)	997	1606	5662	902
Element	**Extraction %**	**Extraction %**	**Extraction %**	**Extraction %**
La	57	34	51	15
Ce	30	4	46	11
Pr	70	52	58	20
Nd	73	60	62	21
Sm	71	63	56	21
Eu	71	67	53	22
Gd	63	64	46	19
Tb	64	64	45	20
Dy	55	57	39	16
Ho	52	52	35	17
Er	48	45	31	14
Tm	48	41	32	12
Yb	45	36	30	12
Lu	43	36	26	13
Y	45	47	29	14
LREO (%)	66	35	59	17
HREO (%)	60	60	44	17
MREO (%)	70	59	58	20
TOTAL REE (+Y) (%)	59	42	46	16

Summary

Taruga Minerals Limited (ASX: **TAR**, **Taruga** or the **Company**) is pleased to announce the initial metallurgical test results from acid leach trials conducted by leading rare earth research and testwork facility ANSTO Minerals (ANSTO). The results have confirmed the presence of easily leachable REEs within the deposit and shown that extractions of up to 70% of the magnet REE oxides (MREO) and 60% of the heavy REE oxides (HREO) is achievable with moderate sulphuric acid addition.

Further optimisation work will now be undertaken under the guidance of ANSTO, and Gavin Beer (consultant to the Company). This work will focus on optimising the flowsheet in alignment with commercially viable reagent and processing costs, and will include variations in leaching conditions such as reagent concentration and leach times, and beneficiation. Beneficiation work will include processes such as sizing, ore-sorting and desliming.

All priority drill samples from the 2022 RAB drilling program have been returned and reported. Additional samples were submitted in order to complete the geological database and confirm the technical teams sample selection methodology was sufficient in identifying mineralisation. The technical team now have a high level of confidence that the existing sampling methodology is capturing all significant mineralisation. This allows accurate identification of mineralisation during drilling to support efficiency and cost saving.

Metallurgical Test Results

Summary

Taruga Minerals has discovered clay-hosted rare earths (REEs) at Morgans Creek within the Mt Craig project in South Australia. Features of the prospect are low levels of cerium, uranium and thorium, and a high proportion of the heavy and magnet rare earths. "Weak" acid leach test work conducted in early 2022 indicated that the REE mineralisation has a very high proportion of readily soluble REEs, and as such may be amenable to a low-cost simplistic metallurgical flow sheet.

Over the last few years, there have been numerous reports of elevated concentrations of REEs associated with clays (clay-hosted REE deposits), but in many cases the deposits have not proven to be classic ionic clay deposits, and a lower pH has been found to be necessary to dissolve the REEs. Under these circumstances, the economics of the process depends on REE extraction, acid consumption and the concentrations of dissolved gangue elements. An initial indication of potential economic viability of any such deposit can be obtained by leaching over a range of acidities to determine RE extraction versus gangue dissolution.

The individual REE extractions were calculated using the measured head and the final leach liquor and residue solids compositions (for final sample only).

Gangue dissolution was recorded and will be reported once the calculations become available from ANSTO.

Acid Leach Response

Acid leach tests have been undertaken at various acid strengths, temperatures and time with best results achieved under the following conditions:

- 50 g/L leach (sulphuric acid)
- 50 °C;
- 6 hour duration

Results

Table 1 shows the 50g/L sulphuric acid leach results from the target Yednalue Formation. The results show extractions of up to 70% of the MREO, 60% of the HREO and 59% of the TREO is possible under these conditions, indicating the REE mineralisation is dominated by easily leachable REE phases. Low-value cerium and lanthanum extractions are low compared to MREO and HREO extraction, which is desirable for production of a higher purity MREO.

The combined results show that significant increase in extractions is possible with the addition of low-moderate amounts of sulphuric acid. Further optimisation work will use these results as a baseline and focus on commercial development of a REE concentrate using standard techniques.

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REE Market Outlook

Morgans Creek represents a rare source of magnet and heavy rare earths, having a very high proportion of both (34% and 35% respectively). Sources of heavy rare earths are becoming increasingly rare and commercially important due to the depleting unsustainable primary sources in China. Chinese REE production over the last 5 years (**Figure 2**) shows that total REE production has increased by over 200%, however China has been unable to increase HREE production over the period. This indicates that sources of heavy REEs are depleting and as a result China are now processing more light REE dominant resources.

Production Quotas	LREE (Tonnes)	HREE (Tonnes)	Total (Tonnes)
2022	190,850	19,150	210,000
2021	148,850	19,150	168,000
2020	120,850	19,150	140,000
2019	112,850	19,150	132,000
2018	100,850	19,150	120,000
2017	87,150	17,850	105,000
2016	87,150	17,850	105,000
2015	87,150	17,850	105,000
2014	87,150	17,850	105,000
2013	75,950	17,850	93,800
CAGR	**9.7%**	**0.7%**	**8.4%**

Figure 2. *Chinese REE production data over the past 10 years, broken up into light REEs v.s. heavy REEs. Source: Ministry of Land Resources (MLR) of China (1)As of 2021; Includes Myanmar (2)Per United States Geological Survey*

Exploration Plan

- Mapping of the Yednalue formation (complete)
- Systematic RAB drill testing over the shallow weathered layers of Yednalue formation strike extensions from Hydrothermal Hill (Phase 1 complete)
- Review of drill results against radiometrics and magnetics from the recent airborne geophysics survey for regional targeting over 34km of project strike (underway)
- Phase 1 acid leach metallurgy with ANSTO (complete)
- Phase 2 acid leach variation metallurgy with ANSTO and beneficiation trials (Q1 2023)
- Phase 2 Aircore/RC drilling (Q1 2023):
    - Drill to base of mineralisation
    - Infill and extensional drilling of Yednalue formation and peripheral units
- Reconnaissance exploration for additional Yednalue formation and its REE mineralised analogues at Morgans Creek and across the 34km of prospective strike at the Mt Craig Project (underway)
- Investigate and target REE source rock
- Phase 3 Aircore/RC drilling Morgans Creek (Q2-Q3 2023)
- Drill testing new regional REE targets at Mt Craig (Q2-Q3 2023)
- Report maiden JORC Resource at Morgans Creek (Q4 2023)

Morgans Creek Basket Summary

Figures 3 to 6 show the key distribution metrics of the REE basket at Morgans Creek, for all samples over 250ppm TREO. These key metrics highlight the unusually high proportion of heavy REEs and magnet REEs are present at Morgans Creek. Morgans Creek also has the unique quality of being ultra-low cerium.

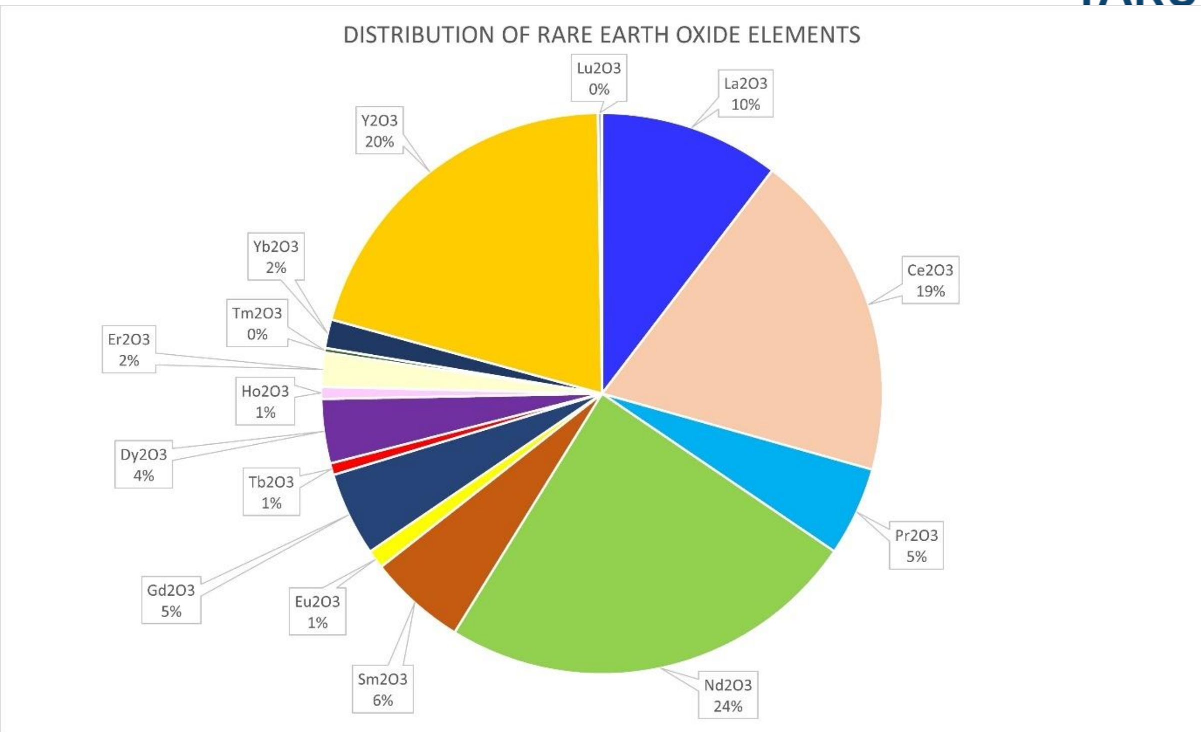

***Figure 3**. Pie chart showing percentages of individual rare earth element oxides for all 2022 RAB drilling over 250ppm TREO.*

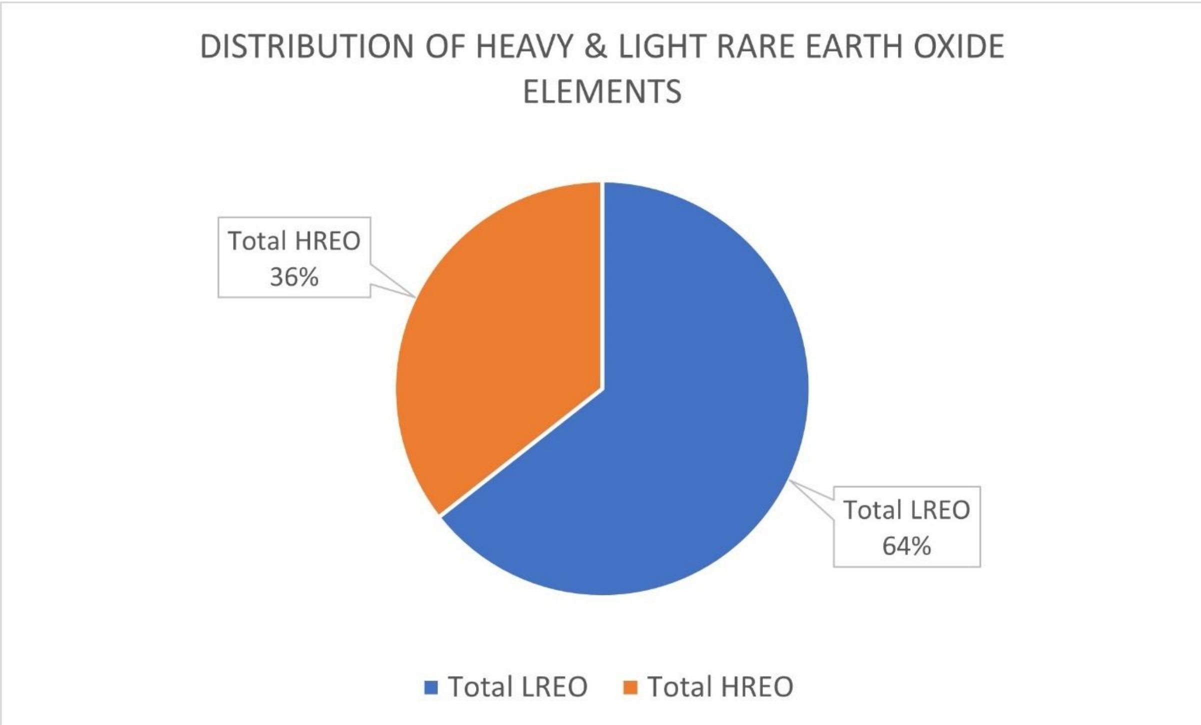

***Figure 4**. Pie chart showing percentages of heavy and light rare earth element oxides for all 2022 RAB drilling over 250ppm TREO.*

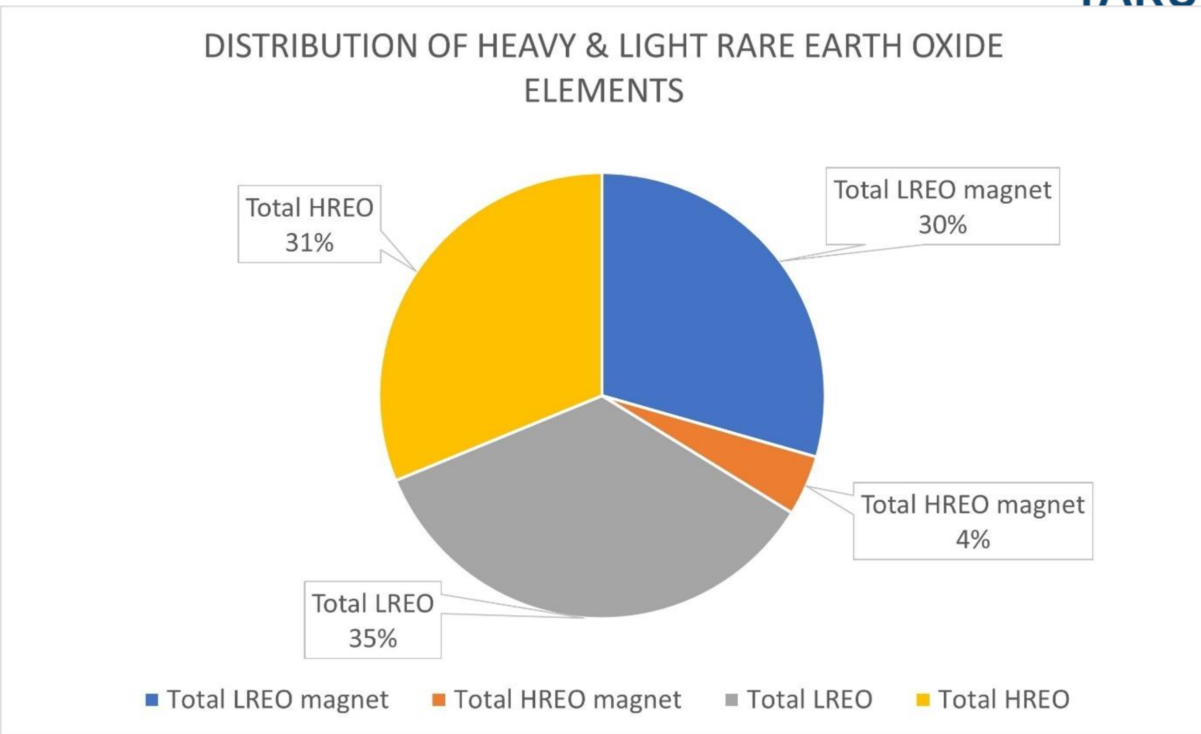

***Figure 5**. Pie chart showing percentages of heavy and light rare earth element oxides, along with the percentages of heavy and light magnet rare earth element oxides for all 2022 RAB drilling over 250ppm TREO.*

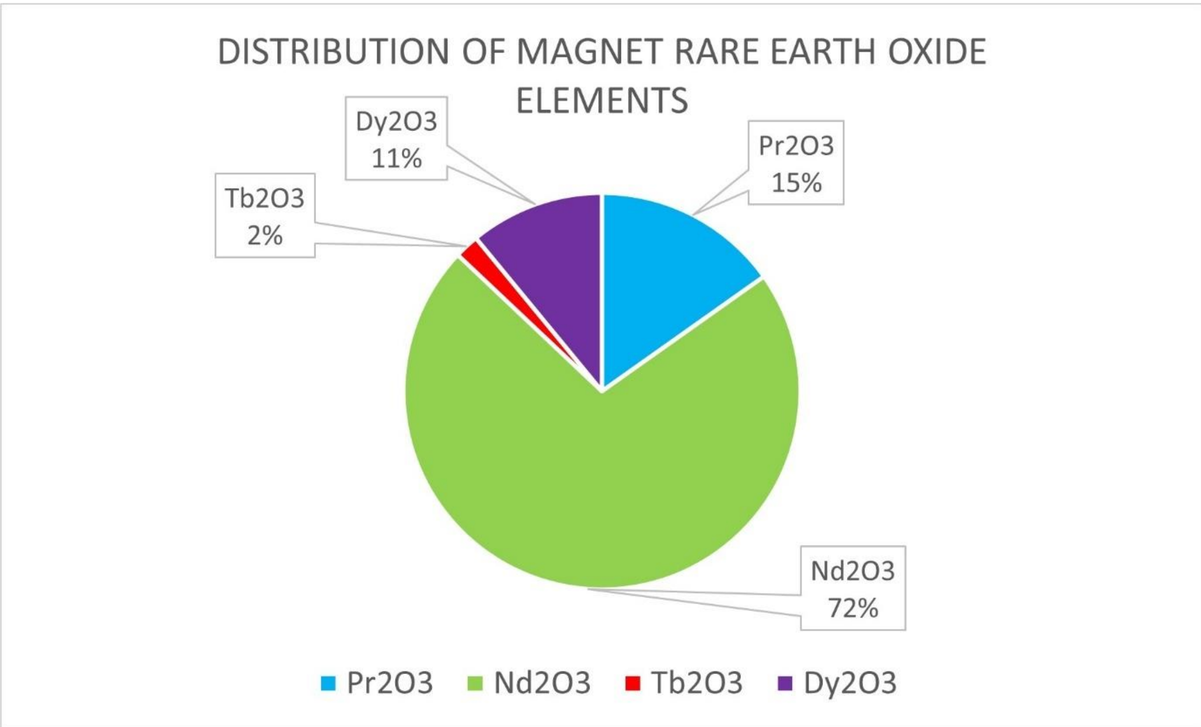

***Figure 6**. Pie chart showing percentages of each of the four-magnet rare earth element oxides (Nd + Pr + Dy + Tb) for all 2022 RAB drilling over 250ppm TREO.*

Significant intercepts from 2022 RAB drilling (previously reported)

MCRB044

- **43m @ 1,687ppm TREO from surface to EOH** (40% MREO; 39% HREO; 57% CREO) including:
  - **5m @ 3,343ppm TREO** from 12m, with **1m @ 9,082ppm** TREO from 13m (44% MREO; 45% HREO; 64% CREO)
  - **14m @ 2,979ppm TREO** from 29m to EOH, with **2m @ 7,052ppm TREO** from 29m (42% MREO; 45% HREO; 63% CREO)

MCRB045

- **40m @ 1,582ppm TREO from surface to EOH** (41% MREO; 44% HREO; 62% CREO) including:
  - **17m @ 2,636 TREO** from 11m, including:
    - **5m @ 4,930ppm TREO** from 19m with **1m @ 6,234ppm TREO** from 21m

MCRB053

- **31m @ 1,444ppm TREO from surface to EOH** (44% MREO; 33% HREO; 55% CREO) including:
  - **2m @ 2,656ppm TREO from 16m,** and
  - **6m @ 3,903ppm TREO** from 22m with **2m @ 5,760ppm TREO from 24m**

MCRB040

- **55m @ 678ppm TREO from surface to EOH** (23% MREO;) including:
  - **14m @ 1,230ppm TREO from 41m to EOH** with **4m @ 2,190ppm TREO**

MCRB052

- **30m @ 650ppm TREO from surface** (37% MREO), including
  - **4m @ 1,916ppm TREO from 16m** (47% MREO)

MCRB057

- **45m @ 720ppm TREO from surface** (32% MREO; 29% HREO; 43% CREO), including
  - **5m @ 1,855ppm TREO from 17m** (36% MREO; 30% HREO; 48% CREO

MCRB033

- **24m @ 886ppm TREO from surface** (35% MREO; 42% HREO; 56% CREO)
  - Includes **5m @ 2,378ppm TREO from 2m**, with **1m @ 6,068ppm TREO from 3m**, and
- **3m @ 1,101ppm TREO** from 17m

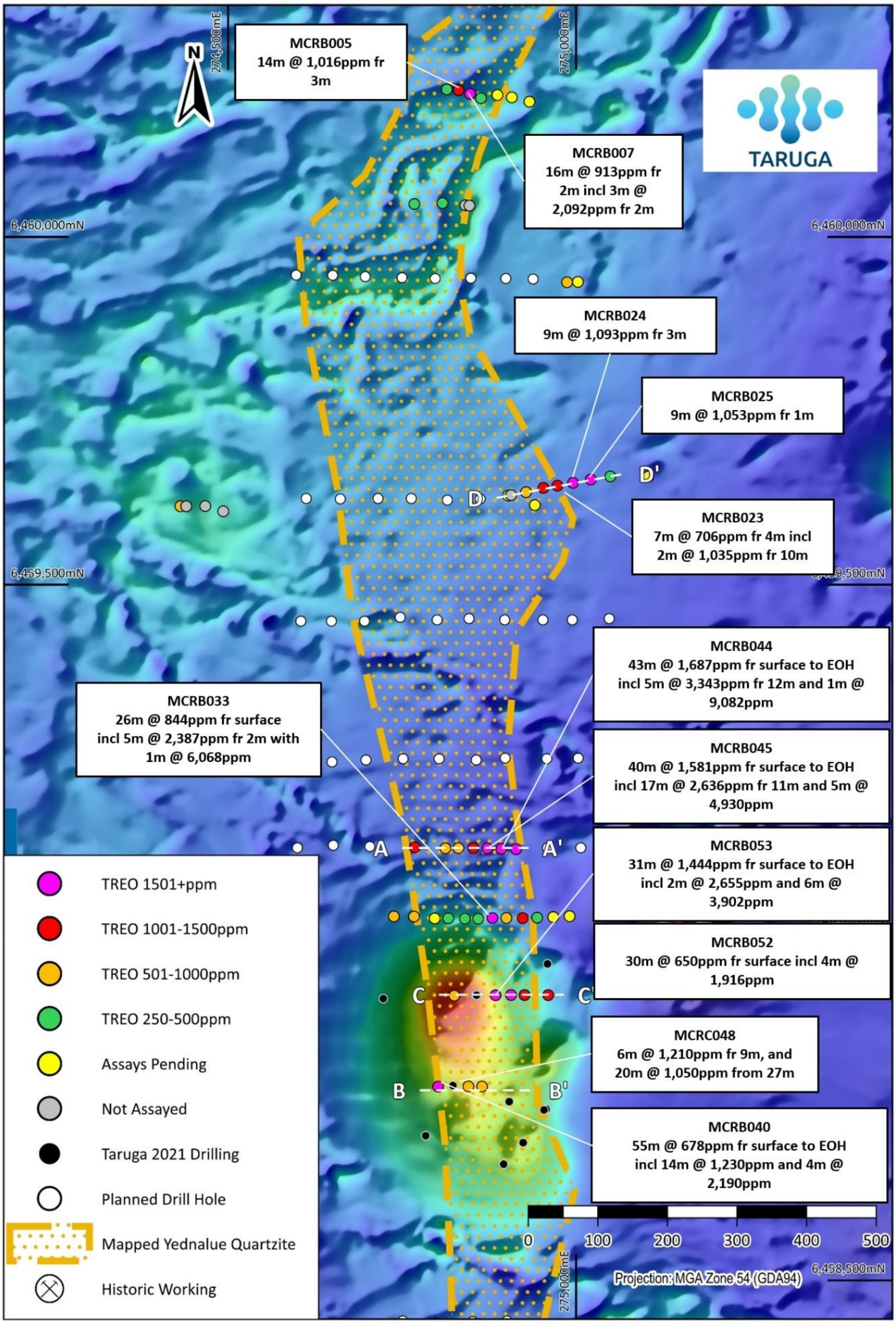

***Figure 7**. Morgans Creek RAB drilling showing significant intercepts and max TREO grades. Also, lab assay status, the mapped Yednalue quartzite unit, previous Taruga 2021 drilling, and high-resolution ground magnetics TMI image.*

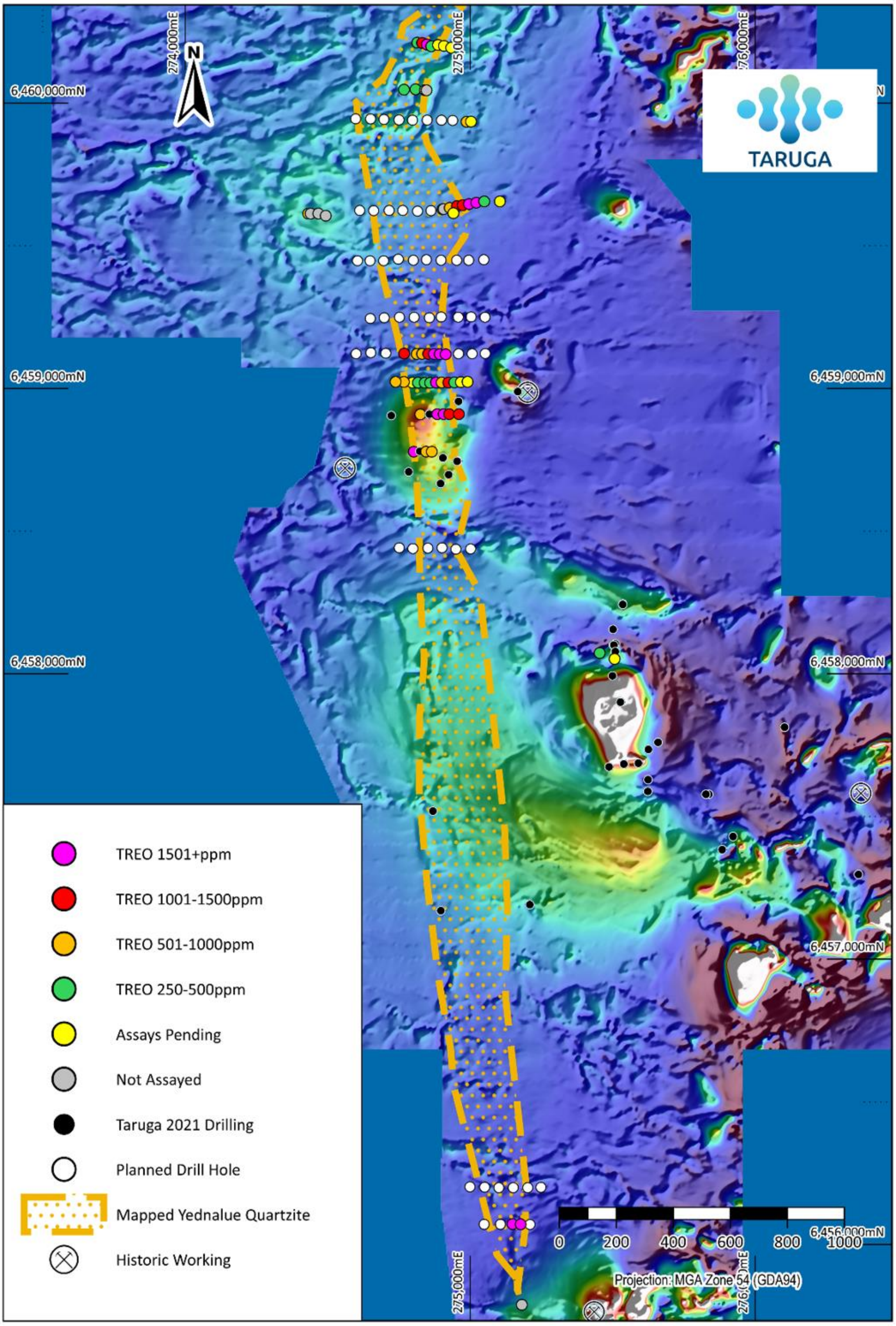

***Figure 8**. Regional Morgans Creek RAB drilling showing significant intercepts and max TREO grades. Also, lab assay status, the mapped Yednalue quartzite unit, previous Taruga 2021 drilling, and high-resolution ground magnetics TMI image.*

Figure 9. Examples of clays intercepted in the deep weathering profile in multiple RAB drillholes during the recent drilling at Morgans Creek.

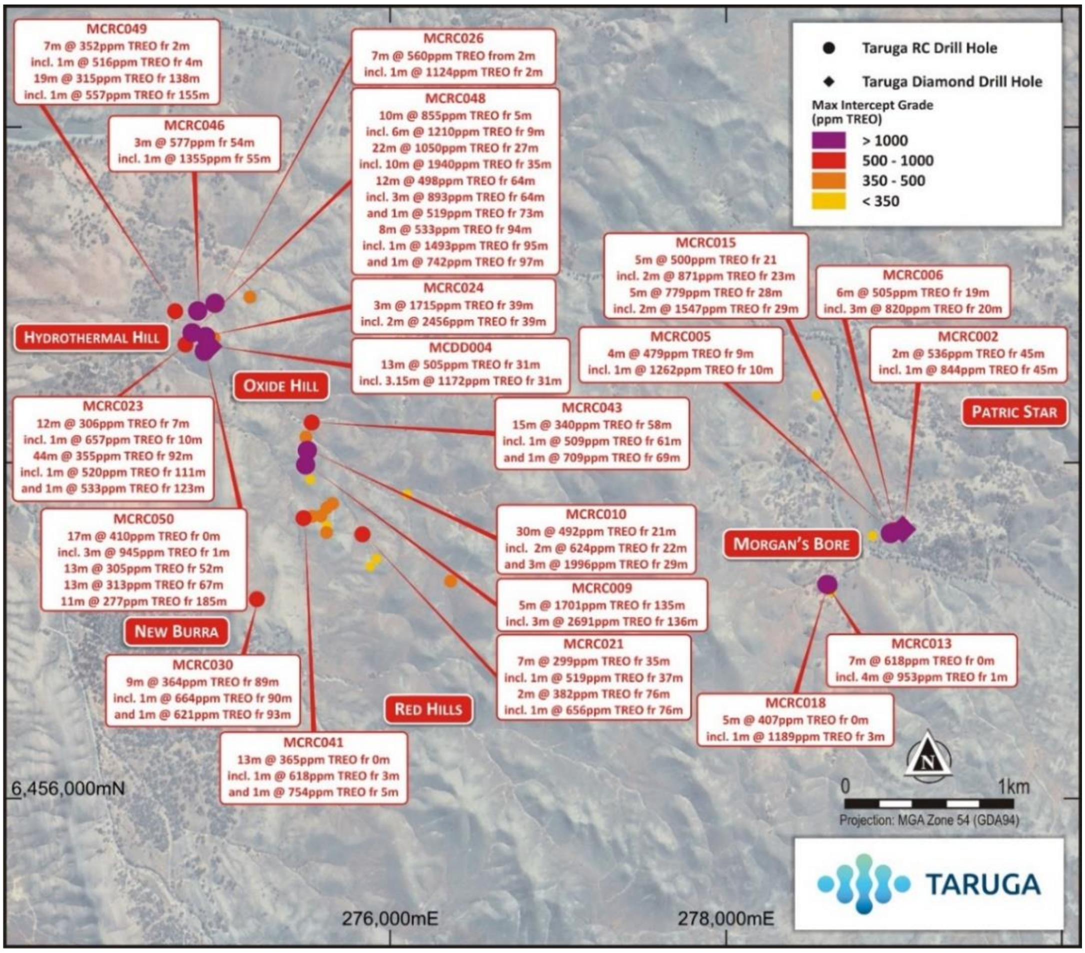

Figure 10. REE Drill results from Taruga's 2021 drilling at Morgans Creek with collars colour coded by maximum TREO grade (purple represents >1,000ppm TREO). Note this excludes current 2022 RAB drilling results.

This announcement was approved by the Board of Taruga Minerals Limited.

For more information contact:

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CEO

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Competent person's statement

The information in this report that relates to exploration results is based on, and fairly represents information and supporting documentation prepared by Mr Brent Laws, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Laws is the Exploration Manager of Taruga Minerals Limited. Mr Laws 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 Resource and Ore Reserves". Mr Laws consents to the inclusion in this report of the matters based on their information in the form and context in which it appears.

The information in this announcement that relates to metallurgical testwork is based on, and fairly represents, information and supporting documents, reviewed by Mr Gavin Beer who is a consultant to Taruga Minerals Limited and is a Chartered Professional (Metallurgy) and Member of The Australasian Institute of Mining and Metallurgy. Mr Beer 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 JORC Code (2012). Mr Beer consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

** Taruga confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. Taruga confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.*

Forward looking statements

This announcement contains certain forward-looking statements and comments about future events, including the Company's expectations about the proposed transaction, the proposed tenements and the performance of its businesses. Forward looking statements can generally be identified by the use of forward-looking words such as 'expect', 'anticipate', 'likely', 'intend', 'should', 'could', 'may', 'predict', 'plan', 'propose', 'will', 'believe', 'forecast', 'estimate', 'target' and other similar expressions within the meaning of securities laws of applicable jurisdictions. Indications of, and guidance on, future earnings or financial position or performance are also forward-looking statements.

Forward looking statements involve inherent risks and uncertainties, both general and specific, and there is a risk that such predictions, forecasts, projections and other forward-looking statements will not be achieved. Forward looking statements are provided as a general guide only and should not be relied on as an indication or guarantee of future performance. Forward looking statements involve known and unknown risks, uncertainty and other factors which can cause the Company's actual results to differ materially from the plans, objectives, expectations, estimates and intentions expressed in such forward-looking statements and many of these factors are outside the control of the Company. As such, undue reliance should not be placed on any forward-looking statement. Past performance is not necessarily a guide to future performance and no representation or warranty is made by any person as to the likelihood of achievement or reasonableness of any forward-looking statements, forecast financial information or other forecast. Nothing contained in this announcement nor any information made available to you is, or shall be relied upon as, a promise, representation, warranty or guarantee as to the past, present or the future performance of the Company.

Except as required by law or the ASX Listing Rules, the Company assumes no obligation to provide any additional or updated information or to update any forward-looking statements, whether as a result of new information, future events or results, or otherwise.

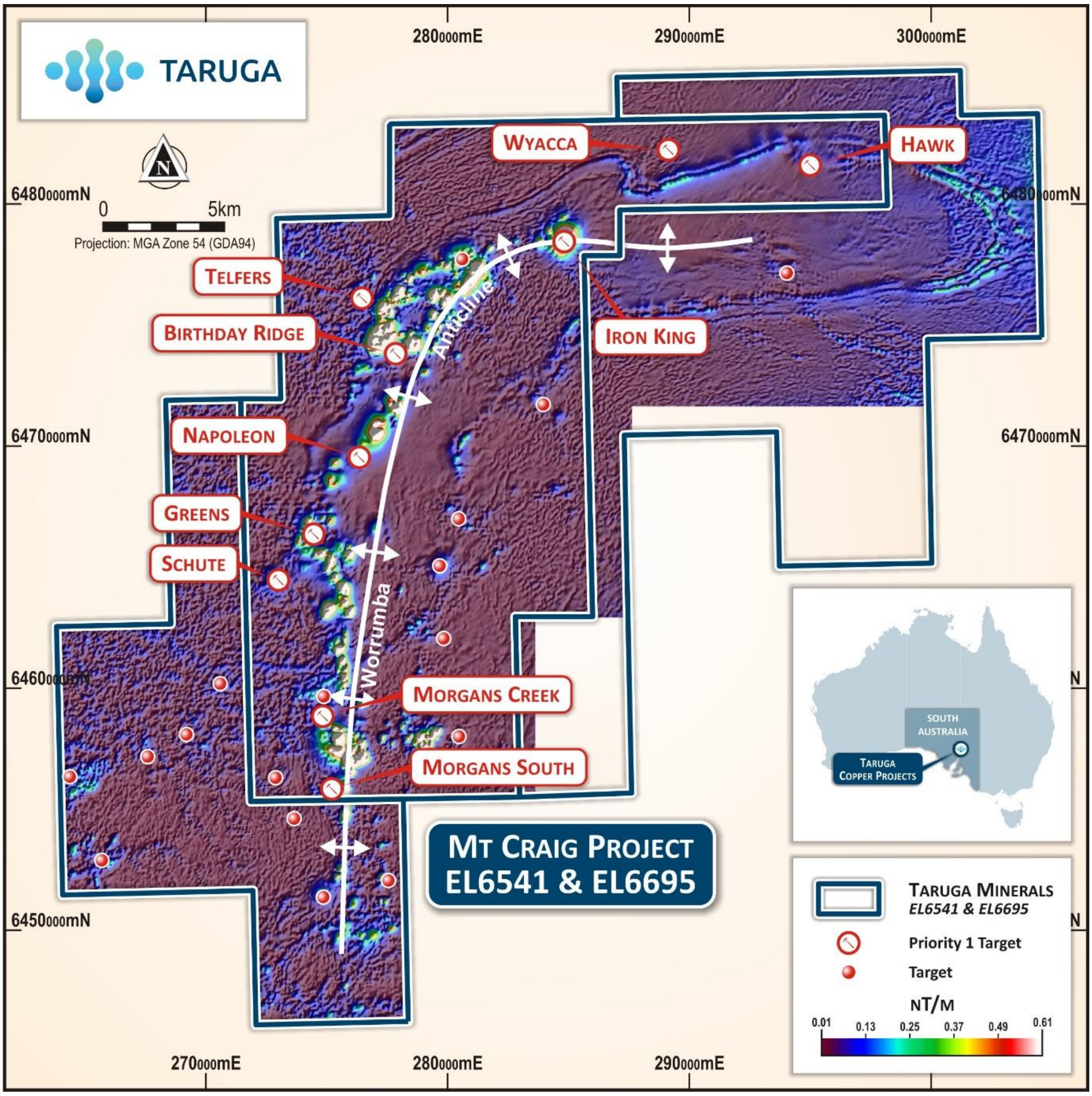

Figure 11. *MCP Project outline showing priority exploration targets, the main structural feature being the Worrumba Anticline, and the Analytical Signal magnetics image.*

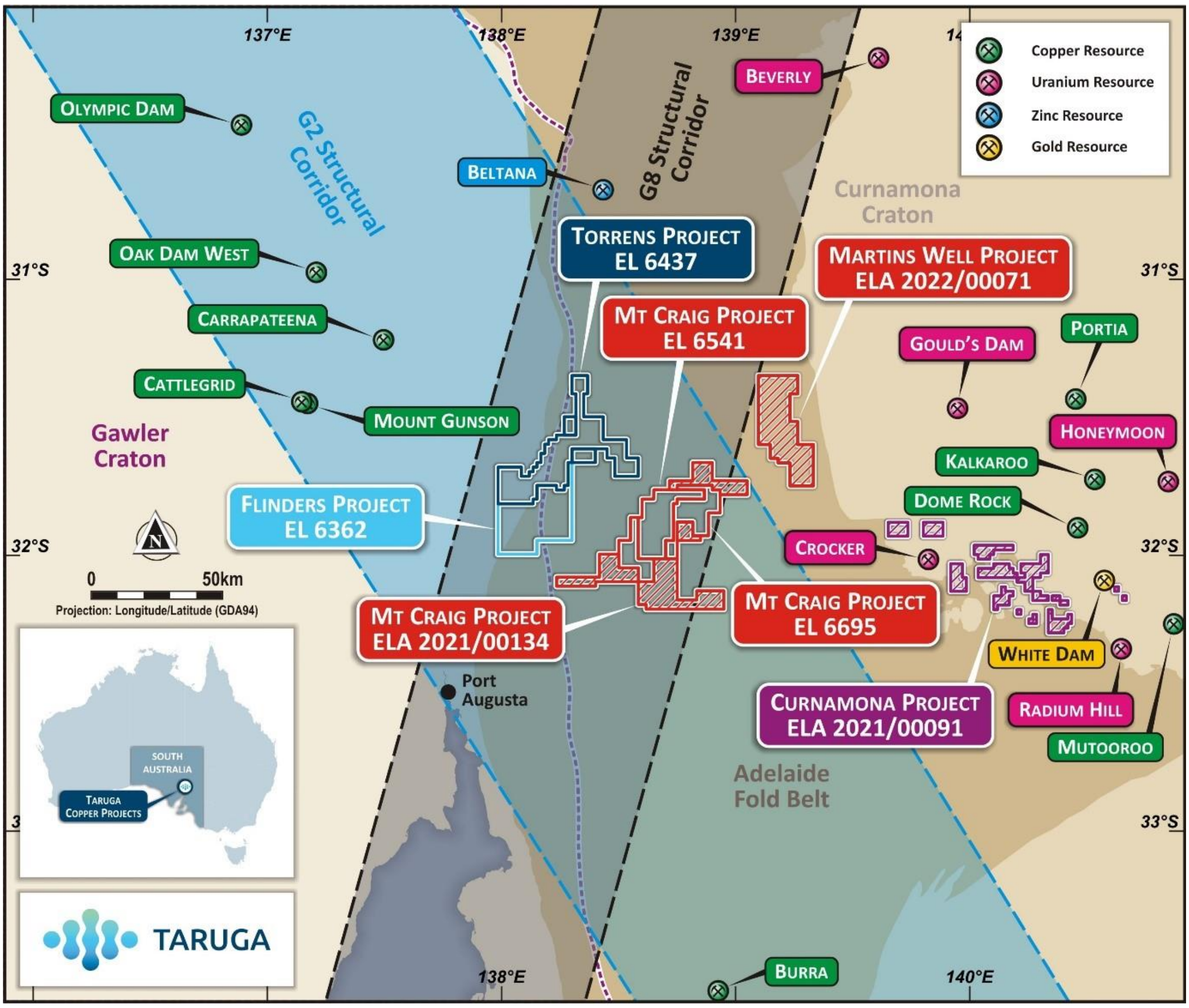

Figure 12. Tenement Map showing Taruga's South Australian projects.

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JORC Code, 2012 Edition – Table 1 report template

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 (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.* • *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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Metallurgical samples were taken from a variety of geological and grade range intervals utilising downhole drill samples. • Rotary Air Blast (RAB) drill sampling was completed with drill sample collected at 1m intervals with sample collected from an onboard cyclone as a bulk sample that is later sub sampled using conventional spear sampling techniques for a representative sample. B samples were also collected for statistical comparison for assessing sampling repeatability. RAB drilling can have some limitations including depth, unstable ground and blocked sampled return which can lead to holes ended earlier than full target depth. • 2021 Reverse Circulation (RC) drill sampling completed at 1m intervals with sample returned through an on-board static cone splitter generating a bulk reference sample and 2 representative A and B samples for analysis and QAQC. • A and B sample weights were on average >3kg. • Samples were analysed at Bureau Veritas, Adelaide for broad suite multi-element analysis using 4-acid digest ICP-MS. Gold and PGE analysis was by Fire Assay ICP-OES. REE specific analysis from RAB samples were not analysed for Gold or PGE. • Each metre is geologically logged including a pXRF and magsus reading. • 2021 HQ Core is sampled after geological and structural logging. Core is cut to ½ core through a standardised procedure that includes consistent sampling of the same side of the cut core. Core is sampled to lithological, structural and mineralised boundaries with sample intervals between 30cm and 1m in length to allow sufficient sample for representative analysis. Intervals selected for laboratory analysis are identified through visual logging by a geologist and utilises a handheld XRF to confirm the presence of mineralisation. Each geological interval identified was logged separately including selective pXRF readings to support mineral identification or regular 5cm spaced readings for indicative mineralisation trends over select intervals.

Criteria	JORC Code explanation	Commentary
		• Selective rock-chip samples were collected as in-situ, surface lag and float samples. Both visibly mineralised and un-mineralised samples were collected with the aim of obtaining representation of all rock types in the target area. Rock sample size is greater than 1kg per sample.
Drilling techniques	• *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).*	• Drilling methods included RAB with a 4" diameter bit, RC drilling with a 5 ½" diameter bit with sample returned through a cone splitter generating a bulk reference sample and 2 representative A and B samples for analysis and QAQC. • The drill rigs used include onboard air and for RC an auxiliary compressor. The RAB drill rig is capable of depths of 120m in perfect conditions, the RC drill rig was capable of drilling to a maximum depth of 350m. • Drilling methods included Diamond Core HQ size drilled from surface with a nominal 63.5mm core diameter. Where possible core was orientated to allow for structural measurements. • Downhole surveys were not taken for RAB drill holes whilst RC and Diamond Core drill holes had downhole surveys taken at 6m (collar), 30m and every subsequent 30m drilled with a final survey at end of hole depth.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results asses* • *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.*	• RAB drill sampling was completed with drill sample collected at 1m intervals with sample collected from an onboard cyclone as a bulk sample that is later sub sampled using conventional spear sampling techniques for a representative sample. Duplicate spear samples were taken and laboratory analysed with comparable results obtained indicating minimal sample bias. RC drill sample was collected as 1 metre intervals downhole from a cone splitter in pre-numbered sample bags. • A bulk sample was used for logging rock type and field recordings whilst 2 representative samples of 3-4kg each were collected simultaneously for primary analysis and QAQC as well as secondary B sample reference. Sample validity included comparison of sample weights to ensure sample recovery was within acceptable limits, with intervals of poor recovery and possible causes such as groundwater intercepts being recorded. The cone splitter was regularly cleaned and assessed to minimise potential sample contamination. • Core recovery was assessed through measurement of core in relation drilled depths and core blocks. Core recoveries were above acceptable industry standard limitations with >98% core recovery. • No sample quality issues are expected outside of the standard variances between drilling and sampling methods.

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 drill chips were field logged per metre and representative reference material retained in chip trays which were photographed for a digital reference. Subsequent review of chips and field logging was conducted to ensure records are consistent and accurate. Each metre included a magsus reading from the bulk sample bag and a corresponding pXRF reading to guide drilling and sampling decisions. • Core drill holes were geologically logged by industry standard methods, including lithology, structure, alteration and mineralisation. All core trays were photographed wet and dry. • The logging is qualitative in nature and of sufficient detail supporting the current interpretations, representative sections and selection of metallurgical samples. • Rock chip samples were field logged with the assistance of historical mapping and petrology work. Samples are reviewed for petrology using a hand lens or microscope. • Review of logging is conducted following the return of geochemical results.
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.*	• Rotary Air Blast (RAB) drill sampling was completed with drill sample collected at 1m intervals with sample collected from an onboard cyclone as a bulk sample that is later sub sampled using conventional spear sampling techniques for a representative sample. RC drill sample taken from a cone splitter per metre downhole is to industry standard and appropriate for the lithologies being intercepted. The simultaneous collection of bulk sample and 2 representative A and B samples of 3-4kg each maximises the sample quality and ensures samples are representative. • All samples were dry before sending for analysis. Any wet sample was still collected by the same method to ensure consistency with excess moisture sun dried prior to laboratory submission. No sample bias through lost material is likely in this process. Additional cleaning was completed on the cone splitter after introduction of wet sample. • Core is cut to ½ core through a standardised procedure that includes consistent sampling of the same side of the cut core. Core is sampled to lithological, structural and mineralised boundaries with sample intervals between 30cm and 1m in length to allow sufficient sample for representative analysis. Intervals selected for laboratory analysis are identified through visual logging by a geologist and utilises a handheld XRF to confirm the presence of mineralisation. • A Vanta pXRF was used with reference standards (CRM) to ensure accuracy of readings. No results reported are from pXRF sampling.

Criteria	JORC Code explanation	Commentary
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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• Samples are analysed at Bureau Veritas, Adelaide for broad suite multi-element analysis using 4-acid digest ICP-MS. Gold and PGE analysis was by Fire Assay ICP-OES. REE specific analysis from RAB samples were not analysed for Gold or PGE via Fire Assay. • Sampling relating to recent assays being reported included QA/QC controls including standards (4 different CRM to cover low mid and higher-grade material of various elements including but not limited to copper, zinc, cobalt, scandium, vanadium, niobium, cerium, lanthanum, yttrium, praseodymium and neodymium) and blind duplicates were included in each sample despatch and reported in the laboratory results. QA/QC samples included Company selected CRM material including blank material and duplicate samples. Laboratory QAQC has additional checks including standards, blanks and repeat samples that were conducted regularly on every batch. Company standards are included every 25^{th} sample and a duplicate every 30^{th}. • New data being reported relates to an additional 603 sample assay results received with a total sampling QAQC (standards and duplicates) of 7.6% added to assess contamination and bias in the analysis and sampling process. All 28 standards submitted were within acceptable limits. All 18 duplicates submitted were within acceptable limits of variance.
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.*	• No independent verification has been completed. • Taruga's geologists have sufficient experience to carry out geological sampling and logging and have experienced senior geologists and technical consultants available for verification and validation of results and measurements. • Significant intercepts are reported by Company representatives based on best practice and available information. • All significant intercepts are reported as downhole lengths and are not necessarily indicative of true thickness unless stated. • Logs and measurements were all recorded in hard copy on paper before digital data entry. All data is stored securely with digital backups. All data entry procedures include data validation.
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.*	• All RAB drillholes were surveyed using a DGPS for accurate collar locations. All prior drillhole collars were surveyed after drilling using a handheld GPS. Datum used is GDA94 Zone 54. • Downhole surveys were not taken for RAB drill holes. RC and Diamond Core downhole surveys were taken at 6m (collar), 30m and every subsequent 30m

Criteria	JORC Code explanation	Commentary
	• *Quality and adequacy of topographic control.*	drilled with a final survey at end of hole depth. Downhole surveys were taken with a reflex single shot or gyroscopic hole survey tool when available.
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.*	• Data is insufficient to be used in a Mineral Resource Estimate. The drilling is designed to explore mineralisation extents with data collected sufficient to guide and define further mineralisation definition and exploration activities. • RAB and RC sample intervals and analysis are single metre interval samples; no sample compositing has been used. • Core sample intervals are based on lithological, structural and mineralised boundaries. • Rock sample samples are to be considered as being collected on a selective basis.
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.*	• The previous and current drilling being reported has identified and defined a variable sedimentary package within the Worumba diapir mega breccia including various rafted blocks in differing orientation. Outcrop of the dolomite metasediments on the margin of the Worumba Diapir and rafted sediments within the diapir assist in drillhole design to best intercept the stratigraphy. • Where possible drillholes are angled towards the interpreted stratigraphic horizon so intercepts are generally reflective of true thickness although some holes drilled in a deliberate orientation to gain perspective of stratigraphic or structural orientation will not be a direct reflection of true thickness. All reported lengths are to be considered downhole lengths unless stated as calculated true thickness. • Rock sample samples are to be considered as being collected on a selective basis.
Sample security	• *The measures taken to ensure sample security.*	• The samples are collected, processed and despatched by the Supervising Geologist before being sent by courier to Bureau Veritas, Adelaide.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits completed. Internal processes routinely review the appropriate application of sampling techniques in relation to current knowledge of stratigraphy and mineralisation style.

TARUGA

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	• *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.*	• Exploration Licence EL6541 (Mt Craig/MCCP) is 100% owned by Strikeline Resources Pty Ltd a fully owned subsidiary of Taruga Minerals Ltd. The tenement is in good standing with no known impediments to operate in the area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Historical Exploration: Mt Craig Extensive small-scale historic mining for base metals occurred throughout the area. This occurred most prominently at the Wyacca Mine and Wirrawilka workings. Further historic shafts at Iron King are presumed to have mined Silver and Gold. From the 1960's onwards numerous companies have explored the region with soil, stream, rock chip & channel sampling, geophysics and drilling campaigns. The most prominent prior exploration was conducted by Cams Leases Pty Ltd., Copper Range (SA) Pty Ltd., Gold Copper Exploration Ltd., SAEI Triassic Coal Exploration & Utah Development Company Ltd.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Mt Craig: The Morgan Creek prospect is dominated by the Worumba diapir which include large rafted blocks of sediments including those of the Tapley Hill Fm, also within the diapir are mafics of variable origin. The western margin includes a target contact between the dolomite metasediments and the Worumba Diapir. Dolomite is a common reactive rock type within the diapir related deposits, trapping mineralisation close to the diapir margins. Dissolved metalliferous brines from the diapir travel along structural conduits to sites of suitable reactive deposition. Exploration has identified skarn exposures at Morgan Creek, including recently drilled Hydrothermal Hill prospect intercepting a mafic-ultramafic skarn system with magnetite-pyrite skarn that includes PGE, REE and cobalt mineralisation. The Yednalue Quartzite contains layers of reactive sediments including sandstone, siltstone and quartzite which have undergone intense oxidation, alteration and weathering. The unit appears to contain ideal qualities for scavenging metals including rare earth elements, lithium, cobalt, nickel and zinc.

Criteria	JORC Code explanation	Commentary
Drill hole Information	• *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:* ○ *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.*	• All completed drillhole collar information is included in the report, appendices or has been previously released. • If applicable all rock chip samples are included with relevant analysis results in the appendices or has been previously released. • All available and relevant assay data is included in this report or has previously been reported.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.*	• Where applicable when significant intercepts and aggregate data is are reported they are weighted average grades considering variable sampling lengths. Some significant intercepts are significant because of multiple anomalous elements. • Standard element to stoichiometric oxide conversion factors are used in calculating and reporting oxide equivalent elements. • Rare Earth Elements (REE) converted to oxide equivalents were aggregated as total rare earth elements TREE or Total Rare Earth Oxide elements TREO and combined as Heavy Rare Earth Elements (HREE/HREO), Light Rare Earth Elements (LREE/LREO), (CREE/CREO) Critical Rare Earth Elements or Magnetic Rare Earth Oxide (MREO) using industry standards. HREO, CREO and MREO as a percentage of TREO may also be reported. • Element-to-stoichiometric oxide conversion factors shown in table below: multiply wt% element by numerical value below for equivalent expressed as an oxide. • TREO refers to the sum of all 15 REE's in their respective oxide equivalent • MREO refers to the 4 Magnetic Rare Earth Oxides ($Nd_2O_3+Pr_2O_3+Dy_2O_3+Tb_2O_3$) • HREO refers to the Heavy Rare Earth Oxides ($Eu_2O_3+Gd_2O_3+Tb_2O_3+Dy_2O_3+Ho_2O_3+Er_2O_3+Tm_2O_3+Yb_2O_3+Y_2O_3+Lu_2O_3$) • LREO refers to the Light Rare Earth Oxides ($La_2O_3+Ce_2O_3+Pr_2O_3+Nd_2O_3+Sm_2O_3$) • CREO refers to Critical Rare Earth Oxides, a set of oxides defined as critical due to their importance to clean energy requirements and their supply risk

Criteria	JORC Code explanation	Commentary
		(Nd2O3+Tb2O3+Dy2O3+Er2O3+Y2O3)

Element	Oxide	Factor
Cerium	Ce_2O_3	1.1713
Dysprosium	Dy_2O_3	1.1477
Erbium	Er_2O_3	1.1435
Europium	Eu_2O_3	1.1579
Gadolinium	Gd_2O_3	1.1526
Holmium	Ho_2O_3	1.1455
Lanthanum	La_2O_3	1.1728
Lutetium	Lu_2O_3	1.1371
Neodymium	Nd_2O_3	1.1664
Praseodymium	Pr_2O_3	1.1703
Samarium	Sm_2O_3	1.1596
Terbium	Tb_2O_3	1.151
Thulium	Tm_2O_3	1.1421
Yttrium	Y_2O_3	1.2699
Ytterbium	Yb_2O_3	1.1387

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	• *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').*	• Sections show identified mineralisation downhole. Some holes drilled in a deliberate orientation to gain perspective of structural or stratigraphic orientation and as such will not be a direct reflection of true thickness. All reported lengths are to be considered downhole lengths unless stated as calculated true thickness.
Diagrams	• *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*	• Appropriate plan diagrams of collar location, surface features and location of results are provided in the report. Appropriate sections are provided in the report showing mineralisation and interpreted geological boundaries.

Criteria	JORC Code explanation	Commentary
	collar locations and appropriate sectional views.	
Balanced reporting	• *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.*	• All relevant information is reported within the document or included in the appendices if not reported previously.
Other substantive exploration data	• *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.*	• All relevant and meaningful data is included in this report or has been previously released. • Metallurgical samples were provided to the laboratory for preliminary leach extraction assessment using samples and conditions as detailed within the body of the report. • It must be noted that the extraction numbers reported are indicative only and do not account for further losses or inefficiencies that may or may not occur due to further downstream processing to marketable product(s).
Further work	• *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.*	• Follow up exploration activities including further drilling will be guided by the improved data set and the initial metallurgical assessments. Follow up exploration would focus on using drilling techniques to extend to base of weathering those current holes that failed to reach required depth whilst ending in mineralisation and further section extensions stepped out from mineralised areas. • Extended exploration using available drill information and geophysical data are being used for reconnaissance style exploration targeting similar geological settings for further potential REE accumulations like those currently being drilled.