

# **CLAY HOSTED RARE EARTHS DISCOVERED AT SURFACE**

# HIGHLIGHTS

- Clay hosted REEs have been discovered from surface at Morgans Creek
- Mineralisation has a maximum grade of 6,068ppm TREO, including the highest Dysprosium
   & Terbium and highest Neodymium and Praseodymium values intercepted to date
- Maximum heavy rare earth content of 65% HREO and maximum magnet rare earth content of 55% MREO
- Mineralised rare earth clays contain low cerium, and low thorium and uranium
- Results confirm the geological model and highlight long strike extensions of clay hosted rare earth element mineralisation, **increasing the primary strike to 1.4km**
- Mineralisation is concentrated primarily in weathered Yednalue quartzite which has a **continuous strike over 5.5km** at Morgans Creek with **exposures over 300m wide**
- Results are primarily from Hydro Hill North, with only 3 out of 27 holes drilled at Hydrothermal Hill returned to date and >65% of total assays remain outstanding

### MCRB005 (1.4km north of Hydrothermal Hill)

- o 14m @ 1,016ppm TREO from 3m (33% MREO; 44% HREO; 55% CREO)
- MCRB007 (1.4km north of Hydrothermal Hill)
  - o 16m @ 913ppm TREO from 2m (29% MREO; 51% HREO; 58% CREO)
  - Includes 3m @ 2,092ppm TREO from 2m
- MCRB018 (900m north of Hydrothermal Hill)
  - o 10m @ 780ppm TREO from 4m (27% MREO)
- MCRB023 (900m north of Hydrothermal Hill)
  - o 7m @ 706ppm TREO from 4m (34% MREO)
- MCRB024 (900m north of Hydrothermal Hill)
  - o 9m @ 1,093ppm TREO from 3m (25% MREO)
- MCRB025 (900m north of Hydrothermal Hill)
  - o 9m @ 1053ppm TREO from 1m (38% MREO; 40% HREO; 60% CREO)
- MCRB031 (Hydrothermal Hill)
  - o 5m @ 822ppm TREO from 9m (27% MREO)
- MCRB033 (Hydrothermal Hill)
  - o 24m @ 886ppm TREO from surface (35% MREO; 42% HREO; 56% CREO)
  - o Includes 5m @ 2,378ppm TREO from 2m, with 1m @ 6,068ppm TREO from 3m, and
  - o 3m @ 1,101ppm TREO from 17m

**CEO Thomas Line commented**: "We are very excited by these results. Although these are only partial results, they have already confirmed out geological model and shown that we can successfully target clay-hosted rare earths at Morgans Creek. Most of the significant

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#### CAPITAL STRUCTURE 578,048,240

Shares on Issue 46,750,000 Options on issue (various ex. prices

and dates)

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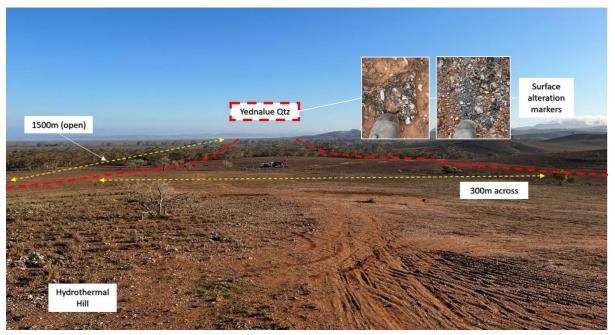
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intercepts start at or near the surface in the top few metres. Some holes were still in mineralisation when the RAB rig was no longer able to achieve adequate sample return, therefore we believe the base of mineralisation runs deeper than our drilling, in multiple areas."

"In addition to starting at or near surface, these results include the highest TREO grades we have seen at Morgans Creek, up to 6,068ppm TREO, and the general trend shows that as grade increases so does the heavy rare earth and magnet rare earth content. For example, the average concentrations for intercepts over 1,000ppm TREO was 42% HREO and 30% MREO, with 17% of the MREO being the very high value Dysprosium and Terbium. This is extremely promising as higher levels of Dysprosium and Terbium markedly increase REE basket value."

"In summary, the combination of surface mineralisation, favourable geology, low levels of cerium, uranium and thorium, and high-value REE basket composition support strong project fundamentals. We eagerly await the remaining >65% of the outstanding assays expected back by the end of the October, which include the bulk of Hydrothermal Hill main strike extension and infill drillholes. We are in the process of planning extensional and infil drilling along the 5.5km Yednalue Quartzite strike at Morgans Creek, along with assessing other prospective units in the area, such as the Wirrawilka limestone which returned encouraging mineralisation."



**Figure 1**. Mapped weathered Yednalue quartzite unit looking north from Hydrothermal Hill towards Hydro Hill North. The mapped Yednalue quartzite extends a further 4km to the south (total 5.5km strike). Examples of prospective alteration markers associated with the Yednalue and other REE mineralised units is also shown.

#### Summary

Taruga Minerals Limited (ASX: **TAR**, **Taruga** or the **Company**) is pleased to advise that the first batch of assays have been returned for the rare earth focussed drilling program at Morgans Creek (100% TAR), within the 1,500km<sup>2</sup> Mt Craig Project (MCP; 100% TAR). The program was comprised of 2,156m of RAB drilling over 59 drillholes. Drilling (**Figure 2**) was focussed on testing strike extensions of clay-hosted rare earth element (REE) mineralisation intercepted at Hydrothermal Hill in 2021 in weathered Yednalue quartzite (**Figure 1**).

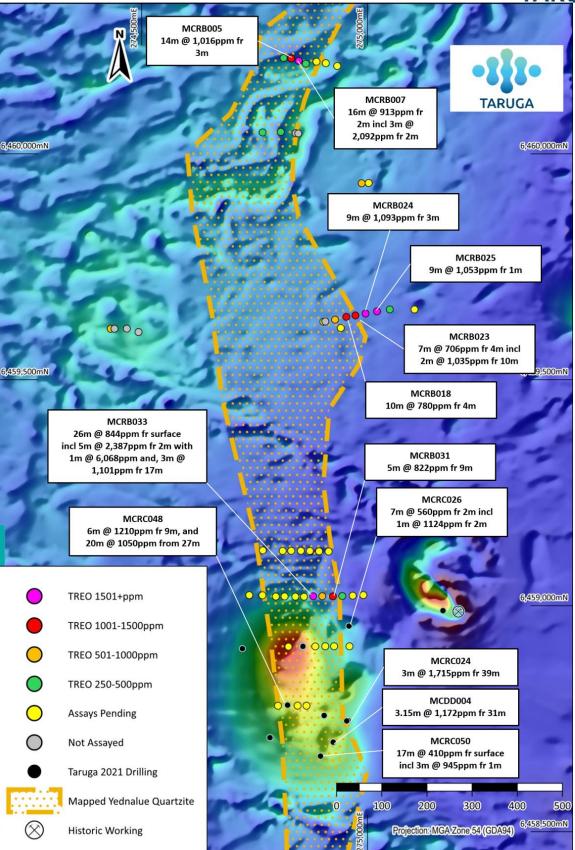


Figure 2. Morgans Creek RAB drilling showing significant intercepts and max TREO grades. Also, lab assay status, the mapped Yednalue quartzite unit, previous Taruga 2021 drilling, and high-resolution ground magnetics TMI image.



The partial results are non-selective, and contain approximately 35% of the total samples despatched. Samples were despatched in order of drilling and have been returned in that same order. The majority of the returned samples were from far north extensional drilling between 1400m and 900m north of Hydrothermal Hill. Only 3 out of the 27 holes drilled at Hydrothermal Hill have been returned to date, with key intervals in the remaining assays being expected back before the end of October.

In addition to having a high proportion of high-value magnet rare earths, the clay-hosted REE mineralisation at Morgans Creek contains low cerium, and low thorium and uranium. Having low levels of the radioactive elements uranium and thorium is highly beneficial for downstream processing of rare earth element concentrates. Low cerium levels also provide significant processing benefits and mean that there are higher concentrations of the high-value REEs in the basket.

The vast majority of the Yednalue Quartzite strike remains undrilled. Infill and extensional drill planning is currently underway. Several RAB drillholes are believed to have not reached the base of mineralisation, and the holes were ended early due to poor sample return. Therefore, in addition to infill and extensional drilling, Aircore or RC drilling will be used for the next phase to drill underneath RAB drill intercepts which are interpreted to have not reached the base of mineralisation.



Figure 3. Examples of clays intercepted in the deep weathering profile in multiple RAB drillholes during the recent drilling at Morgans Creek.

#### **Basket Summary**

Figures 4 to 7 show the key distribution metrics of the REE basket at Morgans Creek, for all samples over 250ppm TREO. Figures 8 to 11 show the key distribution metrics of the REE basket at Morgans Creek, for all samples over 1,000ppm TREO. These key metrics allow a clear comparison to be made amongst clay-hosted REE peers, highlighting the high proportion of heavy and magnet REEs and low levels of cerium present at Morgans Creek.

The data shows a trend of increasing proportion of high value REEs as the grade increases. For example, for the highest-grade intercept of **1m@6,086ppm** TREO, only 1% of the TREO is made up of low value Ce; with 33% being Nd + Pr and 6% Dy and Tb (total 39% magnet rare earth content). This gives a ratio of 39:1 MREO:Ce, which is unusual.



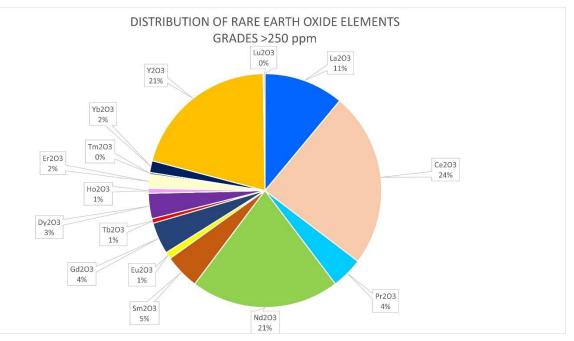


Figure 4. Pie chart showing percentages of individual rare earth element oxides for all 2022 RAB drilling over 250ppm TREO.

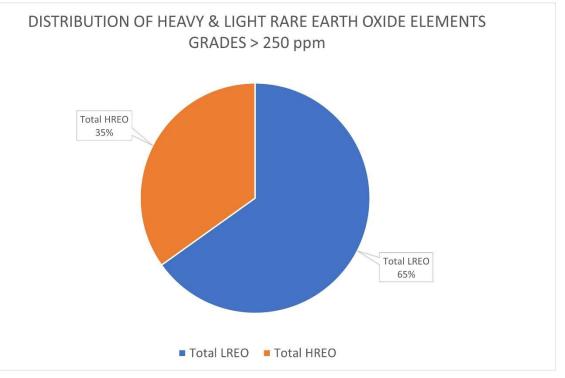
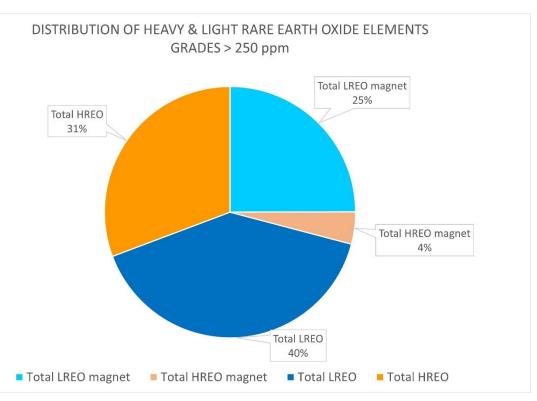
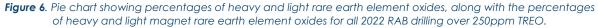


Figure 5. Pie chart showing percentages of heavy and light rare earth element oxides for all 2022 RAB drilling over 250ppm TREO.







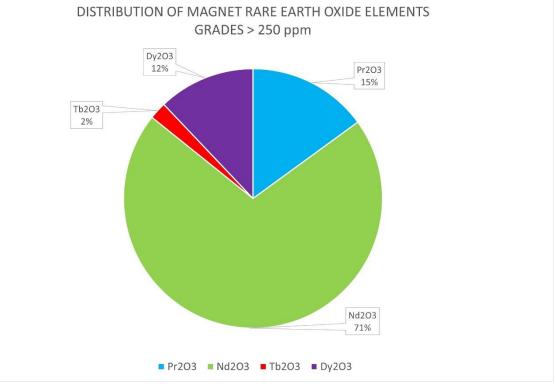


Figure 7. Pie chart showing percentages of each of the four-magnet rare earth element oxides (Nd + Pr + Dy + Tb) for all 2022 RAB drilling over 250ppm TREO.



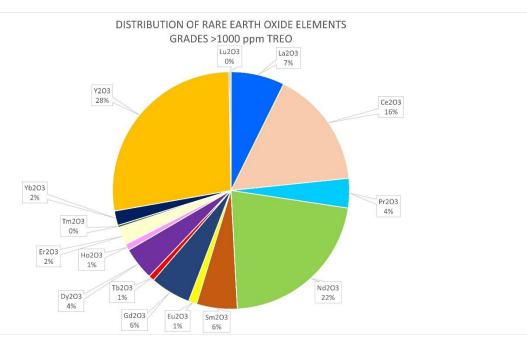


Figure 8. Pie chart showing percentages of individual rare earth element oxides for all 2022 RAB drilling over 1,000ppm TREO.

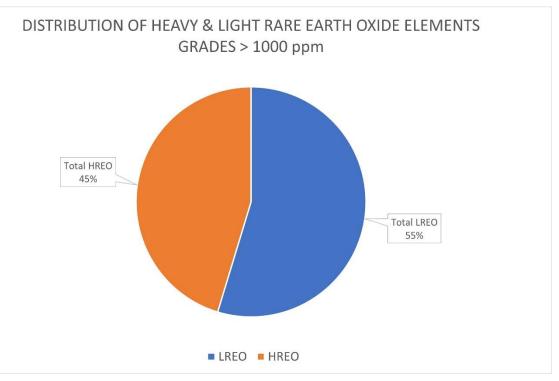


Figure 9. Pie chart showing percentages of heavy and light rare earth element oxides for all 2022 RAB drilling over 1,000ppm TREO.



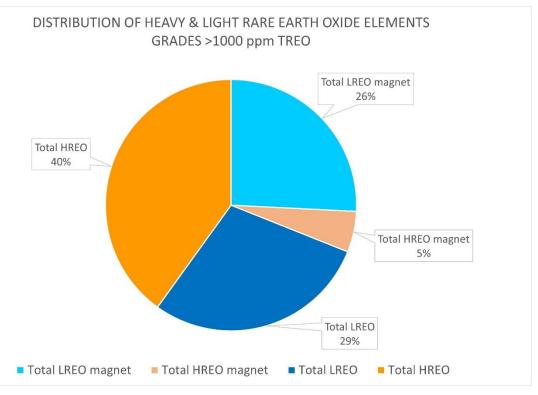
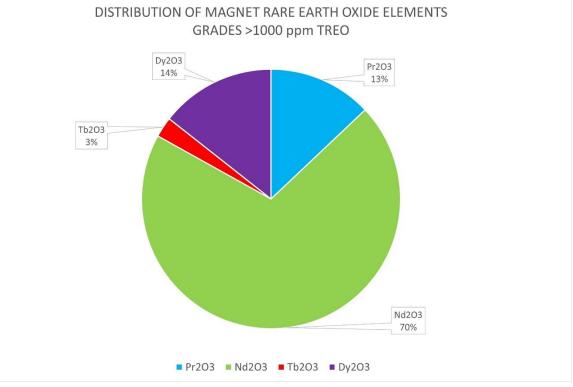


Figure 10. Pie chart showing percentages of heavy and light rare earth element oxides, along with the percentages of heavy and light magnet rare earth element oxides for all 2022 RAB drilling over 1,000ppm TREO.



**Figure 11**. Pie chart showing percentages of each of the four-magnet rare earth element oxides (Nd + Pr + Dy + Tb) for all 2022 RAB drilling over 1,000ppm TREO.



#### Ionic Adsorption Clay (IAC) hosted REEs

Ionic Adsorption Clay (IAC) REE deposits hold several advantages over hard rock deposits (**Table 1**). Typically, IAC REE deposits contain higher concentrations of HREO and higher value MREO in the REE basket; require lower mining strip rations and simple processing to produce concentrate; and are able to make a higher-grade concentrate product than hard rock REE deposits. IAC REE deposits also have low radioactivity (low thorium and uranium) as opposed to hard rock deposits which have issues with radionuclides. IAC REE separation and refining require much lower capex than hard rock deposits which require high-temperature mineral "cracking".

Mining and Processing Stages	Ionic Adsorption Clay – Hosted REE	Hard Rock – Hosted REE
Mineralisation	Soft material, negligible (if any) blasting	Hard rock:
	Elevated HREO/CREO product content	BastnaesIte and Monazite (LREO dominant): Xenotime (HREO dominant)
Mining	Low relative operating costs: Surface mining (~0-20m)	High relative operating costs: Blasting required
	Minimal stripping of waste material Progressive rehabilitation of mined areas	Could have high strip ratios
Processing Mining Site	No/limited crushing or milling Simple process plant	Comminution, followed by beneficiaron that often requires expensive (flotation) reagents to produce
	Potential for static or in-situ leaching with low reagent at ambient temperatures	mineral concentrate
Mine Product	Mixed high-grade Rare Earths precipitate, either oxide or carbonate (+90% TREO grade) for feedstock directly Into Rare Earth separation plant, low LaCe content	Mixed REE mineral concentrate (typically 20-40% TREO grade), high LaCe content, requires substantial processing before suitable for feed to
Product Payability	60-70% payability as mixed Rare Earth oxide/ carbonate	rare earth separation plant 30-35% payability as a mineral concentrate
Processing - Environmental		Tailings often radioactive (complex and costly
0	Solution treatment and reagent recovery requirements	disposal) Legacy tailing management
Processing - Refinery (Typically not on Mining site)	Simple acid solubilisation followed by conventional REE separation	High temperature mineral 'cracking' using strong reagents to solubilise the refractory REE minerals
	Complex recycling of reagents and water Lower Capex (~\$100-\$200m)	Complex capital-intensive plant (~\$500m-\$1B) required Radionuclide issues follow REE mineral concentrates

# Table 1. Generalised differences between lonic clay rare earth element deposits v.s. hard rock rare earth element deposits (source: lonic Rare Earths ASX: IXR 2022 corporate presentation).

#### **Exploration Plan**

- Mapping of the Yednalue Quartzite unit (complete)
- Systematic RAB drill testing over the shallow weathered layers of Yednalue quartzite strike extensions from Hydrothermal Hill (Phase 1 complete)
- Review of drill results against radiometric geophysics for regional targeting (underway)
- Advanced REE metallurgy and concentrate analysis (Q4 2022 Q2 2023)
- Phase 2 Aircore/RC drilling (Q4 2022):
  - Drill to base of mineralisation
  - Infill and extensional drilling of Yednalue quartzite
  - o Drill test other prospective units such as the Wirrawilka limestone
- Reconnaissance exploration for additional Yednalue quartzite and its analogues throughout the Mt Craig Project (underway)
- Investigate and target REE source rock
- Phase 3 drilling: new REE targets (Q1-Q2 2023)

#### About Morgans Creek

Two rounds of reconnaissance RC drilling were conducted at Morgans Creek by Taruga in 2021. Drilling was focussed on copper targeting, however clay hosted REE mineralisation was discovered in several drillholes at the Hydrothermal Hill prospect, which contained a high concentration of the high-value magnetic rare earth elements (Nd + Pr + Tb + Dy). Significant



intercepts of REEs have been recorded in sporadic drilling over an area of approximately 6km x 2km.

Weak acid leach testwork conducted in early 2022 indicated that the REE mineralisation has a very high proportion of readily soluble REEs, and as such it may be amenable to a low-cost simplistic metallurgical flow sheet.

Taruga's current exploration model is to focus on weathered zones of clay and saprolite over the Yednalue Quartzite unit, which outcrops for more than 5km of strike at Morgans Creek, and a further 5km of mapped strike in the northern portion of the Mt Craig Project. Large volumes of Yednalue Quartzite may be buried under shallow cover, and identification of further concealed prospects is underway. It is also apparent that REE mineralisation is not constrained to the Yednalue Quartzite, and so other units in the stratigraphic sequence such as the Wirrawilka limestone are being investigated using soils geochemistry, magnetics and radiometrics geophysics.

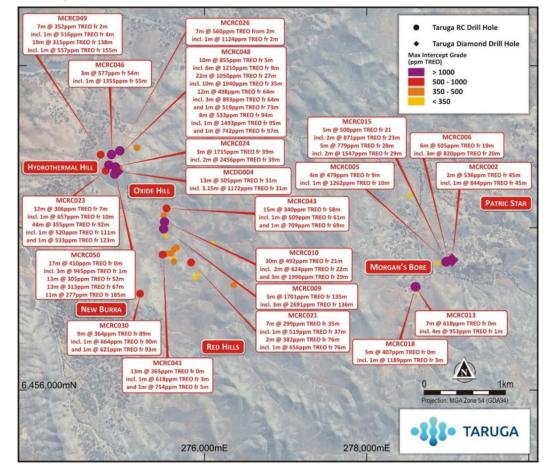


Figure 12. REE Drill results from Taruga's 2021 drilling at Morgans Creek with collars colour coded by maximum TREO grade (purple represents >1000ppm TREO).



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

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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.

\*Refer to announcements dated 10/03/2022 "polymetallic drill results at Hydrothermal Hill Skarn; and 07/02/2022 "partial drill results from MCCP". 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.

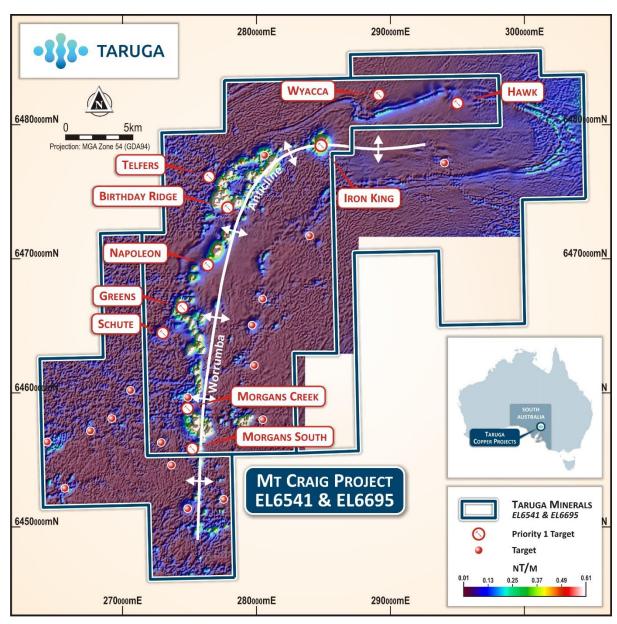


Figure 13. MCP Project outline showing priority exploration targets, the main structural feature being the Worrumba Anticline, and the Analytical Signal magnetics image.



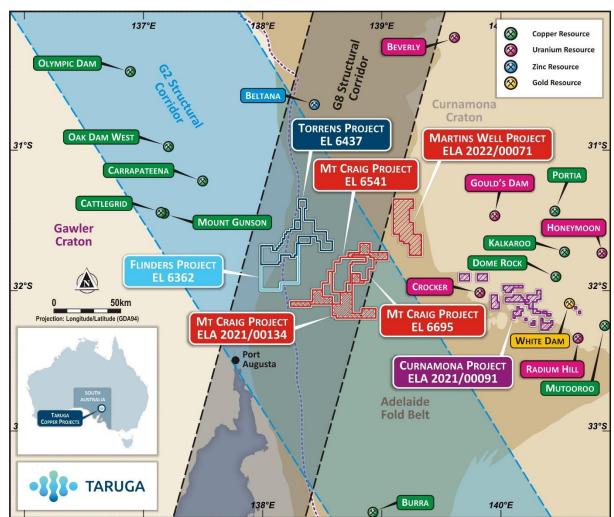


Figure 14. Tenement Map showing Taruga's South Australian projects.

Hole ID	From (m)	To (m)	Width (m)	TREO ppm	HREO%	CREO%	MREO%
MCRB005	3	17	14	1017	45%	56%	32%
MCRB007	2	18	16	913	54%	60%	30%
including	2	5	3	2093	58%	66%	32%
MCRB016	2	6	4	521	41%	50%	30%
MCRB018	4	14	10	780	13%	29%	27%
MCRB023	4	11	7	707	22%	40%	33%
MCRB024	3	12	9	1093	28%	37%	23%
MCRB025	1	10	9	1054	40%	48%	26%
MCRB031	9	14	5	823	47%	60%	35%
MCRB033	0	24	24	886	47%	62%	38%
including	2	7	5	2378	53%	66%	38%

Appendix 1. Significant intercepts



#### Appendix 2. Assay Results

Hole ID	From	То	Ce ppm	Dy ppm	Er ppm	Eu ppm	Gd ppm	Ho ppm	La ppm	Lu ppm	Nd ppm	Pr ppm	Sm ppm	Tb ppm	Tm ppm	Y ppm	Yb ppm	TREC
MCRB003	21	22	106	3	2	1	3	1	60	0	23	9	3	0	0	18	3	272
MCRB003	22	23	296	3	2	1	3	1	149	0	41	19	4	0	0	18	3	635
MCRB003	23	24	156	3	2	1	3	1	80	0	27	11	4	0	0	17	3	362
MCRB003	24	25	124	3	2	1	3	1	71	0	25	9	4	0	0	17	2	307
MCRB003	31	32	153	2	1	0	2	0	63	0	23	10	3	0	0	11	2	317
MCRB005	3	4	92	27	16	7	30	5	46	2	127	23	37	5	2	137	14	678
MCRB005	4	5	82	76	46	17	75	15	44	6	252	37	84	12	7	419	41	145
MCRB005	5	6	100	55	33	13	57	11	47	4	195	30	63	9	5	301	29	113
MCRB005	6	7	81	44	25	12	52	8	42	3	193	28	63	8	4	211	22	945
MCRB005	7	8	95	38	20	12	48	7	44	2	190	28	61	7	3	168	18	879
MCRB005	8	9	127	41	22	12	53	7	61	3	216	35	63	7	3	191	19	1020
MCRB005	9	10	113	50	28	13	57	9	55	3	201	31	65	8	4	242	25	107
MCRB005	10	11	109	44	23	13	56	8	54	3	214	33	67	8	3	208	20	102
MCRB005	11	12	119	58	31	16	69	11	54	4	232	34	78	10	4	273	28	1213
MCRB005	12	13	107	40	21	12	51	7	53	3	190	30	61	7	3	187	19	939
MCRB005	13	14	146	31	15	11	44	6	64	2	204	35	59	6	2	133	14	912
MCRB005	14	15	178	38	20	11	47	7	79	2	222	41	60	7	3	174	18	1074
MCRB005	15	16	228	27	14	8	34	5	90	2	207	44	46	5	2	123	13	100
MCRB005	16	17	233	22	12	7	27	4	83	2	168	37	36	4	2	100	11	881
MCRB005	19	20	108	10	6	3	12	2	38	1	70	16	16	2	1	47	5	397
MCRB005	22	23	94	11	6	3	14	2	39	1	78	17	18	2	1	52	5	403
MCRB006	4	5	102	6	4	1	5	1	40	1	36	10	7	1	1	30	4	292
MCRB006	5	6	117	6	4	1	6	1	46	1	45	13	8	1	1	30	4	333
MCRB006	6	7	157	6	3	1	6	1	63	1	57	16	9	1	1	29	4	415
MCRB006	7	8	148	6	4	1	6	1	59	1	51	15	8	1	1	30	4	394
MCRB006	8	9	147	5	3	1	5	1	59	0	55	16	8	1	0	27	3	392
MCRB007	0	1	76	5	3	2	6	1	35	0	36	9	8	1	0	28	3	251
MCRB007	2	3	115	118	66	28	133	22	73	8	443	70	134	20	9	612	55	227
MCRB007	3	4	152	136	85	25	135	28	129	10	538	104	121	21	11	883	69	293
MCRB007	4	5	91	51	31	9	49	10	52	3	162	32	41	8	4	318	24	106
MCRB007	5	6	89	29	18	6	30	6	57	2	148	32	27	5	2	202	15	798
MCRB007	6	7	95 90	21 23	12 13	5 6	25 28	4	48 42	1	120 109	24 21	26 26	4	2	106 113	10 11	596 585
MCRB007 MCRB007	8	8 9	90 78	17	9	0 4	28	4	42 38	1	92	17	20	4	1	83	8	473
MCRB007	8	9 10	78 85	31	9 18	4 8	38	6	38 41	2	92 116	17	35	5	2	169	8 15	703
MCRB007	10	10	75	24	13	6	28	4	35	2	81	14	25	4	2	103	11	532
MCRB007	10	12	83	48	28	11	57	9	39	3	123	14	49	8	4	273	23	927
MCRB007	12	13	85	37	20	8	43	7	40	3	104	16	37	6	3	195	18	743
MCRB007	13	14	81	30	17	7	35	6	39	2	88	10	31	5	2	151	14	623
MCRB007	14	15	60	21	12	5	24	4	28	1	64	11	22	4	2	108	10	447
MCRB007	15	16	91	33	12	7	37	6	40	2	112	18	34	6	3	176	16	716
MCRB007	16	17	101	35	20	8	38	7	43	2	114	19	35	6	3	187	17	759
MCRB007	17	18	66	18	11	4	20	3	27	1	71	13	20	3	1	98	9	435
MCRB008	7	8	65	7	4	2	8	1	33	1	51	12	10	1	1	33	4	275
MCRB008	8	9	71	10	6	3	11	2	35	1	60	13	13	2	1	44	5	325
MCRB008	9	10	79	13	8	3	15	2	38	1	63	13	17	2	1	62	7	385
MCRB008	10	11	81	16	9	4	19	3	38	1	62	12	19	3	1	81	9	426
MCRB008	11	12	84	13	7	3	15	2	41	1	55	12	15	2	1	61	7	378
MCRB008	12	13	115	15	8	3	18	3	54	1	60	14	15	2	1	66	7	452
MCRB008	13	14	77	12	7	3	14	2	36	1	47	10	13	2	1	61	7	348
MCRB008	14	15	75	12	7	3	14	2	35	1	46	10	13	2	1	59	6	338
MCRB012	6	7	155	6	4	2	8	1	56	1	89	23	14	1	1	28	3	461
MCRB012	7	8	88	5	3	1	6	1	35	0	42	11	8	1	0	24	3	268
MCRB012	8	9	143	7	4	2	8	1	69	1	97	24	14	1	1	36	4	485
MCRB012	9	10	119	8	5	2	9	2	51	1	68	16	14	1	1	38	5	400
MCRB012	10	11	139	14	7	4	15	2	41	1	60	13	18	2	1	55	7	447
MCRB012	11	12	102	8	4	2	8	1	48	1	64	14	13	1	1	34	4	359
MCRB012	12	13	113	7	4	2	8	1	51	1	70	16	13	1	1	31	4	380
MCRB012	15	16	115	4	3	2	5	1	49	0	60	15	10	1	0	20	2	337
MCRB013	5	6	68	21	12	4	22	4	25	2	34	7	15	4	2	128	11	429
MCRB013	6	7	59	14	8	3	15	3	29	1	38	8	13	2	1	73	7	327
MCRB013	7	8	52	10	6	2	11	2	27	1	32	7	10	2	1	52	5	261



F				1
	Hole ID	From	То	Ce ppm
ľ	MCRB013	8	9	64
Ī	MCRB016	2	3	89
ľ	MCRB016	3	4	94
١.	MCRB016	4	5	69
	MCRB016	5	6	70
Ī	MCRB016	10	11	77
	MCRB016	11	12	79
	MCRB018	0	1	59
	MCRB018	1	2	64
	MCRB018	2	3	68
	MCRB018	3	4	72
	MCRB018	4	5	189
ļ	MCRB018	5	6	137
ļ	MCRB018	6	7	141
ļ	MCRB018	7	8	321
ļ	MCRB018	8	9	476
ļ	MCRB018	9	10	450
ļ	MCRB018	10	11	338
ļ	MCRB018	11	12	412
ļ	MCRB018	12	13	266
ļ	MCRB018	13	14	126
	MCRB018	14	15	70
ļ	MCRB018	15	16	81
ļ	MCRB019	1	2	62
ļ	MCRB019	2	3	74
ļ	MCRB019	3	4	77
ļ	MCRB019	4	5	74
ļ	MCRB019	5	6	76
ļ	MCRB019	6	7	81
ļ	MCRB019	7	8	84
ļ	MCRB019	8	9	68
ļ	MCRB019	9	10	63
ļ	MCRB019	10	11	65
ļ	MCRB023	3	4	60
ļ	MCRB023	4	5	97
ļ	MCRB023	5	6	120
ļ	MCRB023	6	7	94
ļ	MCRB023	7	8	102
ŀ	MCRB023	8	9	146
ŀ	MCRB023	9	10	164
ŀ	MCRB023	10	11	547
ŀ	MCRB023	11	12	233
ŀ	MCRB023 MCRB023	12	13	211
ŀ	MCRB023 MCRB023	13 14	14	250
1	MCRB023	14	15 16	158 251
ł	MCRB023	15	17	143
ł	MCRB023	10	17	143
ŀ	MCRB023	17	18	104
ł	MCRB023	18	20	220
ŀ	MCRB023	20	20	126
ł	MCRB023	20	21	83
ł	MCRB023	21	22	65
ł	MCRB023	22	3	91
ŀ	MCRB024	3	4	657

																	<b>A</b>	RUGA
Hole ID	From	То	Ce	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Tb	Tm	Y	Yb	TREO
noie ib	moni		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
MCRB013	8	9	64	12	7	3	13	2	33	1	35	8	11	2	1	65	6	313
MCRB016	2	3	89	31	16	8	36	6	74	2	153	34	38	5	2	139	13	765
MCRB016	3	4	94	24	12	7	31	4	52	1	117	24	32	5	2	103	9	612
MCRB016	4	5	69	13	7	3	16	3	34	1	59	12	15	2	1	73	6	374
MCRB016	5	6	70	12	7	2	11	2	36	1	34	9	8	2	1	76	6	332
MCRB016	10	11	77	5	3	1	6	1	39	0	33	9	7	1	0	30	3	257
MCRB016	11	12	79	5	3	1	5	1	40	0	35	9	7	1	0	26	3	255
MCRB018	0	1	59	7	4	2	10	1	31	1	51	11	12	1	1	34	3	270
MCRB018	1	2	64	16	10	4	19	3	31	1	70	13	19	3	1	98	8	431
MCRB018	2	3	68	16	9	4	18	3	35	1	68	14	18	3	1	94	8	429
MCRB018	3	4	72	10	5	3	14	2	46	1	78	17	18	2	1	46	5	376
MCRB018	4	5	189	24	11	11	40	4	80	1	267	53	64	5	2	94	9	1003
MCRB018	5	6	137	13	7	5	19	2	61	1	122	27	27	3	1	64	6	584
MCRB018	6	7	141	6	3	2	9	1	57	0	66	17	13	1	1	27	3	409
MCRB018	7	8	321	4	2	2	7	1	77	0	72	22	12	1	0	19	2	638
MCRB018	8	9	476	5	2	2	9	1	135	0	104	35	15	1	0	16	2	940
MCRB018	9	10	450	4	2	2	7	1	126	0	102	33	14	1	0	14	1	887
MCRB018	10	11	338	8	4	3	12	1	178	1	149	49	20	1	1	33	4	939
MCRB018	11	12	412	9	4	4	13	1	112	1	139	38	23	2	1	33	4	934
MCRB018	12	13	266	16	7	8	27	3	98	1	221	49	46	3	1	62	7	960
MCRB018	13	14	126	15	7	5	20	2	43	1	103	21	26	3	1	53	7	510
MCRB018	14	15	70	8	4	3	12	2	23	1	55	11	15	2	1	34	4	287
MCRB018	15	16	81	8	5	2	10	2	32	1	52	12	13	1	1	40	5	312
MCRB019	1	2	62	7	4	2	8	1	45	1	67	18	11	1	1	32	4	311
MCRB019	2	3	74	9	5	3	13	2	48	1	87	21	18	2	1	40	5	387
MCRB019	3	4	77	9	5	3	11	2	44	1	68	16	14	2	1	45	5	357
MCRB019	4	5	74	13	8	3	14	2	42	1	76	17	17	2	1	64	7	406
MCRB019	5	6	76	20	11	5	23	4	41	2	97	19	26	3	2	97	11	517
MCRB019	6 7	7 8	81 84	16	8	5 4	20 17	3	46 44	1	104	21	26 19	3	1	68 67	8 8	485
MCRB019 MCRB019	8	8 9	84 68	14 13	8 7	4	17	3	33	1	76 58	16 12	19	2	1	65 56	8 6	429 349
MCRB019	9	10	63	9	5	2	15	2	32	1	58	12	12	2	1	41	5	291
MCRB019	10	10	65	10	6	3	11	2	34	1	53	11	12	2	1	41	5	312
MCRB023	3	4	60	16	9	5	21	3	25	1	79	14	23	3	1	80	8	412
MCRB023	4	5	97	27	15	6	32	5	44	2	121	21	34	5	2	132	13	661
MCRB023	5	6	120	20	10	6	27	4	57	1	121	24	34	4	2	90	9	633
MCRB023	6	7	94	12	6	4	18	2	42	1	92	18	24	2	1	53	6	444
MCRB023	7	8	102	16	8	5	22	3	47	1	120	25	30	3	1	63	7	531
MCRB023	8	9	146	11	5	5	18	2	84	1	140	36	27	2	1	39	4	609
MCRB023	9	10	164	12	4	7	23	2	60	0	176	38	40	3	1	36	3	667
MCRB023	10	11	547	14	5	7	28	2	160	1	273	66	52	3	1	36	4	1402
MCRB023	11	12	233	4	2	2	6	1	53	0	70	19	12	1	0	12	1	488
MCRB023	12	13	211	2	1	1	4	0	63	0	56	18	7	0	0	8	1	437
MCRB023	13	14	250	2	1	1	4	0	60	0	46	15	7	0	0	9	1	466
MCRB023	14	15	158	2	1	1	3	0	40	0	36	11	6	0	0	6	1	310
MCRB023	15	16	251	2	1	1	5	0	73	0	66	21	9	1	0	7	1	513
MCRB023	16	17	143	2	1	1	4	0	62	0	49	16	7	0	0	10	1	349
MCRB023	17	18	164	3	1	1	4	1	68	0	54	18	8	1	0	12	1	395
MCRB023	18	19	199	7	3	3	11	1	80	0	111	30	20	1	1	27	3	585
MCRB023	19	20	220	7	4	3	11	1	67	1	93	25	17	1	1	30	4	568
MCRB023	20	21	126	5	3	2	8	1	36	0	65	16	13	1	0	19	3	350
MCRB023	21	22	83	4	2	2	6	1	32	0	53	14	10	1	0	14	2	261
MCRB023	22	23	65	6	3	2	9	1	26	0	48	11	11	1	0	30	3	257
MCRB024	2	3	91	5	3	2	6	1	68	0	54	16	9	1	0	24	2	331
MCRB024	3	4	657	12	5	5	19	2	124	1	148	38	29	3	1	50	4	1288
MCRB024	4	5	802	12	6	5	19	2	83	1	134	32	29	3	1	58	4	1396
MCRB024	5	6	653	10	4	5	19	2	96	0	152	37	30	2	1	36	3	1231
MCRB024	6	7	147	9	4	4	17	2	90	1	136	33	24	2	1	38	4	600
MCRB024	7	8	136	58	38	9	55	12	119	5	220	52	47	9	5	436	31	1480
MCRB024	8	9	438	71	45	11	65	15	61	6	183	35	50	11	6	485	39	1820
MCRB024	9	10	199	22	12	7	33	4	61	1	169	34	39	4	1	121	9	849
MCRB024	10	11	123	18	11	4	20	4	46	1	98	22	21	3	1	115	9	589
MCRB024	11	12	157	7	3	3	13	1	104	0	119	33	19	2	0	32	3	584



Hole ID	From	То	Ce	Dy	
140000014	40	40	ppm	ppm	p
MCRB024	12	13	105	3	
MCRB024	13	14	460	5	
MCRB024	14	15	111	3	
MCRB024	15	16	129	3	
MCRB024	16	17	107	2	
MCRB024	18	19	159	1	
MCRB024	20	21	213	3	
MCRB024	21	22	264	5	
MCRB024	22	23	304	2	
MCRB024	23	24	196	1	
MCRB025	0	1	85	7	
MCRB025	1	2	218	23	
MCRB025	2	3	241	23	
MCRB025	3	4	260	27	
MCRB025	4	5	264	28	
MCRB025	5	6	242	24	
MCRB025	6	7	113	24	
MCRB025	7	8	182	37	
MCRB025	8	9	352	92	
MCRB025	9	10	147	22	
MCRB025	10	11	123	12	
MCRB025	11	12	95	9	
MCRB025	12	13	95	10	
MCRB025	13	14	82	7	
MCRB025	14	15	97	9	
MCRB025	15	16	93	10	
MCRB025	16	17	75	9	
MCRB025	17	18	80	8	
MCRB025	18	19	111	10	
MCRB025	19	20	156	5	
MCRB025	20	21	255	7	
MCRB025	21	22	127	9	
MCRB025	22	23	288	12	
MCRB025	23	24	110	7	
MCRB025	24	25	122	7	
MCRB026	17	18	77	7	
MCRB026	18	19	74	6	-
MCRB026	19	20	77	6	-
MCRB026	20	21	92	7	-
MCRB026	21	22	86	7	-
MCRB026	22	23	82	7	-
MCRB026	23	24	86	7	-
MCRB026	23	25	87	10	-
MCRB026	25	26	81	9	-
MCRB026	26	20	75	9	-
MCRB026	20	28	85	10	
MCRB020	0	1	41	6	-
MCRB030	1	2	51	11	-
MCRB030	6	7	100	16	-
MCRB030	1	2	100	7	-
MCRB031 MCRB031	2	3	84	5	-
MCRB031	4	5	94	5	-
MCRB031 MCRB031	5	6	87	6	-
MCRB031 MCRB031	6	7	95	7	-
MCRB031 MCRB031	7	8	65	5	┝
INICI/DU31	/	0	05	5	_

																		RUGA
	<b>F</b>	Te	Ce	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Tb	Tm	Y	Yb	TREO
Hole ID	From	То	ppm															
MCRB024	12	13	105	3	2	1	4	1	41	0	41	12	7	1	0	16	2	277
MCRB024	13	14	460	5	2	2	8	1	92	0	78	23	15	1	0	18	2	829
-	-			-			_		-	-		-	-		_			
MCRB024	14	15	111	3	2	1	4	1	54	0	38	11	7	1	0	16	2	296
MCRB024	15	16	129	3	1	1	3	0	45	0	27	9	4	0	0	10	2	277
MCRB024	16	17	107	2	1	1	2	0	69	0	29	12	4	0	0	8	1	277
MCRB024	18	19	159	1	1	0	2	0	29	0	17	6	2	0	0	7	1	265
MCRB024	20	21	213	3	1	1	4	0	182	0	81	33	8	1	0	12	2	635
MCRB024	21	22	264	5	3	2	6	1	183	0	86	34	10	1	0	26	3	733
MCRB024	22	23	304	2	1	1	2	0	48	0	25	9	3	0	0	9	1	475
-								-	-	-		-	-	-	-	-		
MCRB024	23	24	196	1	1	0	1	0	31	0	15	6	2	0	0	4	1	302
MCRB025	0	1	85	7	4	2	9	1	35	0	42	10	9	1	0	36	3	289
MCRB025	1	2	218	23	12	6	31	4	89	1	138	32	32	4	1	131	10	867
MCRB025	2	3	241	23	10	8	36	4	102	1	171	39	39	5	1	103	8	933
MCRB025	3	4	260	27	13	8	38	5	101	1	179	40	41	5	2	137	11	1028
MCRB025	4	5	264	28	14	8	40	5	103	2	186	42	43	5	2	154	11	1073
		6				-		-					-	5				
MCRB025	5	-	242	24	12	7	35	4	95	1	168	38	38	-	1	128	9	955
MCRB025	6	7	113	24	15	4	22	5	55	2	74	17	18	4	2	190	13	669
MCRB025	7	8	182	37	24	5	35	8	58	3	93	21	24	6	3	278	19	955
MCRB025	8	9	352	92	55	17	95	18	115	6	312	68	83	15	7	634	44	2293
MCRB025	9	10	147	22	12	5	27	4	69	1	112	26	26	4	1	132	9	710
MCRB025	10	11	123	12	6	3	16	2	61	1	82	20	18	2	1	64	5	493
MCRB025	10	12	95	9	5	2	10	2	49	1	56	14	12	2	1	50	4	368
-				-					-									
MCRB025	12	13	95	10	6	2	11	2	48	1	54	14	12	2	1	58	5	378
MCRB025	13	14	82	7	5	2	9	2	42	1	48	11	9	1	1	45	4	319
MCRB025	14	15	97	9	5	2	12	2	53	1	57	15	12	2	1	53	4	383
MCRB025	15	16	93	10	6	2	11	2	47	1	50	13	11	2	1	63	5	375
MCRB025	16	17	75	9	5	2	9	2	32	1	38	10	8	1	1	53	4	295
MCRB025	17	18	80	8	5	2	9	2	35	1	46	12	10	1	1	46	4	309
				-	-		-						-			-		
MCRB025	18	19	111	10	6	3	12	2	42	1	63	16	14	2	1	53	5	400
MCRB025	19	20	156	5	3	2	6	1	21	0	32	8	7	1	0	26	3	318
MCRB025	20	21	255	7	4	2	8	1	28	1	43	11	9	1	0	34	3	478
MCRB025	21	22	127	9	5	3	12	2	51	1	71	18	15	2	1	43	4	427
MCRB025	22	23	288	12	6	4	19	2	57	1	98	22	23	2	1	58	5	706
MCRB025	23	24	110	7	3	2	10	1	31	0	56	13	13	1	0	33	3	335
MCRB025	24	25	122	7	4	3	10	1	43	0	73	18	15	1	0	33	3	392
MCRB025	17	18	77	7	4	1	8	1	40	1	37	9	7	1	1	38	4	279
-									-			-						
MCRB026	18	19	74	6	4	1	7	1	34	0	33	9	7	1	0	33	3	252
MCRB026	19	20	77	6	4	1	7	1	40	1	37	9	7	1	1	40	4	278
MCRB026	20	21	92	7	4	1	7	1	44	1	39	11	8	1	1	36	4	302
MCRB026	21	22	86	7	4	1	8	1	38	1	35	9	7	1	1	37	4	282
MCRB026	22	23	82	7	4	1	7	1	39	1	35	9	7	1	1	38	4	280
MCRB026	23	24	86	7	4	2	8	1	41	1	38	10	8	1	1	42	4	300
MCRB026	23	25	87	10	6	2	11	2	45	1	43	10	9	2	1	68	5	358
MCRB026	25	26	81	9	5	2	12	2	41	1	46	10	10	2	1	62	5	341
MCRB026	26	27	75	9	5	2	11	2	37	1	45	10	10	2	1	58	5	324
MCRB026	27	28	85	10	6	3	13	2	41	1	64	13	15	2	1	57	5	376
MCRB030	0	1	41	6	3	3	11	1	36	0	74	16	16	1	0	21	2	271
MCRB030	1	2	51	11	4	5	21	2	61	0	125	25	26	2	1	31	4	432
MCRB030	6	7	100	16	8	4	21	3	30	1	71	14	18	3	1	84	7	452
MCRB031	1	2	124	7	4	2	9	1	44	1	70	17	14	1	1	29	4	383
MCRB031	2	3	84	5	3	2	7	1	43	0	77	18	14	1	0	22	3	332
MCRB031	4	5	94	5	3	2	8	1	49	1	91	22	16	1	0	23	4	377
MCRB031	5	6	87	6	4	3	9	1	45	1	95	23	18	1	1	29	4	384
MCRB031	6	7	95	7	4	2	9	1	52	1	88	20	16	1	1	31	5	391
MCRB031	7	8	65	5	3	2	6	1	37	1	60	14	11	1	1	27	4	277
MCRB031	8	9	99	10	6	3	13	2	53	1	108	23	20	2	1	49	6	465
		-																
MCRB031	9	10	107	17	8	8	28	3	72	1	251	49	49	4	1	75	8	802
MCRB031	10	11	26	10	4	6	19	1	49	0	171	35	36	2	0	32	3	464
MCRB031	11	12	32	31	19	7	33	6	47	2	142	28	33	5	2	184	16	702
MCRB031	12	13	77	46	27	10	51	9	67	3	171	33	44	8	3	267	22	1001
MCRB031	13	14	80	58	35	9	62	12	77	4	130	25	34	9	4	388	25	1145
MCRB032	3	4	119	9	4	4	13	1	52	1	96	23	21	2	1	30	4	446
		5		-														
MCRB032	4	5	83	6	3	3	8	1	60	1	81	21	15	1	0	24	4	365

Hole ID	From	То	Ce	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Tb	Tm	Y	Yb	TR
		_	ppm	ppm	ppm	ppm	ppm	ppm	ppm	р								
MCRB032	5	6	89	9	5	3	10	2	56	1	81	20	17	2	1	43	5	4
MCRB032	6	7	58	6	4	2	7	1	34	1	51	12	11	1	1	30	4	20
MCRB032	7	8	78	10	6	3	10	2	36	1	54	13	13	2	1	47	6	33
MCRB032	8	9	71	19	11	4	19	4	76	1	90	23	20	3	1	108	10	54
MCRB032	9	10	75	11	6	3	11	2	41	1	56	13	13	2	1	54	6	34
MCRB032	10	11	99	17	10	4	17	3	51	1	68	16	17	3	1	89	10	48
MCRB032	11	12	92	24	13	7	30	5	54	2	143	28	35	4	2	126	11	68
MCRB032	12	13	97	22	12	5	23	4	54	2	101	21	25	4	2	112	11	58
MCRB032	13	14	90	14	8	3	13	3	43	1	62	14	14	2	1	77	8	42
MCRB032	14	15	79	20	12	4	19	4	44	2	78	17	19	3	2	104	11	49
MCRB032	15	16	82	13	8	3	13	3	45	1	65	15	15	2	1	69	8	40
MCRB032	16	17	93	11	6	3	12	2	53	1	77	18	17	2	1	51	7	41
MCRB032	17	18	71	8	5	2	9	1	42	1	60	14	13	1	1	35	5	33
MCRB032	18	19	66	21	11	6	30	4	65	1	113	22	27	4	1	109	9	57
MCRB032	19	20	65	29	17	6	34	6	56	2	97	18	24	5	2	174	13	65
MCRB033	2	3	45	38	20	13	51	7	50	2	260	43	65	7	2	167	17	93
MCRB033	3	4	70	286	150	79	391	52	304	16	1460	236	371	51	17	1490	114	60
MCRB033	4	5	40	87	46	23	128	16	124	4	400	64	99	16	5	495	31	18
MCRB033	5	6	37	112	59	30	170	21	179	6	523	88	128	21	6	656	37	24
MCRB033	6	7	30	21	12	6	30	4	43	1	103	19	25	4	1	131	8	52
MCRB033	7	8	34	12	6	4	17	2	33	1	73	14	18	2	1	73	5	35
MCRB033	8	9	30	10	5	3	14	2	30	1	59	12	14	2	1	68	4	30
MCRB033	9	10	29	10	5	3	15	2	30	1	64	13	16	2	1	67	4	33
MCRB033	10	11	46	13	7	4	17	2	38	1	67	14	16	2	1	76	5	36
MCRB033	11	12	50	10	6	3	14	2	40	1	67	14	15	2	1	62	4	34
MCRB033	12	13	47	9	4	3	12	2	37	1	59	12	13	2	1	50	4	30
MCRB033	13	14	50	10	5	3	13	2	38	1	62	13	14	2	1	57	4	32
MCRB033	14	15	65	8	4	3	11	1	44	1	60	14	12	1	1	43	4	31
MCRB033	15	16	52	10	5	3	15	2	40	1	67	14	15	2	1	53	4	33
MCRB033	16	17	37	22	13	5	27	4	43	1	96	18	24	4	1	131	9	52
MCRB033	17	18	26	50	27	13	64	9	110	3	258	50	61	9	3	265	21	11
MCRB033	18	19	19	46	19	18	73	7	126	2	382	73	92	10	2	162	14	12
MCRB033	19	20	27	34	15	13	52	6	96	2	266	51	63	7	2	139	12	92
MCRB033	20	21	31	22	11	7	30	4	59	1	155	31	37	4	1	108	9	60
MCRB033	21	22	31	17	9	5	23	3	43	1	112	23	26	3	1	93	7	47
MCRB033	22	23	36	19	10	6	25	3	47	1	113	23	27	3	1	105	8	50
MCRB033	23	24	45	20	11	6	26	4	53	1	113	23	27	4	1	113	8	54
MCRB033	24	25	46	13	7	4	16	2	37	1	68	14	16	2	1	76	6	36
MCRB033	25	26	39	12	6	3	15	2	36	1	70	14	16	2	1	62	5	33

#### Appendix 3. Drill collar data table and assay status.

Hole ID	Hole Depth (metre)	Easting (GDA94/WGS54)	Northing (GDA94/WGS54)	Azimuth (True)	Dip	Assay Status
MCRB001	31	274493.04	6459605.53	90	-60	Not Assayed
MCRB002	70	274467.16	6459613.07	90	-60	Not Assayed
MCRB003	42	274439.89	6459612.87	360	-90	Not Assayed
MCRB004	29	274431.39	6459612.79	360	-90	<b>Results Received</b>
MCRB005	25	274831.16	6460210.95	92	-60	Results Received
MCRB006	16	274814.29	6460212	93	-60	Results Received
MCRB007	19	274847.78	6460205.76	301	-60	Results Received
MCRB008	26	274863.39	6460199.41	283	-60	Results Received
MCRB009	22	274887.03	6460203.93	280	-60	Assays Pending
MCRB010	46	274907.72	6460200.56	285	-60	Assays Pending
MCRB011	28	274933.03	6460194.31	286	-60	Assays Pending
MCRB012	16	274767.61	6460047.24	269	-60	<b>Results Received</b>
MCRB013	25	274808.06	6460048.58	275	-60	Results Received
MCRB014	7	274840.87	6460045.53	275	-60	Not Assayed
MCRB015	27	274846.76	6460045.02	275	-60	Not Assayed

ASX:TAR



Hole ID	Hole Depth (metre)	Easting (GDA94/WGS54)	Northing (GDA94/WGS54)	Azimuth (True)	Dip	Assay Status
MCRB016	40	274987.13	6459934.79	268	-60	Results Received
MCRB017	38	275002.64	6459935.35	268	-60	Assays Pending
MCRB018	43	274953.2	6459639.14	264	-60	Results Received
MCRB019	30	274928.1	6459633.02	80	-60	Results Received
MCRB020	3	274906.69	6459628.87	80	-60	Not Assayed
MCRB021	25	274902.46	6459628.13	367	-90	Assays Pending
MCRB022	42	274940.84	6459614.48	82	-60	Assays Pending
MCRB023	38	274973.3	6459642.3	259	-60	<b>Results Received</b>
MCRB024	31	274995.58	6459646.42	260	-60	<b>Results Received</b>
MCRB025	33	275021.07	6459651.16	260	-60	<b>Results Received</b>
MCRB026	39	275049.3	6459655.6	261	-60	<b>Results Received</b>
MCRB027	52	275104.04	6459655.56	91	-60	Assays Pending
MCRB028	96	274990.72	6459023.43	88	-60	Assays Pending
MCRB029	40	274967.29	6459022.22	89	-60	Assays Pending
MCRB030	40	274944.17	6459021.37	88	-60	<b>Results Received</b>
MCRB031	40	274923.4	6459020.73	89	-60	<b>Results Received</b>
MCRB032	37	274899.87	6459020.95	89	-60	<b>Results Received</b>
MCRB033	40	274879.84	6459020.93	89	-60	<b>Results Received</b>
MCRB034	33	274859.4	6459019.85	90	-60	Assays Pending
MCRB035	33	274840.3	6459020.06	90	-60	Assays Pending
MCRB036	52	274816.44	6459020.55	90	-60	Assays Pending
MCRB037	31	274796.95	6459020.32	90	-60	Assays Pending
MCRB038	43	274767.26	6459023.01	92	-60	Assays Pending
MCRB039	40	274738.21	6459023.23	91	-60	Assays Pending
MCRB040	55	274801.855	6458778.571	90	-60	Assays Pending
MCRB041	13	274864.999	6458778.634	90	-60	Assays Pending
MCRB042	7	274845.302	6458778.791	89	-60	Assays Pending
MCRB043	40	274913.895	6459119.864	91	-60	Assays Pending
MCRB044	43	274892.746	6459120.367	91	-60	Assays Pending
MCRB045	40	274872.392	6459121.103	91	-60	Assays Pending
MCRB046	34	274852.496	6459121.465	92	-60	Assays Pending
MCRB047	39	274831.107	6459121.426	89	-60	Assays Pending
MCRB048	40	274812.224	6459121.133	90	-60	Assays Pending
MCRB049	34	274768.243	6459122.443	90	-60	Assays Pending
MCRB050	34	274960.027	6458910.084	91	-60	Assays Pending
MCRB051	40	274926.014	6458910.204	90	-60	Assays Pending
MCRB052	49	274906.529	6458910.256	90	-60	Assays Pending
MCRB053	31	274884.327	6458909.905	90	-60	Assays Pending
MCRB054	30	274825.012	6458909.383	90	-60	Assays Pending
MCRB055	58	275506.513	6458052.317	181	-60	Assays Pending
MCRB056	46	275454.241	6458073.018	179	-60	Assays Pending
MCRB057	51	275176.824	6456071.029	90	-60	Assays Pending
MCRB058	51	275148.598	6456071.782	91	-60	Assays Pending
MCRB059	53	275181.04	6455788.94	77	-60	Not Assayed



identified was logged separately including selective pXRF

# 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	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>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.</li> <li>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.</li> <li>A and B sample weights were on average &gt;3kg.</li> <li>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.</li> <li>Each metre is geologically logged including a pXRF and magsus reading.</li> <li>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 mineralisaton. Each geological interval</li> </ul>



Criteria	JORC Code explanation	Commentary
D		<ul> <li>readings to support mineral identification or regular 5cm spaced readings for indicative mineralisation trends over select intervals.</li> <li>Selective rock-chip samples were collected as in-situ, surface lag and float samples. Both visibly mineralised and unmineralised 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.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	<ul> <li>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.</li> <li>The drill rigs used include onboard air and for RC an auxillary 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.</li> <li>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.</li> <li>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.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results asses</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>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.</li> <li>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</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>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.</li> <li>Core recovery was assessed through measurement of core in relation drilled depths and core blocks. Core recoveries were above acceptable industry standard limitations with &gt;98% core recovery.</li> <li>No sample quality issues are expected outside of the standard variances between drilling and sampling methods.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>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.</li> <li>Core drill holes were geologically logged by industry standard methods, including lithology, structure, alteration and mineralisation. All core trays were photographed wet and dry.</li> <li>The logging is qualitative in nature and of sufficient detail supporting the current interpretations and is used to develop representative sections.</li> <li>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.</li> <li>Review of logging is conducted following the return of geochemical results.</li> </ul>
Sub- sampling techniques and sample preparation		<ul> <li>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</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>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.</li> <li>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.</li> <li>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 mineralisaton.</li> <li>A Vanta pXRF was used with reference standards (CRM) to ensure accuracy of readings. No results reported are from pXRF sampling.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometres, handheld XRF instruments, etc, the parametres used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>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.</li> </ul>	<ul> <li>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.</li> <li>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</li> </ul>



Criteria	JORC Code explanation	Commentary
D		<ul> <li>additional checks including standards, blanks and repeat samples that were conducted regularly on every batch. Company standards are included every 25<sup>th</sup> sample and a duplicate every 30<sup>th</sup>.</li> <li>New data being reported relates to an initial 323 sample assay results received with a total sampling QAQC (standards and duplicates) of 8.7% added to assess contamination and bias in the analysis and sampling process. All 16 standards submitted were within acceptable limits. All 12 duplicates submitted were within acceptable limits of variance.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No independent verification has been completed.</li> <li>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.</li> <li>Significant intercepts are reported by Company representatives based on best practice and available information.</li> <li>All significant intercepts are reported as downhole lengths and are not necessarily indicative of true thickness unless stated.</li> <li>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.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>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.</li> <li>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 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.</li> </ul>
Data spacing	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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</li> </ul>	<ul> <li>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.</li> </ul>



	Criteria	J	ORC Code explanation	Comm	entary
	and distribution	•	classifications applied. Whether sample compositing has been applied.	•	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.	٠	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.	٠	No audits completed. Internal processes routinely review the appropriate application of sampling techniques in relation to current knowledge of stratigraphy and mineralisation style.



## 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> <li>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.</li> <li>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.</li> </ul>	<ul> <li>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.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>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 &amp; 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 &amp; Utah Development Company Ltd.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>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</li> </ul>

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Criteria	JORC Code explanation	Commentary
Drill he Inform		<ul> <li>appendices or has been previously released.</li> <li>If applicable all rock chip samples are included with relevant analysis results in the appendices or has been previously released.</li> <li>All available and relevant assay data is included in this report or has previously been reported.</li> </ul>
Data aggreg method		<ul> <li>of high</li> <li>d be stated.</li> <li>high grade</li> <li>dure used</li> <li>xamples of</li> <li>is are reported they are weighted average grades considering</li> <li>variable sampling lengths. Some significant intercepts are</li> <li>significant because of multiple anomalous elements.</li> <li>Standard element to stoichiometric oxide conversion factors are</li> <li>used in calculating and reporting oxide equivalent elements.</li> <li>Rare earth elements (REE) converted to oxide equivalents were</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>TREO refers to the sum of all 15 REE's in their respective oxide equivalent</li> <li>MREO refers to the 4 magnetic rare earth oxides (Nd2O3+Pr2O3+Dy2O3+Tb2O3)</li> <li>HREO refers to the heavy rare earth oxides (Eu2O3+Gd2O3+Tb2O3+Dy2O3+Ho2O3+Er2O3+Tm2O3+Yb2 O3+Y2O3+Lu2O3)</li> <li>LREO refers to the light rare earth oxides (La2O3+Ce2O3+Pr2O3+Nd2O3+Sm2O3)</li> <li>CREO refers to the light rare earth oxides (Nd2O3+Tb2O3+Dy2O3+Er2O3+Sm2O3)</li> </ul>
		Element Oxide Factor
/		Cerium         Ce <sub>2</sub> O <sub>3</sub> 1.1713
		Dysprosium Dy <sub>2</sub> O <sub>3</sub> 1.1477
Ź		Erbium         Er <sub>2</sub> O <sub>3</sub> 1.1435
		Europium         Eu2O3         1.1579
		GadoliniumGd2O31.1526
		Holmium Ho <sub>2</sub> O <sub>3</sub> 1.1455
2		Lanthanum $La_2O_3$ 1.1728
		Lutetium Lu <sub>2</sub> O <sub>3</sub> 1.1371
		Neodymium Nd <sub>2</sub> O <sub>3</sub> 1.1664
		Praseodymium Pr <sub>2</sub> O <sub>3</sub> 1.1703
		Samarium         Sm2O3         1.1596
/		Terbium         Tb <sub>2</sub> O <sub>3</sub> 1.151
		Thulium         Tm <sub>2</sub> O <sub>3</sub> 1.1421
		Yttrium         Y <sub>2</sub> O <sub>3</sub> 1.2699
3		YtterbiumYb2O31.1387
Relations between	<i>hip</i> • These relationships are particularly important Exploration Results.	t in the reporting of • Sections are being developed and will be completed when pending assays are available. Previously released images have



Criteria	JORC Code explanation	Commentary
mineralisatio n widths and intercept lengths	<ul> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	shown where possible interpreted potential mineralisation widths or has been noted within the document. 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 collar locations and appropriate sectional views.	<ul> <li>Appropriate plan diagrams of collar location, surface features and location of results are provided in the report. Appropriate sections will be available on return and review of pending assay data.</li> </ul>
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.	<ul> <li>All relevant information is reported within the document or included in the appendices if not reported previously.</li> </ul>
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.	<ul> <li>All relevant and meaningful recent exploration or known historical exploration data is included in this report or has been previously released.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Geochemical results are pending for submitted RAB drilling samples. The inclusion of this data when available will add to the developing geological model. Follow up exploration activities including further drilling will be guided by the improved data set. 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 north</li> <li>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.</li> </ul>