ASSAYS CONFIRM NT PROJECT's VERY LARGE REE TREND

Highlights

- Soil geochemistry confirms the very large **160 km long rare earth elements (REE) trend** detected by Geoscience Australia on the Company's North Barkly Project in the Northern Territory (Figure 1).
- The laterite soil profile suggests an **immediate ionic clay REE target**.
- Coincident REE, iron, copper, cobalt, silver, bismuth, lead, tungsten, tellurium, and uranium assays are **typical of a buried IOCG source**.
- A **shallow gravity and magnetic IOCG target** lies within the peak REE and metal trend.

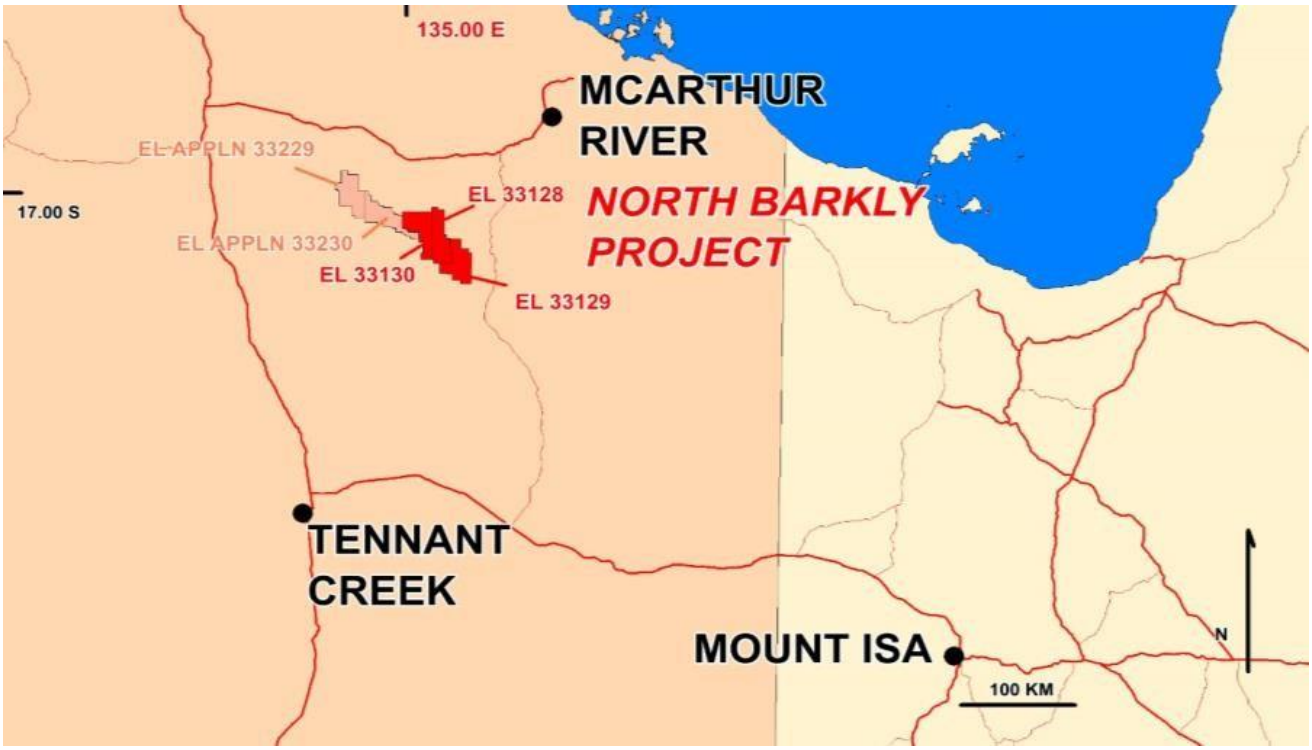

Figure 1. Location of the North Barkly Project

During October 2022, Green Critical Minerals (GCM or the Company) mobilised a contract field crew to the remote project area in order to conduct widely spaced soil sampling over the south-eastern 70 km portion of the 160 km long Geoscience Australia (GA) rare earths uranium trend (see the Company's ASX announcement dated 26 May 2022). Unusually early persistent and heavy rainfall created boggy conditions and unfortunately restricted the sampling to the most south-easterly 30 km of the planned programme only.

A total of 65 samples were collected and each sample site was photographed in order to confirm the location and nature of the anomalous material. In all cases the sample was taken from near surface clay with a small proportion of iron lag grains.

The samples were processed and analysed identically to the GA method and returned the same level of rare earths. Spatially, the > 200 ppm total rare earths zone correlates well with the trend of the 160 km GA > 200 ppm zone (Figure 2).

Sample numbers, localities, assays etc are included or attached to this announcement.

Ionic Clay hosted REE Potential

GCM is pleased by these results as they confirm that the project has the potential for a very large ionic clay REE deposit at a shallow depth, most likely less than 30 m. Such a deposit would be expected to be present as a blanket underlying the environs of the surface area rare earths trend (Figure 3).

IOCG Potential (Figure 3)

The nearest GA sample was also the highest in multi element anomalism within their entire Barkly Tableland sampling programme. The peak elements included copper, cobalt, silver, bismuth, iron, lead, niobium, tungsten, tellurium, uranium, and molybdenum. These elements also accompanied the peak rare earths in the GCM survey.

This element association is typical of the chemical dispersion from an IOCG style mineral deposit (e.g. Olympic Dam, Ernest Henry, and Starra). Gold is not anomalous as it is insoluble under non-saline conditions and does not travel in solution, unlike these other elements.

A 100 m deep modelled magnetic and gravity anomaly lies 6 km along trend of the peak metal and rare earth anomalism and presents an immediate large scale IOCG target at an unusually shallow 100 m depth.

In 1995, BHP drilled close to this geochemical and geophysical target, and encountered copper, lead and zinc anomalism including sulphides from 90 to 400 m. BHP did not assay the top 90 m of the hole at all and none of it for rare earth elements. GCM **considers this hole to be a near miss result**. Since that time, more accurately positioned holes can be drilled based on GCM commissioned interpretation of the detailed magnetic and gravity surveys that have been conducted by Geoscience Australia. The modelling and interpretation was announced to the ASX by the Company on 6 October 2022.

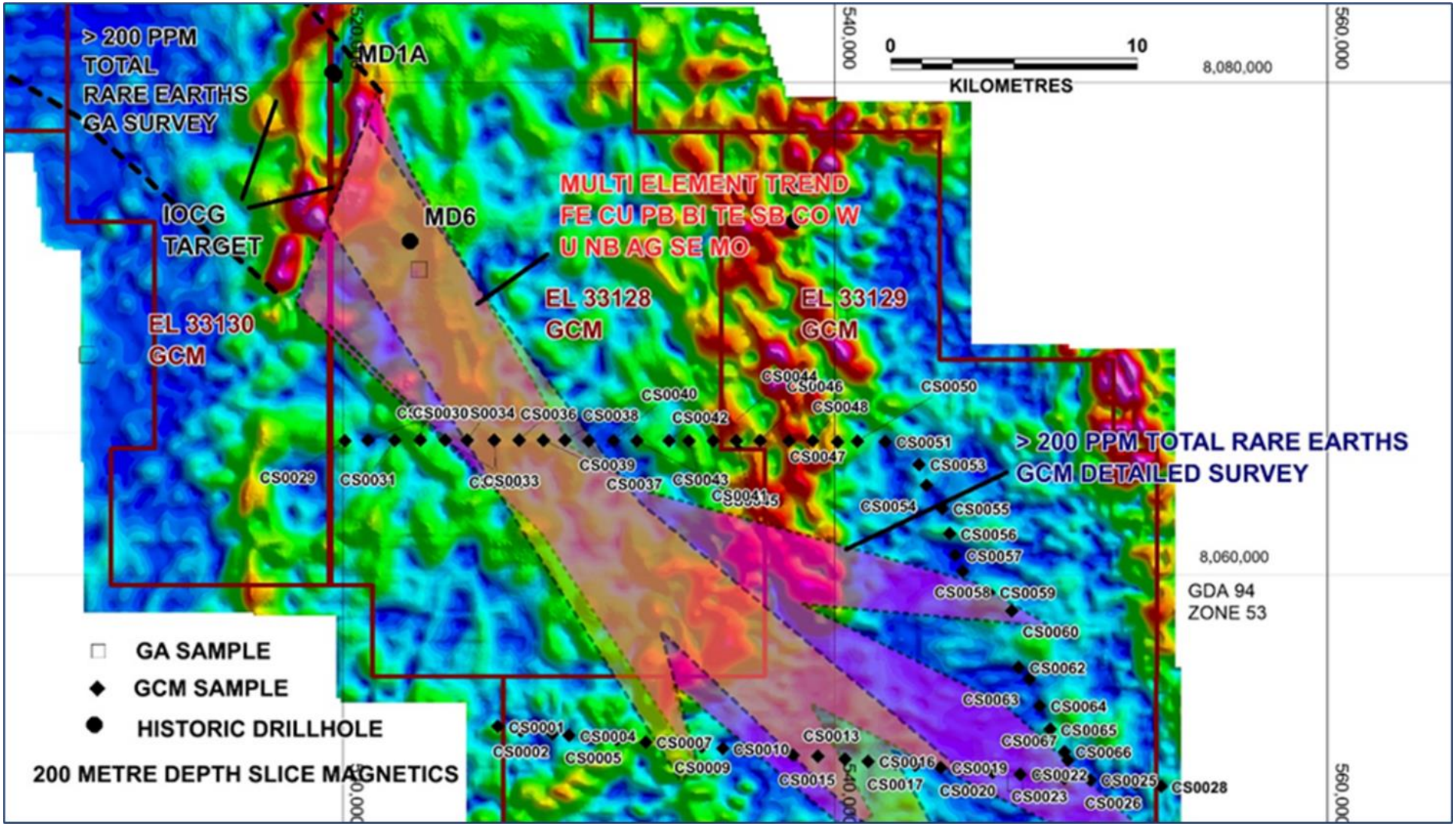

Figure 2. Rare earth and multielement trends on North Barkly Project 200 m depth magnetics

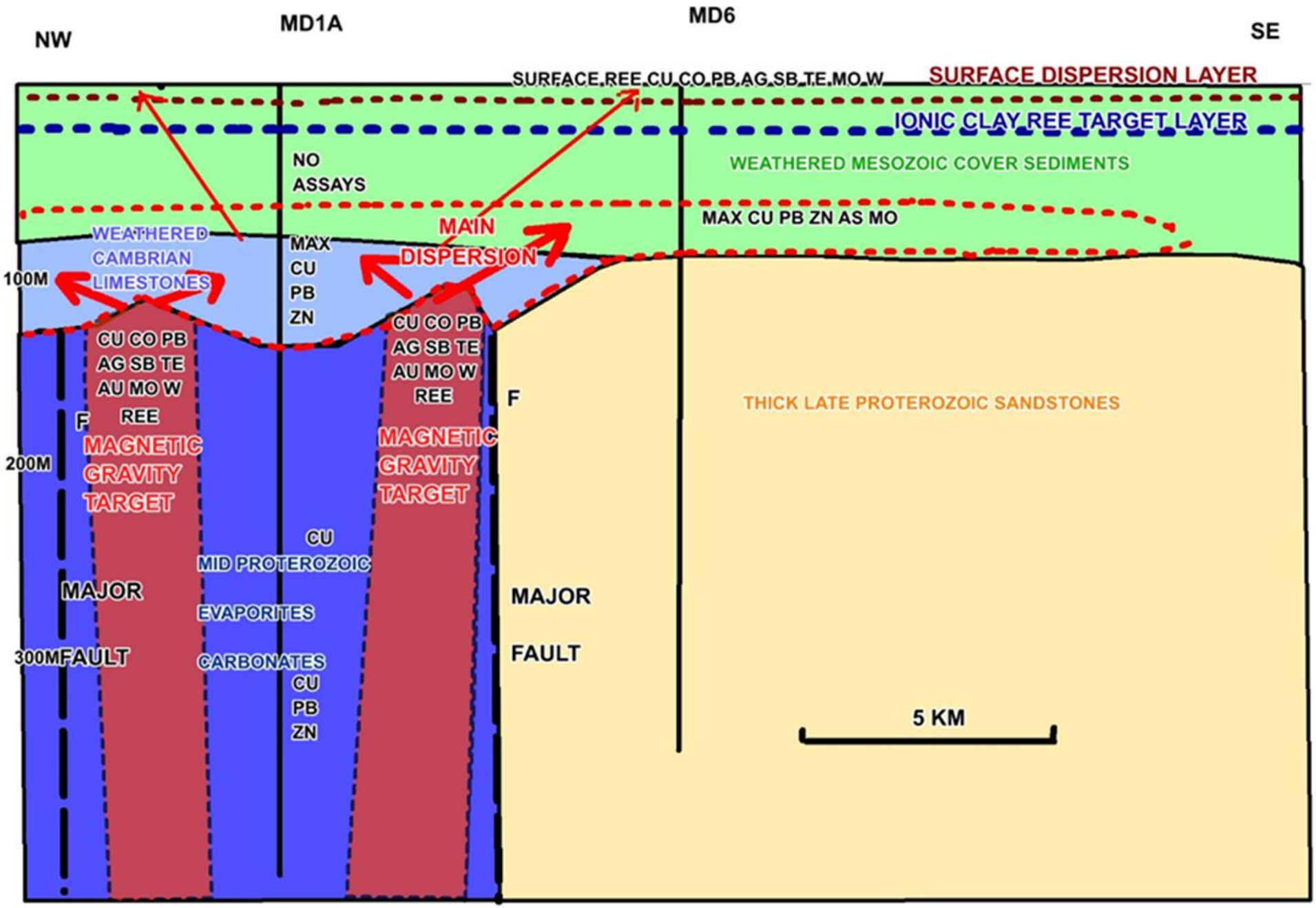

Fig.3 Schematic Section Illustrating North Barkly Project Targets

Next steps:

GCM is planning to extend the soil sampling programme to the north-west, early in the next dry season. More detailed sampling is to take place over the modelled IOCG targets. This extended coverage will include the current EL applications which should be granted by that time.

GCM intends to drill the MD1A IOCG target, initially testing the laterite soil profile for clay hosted ionic rare earths, but also for deeper base metals and gold. The timing of this programme will depend upon access agreements, weather, and suitable rig availability.

END

Authorisation

The provision of this announcement to ASX has been authorised by the Executive Chairman Leon Pretorius and Non-Executive Director Juian Atkinson of Green Critical Minerals.

The Company confirms that it is not aware of any new information or data that materially affects any previously announced exploration results included in this.

COMPETENT PERSON STATEMENT

The information in this release that relates to exploration results is based on information compiled by Mr Neil Wilkins M.Sc. Exploration and Mining Geology, who is a Member of The Australian Institute of Geoscientists. Mr Wilkins is employed by Ascry Pty Ltd, which provides consultancy services to GCM. Mr Wilkins has previously worked in the North Barkly Project area and has more than five years' experience which is relevant to the styles of mineralisation and types of deposit mentioned in this report and to the activity, which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves' (the JORC Code). This public report is issued with the prior written consent of the Competent Person as to the form and context in which it appears. Mr Wilkins holds shares in Green Critical Minerals Limited.

Table 1 GCM Soil Sampling <75 micron sieved Locations and Analyses (AMG 84 zone 53)

Sample	East	North	Au	Ag	As	Bi	Co	Cu	Fe	Mo	Nb	Ni
CS0001	526178	8053689	0.0006	0.011	2.9	0.181	7.61	10.6	2.58	0.59	0.1	5.42
CS0002	527111	8053501	0.0011	0.02	2.7	0.308	14.8	16.7	3.16	0.74	0.24	7.6
CS0003	528412	8053384	0.0009	0.011	3.1	0.237	12.2	13.4	2.76	0.62	0.17	6.59
CS0004	529066	8053322	0.0005	0.007	2.6	0.185	7.96	9.69	2.26	0.48	0.17	4.78
CS0005	530053	8053245	0.0004	0.002	3.2	0.178	2.88	5.21	3.04	0.5	0.13	2.64
CS0006	531000	8053163	0.0005	0.019	5.1	0.229	9.22	9.84	3.6	0.71	0.23	5.31
CS0007	532180	8053061	0.0016	0.01	2.1	0.229	6.95	12.8	2.75	0.72	0.11	6.79
CS0008	533313	8053027	0.0012	0.016	3.6	0.296	17.1	19.4	3.65	0.8	0.3	8.39
CS0009	534469	8052864	0.0006	0.012	2.8	0.233	10.4	13.6	2.61	0.61	0.2	7.18
CS0010	535310	8052792	0.0009	0.023	2.9	0.239	16.5	17.1	2.61	0.84	0.21	7.59
CS0011	536207	8052714	0.0005	0.011	3.6	0.219	15.7	12.4	2.98	0.76	0.25	7.45
CS0013	538153	8052532	0.0011	0.022	3.3	0.28	19.3	17.6	2.89	0.93	0.27	10.7
CS0014	539170	8052471	0.0011	0.018	5	0.318	20.2	19	4.17	1.14	0.35	11.8
CS0015	540286	8052353	0.0006	0.017	3.3	0.246	10.4	17	3.65	0.79	0.2	11.8
CS0016	541215	8052274	0.0013	0.026	2.9	0.251	7.39	16.1	3.15	0.88	0.1	10.5
CS0017	542309	8052179	0.001	0.028	4.1	0.236	10.2	16.9	3.45	0.93	0.18	10.1
CS0018	543129	8052110	0.0007	0.015	2.6	0.207	8.84	11.5	2.52	0.77	0.18	6.89
CS0019	544163	8052020	0.0006	0.024	3.4	0.229	11	16.6	3.06	0.72	0.23	11.7
CS0020	545257	8051927	0.0003	0.022	2.8	0.2	8.49	13.5	2.37	0.56	0.23	8.61
CS0021	546266	8051840	0.0002	0.017	3.2	0.193	7.35	12.1	2.77	0.78	0.21	8.34
CS0022	547399	8051741	0.0009	0.025	4.2	0.229	12.5	15.8	3.61	0.78	0.13	10.2
CS0023	548176	8051676	0.0008	0.016	3.3	0.204	7.67	13.7	3.32	0.63	0.13	9.84
CS0024	549190	8051589	0.0005	0.013	4	0.198	12	13	3.17	0.7	0.22	9.06
CS0025	550233	8051520	0.0006	0.013	3.2	0.193	8.26	13.1	3.22	0.67	0.12	9.88
CS0026	551159	8051420	0.0007	0.019	3	0.206	8.1	13.8	3.34	0.55	0.09	11.2
CS0027	552076	8051344	0.0008	0.012	3.6	0.202	11.4	15.2	3.06	0.62	0.16	11.7
CS0028	553109	8051258	0.0012	0.024	3.9	0.234	13.2	16.7	4.05	0.98	0.13	13.8
CS0029	519979	8065300	0.0005	0.016	2.5	0.227	9.68	14.6	3.06	0.55	0.12	9.71
CS0030	520888	8065311	0.0008	0.025	3.2	0.28	9.23	18.6	3.15	0.92	0.18	7.56
CS0031	522000	8065307	0.0012	0.013	3.4	0.24	11.7	18.5	3.85	0.82	0.17	9.69
CS0032	523023	8065309	0.0004	0.009	1.4	0.129	4.24	6.22	1.32	0.29	0.1	3
CS0033	524035	8065307	0.0007	0.01	1.1	0.197	7	11.6	1.47	0.35	0.14	4.95
CS0034	524933	8065308	0.0006	0.014	2.8	0.26	11.3	16.8	2.78	0.69	0.23	8.04
CS0035	526045	8065304	0.0008	0.081	3	0.277	20.8	23.9	2.87	0.66	0.25	11
CS0036	527041	8065308	0.0009	0.02	4.7	0.326	12.7	18.3	4.31	0.97	0.46	9.97
CS0037	528043	8065304	0.0004	0.038	4.4	0.347	19.5	21	4.36	0.97	0.47	10.9
CS0038	528910	8065304	0.0002	0.011	2.1	0.131	6.53	7.09	2.11	0.37	0.12	3.7
CS0039	529875	8065300	<0.0002	0.011	1.2	0.133	4.56	7.37	1.42	0.25	0.14	3.87
CS0040	530878	8065300	<0.0002	0.008	2.3	0.192	12.4	11.7	2.22	0.54	0.2	5.1
CS0041	531820	8065297	0.0003	0.009	1.6	0.148	9.49	7.78	1.72	0.39	0.18	3.64
CS0042	533144	8065294	0.0007	0.021	3.7	0.201	10.2	15.2	3.25	0.49	0.17	11
CS0043	533934	8065292	0.0005	0.017	4	0.202	7.28	13.5	3.62	0.55	0.21	9.5

Sample	East	North	Au	Ag	As	Bi	Co	Cu	Fe	Mo	Nb	Ni
CS0044	534934	8065290	<0.0002	0.006	1	0.106	7.53	4.89	1.22	0.26	0.1	2.06
CS0045	535863	8065288	<0.0002	0.018	2.6	0.173	6.41	10.8	2.18	0.5	0.15	5.71
CS0046	536831	8065286	0.0006	0.019	3.4	0.201	10.7	14.9	2.88	0.56	0.21	11.8
CS0047	538005	8065285	0.0003	0.029	3.3	0.169	15.5	14.6	2.64	0.52	0.11	16.8
CS0048	538965	8065283	0.0004	0.021	3.1	0.229	10.6	14.4	2.83	0.63	0.23	9.02
CS0049	539972	8065252	0.0003	0.019	4	0.206	10.9	13	3.32	0.62	0.23	10.4
CS0050	540777	8065271	0.0005	0.02	4.6	0.219	11.5	13.8	3.63	0.71	0.34	10.8
CS0051	541905	8065251	0.0004	0.023	3.9	0.197	9.98	12.9	3.33	0.53	0.2	9.91
CS0052	542932	8065267	<0.0002	0.011	3.2	0.197	5.96	11.1	3.13	0.64	0.07	6.63
CS0053	543281	8064327	0.0004	0.017	3	0.203	7.69	11.6	2.92	0.55	0.09	7.94
CS0054	543588	8063478	<0.0002	0.021	3.8	0.225	4.31	13	3.28	0.97	0.1	5.49
CS0055	544234	8062540	0.0002	0.013	2.4	0.177	7.3	9.9	2.39	0.4	0.09	6.64
CS0056	544528	8061516	0.0002	0.017	3.2	0.265	8.66	15.7	3.26	0.86	0.16	8.97
CS0057	544764	8060643	0.0002	0.017	1.7	0.194	5.95	10.7	1.99	0.59	0.14	6.53
CS0058	545052	8059977	0.0004	0.016	3.1	0.228	9	16.7	3.45	0.74	0.09	8.12
CS0059	546120	8059137	<0.0002	0.018	2.6	0.182	8.09	11.6	2.4	0.62	0.15	6.9
CS0060	547051	8058367	0.0003	0.016	3.5	0.246	12.8	16.5	3.69	0.92	0.25	12.2
CS0062	547337	8056087	0.0003	0.017	4	0.251	9.31	15.7	3.62	0.83	0.25	10.1
CS0063	547765	8055615	<0.0002	0.013	3.1	0.212	10.6	13.3	2.84	0.87	0.21	8.2
CS0064	548175	8054525	0.0005	0.019	3	0.228	5.17	14.9	3.29	0.65	0.15	9.58
CS0065	548603	8053575	0.0004	0.014	3.4	0.24	7.28	15.9	3.94	0.83	0.09	11.9
CS0066	549192	8052666	0.0008	0.022	4	0.234	9.45	15.9	3.74	0.7	0.18	11.7
CS0067	549326	8052324	0.0003	0.021	3.7	0.241	9.65	16.4	3.81	0.83	0.17	11.7

Sample	Pb	Sb	Sc	Te	U	W	Zn	Ce	La	Sc	Y	Dy	Er	Eu	Gd
CS0001	11.9	0.22	5.7	0.019	0.62	0.05	9.1	39	15	6	14	3	1	1	3
CS0002	14.1	0.2	10	0.022	1.35	0.06	11.8	62	30	10	24	5	2	2	6
CS0003	10.3	0.22	8	0.017	1.07	0.04	6.4	52	26	8	23	4	2	1	5
CS0004	9.45	0.17	4.7	0.018	0.75	0.05	4.8	44	20	5	17	3	2	1	4
CS0005	8.22	0.15	2.9	0.03	0.47	0.05	3.4	28	12	3	10	2	1	1	2
CS0006	10.3	0.2	5.8	0.028	0.86	0.06	12.8	58	22	6	19	3	2	1	4
CS0007	8.69	0.2	8.9	0.012	0.82	0.02	5.2	35	17	9	15	3	1	1	4
CS0008	13.2	0.23	9.2	0.021	1.39	0.06	7.4	70	28	9	28	5	3	2	7
CS0009	10.6	0.12	7.2	0.016	1.01	0.05	10.9	48	24	7	21	4	2	1	5
CS0010	14.8	0.17	8.5	0.017	1.65	0.06	7.2	68	27	9	25	5	3	2	7
CS0011	12.6	0.19	6.3	0.023	1.13	0.06	9.6	59	24	6	23	4	2	1	6
CS0013	16.4	0.16	11	0.015	1.28	0.06	11.9	83	35	11	34	6	3	2	8
CS0014	17.3	0.27	9.3	0.029	1.14	0.09	13.5	72	18	9	23	4	2	2	6
CS0015	14.3	0.19	8.1	0.018	1	0.06	12	74	15	8	21	4	2	1	6
CS0016	13.3	0.17	8.5	0.015	1.54	0.04	13.4	71	16	8	22	4	2	2	6
CS0017	22.1	0.21	8.6	0.02	2.13	0.04	17.2	84	15	9	25	5	2	2	7
CS0018	11.6	0.18	5.8	0.016	0.83	0.06	7.1	47	18	6	19	4	2	1	5
CS0019	20.5	0.18	6.4	0.023	1.18	0.06	24.9	88	22	6	27	5	2	2	7

Sample	Pb	Sb	Sc	Te	U	W	Zn	Ce	La	Sc	Y	Dy	Er	Eu	Gd
CS0020	12.5	0.15	5.3	0.018	1.54	0.06	14.5	75	28	5	28	5	3	2	7
CS0021	9.11	0.15	5.8	0.02	0.84	0.06	8.6	43	13	6	16	3	2	1	4
CS0022	22.2	0.19	7.6	0.018	1.1	0.04	13.9	88	27	8	26	5	3	2	7
CS0023	14.8	0.29	7.1	0.018	0.5	0.04	10.9	67	30	7	24	5	2	2	7
CS0024	19.9	0.27	6.1	0.019	0.47	0.05	17	77	25	6	19	4	2	1	5
CS0025	13.9	0.2	6.7	0.017	0.52	0.04	10.3	54	24	7	20	4	2	2	6
CS0026	14.2	0.18	7.2	0.017	0.8	0.03	11.3	53	24	7	24	5	2	2	6
CS0027	13	0.18	6.4	0.018	0.66	0.05	12.1	56	21	6	25	5	2	2	7
CS0028	17.9	0.22	9	0.024	1.11	0.05	13.9	78	28	9	31	6	3	2	8
CS0029	15.3	0.12	7.3	0.021	0.74	0.04	14.3	50	24	7	25	5	2	1	5
CS0030	14.3	0.18	8.8	0.018	1.2	0.06	5.5	69	32	9	25	5	2	2	6
CS0031	15.4	0.19	10	0.02	1.02	0.05	4.9	58	19	10	19	4	2	1	5
CS0032	5.45	0.08	3.6	0.008	0.66	0.04	3.1	37	19	4	18	3	2	1	4
CS0033	7.63	0.11	6	0.01	1.07	0.04	3.8	55	29	6	27	5	2	2	7
CS0034	13.1	0.15	8.2	0.016	1.39	0.06	7.2	71	29	8	25	5	2	2	6
CS0035	14.8	0.16	8.5	0.021	1.98	0.06	7.8	99	48	9	47	9	4	3	11
CS0036	16.1	0.22	9.5	0.03	1.32	0.09	9	74	20	9	20	4	2	1	5
CS0037	19.4	0.24	9.8	0.029	1.53	0.09	9.7	86	35	10	30	6	3	2	7
CS0038	8.04	0.11	3.9	0.013	0.89	0.05	3.2	63	20	4	16	3	2	1	4
CS0039	6.06	0.1	4.2	0.007	0.67	0.04	8	56	28	4	25	4	2	1	6
CS0040	12.3	0.15	5.7	0.014	1	0.05	6.5	59	22	6	21	4	2	1	5
CS0041	7.22	0.11	4.2	0.01	0.71	0.04	5.8	47	18	4	17	3	2	1	4
CS0042	8.65	0.15	6.5	0.015	0.77	0.04	13.4	42	16	7	21	4	2	1	5
CS0043	8.67	0.14	6.5	0.016	0.77	0.05	10.2	35	13	6	16	3	2	1	4
CS0044	4.36	0.11	2.6	0.006	0.44	0.03	2.3	25	14	3	14	3	1	1	3
CS0045	8.42	0.13	5	0.013	0.81	0.04	10.4	44	18	5	21	4	2	1	5
CS0046	10.2	0.13	5.6	0.015	0.9	0.05	13.7	52	21	6	26	5	2	2	6
CS0047	10.9	0.13	6.9	0.015	1.1	0.03	24.4	57	20	7	30	6	3	2	6
CS0048	10.1	0.14	6.1	0.013	1.08	0.05	8.3	61	23	6	28	5	3	2	6
CS0049	9.85	0.17	5.4	0.019	0.83	0.05	8.3	47	16	5	20	4	2	1	5
CS0050	11.4	0.16	6	0.023	1.01	0.07	14.9	61	18	6	24	4	2	1	6
CS0051	10.8	0.14	5.2	0.018	0.85	0.06	8.7	50	16	5	25	5	2	2	6
CS0052	9.03	0.21	5.2	0.022	0.77	0.03	11.5	34	12	5	15	3	1	1	4
CS0053	11.6	0.12	6.1	0.02	0.73	0.04	11.6	52	19	6	23	4	2	1	5
CS0054	11.5	0.14	6.9	0.023	0.96	0.04	8.2	54	18	7	22	4	2	1	5
CS0055	12.9	0.11	5.6	0.015	0.45	0.03	8.8	49	19	6	20	4	2	1	5
CS0056	11.5	0.18	7.1	0.019	1.01	0.04	10.2	58	29	7	28	5	3	2	7
CS0057	9.3	0.1	6.2	0.009	1.17	0.04	5.9	50	25	6	22	4	2	1	6
CS0058	18.6	0.15	8.9	0.02	1.31	0.04	15.3	79	32	9	28	6	3	2	7
CS0059	11.9	0.1	5.2	0.016	0.53	0.05	13.1	55	17	5	15	3	1	1	4
CS0060	14.7	0.22	7.7	0.019	0.9	0.05	15.2	76	32	8	27	5	3	2	7
CS0062	12.9	0.16	7.3	0.02	0.52	0.06	12	57	19	7	18	3	2	1	5
CS0063	12.9	0.16	5.9	0.018	0.83	0.05	17	61	25	6	20	4	2	1	5

Sample	Pb	Sb	Sc	Te	U	W	Zn	Ce	La	Sc	Y	Dy	Er	Eu	Gd
CS0064	13.5	0.16	7	0.017	0.84	0.04	13.3	59	28	7	20	4	2	1	5
CS0065	16.1	0.18	8.7	0.018	0.65	0.03	13.1	74	32	9	25	5	2	2	7
CS0066	18.1	0.2	8.1	0.02	0.63	0.05	15	84	37	8	30	6	3	2	8
CS0067	17.5	0.17	8.2	0.018	0.6	0.04	14.7	77	34	8	27	5	3	2	7

Sample	Ho	Lu	Nd	Pr	Sm	Tb	Tm	Yb	Total REE
CS0001	0.5	0.2	18	4	4	0.5	0.2	1	108.845
CS0002	0.8	0.3	34	8	7	0.8	0.3	2	193.254
CS0003	0.8	0.2	31	8	6	0.8	0.3	2	170.774
CS0004	0.6	0.2	25	6	5	0.6	0.2	1	134.767
CS0005	0.3	0.1	14	3	3	0.3	0.1	1	80.191
CS0006	0.6	0.2	25	6	5	0.6	0.2	1	153.102
CS0007	0.5	0.2	21	5	4	0.5	0.2	1	117.723
CS0008	1	0.3	39	9	8	1	0.4	2	212.103
CS0009	0.7	0.2	30	7	6	0.7	0.3	2	160.308
CS0010	0.9	0.3	39	9	8	0.9	0.3	2	205.579
CS0011	0.8	0.3	33	8	7	0.8	0.3	2	177.94
CS0013	1.2	0.4	45	11	9	1.2	0.4	3	254.106
CS0014	0.8	0.2	32	7	7	0.8	0.3	2	184.285
CS0015	0.7	0.2	30	7	6	0.8	0.3	2	176.972
CS0016	0.8	0.2	30	7	7	0.8	0.3	2	177.694
CS0017	0.9	0.3	34	7	8	0.9	0.3	2	202.228
CS0018	0.7	0.2	28	7	6	0.7	0.2	2	146.482
CS0019	0.9	0.3	39	9	8	1	0.3	2	220.366
CS0020	1	0.3	41	10	9	1	0.3	2	217.314
CS0021	0.6	0.2	24	5	5	0.6	0.2	1	125.779
CS0022	0.9	0.3	40	9	9	1	0.3	2	227.644
CS0023	0.9	0.3	39	9	8	0.9	0.3	2	203.519
CS0024	0.7	0.2	32	8	6	0.7	0.2	2	188.125
CS0025	0.7	0.2	32	8	7	0.7	0.3	2	167.935
CS0026	0.8	0.3	35	8	7	0.9	0.3	2	177.769
CS0027	0.9	0.3	36	8	8	0.9	0.3	2	180.57
CS0028	1.1	0.3	44	10	10	1.1	0.4	2	235.103
CS0029	0.8	0.3	26	6	5	0.8	0.3	2	160.583
CS0030	0.8	0.3	36	9	7	0.8	0.3	2	205.383
CS0031	0.6	0.2	27	6	6	0.6	0.2	1	159.936
CS0032	0.6	0.2	24	6	5	0.6	0.2	1	125.202
CS0033	0.9	0.3	35	8	7	0.9	0.3	2	185.837
CS0034	0.9	0.3	35	8	7	0.8	0.3	2	203.252
CS0035	1.6	0.5	60	14	13	1.6	0.6	4	324.031
CS0036	0.7	0.2	28	7	6	0.7	0.3	2	179.567
CS0037	1	0.3	43	10	8	1	0.4	2	244.134
CS0038	0.6	0.2	23	6	5	0.6	0.2	1	149.637

Sample	Ho	Lu	Nd	Pr	Sm	Tb	Tm	Yb	Total REE
CS0039	0.8	0.2	33	8	6	0.8	0.3	2	176.587
CS0040	0.7	0.2	28	7	6	0.7	0.3	2	164.623
CS0041	0.6	0.2	22	5	5	0.6	0.2	1	130.598
CS0042	0.7	0.2	22	5	5	0.7	0.3	2	132.309
CS0043	0.6	0.2	18	4	4	0.5	0.2	1	108.697
CS0044	0.5	0.1	18	4	4	0.5	0.2	1	92.797
CS0045	0.7	0.2	26	6	6	0.7	0.2	2	141.26
CS0046	0.9	0.3	31	7	7	0.9	0.3	2	167.991
CS0047	1	0.3	29	7	6	0.9	0.4	2	176.878
CS0048	0.9	0.3	32	7	7	0.9	0.3	2	184.77
CS0049	0.7	0.2	24	6	5	0.7	0.2	2	137.116
CS0050	0.8	0.3	29	6	6	0.8	0.3	2	166.865
CS0051	0.9	0.3	29	6	7	0.9	0.3	2	157.757
CS0052	0.5	0.2	17	4	4	0.5	0.2	1	101.908
CS0053	0.8	0.3	28	6	6	0.8	0.3	2	157.829
CS0054	0.8	0.3	27	6	6	0.8	0.3	2	157.489
CS0055	0.7	0.2	25	6	6	0.7	0.3	2	146.114
CS0056	0.9	0.3	38	9	8	0.9	0.3	2	197.226
CS0057	0.7	0.2	33	8	7	0.7	0.3	2	166.782
CS0058	1	0.3	44	10	9	1	0.4	2	235.067
CS0059	0.5	0.2	23	6	5	0.5	0.2	1	137.599
CS0060	0.9	0.3	43	10	9	1	0.3	2	227.159
CS0062	0.6	0.2	28	6	6	0.6	0.2	1	155.261
CS0063	0.7	0.2	33	8	7	0.7	0.2	1	175.594
CS0064	0.7	0.2	34	8	7	0.7	0.2	1	178.966
CS0065	0.9	0.3	39	10	8	0.9	0.3	2	217.571
CS0066	1	0.3	47	11	10	1.1	0.4	2	249.953
CS0067	1	0.3	43	10	9	1	0.3	2	228.615

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 (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Soil sampling by GCM involved sampling at a 10cm depth at one kilometre intervals alongside station tracks. The 1 kg samples were from clear sites located by GPS in AMG 84 zone 53. The sieve size used here was 6mm. The samples were dried and sieved by Australian Laboratory Services to recover the ultrafine fraction (75 microns) for analyses in Perth. • The sampled material was photographed with the GPS coordinates on display.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg*	• No drilling

Criteria	JORC Code explanation	Commentary
	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).	
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• No drilling
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.*	• No drilling
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.*	• The samples were dried and sieved by Australian Laboratory Services prior to analyses in Perth. Sample prep code SCR-41f

Criteria	JORC Code explanation	Commentary
	• *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.*	
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Two analytical methods were applied, both considered the most appropriate. • MS1L-REE for rare earths • ME-MS41L multi element super trace lowest detection limit aqua regia digest ICP-MS finish. • Blanks and duplicates run by ALS.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.*	• No drilling samples.

Criteria	JORC Code explanation	Commentary
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	
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.* • *Quality and adequacy of topographic control.*	• Hand held GPS each sample photographed with GPS reading.
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.*	• Sufficient to verify previously published and announced results from Geoscience Australia, on a broad scale.
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.*	• Not applicable

Criteria	JORC Code explanation	Commentary
Sample security	• *The measures taken to ensure sample security.*	• Delivered directly to ALS in Mount Isa by personnel.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Results are consistent with previous announced results obtained by Geoscience Australia, NAGS survey.

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.*	• The results discussed are from granted GCM Exploration Licences 33128, 33129, and 33130. The ELs are 100% GCM, and there are no known access restrictions.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• There has been airborne EM by BHP (1993) and also by Geoscience Australia (2018) – Tempest wide spaced survey – details are available for download by the public. • BHP reported core holes (MD1 A and MD6) in 1993 and 1997. The logs can be located in the Northern Territory

Criteria	JORC Code explanation	Commentary
		publicly available company reports, ie CRs 19930191 and 1997044. • Geoscience Australia have conducted detailed gravity and magnetics (McArthur South surveys). These are publicly available on their website. GCM have modelled this data and have reported in their ASX announcement – CML October 6 2022.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• An ionic clay hosted rare earths deposit within a Tertiary laterite weathering profile. The rare earths have a niobium scandium tellurium cobalt copper silver molybdenum iron antimony and uranium association. • The shallow magnetic and gravity anomaly along with the metal association is typical of an IOCG source, rather than a SEDEX deposit, as suggested by BHP.
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.*	• No rare earths drilling. • THE BHP coreholes are 6 km apart and are useful for a geological and geochemical interpretation, although neither hole intersected any minable grades. All drilling data is available on the NT database and the logs are in CRs above.

Criteria	JORC Code explanation	Commentary
	• *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.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No drilling intercepts of grade – geochemical levels only.
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 (eg 'down hole length, true width not known').*	• No drilling and no sections reported
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any*	• No intercepts – partial geochemical data only.

Criteria	JORC Code explanation	Commentary
	significant discovery being reported These should include, but not be limited to a plan view of drill hole 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.*	• Not applicable
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.*	• Not applicable
Further work	• *The nature and scale of planned further work (eg 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.*	• GCM plans to conduct additional more detailed geochemical surveys and to drill traverses of shallow holes to test for clay REE enrichment. Deeper holes are required to test the IOCG target below 100m.