

# **Extensive REE Enrichment Identified from Drilling At North Barkly Project**

#### **HIGHLIGHTS**

- Widely spaced drilling has confirmed that extensive Rare Earth Element (REE) enrichments occur within the Project area.
- TREO of up to 1266 ppm identified in drill holes.
- The flat lying REE mineralisation are hosted in clays that lie about 20 metres above the base of total weathering and are acid soluble.
- High value REE's make up a high percentage of the total mineralisation identified with Dysprosium, Neodymium and Praseodymium together making up 29.9% of the TREO.
- The Cretaceous intrusion and associated large magnetic body is spatially related to the best results confirming further high priority target for future drilling.
- The base metal potential in the underlying McArthur basin has been reinforced by zinc anomalism at the base of weathering.

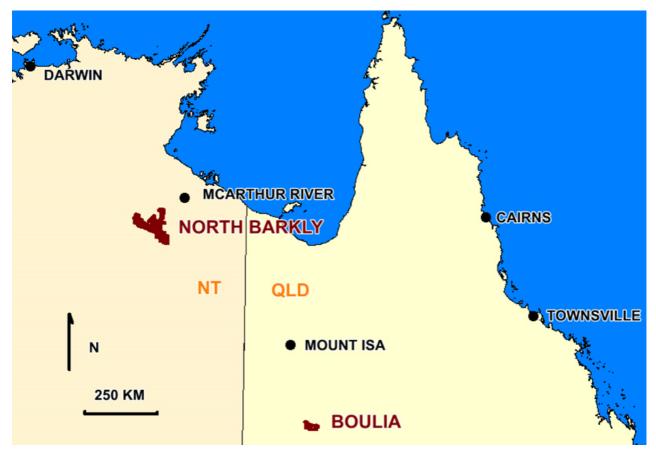


Figure 1: Project location.



**Green Critical Minerals Ltd ("GCM"** or "the Company") is pleased to announce that it has received 1 metre interval assays from its wide spaced drilling completed in September this year. The analyses were for 61 elements after a strong acid digestion. This analytical method does not give accurate results for the refractory rare earth content and is unsuitable for assessing the alumina content.

Samples from anomalous holes have been selected for fusion digest assay which should increase the rare earth oxide grades by an unknown amount. Some near surface drill samples are also being analysed for bauxite.

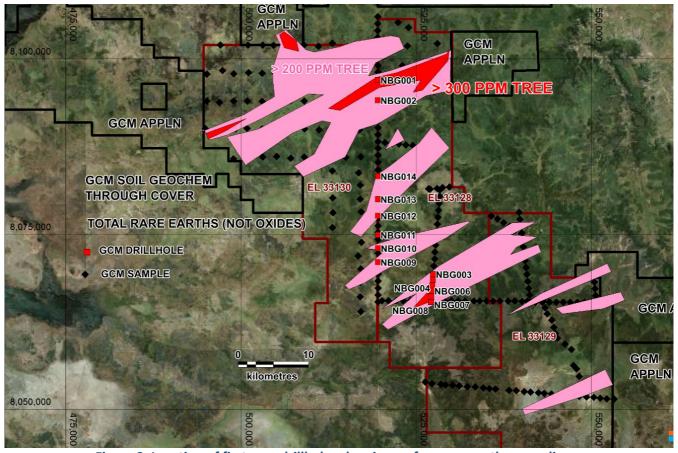


Figure 2: Location of first pass drillholes showing surface rare earth anomalism.

Two traverses were drilled along station tracks. The western traverse was over 28 kilometres and consisted of 8 holes, of which only 5 reached the desired depth. The eastern traverse was closer spaced to allow more confident correlations and is comprised of 8 holes over 4 kilometres. All these reached the required depth.

The western traverse was designed to give an evaluation of the large-scale potential for rare earth enrichment under the laterite plateau, and to gain information regarding the shallow magnetic bodies as well as the underlying base metal potential in the McArthur Basin.

Rare earth enrichments were encountered from the most southerly to the most northerly hole, although enrichment was lacking in NBG002. This hole may not have been drilled deep enough.



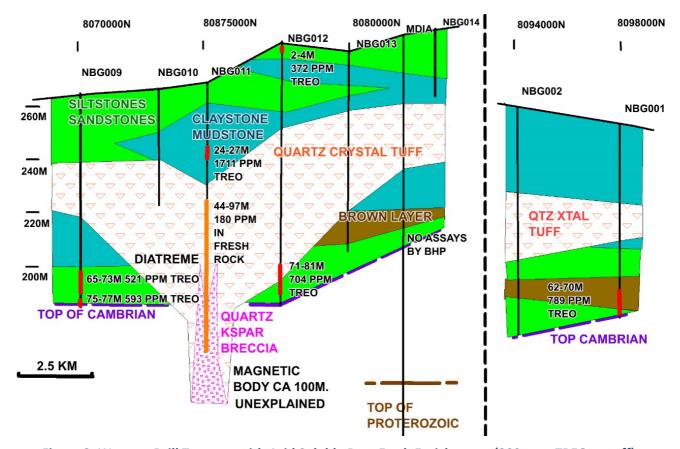


Figure 3: Western Drill Traverse with Acid Soluble Rare Earth Enrichments (300 ppm TREO cut off).

Acid soluble assays for Total Rare Earth Element Oxides (TREO) include:

NBG001 8m (62m-70m) @ 789 ppm TREO incl. 68m-70m 1214 ppm TREO ending in mineralisation at end of hole

NBG009 8m (65m-73m) @ 521 ppm TREO and 2m (75m-77m) @ 593 ppm TREO

NBG011 3m (24m-27m) @ 1711 ppm TREO

NBG012 2m (2m-4m) @ 372 ppm TREO and 10m (71m-81m) @ 704 ppm TREO incl. 2m (78m-80m) @ 1266ppm

These results represent relatively high value intercepts for ionic clay hosted rare earths.

These results are expected to increase when fusion digest rare earth oxide analyses are received. The fusion digest will include any additional rare earths contained in refractory minerals.

High value rare earths make up very promising percentages of the total. Dysprosium, Neodymium and Praseodymium together make up 29.9% of the TREO. Very low \$ value Cerium oxide is low at 27.5%.

It was noted that the diatreme and porphyry breccia in NBG011 was largely unweathered below 44m and is not suitable material for acid digest analyses. This interval is being fully reassayed by fusion digest. There is a high background of about 180 ppm TREO in this unweathered zone, implying a source in the adjacent intrusions. The shallow (100m depth) magnetic body was not explained, as the porphyry breccia intrusion is not magnetic.

The intersection in hole NBG001 appears to be related to a tertiary fault striking ENE, but more drilling is needed to confirm this.



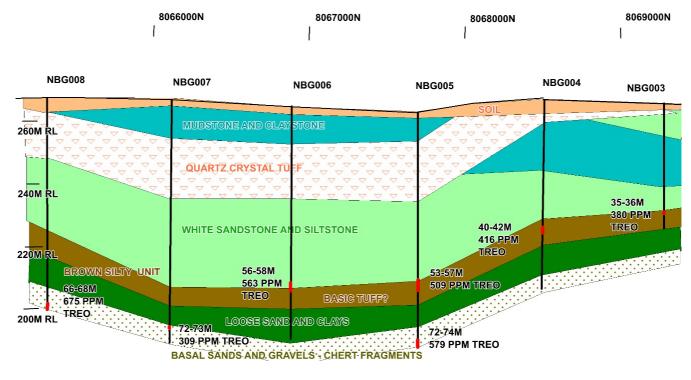


Figure 4: Eastern Drill Traverse with Acid Soluble Rare Earth Enrichments (300 ppm TREO cutoff).

The eastern traverse illustrated that the enrichment zone is continuous in more detail and is not stratabound. It appears to lie about 20m above the undulating base of total oxidation in both traverses.

The best intersections (>300 ppm) of acid soluble total rare earths are:

NBG003: 1m (35m-36m) @ 380 ppm TREO NBG004: 2m (40m-42m) @ 416 ppm TREO

NBG005: 4m (53m-57m) @ 509 ppm TREO and 2m (72m-74m) @579 ppm TREO at end of hole

NBG006: 2m (56m-58m) @ 563 ppm TREO NBG007: 1m (72m-73m) @ 309 ppm TREO

NBG008: 2m (66m-68m) @ 675 ppm TREO at end of hole

These results are highly encouraging and provide guidance for our future rare earths exploration within the very extensive area of GCM granted tenements and adjacent applications. The surface soil geochemistry was useful for detecting mineralised fault systems as encountered in NBG001, but not for other localities such as the NBG009 to NBG012 area of best grades and thicknesses.

The NBG009 to NBG012 area appears to be related to the shallowly buried Cretaceous intrusions with a high rare earths background content, and these can be detected by means of magnetic depth modelling.

Base metal results were incomplete due to the failure of many holes to penetrate to the base of oxidation, and none sampled the underlying McArthur basin. Two holes encountered stronger than usual zinc enrichments. The element assemblages are typical of Mt. Isa style zinc lead copper silver deposits such as are mined at McArthur River. Antimony is also contained in the silver mineral tetrahedrite.



NBG001: 2m (68m-70m) @ 435 ppm zinc at the end of hole (with supporting copper antimony lead and silver).

NBG012: 2m (83m-85m) @ 428 ppm zinc (supported by silver), 2m (69m-77m) (had elevated copper silver antimony).

NBG012 was sited over a gravity anomaly trend that lay adjacent to a regional basin bounding fault, in a geological setting similar to the Mount Isa and McArthur River mines. This trend is zinc, copper and lead anomalous for at least 60 kilometres, and is regionally outstanding, but has attracted very limited prior exploration.

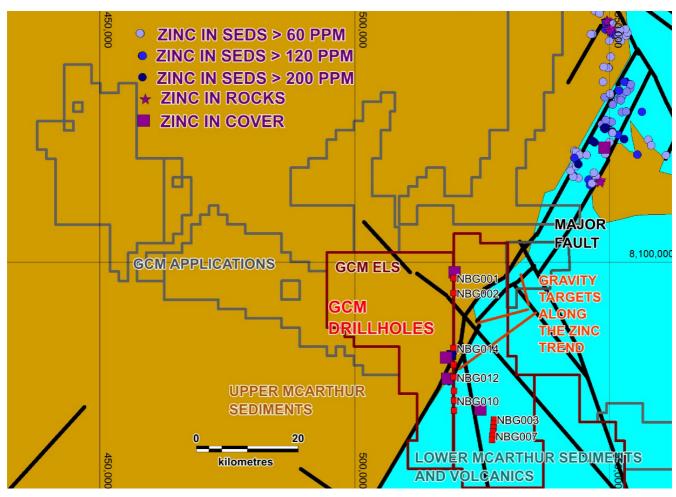


Figure 5: GCM drilling and zinc anomalism – on interpreted basement geology.

**17 November 2023** 



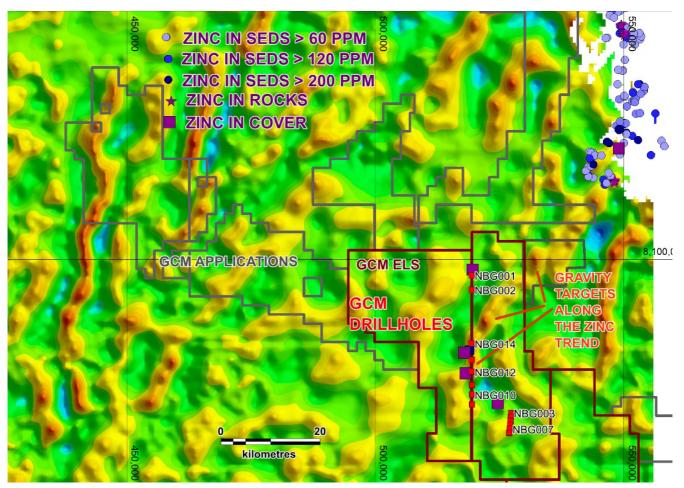


Figure 6: Drilling and zinc anomalism on 200m gravity depth slice.

There are several magnetic bodies that are modelled at 100m depth or less. These are high priority areas for further drilling the company intends to conduct on the Project.

The known Cretaceous intrusion area has the thickest, best grade, and shallowest rare earths intersected to date, and this is the priority area for our follow up drilling.



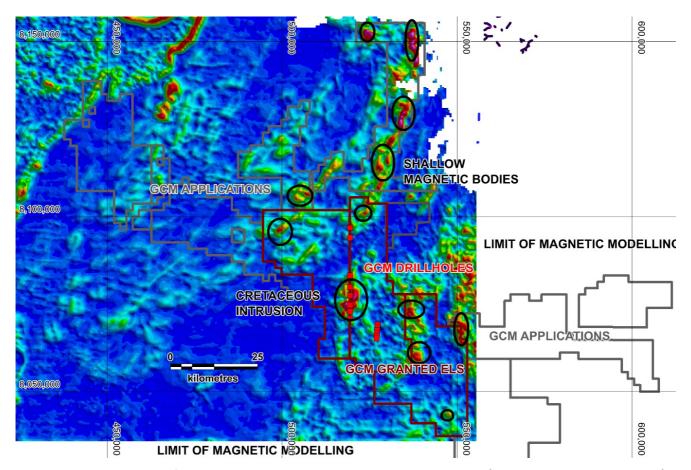


Figure 7: Current Limit of Magnetic modelling and shallow magnetic targets (100m depth slice magnetics).

#### **Next Steps**

After the receipt of the final rare earth and bauxite analyses, GCM proposes to increase the area of magnetic modelling over all of the Project area, including the EL applications. Aeromagnetic surveys may need to be flown after grants in order to provide sufficiently dense data to detect the more subtle features.

Areas with potentially high background rare earths will be a high priority for further drilling. These include shallow magnetic bodies, basement granites, and IOCG alteration systems.

Shallow magnetic bodies in addition to the one drilled are known in the east of the granted ELs, and IOCG style alteration, as reported previously, is known from historic drilling to the north.

#### **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.

## **ASX ANNOUNCEMENT**

**17 November 2023** 



#### **Authorisation**

The provision of this announcement to the ASX has been authorised by the board of directors of Green Critical Minerals Limited.

Green Critical Minerals confirms that it is not aware of any new information or data that materially affects the exploration results contained in this announcement.

### **Forward Looking Statements**

Statements contained in this release, particularly those regarding possible or assumed future performance, costs, dividends, production levels or rates, prices, resources, reserves or potential growth of Green Critical Limited, are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.



Table 1: Acid Extractible Rare Earth Analyses Intersections > 300 ppm TREO.

Interval	CeO2	Dy2O3	Er2O3	Eu2O3	Gd2O3	HfO2	Ho2O3	La2O3	Lu2O3	Nd2O3	Pr6O11	Sc2O3	Sm2O3	Tb407	Tm2O3	Y2O3	Yb2O3	TREO
NBG001 62m - 63m	221.7	45.2	19.9	17.9	76.4	0.2	7.4	61.5	2	275.3	47.7	15.2	80.6	8.5	2.4	229	14.97	1125
NBG001 63m - 64m	76.8	29	13.7	10	47.7	0.3	5.1	26.7	1.4	119.6	16.9	10.7	40	5.6	1.6	164	10.1	579
NBG001 64m - 65m	114.9	32.6	15.6	11.1	54.4	0.2	5.7	38.4	1.6	135.3	22.5	12.3	45.5	6.1	1.9	194	11.67	703.5
NBG001 65m - 66m	75.5	27.9	14.9	5.7	28.1	0.2	5.2	24.3	1.6	68.2	13	27.4	22.6	4.3	1.9	171	11.73	503.3
NBG001 66m - 67m	132.1	38.8	18.3	10.6	51.6	0.2	6.7	41.2	2	147	26.3	19.5	44.5	6.6	2.3	203	14.58	765.5
NBG001 67m - 68m	40.4	9.8	5.1	2.4	11.3	0.2	1.8	10.2	0.6	33.8	6.5	7.8	10.2	1.6	0.6	58.9	3.93	205.1
NBG001 68m - 69m	201.5	88.7	37.4	26.2	113.2	0.3	14.8	33	4	321.9	50.4	37.7	112.4	15.6	4.7	359	30.52	1452
NBG001 69m - 70m	152.9	56.9	25	15.8	75.1	0.2	9.1	34.5	2.8	200.6	33.8	13.3	65.5	9.5	3.2	259	20.44	977.7
NBG003 35m - 36m	167.1	3.1	1.1	2.5	8.9	0.3	0.5	64.7	0.1	67.2	18.5	20.9	12	0.8	0.1	11.9	0.85	380.6
NBG004 40m - 41m	230.3	2.6	0.9	3.5	9.9	0.3	0.4	75.4	0.1	104.5	29.5	14.4	18.4	0.7	0.1	9.6	0.53	501.1
NBG004 41m - 42m	129.6	3.9	1.5	3	9.6	0.4	0.6	38.4	0.2	75.9	19	17.2	14.6	0.9	0.2	15.2	1.17	331.4
NBG005 53m - 54m	255.5	9.1	3.3	7.8	22.9	0.3	1.3	77.5	0.3	175.5	36.2	16.3	39	2.1	0.4	29.7	2.46	679.7
NBG005 54m - 55m	232.8	9.2	3.1	8.1	24.1	0.3	1.3	59.5	0.3	168.5	36.7	13	39.5	2.2	0.4	28.8	2.32	630.1
NBG005 55m - 56m	98.4	10.4	4.3	6.3	20.3	0.4	1.6	24.6	0.5	116.4	19.9	16.9	29.3	2.3	0.6	37	3.43	392.6
NBG005 56m - 57m	94.7	10	3.4	5.3	21.1	0.3	1.4	31.1	0.3	80	14.7	12.6	22.2	2.4	0.4	32.6	2.53	335
NBG005 72m - 73m	122.6	41	21.2	7.8	40.6	0.4	7.3	40.5	2.3	85.6	16.6	17	28.3	6.3	2.6	248	16	704.4
NBG005 73m - 74m	70.9	26.4	13.6	5.4	27.5	0.3	4.7	21.3	1.6	58.9	10.3	9.7	20	4.2	1.7	156	10.93	443.6
NBG006 56m - 57m	240.2	16.3	5.7	12.4	36.9	0.3	2.3	62.2	0.5	212.9	41.4	14.1	56.6	3.6	0.7	49.4	4.3	759.8
NBG006 57m - 58m	96.3	12.2	5.3	5.1	18.6	0.5	2	25.2	0.6	90.4	17	15.7	23	2.3	0.6	47.7	4.17	366.7
NBG007 72m - 73m	100.6	9.4	4.1	3.2	13.6	0.4	1.5	37.3	0.4	55.6	13.3	5.6	14.3	1.8	0.5	44.8	2.95	309.4
NBG008 66m - 67m	76	38.7	22.9	5.2	28.2	7.7	0.4	23.6	3	52.1	11	10.9	17.9	5.4	3	259	20.9	586
NBG008 67m - 68m	68.1	57.2	34.5	6.4	40.9	11.4	0.3	19.4	4.4	54	10.5	11.9	20.3	7.9	4.5	382	30.52	764.4
NBG009 65m - 66m	157.2	5.5	2.3	1.8	7.5	0.9	0.3	32	0.2	44.1	11.3	15.4	9	1	0.3	23.6	1.62	314
NBG009 66m - 67m	288.7	15.4	4	10.1	31.8	2	0.3	58.2	0.3	227.4	51.5	13.5	52.1	3.7	0.4	35.6	2.26	797.3
NBG009 67m - 68m	108.3	6.3	2	3.3	11.2	0.9	0.3	34.7	0.2	76.3	17.7	13.1	16.7	1.3	0.2	20.3	1.34	314.1
NBG009 68m - 69m	84.3	4.3	1.4	2.4	7.8	0.6	0.4	15.4	0.1	49.5	10.5	10.9	12.1	1	0.2	15.3	0.93	217.1
NBG009 69m - 70m	143.7	9.3	3.7	3.9	13.9	1.5	0.3	31.2	0.4	84	18.5	12.1	19.7	1.8	0.4	37.1	2.68	384.2
NBG009 70m - 71m	249.4	14.2	4.5	8.1	25.7	2	0.3	48.7	0.4	177.9	38.7	12.2	41	3.1	0.5	43.9	2.88	673.5
NBG009 71m - 72m	266.6	19.7	7.8	8	28.1	3.1	0.4	39.9	0.8	158.6	33.1	12.1	39	3.8	0.9	75.2	5.78	702.9
NBG009 72m - 73m	248.1	21.6	7.8	9.5	31.6	3.3	0.5	60.8	0.7	201.8	42.6	7.8	46.5	4.2	0.9	75.9	5.42	769
NBG009 75m - 76m	207	10.4	3.2	5.2	17.8	1.5	0.4	58.5	0.2	118.4	28.2	8.6	25	2.2	0.4	30.6	2.02	519.6
NBG009 76m - 77m	237.7	16.4	4.7	7.7	27.8	2.2	0.4	72	0.3	165.6	38.5	10.4	35.3	3.5	0.5	41.3	2.95	667.3
NBG011 24m - 25m	737	62.5	29.7	19.5	77.6	10.7	0.2	115.9	3.5	382.6	82.2	10.6	84.2	10.1	3.6	321	24.71	1976
NBG011 25m - 26m	275.2	90.9	44.8	26.6	104.3	16.6	0.2	130.2	5.3	493.4	100.4	9.8	117.1	14.9	5.4	466	36.55	1938
NBG011 26m - 27m	70.8	53.1	23.1	20.8	87.4	8.9	0.3	143.1	2.5	363.9	72	9.1	84.5	10.1	2.7	250	17.54	1220
NBG012 2m - 3m	116.1	8.4	4.2	3.1	11.2	0.4	1.6	48.9	0.5	72.1	17.5	12.1	13.9	1.6	0.6	48.3	3.4	363.9
NBG012 3m - 4m	178.1	8.5	4.1	2.6	9.9	0.4	1.5	32.3	0.5	53	12.8	12.3	11.5	1.5	0.5	45.2	3.3	378
NBG012 71m - 72m	232.8	9.7	2.5	6.9	19.2	0.6	1.2	50.7	0.2	149.3	34	38.7	33	2.3	0.3	20.9	1.63	603.9
NBG012 72m - 73m	151.7	5.7	1.5	3.4	10.6	0.6	0.8	27.1	0.1	68.9	14.8	31.3	15.6	1.3	0.2	12.6	1.09	347.3
NBG012 73m - 74m	181.2	8.6	3.8	3.3	11.2	0.4	1.5	23.5	0.4	62.4	13.2	40.3	14.1	1.7	0.5	40	2.95	409.1
NBG012 74m - 75m	222.3	9.4	2.7	5.5	17.6	0.2	1.3	44.8	0.2	111.3	23.6	22.4	24.8	2.2	0.3	24.4	1.76	514.8
NBG012 75m - 76m	323.1	17.4	4.6	11.2	34.7	0.2	2.3	90.8	0.3	253.1	54.5	16.2	50.9	4.2	0.5	39.9	2.73	906.6
NBG012 76m - 77m	205.1	10.2	2.9	6.2	19.8	0.2	1.4	61.6	0.2	135.9	31.3	15.4	29	2.4	0.3	25.1	1.84	548.8
NBG012 77m - 78m	245.7	16.1	4.5	10.1	30.9	0.2	2.2	51.4	0.3	207.6	42.9	14	45.6	3.8	0.5	40	2.88	718.7
NBG012 78m - 79m	382	34.9	13.7	15	57.3	0.2	5.8	101.6	1.3	288.1	58.6	13	60.8	7.4	1.6	149	10.01	1200
NBG012 79m - 80m	339	50	24.6	15.6	70.9	0.2	9.4	108	2.7	264.8	52.2	13.2	58.2	9.3	3	292	20.1	1333
NBG012 80m - 81m	86.5	22.2	11.3	4.8	26.2	0.2	4.4	34.6	1	63.8	11.9	12.3	15.9	3.8	1.3	152	7.66	460.3



Table 2: Fresh Rock Analyses NBG 11 Intrusive Porphyry Breccia zone.

Interval	CeO2	Dy2O3	Er203	Eu2O3	Gd2O3	HfO2	Ho2O3	La2O3	Lu2O3	Nd2O3	Pr6O11	Sc2O3	Sm2O3	Tb407	Tm2O3	Y2O3	Yb2O3	TREO
NBG011 44m - 45m	81.8	4.7	2.2	1.7	6.1	0.8	0.3	31.9	0.2	35.5	8.8	8.2	7	0.8	0.3	22.7	1.65	214.7
NBG011 45m - 46m	79.1	4.7	2.1	1.6	6	0.8	0.3	30.7	0.2	33.4	8.5	8.4	6.9	0.8	0.3	22.4	1.6	207.8
NBG011 46m - 47m	89.9	4.6	2	1.7	6.1	0.8	0.3	34.5	0.2	37.2	9.5	7.5	7.5	0.8	0.2	21.6	1.49	225.9
NBG011 47m - 48m	86.1	4.5	2	1.7	6	0.7	0.3	32	0.2	35.7	9.1	7.9	7.2	0.8	0.2	20.6	1.47	216.5
NBG011 48m - 49m	69.5	3.8	1.7	1.3	5	0.6	0.4	27.2	0.2	29.2	7.4	6.5	5.7	0.7	0.2	18.5	1.29	179.2
NBG011 49m - 50m	66.8	4	1.9	1.3	5.1	0.7	0.4	26.5	0.2	28.3	7.1	8.5	5.8	0.7	0.2	19.8	1.46	178.8
NBG011 50m - 51m	69.7	4.6	2.2	1.5	5.6	0.8	0.3	28.3	0.3	30.1	7.6	9.8	6.2	0.8	0.3	23.2	1.89	193.2
NBG011 51m - 52m	86.6	4.7	2.1	1.8	6.4	0.8	0.3	33.7	0.2	37.2	9.4	9.2	7.4	0.9	0.2	22	1.53	224.4
NBG011 52m - 53m	67.8	4.6	2.2	1.5	5.8	0.8	0.3	27.4	0.3	30.3	7.6	9.2	6.3	0.8	0.3	23.3	1.75	190.3
NBG011 53m - 54m	78.6	4.1	1.7	1.5	5.5	0.7	0.3	30.3	0.2	33.1	8.4	8.3	6.6	0.7	0.2	17.7	1.3	199.2
NBG011 54m - 55m	97.4	4.7	2.1	1.7	6.6	0.8	0.3	39.9	0.2	40	10.3	6.4	7.7	0.9	0.2	23.8	1.53	244.5
NBG011 55m - 56m	88.3	4.4	2	1.6	6	0.8	0.3	35.1	0.2	36	9.2	6	6.8	0.8	0.2	24.3	1.46	223.5
NBG011 56m - 57m	81.3	4.2	1.7	1.5	5.5	0.7	0.3	31.8	0.2	33.8	8.6	8.3	6.7	0.7	0.2	18.4	1.28	205.2
NBG011 57m - 58m	61.4	3.5	1.5	1.2	4.6	0.6	0.3	24.5	0.2	26.4	6.8	6.1	5.3	0.6	0.2	16.2	1.11	160.5
NBG011 58m - 59m	69.4	4	1.8	1.4	5.1	0.7	0.4	26.6	0.2	30.3	7.7	8	6.2	0.7	0.2	19.1	1.29	183.1
NBG011 59m - 60m	62.8	3.7	1.6	1.2	4.5	0.6	0.3	23.7	0.2	27.1	6.9	7.1	5.6	0.6	0.2	16.6	1.14	163.8
NBG011 60m - 61m	78.9	3.9	1.6	1.5	5.4	0.7	0.3	30.5	0.2	33.1	8.5	7.1	6.6	0.7	0.2	17.3	1.17	197.7
NBG011 61m - 62m	80.8	4.1	1.7	1.6	5.6	0.7	0.3	31.7	0.2	34.8	8.9	7.5	6.9	0.8	0.2	18.5	1.26	205.6
NBG011 62m - 63m	59.6	3.4	1.4	1.1	4.3	0.6	0.3	23.4	0.1	25.5	6.6	6.2	5.1	0.6	0.2	15.6	1.06	155.1
NBG011 63m - 64m	82.9	3.9	1.5	1.6	5.4	0.6	0.3	32	0.1	35.2	9	7.2	6.9	0.7	0.2	17.3	1.12	205.9
NBG011 64m - 65m	82.3	3.9	1.6	1.6	5.4	0.7	0.3	31.2	0.2	35.2	9	7.5	6.9	0.7	0.2	17.6	1.14	205.4
NBG011 65m - 66m	80.5	4	1.6	1.5	5.3	0.7	0.3	30	0.1	34.6	8.8	7.3	6.9	0.7	0.2	17.4	1.12	201
NBG011 66m - 67m	81.4	4.2	1.7	1.6	5.6	0.7	0.3	31.5	0.2	35.5	9	7.3	7.2	0.8	0.2	18.6	1.26	207.1
NBG011 67m - 68m	73.5	3.9	1.6	1.5	5.1	0.7	0.3	28.5	0.2	31.8	8.2	8	6.4	0.7	0.2	16.3	1.19	188.1
NBG011 68m - 69m	79.7	3.9	1.6	1.5	5.3	0.7	0.3	30.1	0.2	34.6	8.8	7.7	6.9	0.7	0.2	16.8	1.14	200.1
NBG011 69m - 70m	87.8	4.3	1.8	1.7	5.8	0.7	0.3	32.6	0.2	37.8	9.5	7.7	7.5	0.8	0.2	19.2	1.35	219.3
NBG011 70m - 71m	65.8	4	1.8	1.4	5	0.7	0.3	26.9	0.2	29.7	7.6	8.3	6	0.7	0.2	19.4	1.41	179.4
NBG011 71m - 72m NBG011 72m - 73m	68.7 67.2	4.3	1.9	1.6	5.4 5.3	0.8	0.3	26.9 26.5	0.2	31.7 31.1	7.9 7.8	9.1 8.9	6.6	0.8	0.2	20.5	1.42	188.3 184.8
NBG011 72m - 73m	65.5	4.2	1.8	1.5	5.1	0.7	0.3	25.2	0.2	29.6	7.4	9.3	6.1	0.8	0.2	19.1	1.39	178.3
NBG011 74m - 75m	65.6	4.3	1.9	1.5	5.3	0.7	0.4	25.2	0.2	30.3	7.6	8.8	6.3	0.7	0.2	21	1.46	181.5
NBG011 75m - 76m	68.2	4.2	1.9	1.5	5.2	0.7	0.3	26	0.2	30.7	7.6	9	6.4	0.7	0.2	20.4	1.46	184.7
NBG011 76m - 77m	65.4	3.7	1.7	1.3	4.7	0.7	0.3	25	0.2	28.5	7.3	7.9	5.7	0.7	0.2	17.6	1.24	172.1
NBG011 77m - 78m	51.2	3.1	1.4	0.9	3.8	0.6	0.4	20.1	0.2	21.6	5.7	6.3	4.3	0.5	0.2	18	1.09	139.4
NBG011 78m - 79m	46.2	2.6	1.2	0.8	3.3	0.5	0.4	18.7	0.1	19.7	5.1	5.2	4	0.5	0.1	14.7	0.9	124
NBG011 79m - 80m	69.3	4.3	2	1.2	5.3	0.8	0.4	29.7	0.2	29.9	7.8	7.4	6.1	0.8	0.2	25.3	1.53	192.2
NBG011 80m - 81m	55.4	3.3	1.5	1	4.2	0.6	0.4	21.9	0.2	24.1	6.3	5.9	4.8	0.6	0.2	18.7	1.09	150.2
NBG011 81m - 82m	39.9	2.1	1	0.6	2.8	0.4	0.4	16.4	0.1	16.4	4.4	4.1	3.3	0.4	0.1	12.2	0.74	105.3
NBG011 82m - 83m	61.3	3.6	1.7	1.1	4.6	0.6	0.4	25.7	0.2	26.8	7	6	5.4	0.6	0.2	20.8	1.22	167.2
NBG011 83m - 84m	77.4	4.4	2.1	1.2	5.5	0.8	0.3	33.7	0.2	34.2	8.9	6.9	6.6	0.8	0.2	26.4	1.5	211.1
NBG011 84m - 85m	69.3	4	1.9	1.1	5	0.7	0.4	29.4	0.2	30.2	7.8	6.5	5.8	0.7	0.2	23.6	1.36	188.2
NBG011 85m - 86m	47.9	2.8	1.3	0.8	3.6	0.5	0.4	19.8	0.1	20.8	5.4	5.3	4.1	0.5	0.2	16.1	0.97	130.6
NBG011 86m - 87m	62	3.8	1.8	1.1	4.9	0.7	0.4	26.3	0.2	27.4	7	6.2	5.5	0.7	0.2	21.8	1.28	171.3
NBG011 87m - 88m	52.7	2.9	1.4	0.9	3.8	0.5	0.3	20.6	0.1	22.5	5.8	5.9	4.5	0.5	0.2	16.7	0.98	140.3
NBG011 88m - 89m	58.2	3.6	1.6	1.1	4.4	0.6	0.4	22.7	0.1	25.9	6.7	7.3	5.3	0.6	0.2	19.9	1.18	159.8
NBG011 89m - 90m	67.1	3.7	1.7	1.1	4.8	0.7	0.5	29.1	0.2	28.5	7.5	7	5.6	0.7	0.2	21.3	1.24	180.9
NBG011 90m - 91m	75.4	4.5	2.2	1.3	5.6	0.8	0.4	31.2	0.2	32.8	8.4	10.3	6.5	0.8	0.3	26.5	1.54	208.7
NBG011 91m - 92m	69.8	3.7	1.7	1.1	4.9	0.7	0.5	29.2	0.2	29.9	8	7.8	5.7	0.7	0.2	20.2	1.21	185.5
NBG011 92m - 93m	69.9	4.7	2.4	1.4	6.3	1	0.4	31.9	0.2	33.4	8.6	8.4	6.8	0.9	0.3	31.9	1.84	210.3
NBG011 93m - 94m	53.2	3.1	1.6	0.9	4.2	0.6	0.3	21.6	0.2	23.1	6	6.7	4.7	0.6	0.2	19.8	1.17	148
NBG011 94m - 95m	65.5	3.3	1.6	1	4.5	0.6	0.5	25.8	0.1	26.5	6.9	6.7	5.4	0.6	0.2	19.5	1.16	169.9
NBG011 95m - 96m	49.8	2.4	1.1	0.8	3.4	0.5	0.4	18.2	0.1	20.1	5.2	6.6	4.1	0.5	0.1	13.2	0.9	127.4
NBG011 96m - 97m	51.2	2.4	1.2	0.8	3.4	0.5	0.3	18.8	0.1	20.1	5.2	6.6	4.1	0.5	0.1	14	0.89	130.2



Table 3: Zinc Anomalous Zones - bottoms of NBG001 and NBG012.

SAMPLE	Cu	Pb	Zn	Ag	Sb	S	Te	W
NBG001 60m - 61m	2.55	0.869	7.1	0.013	0.044	<0.01	<0.003	0.339
NBG001 61m - 62m	3.86	1.565	12.6	0.017	0.06	<0.01	0.003	0.192
NBG001 62m - 63m	19.75	51.3	50.8	0.014	0.307	0.04	0.017	0.257
NBG001 63m - 64m	14.3	16.05	29.2	0.013	0.151	0.04	0.013	0.334
NBG001 64m - 65m	10.4	21.6	31.2	0.013	0.096	0.01	0.009	0.418
NBG001 65m - 66m	35.8	28	105	0.006	0.415	<0.01	0.016	0.773
NBG001 66m - 67m	31.2	61.3	136	0.009	0.239	<0.01	0.013	0.74
NBG001 67m - 68m	12.2	11.5	34.1	0.029	0.132	<0.01	0.007	1.145
NBG001 68m - 69m	72.8	78.2	430	0.044	0.569	<0.01	0.061	1.5
NBG001 69m - 70m	93.6	54.8	441	0.051	0.346	<0.01	0.042	9.37
NBG012 80m - 81m	19.75	12.7	106	0.012	0.055	0.03	0.017	0.018
NBG012 81m - 82m	19.05	12.8	149.5	0.012	0.067	0.03	0.019	0.018
NBG012 82m - 83m	17.95	13.75	138	0.011	0.075	0.03	0.019	0.015
NBG012 83m - 84m	20.7	16.2	335	0.004	0.115	0.03	0.02	0.037
NBG012 84m - 85m	30.6	18.75	523	0.007	0.141	0.03	0.023	0.045
NBG012 85m - 86m	19.1	12.95	163	0.012	0.095	0.03	0.025	0.008
NBG012 86m - 87m	19.65	15	278	0.01	0.098	0.02	0.028	0.017
NBG012 87m - 88m	24.7	15.55	221	0.053	0.126	0.18	0.03	0.007
NBG012 88m - 89m	26.7	20	33.8	0.072	0.115	0.8	0.027	0.002
NBG012 89m - 90m	25.4	15.3	31.8	0.061	0.107	1.05	0.02	0.004

## Appendix 1: JORC Code, 2012 Edition - Table 1 For exploration Target

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 (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.</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 (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.</li> </ul>	<ul> <li>Samples were taken at 1m intervals by means of spearing the drill return sacks with a tube to produce 1m samples of 1 to 2kgs.</li> <li>The samples were delivered to ALS in Mount Isa and trucked from there to ALS Perth for standard crushing and pulverising, followed by multi element acid digest ME-MS analyses.</li> <li>Selected intervals of the1m samples have been submitted to ALS for specialised fusion rare earths analyses.</li> <li>THE DRILLING WAS NOT FOR RESOURCE ESTIMATION. It was to establish whether potentially economic levels of rare earths or other enrichments are present.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	Reverse circulation and aircore.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</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>1m samples recovered in large number sacks, recoveries generally visibly good apart from an interval of running sands.</li> <li>Problematic intervals near the bases of the holes were stabilised with gel.</li> <li>Holes were rapidly stopped after loss of recovery.</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>	This is first pass exploration drilling not used for resource estimation.     All chips were logged.

Criteria	JORC Code explanation	Commentary
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <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>Sampled by spearing with a tube.</li> <li>This is appropriate for non resource drilling</li> <li>The rare earths are believed to be finely distributed, so no nugget effect is anticipated.</li> <li>Duplicate 4m composite samples were taken.</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, 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.</li> <li>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.</li> </ul>	<ul> <li>The acid digest results are not final, they are for the purpose of identifying enrichments that can be analysed at 1m intervals by more accurate techniques. Acid soluble assays are a guide to whether the rare earths can be extracted cheaply.</li> <li>Enrichments above 300 ppm Total Rare Earth Oxides were selected for 1m rare earth specific analyses by ALS method fusion ME-XRF30.</li> <li>All were analysed for multielements by ME-MS-L-REE.</li> <li>High values will be checked with the 4m composites, after receipt of the fusion XRF30 results.</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 fusion XRF rare earth drilling results as yet. No composite check assays yet.</li> <li>No twinned holes.</li> <li>This is the first drilling on this project and protocols are being established. More than one copy of all data has been kept.</li> <li>ALS report assays as elements, and standard stoichiometric ratios have been applied to convert to oxides. Generally the various ratios are about 1.15.</li> </ul>
Location of data points  Data spacing and distribution	<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> <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 classifications applied.</li> </ul>	<ul> <li>Sites are recorded electronically and on paper by hand held GPS.</li> <li>Not resource drilling.</li> <li>GDA94 zone 53.</li> <li>GPS elevations are suitable for wide spaced exploration drilling, but not for detailed resource drilling.</li> <li>Not Resource drilling, these exploration holes do indicate a degree of continuity.</li> </ul>

Criteria	JORC Code explanation	Commentary
	Whether sample compositing has been applied.	
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	The enrichments are normally sub horizontal and the holes are vertical, so intercept widths are interpreted as close to true widths.
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples are kept secure on site and driven directly to ALS by company personnel.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews can be conducted until further drilling results are available.

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <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>The announcement refers to 100% Green Critical Minerals Ltd (GCM) granted ELs 33128, 33129, and 33130, as well as EL applications 33229, 33230, 33467 and 33468. The applications mainly cover a mix of freehold leasehold and solely in the case of 33468 Aboriginal land.</li> <li>There are no known security issues with the tenure at this time, however EL application 33468 may involve protracted negotiations to secure tenure.</li> <li>The drilling is within EL33128, with the main traverse being close to the boundary with EL33130.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>There has been airborne EM by BHP (1993) and also by Geoscience Australia (2018) – Tempest wide spaced survey – EM and drilling details are available for download by the public. CRs 1993-191, 1994-139, 1995-181, 1996-210.</li> <li>Geoscience Australia (GA) has conducted wide spaced geochemical sampling throughout the region, as part of the North Australian Geochemical Survey.</li> <li>Stream sediment sampling with gold anomalous results draining the project is reported on the public NT geochemical database – CR1995-0365, CR1984-0247. and CR1989-0751</li> <li>CRA explored for diamonds and drilled RC collared corehole RK2 into the magnetic alteration bodies of interest and the logs are publicly</li> </ul>

Criteria	JORC Code explanation	Commentary
		available in CR1995-0520. ●
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>An ionic clay hosted rare earths deposit within a Tertiary laterite weathering profile.</li> <li>At Depth - Iron Oxide Copper Gold (IOCG) deposits containing copper gold rare earths molybdenum and other elements in association with haematite or magnetite alteration and replacements.</li> <li>At Depth- Mt. Isa (McArthur) Style zoned Co Cu Pb Zn, associated with basin margin faulting.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul> <li>No previous IOCG drilling</li> <li>No previous rare earths drilling.</li> <li>Drilling by BHP in 1994 as previously reported.</li> </ul>
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>No final fusion XRF drilling analyses available.</li> <li>A cut of 1m @ 300 ppm total rare earths has been applied on acid soluble results. This is arbitrary and is close to what other explorers are reporting.</li> <li>These intercepts have high dollar values in comparison to most other ionic clay deposits due to higher percentages of the more valuable rare earths. The cut may in future be reduced.</li> </ul>
Relationship between mineralisatio n widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <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 (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>Intercept widths are close to true. Vertical holes were drilled through what is normally a sub horizontal enrichment.</li> </ul>
Diagrams	<ul> <li>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</li> </ul>	As shown in attached figures and tables

Criteria	JORC Code explanation	Commentary
Balanced	drill hole collar locations and appropriate sectional views.	A a chause
reporting	<ul> <li>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.</li> </ul>	As shown.
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.	Geoscience Australia and NT Geological Survey public magnetic data has been modelled by Geodiscovery Geophysical consultants to produce imagery. The depth slice imagery displays the magnetism of rocks at varying depths. The geological interpretation is by Neil Wilkins M.Sc who has had several years of mineral and petroleum experience across the McArthur Basin.
Further work	<ul> <li>The nature and scale of planned further work (eg 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>	The company plans to conduct further drilling. Future work may include either aircore RC or diamond drilling.