ASX ANNOUNCEMENT

ANDROMEDA METALS LTD (ANDROMEDA, ASX: ADN)

23 March 2022

Maiden Tiger Kaolin Resource and Regional Rare Earth Element Potential

Andromeda

Summary

- •The inaugural Mineral Resource Estimate completed for the Tiger Kaolin Deposit
- •100% Indicated Resource of 12.1Mt of Bright White kaolinised granite
- •ISO Brightness R457 cut-off of 75 yielding 7.2Mt of <45-micron kaolin product
- •Regional elevated levels of cerium in clay-rich intervals indicating the potential presence of ionic adsorption clay rare earth elements (REEs)
- •This type of mineralisation is rarely found outside of China and is generally considered to be some of the cheapest and most readily accessible sources of heavy rare earths
- Regional potential for Rare Earth Element ion-adsorption clay deposits is being assessed.

The main focus for Andromeda remains delivery of the Great White DFS and permitting of the Mining Lease

Discussion

The inaugural Tiger Mineral Resource Estimate is reported in accordance with the 2012 JORC Code. The Tiger Kaolin Deposit is part of the Great White Kaolin Project, located on the Eyre Peninsula of South Australia, approximately 10km to the south of the Great White Deposit, Figure 1.

In addition, assays from the Bronze Whaler prospect have returned elevated Total Rare Earth Oxides (TREOs) as exampled by TW19AC001 from 10m, 18m @ 1752ppm TREO in the <45µm fraction including from 18m, 5m @ 2256ppm TREO in the <45µm. The regional potential for ion-adsorption deposits (IAD) is to be assessed, with potential that deposits of the Great White Kaolin Project share several similarities to Chinese IADs, which are the world's primary source for heavy rare earth elements.

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061 info@andromet.com.au | www.andromet.com.au

Andromeda Metals Limited

ABN 75 061 503 375

Corporate details:

ASX Code: ADN Cash (31 Dec 2021): \$42.8m

Issued Capital:

3,055,402,798 Ordinary Shares 70,300,0000 Unlisted Options 27,833,325 Performance Rights

Directors & Officers:

Melissa Holzberger

Acting Non-Executive Chair

James Marsh

Managing Director

Joe Ranford

Operations Director

Andrew Shearer

Non-Executive Director

Andrea Betti Company Secretary



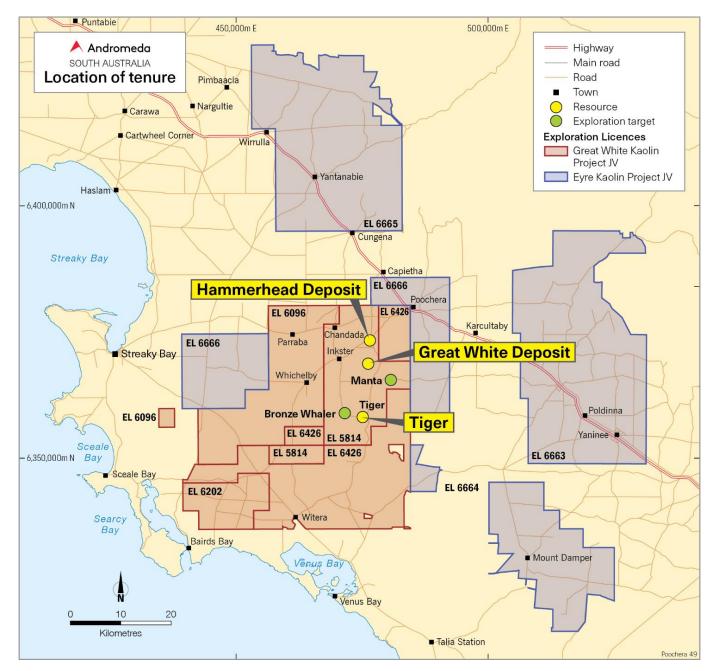


FIGURE 1 : GREAT WHITE KAOLIN PROJECT TENEMENTS AND PROSPECTS



New 2012 JORC Mineral Resource Summary

An Indicated Mineral Resource Estimate for the Tiger Deposit of 12.1Mt of kaolinised granite is reported at an ISO brightness (R457) cut-off of 75 in the <45-micron size fraction, Table 1 below.

TABLE 1 – TIGER KAOLIN MINERAL RESOURCE

Classification	Mt	PSD <45µm	Kaolinite + Halloysite %
Indicated	12.1	59.9	56.7

Note that all figures are rounded to reflect appropriate levels of confidence

The Resource yields 7.24Mt of High Bright kaolin product (R457 >80 <84) in the <45-micron recovered fraction, with the remaining approximate 43.3% of material being largely residual quartz derived from the weathered granite, Table 2.

TABLE 2 - TIGER KAOLIN MINERAL RESOURCE <45µM

Classification	Mt	ISO B	Kaolinite + Halloysite %	Al ₂ O ₃ %	Fe ₂ O ₃ %	TiO₂ %
Indicated	7.2	83.1	94.7	37.2	0.81	0.61

Note that all figures are rounded to reflect appropriate levels of confidence

Mineral Resource Detail

The 2021 Tiger Resource Estimate is based on sample analyses undertaken by Andromeda on drilling carried out in 2011. Work undertaken prior to 2011 was not sufficiently documented to meet JORC 2012 requirements.

A total 45 aircore drillholes (2132.5 metres), with all holes drilled vertically to intersect the flat-lying mineralisation at right angles, with most holes intersecting the upper (hanging wall) and lower (footwall) contacts to the mineralisation.

Samples were composited and blunged at the Streaky Bay pilot plant in 2011, however they were not analysed at the time and were instead stored safely in a locked shed at the pilot plant. As part of an exploration program Andromeda submitted the processed samples to Bureau Veritas to be analysed by their XRF 4B method to determine elements that include Al₂O₃, Fe₂O₃, SiO₂ and TiO₂. Brightness on the <45µm material was determined by Andromeda staff at an enclosed laboratory room at Bureau Veritas using the Company's Technidyne Colourtouch CT-PC Spectrophotometer in accordance with Tappi standard T534 om-15. Kaolinite is reported inclusive of halloysite as halloysite in not present in high enough concentration to meet Andromeda's overall minimum requirement of +10%. As such kaolin from Tiger is classified as a medium-grade kaolin product suitable for general industrial use. All drillhole data used for the resource estimate is contained in Appendix 1 and Appendix 2 of this report.

The drillhole data was used to define a flat-lying kaolin deposit that lies between 9.0 and 26.0m below the surface with an average depth of 17.0m, see Figure 2. The Resource Estimate covers an area of approximately 1.0km E-W by 0.7km N-S with a kaolin thickness ranging from 2.0m to 32.0m with an average thickness of 14.5m, see Figure 3. Overburden consists of a thin soil layer which overlies a mixed sequence of alluvial clays, sands and gravels. On rare occasions the top of the kaolin is silicified and the base of

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061 info@andromet.com.au | www.andromet.com.au



silicification marks the top of the kaolin resource whilst the change in weathering intensity to partially decomposed granite marks the base of the kaolin resource.

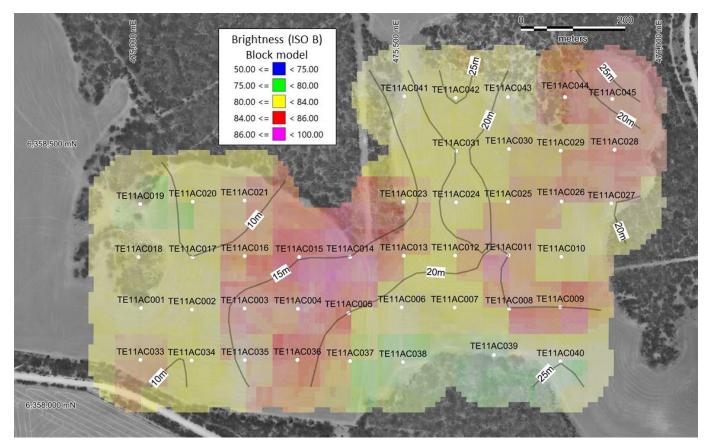


FIGURE 2: BLOCK MODEL COLOURED BY ISO BRIGHTNESS, DRILL COLLARS AND COVER DEPTH CONTOURS (GDA 94 MGA 53)



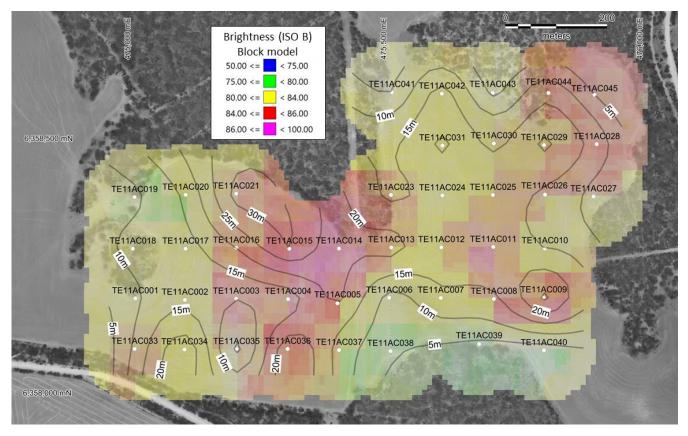


FIGURE 3: BLOCK MODEL COLOURED BY ISO BRIGHTNESS, DRILL COLLARS AND DEPOSIT THICKNESS CONTOURS (GDA 94 MGA 53)

The 2011 aircore drilling was done on a 100m-by-100m square grid. Composite intervals were extracted from the drillhole database constrained by the kaolin wireframes. Grade interpolation of the kaolinite was completed for the <45µm recovered material, along with Al2O3, Fe2O3, SiO2, TiO2 and ISO Brightness all obtained on the <45µm fraction. Statistical analysis and variogram modelling were undertaken using Snowden's Supervisor. The analysis shows reasonably well-structured data with low coefficients of variation, all of which resulted in no top cuts being applied. A summary of statistics is presented in Table 3.

	Assay	Minimum	Maximum	Mean	Geometric mean	Standard deviation (SD)	Coeff of Variation (CV)	Variance	Skewness
	Clay (%)	77	99	95	95	3	0	9	-4
XRD	Hinckley Index	0.571	1.436	0.901	0.885	0.173	0.192	0.03	1.907
	Crystalite Size	28.7	113.9	58.425	55.933	17.203	0.294	295.927	0.488
XRF	Al ₂ O ₃ (%)	29.5	38.7	37.105	37.079	1.339	0.036	1.792	-4.305

TABLE 3 - TIGER UNIVARIATE STATISTICS FOR COMPOSITES



	Assay	Minimum	Maximum	Mean	Geometric mean	Standard deviation (SD)	Coeff of Variation (CV)	Variance	Skewness
	Fe ₂ O ₃ (%)	0.11	1.3	0.816	0.781	0.215	0.264	0.046	-0.502
	SiO ₂ (%)	44.78	54.85	46.341	46.32	1.443	0.031	2.084	5.294
	TiO ₂ (%)	0.2	1.29	0.605	0.575	0.187	0.309	0.035	0.806
	R457	75.08	88.56	83.039	82.997	2.638	0.032	6.96	-0.458
Prightnoss	LSTAR	92.07	96.09	94.377	94.373	0.837	0.009	0.7	-0.448
Brightness	ASTAR	-0.59	1.58	0.149	0.271	0.416	2.79	0.173	0.886
	BSTAR	2.77	8.36	4.662	4.559	1.016	0.218	1.033	0.887
Particle Size distribution	<45µm (%)	37	77.9	59.446	58.931	7.419	0.125	55.04	-1.92

Variograms show that current drillhole spacings are sufficient to support an Indicated classification (exampled by Figure 4), which is consistent with the Great White Kaolin Deposit. Grade interpolation was undertaken using variograms modelled for each of the key variables. Maptek's Vulcan software was used for modelling wireframes of the upper and lower limits of the saprolite and the grade interpolation using ordinary kriging. Block size was 50m by 50m by 5m (X, Y & Z), with 10m by 10m by 1m sub-blocking.



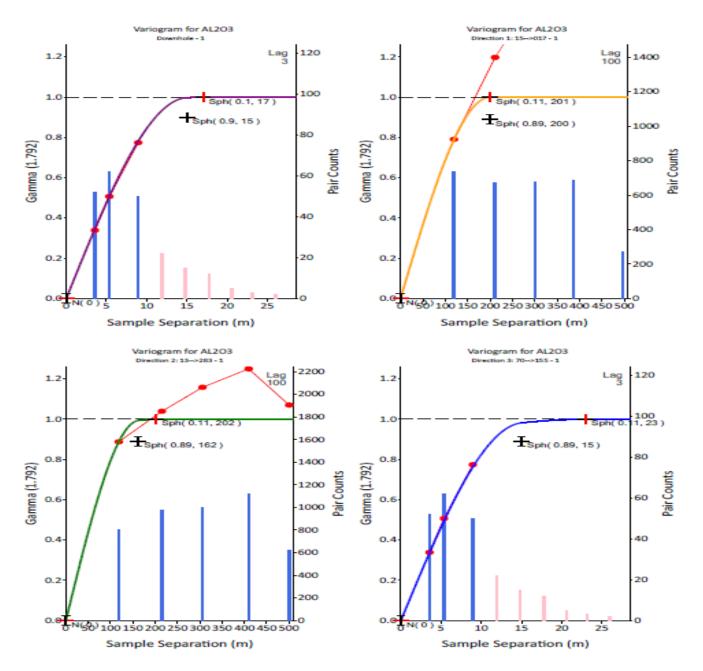


FIGURE 4: VARIOGRAMS FOR AL2O3

Block model validation consisted of a visual comparison of block grades with drillhole assays and composite values and a review of the summary statistics for the block grades and composite values. An example of block grade comparison to drillhole assays is shown in Figure 5. No significant issues were noted.

The mineralisation was assigned a density of 1.44t/m³ which is the average measured density of the Great White Kaolin Deposit which was derived drill core using a modified Archimedes method with the drill core sealed prior to submersion.

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061 info@andromet.com.au | www.andromet.com.au



Next Steps – Tiger Kaolin Deposit

Additional drilling will be required to expand the Resource, which remains open in most directions, obtain diamond core samples for dry bulk density determinations and undertake hydrogeological studies.

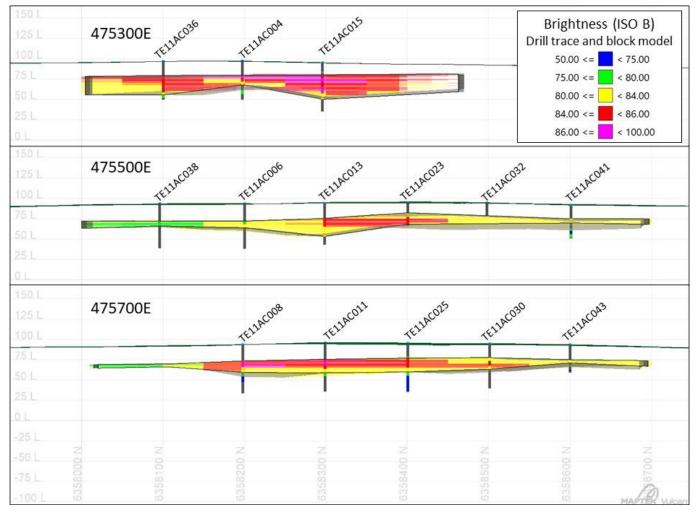


FIGURE 5: SELECTED TIGER CROSS SECTIONS SHOWING BLOCK MODEL AND DRILL TRACES COLOURED BY ISO BRIGHTNESS (GDA 94 MGA 53).

Potential for rare earth element (REE) ion-adsorption deposits

Following the identification of elevated REE's at Bronze Whaler in handheld xrf results all samples from the prosect were submitted for analysis for the full suite of REEs. The samples submitted were the <45µm fraction submitted from the clay analysis from the 2019 Bronze Whaler drilling program (refer ADN ASX announcement dated 30 October 2019 "Drilling Results at Carey's Well Extends Halloysite-Kaolin Mineralised Zone", note Bronze Whaler was previously known as Tomney West). The Rare Earth Oxide (REO) results are summarised in Table 4 and are presented in full in Appendix 4.



Hole	From (m)	To (m)	Length (m)	<45µm (%)	TREO ¹ <45µm (ppm)	CREO² <45µm (ppm)	%NdPr ³
TW19AC001	10	28	18	51.5	1752	438	19.1
TW19AC003	7	23	16	50.8	1819	332	19.8
TW19AC005	17	34	17	56.4	1026	221	12.6
TW19AC005	39	44	5	48.6	1475	419	18.3

TABLE 4 – BRONZE WHALER, SUMMARY REO DRILL INTERCEPTS (<45µUM)</th>

1. TREO = Total Rare Earth Element Oxides

2. CREO = Critical Rare Earth Element Oxides = $Nd_2O_3 + Eu_2O_3 + Tb_4O_7 + Dy_2O_3 + Y_2O_3$

3. %NdPr = Sum of Nd₂O₃ and Pr₆O₁₁ as a proportion of TREO

There is potential that these REE results have identified a regolith-hosted ion-adsorption deposit (IAD). Chinese IADs, which are the world's primary source for heavy rare earth elements, were formed by subtropical weathering of igneous rocks. In Chinese IADs the REEs are inferred to be weakly adsorbed onto clay minerals, dominantly kaolinite and halloysite (Borts, A., 2020 "Adsorption of rare earth elements in regolith-hosted clay deposits").



FIGURE 6: COLLAR LOCATIONS OF BRONZE WHALER DRILLHOLES (GDA 94 MGA 53).

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061 info@andromet.com.au | www.andromet.com.au



The Great White Kaolin Joint Venture's halloysite kaolin deposits, besides their clay mineralogy share other similarities with Chinese IADs. The kaolin deposits were formed during intense weathering of peralkaline granites under warm and humid conditions. Further, the vertical zonation of REE's at Bronze Whaler suggest a similar distribution to the Chinese IADs, with an upper REE leached zone with a positive Ce anomaly and a lower REE accumulation zone and associated negative Ce anomaly, as demonstrated in Table 5.

Hole	From	То	Length	CeO ₂	TREO	Ratio CeO2
	(m)	(m)	(m)	(ppm)	(ppm)	to TREO
TW19AC001	10	14	4	540	1023	53%
TW19AC001	14	18	4	749	1644	46%
TW19AC001	18	23	5	1056	2256	47%
TW19AC001	23	28	5	626	1915	33%
TW19AC003	7	11	4	1009	1894	53%
TW19AC003	11	16	5	973	1875	52%
TW19AC003	16	20	4	988	2057	48%
TW19AC003	20	23	3	552	1311	42%
TW19AC005	17	21	4	425	864	49%
TW19AC005	21	26	5	479	1260	38%
TW19AC005	26	30	4	426	1010	42%
TW19AC005	30	34	4	362	910	40%
TW19AC005	39	44	5	585	1475	40%

TABLE 5 - BRONZE WHALER NEGATIVE CE ANOMALIES IN LOWER ENRICHED ZONE (<45µM)

Next Steps - REEs

Work has begun to better understand in what forms the REE's are present at Bronze Whaler and to determine their leachability, obtain whole rock samples for analysis and investigate the REE potential in the broader region, largely through analysis of existing samples. Future analysis of whole rock is important as the <45µm fraction is expected to have high graded the REEs in the analysed Bronze Whaler samples.

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061



This ASX announcement has been approved for release by the Board of Andromeda Metals Limited.

For more information about the Company and its projects, please visit our website www.andromet.com.au or contact:

James Marsh	Andrea Betti
Managing Director	Company Secretary
Andromeda Metals Ltd	Andromeda Metals Ltd
E: james.marsh@andromet.com.au	E: andrea.betti@andromet.com.au

Investor relations

Peter Taylor – NWR Communications

T. 0412 036 231

E. <u>peter@nwrcommunications.com.au</u>

Media enquiries

Sylvia Rapo – Managing Principal, Consentium

Email: sylvia.rapo@consentium.com.au

Competent Persons Statement

Information in this announcement has been assessed by Mr. James Marsh a member of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr. Marsh is an employee of Andromeda Metals Limited who holds shares, options and performance rights in the company and is entitled to participate in Andromeda's employee incentive plan (details of which are included in Andromeda's Annual Remuneration Report) and has sufficient experience, which is relevant to the style of mineralisation, type of deposits and their ore recovery under consideration and to the activity being undertaking to qualify as Competent Person under the 2012 Edition of the 'Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code). This includes Mr. Marsh attaining over 30 years of experience in kaolin processing and applications. Mr. Marsh consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

The data that relates to exploration results and Mineral Resource Estimates are based on information compiled and evaluated by Mr Eric Whittaker who is a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM). Mr Whittaker is the Chief Geologist of Andromeda Metals Limited and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration 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, Mineral Resources and Ore Reserves (the "JORC Code"). Mr Whittaker has 30 years of experience in the mining industry. Mr Whittaker consents to the information in the form and context in which it appears. Mr Whittaker holds Performance Rights in the Company and is entitled to participate in Andromeda's employee incentive plan.

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061 info@andromet.com.au | www.andromet.com.au



APPENDIX 1 – TIGER AIRCORE DRILL COLLAR AND SAMPLE INFORMATION

Hole ID	Easting	Northing	Collar RL	Hole	Hole	Final	Drilling	Date
	Zone 53	Zone 53		inclination	azimuth	depth	method	drilled
	MGA94	MGA94	(m)	(°)	(°)	(m)		
TE11AC001	475001	6358199	93.4	-90	0	59	AC	21/03/2011
TE11AC002	475098	6358196	94.7	-90	0	54	AC	22/03/2011
TE11AC003	475198	6358198	96.4	-90	0	36	AC	22/03/2011
TE11AC004	475299	6358198	96.9	-90	0	48	AC	22/03/2011
TE11AC005	475396	6358189	95.6	-90	0	50	AC	22/03/2011
TE11AC006	475497	6358200	93.0	-90	0	55	AC	23/03/2011
TE11AC007	475597	6358200	92.6	-90	0	63	AC	23/03/2011
TE11AC008	475701	6358198	93.4	-90	0	60	AC	23/03/2011
TE11AC009	475798	6358201	93.8	-90	0	50	AC	23/03/2011
TE11AC010	475800	6358296	92.4	-90	0	60	AC	24/03/2011
TE11AC011	475700	6358299	95.4	-90	0	60	AC	24/03/2011
TE11AC012	475599	6358299	96.1	-90	0	60	AC	24/03/2011
TE11AC013	475501	6358298	93.9	-90	0	51	AC	24/03/2011
TE11AC014	475399	6358296	93.3	-90	0	41	AC	24/03/2011
TE11AC015	475302	6358296	94.9	-90	0	60	AC	25/03/2011
TE11AC016	475198	6358298	95.6	-90	0	60	AC	25/03/2011
TE11AC017	475099	6358296	94.8	-90	0	51	AC	25/03/2011
TE11AC018	474996	6358296	93.5	-90	0	51	AC	25/03/2011
TE11AC019	474999	6358397	93.1	-90	0	33	AC	25/03/2011
TE11AC020	475099	6358401	94.0	-90	0	37	AC	25/03/2011
TE11AC021	475198	6358403	93.7	-90	0	47	AC	26/03/2011
TE11AC023	475500	6358401	94.1	-90	0	28	AC	26/03/2011
TE11AC024	475600	6358400	96.8	-90	0	53	AC	26/03/2011
TE11AC025	475699	6358401	94.9	-90	0	60	AC	26/03/2011
TE11AC026	475801	6358401	91.0	-90	0	60	AC	26/03/2011
TE11AC027	475896	6358398	89.6	-90	0	44	AC	28/03/2011
TE11AC028	475902	6358500	90.1	-90	0	38	AC	28/03/2011
TE11AC029	475799	6358498	91.8	-90	0	59	AC	28/03/2011
TE11AC030	475701	6358501	94.4	-90	0	55	AC	28/03/2011
TE11AC031	475600	6358497	95.1	-90	0	44	AC	29/03/2011
TE11AC032	475499	6358498	94.1	-90	0	16	AC	29/03/2011
TE11AC033	475000	6358100	93.2	-90	0	33	AC	30/03/2011
TE11AC034	475097	6358099	94.3	-90	0	57	AC	30/03/2011
TE11AC035	475199	6358100	95.8	-90	0	24	AC	30/03/2011
TE11AC036	475298	6358100	96.5	-90	0	47	AC	30/03/2011
TE11AC037	475399	6358098	95.4	-90	0	60	AC	31/03/2011
TE11AC038	475499	6358096	93.0	-90	0	55	AC	31/03/2011
TE11AC039	475672	6358110	91.1	-90	0	37	AC	31/03/2011
TE11AC040	475799	6358098	92.9	-90	0	38	AC	31/03/2011
TE11AC041	475502	6358601	91.6	-90	0	41	AC	29/03/2011
TE11AC042	475600	6358598	94.0	-90	0	44	AC	29/03/2011
TE11AC043	475699	6358600	93.0	-90	0	34	AC	29/03/2011
TE11AC044	475807	6358600	90.1	-90	0	60	AC	30/03/2011
TE11AC045	475897	6358596	88.5	-90	0	60	AC	30/03/2011

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061 info@andromet.com.au | www.andromet.com.au



APPENDIX 2 – TIGER ANALYTICAL RESULTS

Hole ID	From	То	Interval	-45µm	Reflectance	Fe ₂ O ₃	Al ₂ O ₃	TiO2	Kaolinite
	(m)	(m)	(m)	(%)	(ISO B)	(%)	(%)	(%)	(%)
TE11AC001	12	17	5	57.6	79	0.66	37	0.6	97.0
TE11AC001	17	21	4	56	83	1	38	0.7	96.0
TE11AC001	21	26	5	59.1	77	0.73	37	0.5	93.0
TE11AC001	30	35	5	40	77	1	36	1.1	87.0
TE11AC001	35	40	5	44.4	78	0.93	36	1.0	88.0
TE11AC001	40	45	5	34	79	1	31	0.9	87.0
TE11AC001	45	50	5	37.3	79	0.73	31	1.0	83.0
TE11AC002	11	13	2	70	80	1	36	0.8	97.0
TE11AC002	14	18	4	68.2	83	1.02	38	0.6	97.0
TE11AC002	18	21	3	74	82	1	38	0.6	97.0
TE11AC002	22	25	3	55.7	81	0.92	38	0.4	95.0
TE11AC003	17	19	2	71	84	1	38	0.4	96.0
TE11AC003	19	23	4	63.7	86	0.64	38	0.4	96.0
TE11AC003	23	27	4	74	86	1	38	0.6	95.0
TE11AC003	27	31	4	54.3	79	1.36	36	0.5	91.0
TE11AC004	17	21	4	68	87	1	38	0.4	96.0
TE11AC004	21	25	4	59.1	84	1.04	37	0.5	93.0
TE11AC004	25	29	4	60	80	1	37	0.5	92.0
TE11AC004	36	41	5	39.1	76	1.16	30	1.1	78.0
TE11AC005	20	22	2	53	85	0	38	0.6	96.0
TE11AC005	22	26	4	63.9	86	0.81	38	0.7	95.0
TE11AC005	26	31	5	59	86	1	38	0.6	95.0
TE11AC005	31	36	5	52.8	85	0.83	37	0.7	92.0
TE11AC005	36	41	5	44	80	1	33	0.9	91.0
TE11AC006	21	24	3	63.7	80	1.09	38	0.5	97.0
TE11AC006	25	29	4	54	82	1	37	0.4	95.0
TE11AC007	22	26	4	65.6	81	0.89	37	0.9	93.0

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061



Hole ID	From	То	Interval	-45µm	Reflectance	Fe ₂ O ₃	Al ₂ O ₃	TiO2	Kaolinite
	(m)	(m)	(m)	(%)	(ISO B)	(%)	(%)	(%)	(%)
TE11AC007	27	32	5	57	83	1	37	0.6	94.0
TE11AC007	32	36	4	54.7	82	1.1	35	1.0	88.0
TE11AC007	36	39	3	52	79	1	36	1.0	89.0
TE11AC007	39	42	3	39.3	79	1.12	35	1.2	87.0
TE11AC007	43	48	5	46	79	1	36	1.1	89.0
TE11AC007	48	52	4	37.9	77	1.14	35	1.1	89.0
TE11AC008	20	24	4	67	86	1	38	0.6	96.0
TE11AC008	24	28	4	60.8	87	0.66	38	0.6	96.0
TE11AC008	28	31	3	66	83	1	38	0.7	96.0
TE11AC008	31	34	3	51.3	82	0.71	38	0.8	96.0
TE11AC008	35	39	4	68	79	1	38	0.5	96.0
TE11AC008	39	41	2	51.5	74	0.93	37	0.6	94.0
TE11AC009	20	21	1	58	86	1	38	0.4	95.0
TE11AC009	22	26	4	70.5	89	0.57	39	0.3	96.0
TE11AC009	26	30	4	57	87	1	38	0.4	96.0
TE11AC009	30	34	4	59.3	86	0.69	38	0.4	93.0
TE11AC009	36	41	5	37	81	1	35	0.9	87.0
TE11AC009	41	46	5	42	83	1.09	36	0.9	89.0
TE11AC010	16	21	5	66	80	1	38	0.7	98.0
TE11AC010	21	26	5	67.4	83	0.86	38	0.7	98.0
TE11AC010	26	31	5	61	78	1	38	0.4	97.0
TE11AC011	20	22	2	59.3	86	0.61	38	0.8	96.0
TE11AC011	23	28	5	68	88	1	39	0.4	97.0
TE11AC011	28	32	4	63.7	84	0.73	38	0.6	97.0
TE11AC011	32	37	5	63	84	1	38	0.7	97.0
TE11AC011	37	41	4	56.5	78	0.96	38	0.6	98.0
TE11AC012	19	21	2	60	83	1	37	0.5	98.0
TE11AC012	23	27	4	61.2	85	0.79	38	0.5	97.0

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061



Hole ID	From	То	Interval	-45µm	Reflectance	Fe ₂ O ₃	Al ₂ O ₃	TiO2	Kaolinite
	(m)	(m)	(m)	(%)	(ISO B)	(%)	(%)	(%)	(%)
TE11AC012	27	30	3	58	84	1	38	0.4	97.0
TE11AC012	31	36	5	62	83	0.9	38	0.4	97.0
TE11AC012	36	41	5	55	77	1	38	0.5	98.0
TE11AC013	19	24	5	70.4	85	0.96	38	0.7	96.0
TE11AC013	24	29	5	63	85	1	38	0.7	96.0
TE11AC013	29	34	5	70.9	83	1.07	38	0.5	95.0
TE11AC013	34	37	3	57	81	1	38	0.7	95.0
TE11AC013	37	41	4	59.9	80	0.66	37	0.7	93.0
TE11AC014	15	20	5	66	88	1	39	0.3	96.0
TE11AC014	20	23	3	65.4	87	0.83	38	0.6	96.0
TE11AC014	23	25	2	76	84	1	38	0.4	96.0
TE11AC014	26	30	4	58.5	84	0.8	38	0.5	95.0
TE11AC014	31	36	5	45	83	1	36	0.9	90.0
TE11AC015	15	19	4	66.5	84	0.8	38	0.4	96.0
TE11AC015	19	24	5	64	87	1	38	0.6	96.0
TE11AC015	24	29	5	59.5	86	1.04	38	0.6	96.0
TE11AC015	30	34	4	59	87	1	38	0.6	96.0
TE11AC015	34	38	4	61.8	87	0.7	37	0.6	92.0
TE11AC015	38	42	4	55	82	1	37	0.5	93.0
TE11AC015	42	45	3	56.1	83	1.19	36	0.8	89.0
TE11AC016	11	16	5	67	86	0	37	0.2	99.0
TE11AC016	18	21	3	77.9	86	0.31	39	0.2	98.0
TE11AC016	21	26	5	64	82	1	38	0.7	97.0
TE11AC016	26	31	5	66.6	82	0.9	38	0.8	97.0
TE11AC017	10	15	5	59	82	1	37	0.6	98.0
TE11AC017	15	20	5	62.5	83	0.64	38	0.6	96.0
TE11AC017	20	23	3	61	80	0	38	0.6	97.0
TE11AC018	13	18	5	60.4	81	1.29	36	0.8	91.0

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061



Hole ID	From	То	Interval	-45µm	Reflectance	Fe ₂ O ₃	Al ₂ O ₃	TiO2	Kaolinite
	(m)	(m)	(m)	(%)	(ISO B)	(%)	(%)	(%)	(%)
TE11AC018	18	23	5	44	81	1	35	0.8	87.0
TE11AC019	13	18	5	57.8	80	0.81	37	0.6	94.0
TE11AC019	18	22	4	50	83	1	36	0.6	89.0
TE11AC019	22	27	5	43.1	79	0.69	35	1.2	87.0
TE11AC020	9	12	3	46	78	1	32	0.6	77.0
TE11AC020	12	14	2	52.8	80	0.66	37	0.7	95.0
TE11AC020	14	18	4	59	85	1	37	0.5	93.0
TE11AC020	18	21	3	55.6	82	0.69	36	0.7	91.0
TE11AC020	21	25	4	42	80	1	36	0.8	89.0
TE11AC021	9	14	5	55.6	84	0.71	37	1.0	95.0
TE11AC021	14	19	5	61	85	1	38	0.6	96.0
TE11AC021	19	22	3	59.3	76	1.19	37	0.6	96.0
TE11AC021	28	32	4	59	79	1	37	0.7	94.0
TE11AC021	35	39	4	39.7	82	0.56	34	0.9	89.0
TE11AC023	12	17	5	64	81	1	37	0.2	97.0
TE11AC023	17	21	4	63.4	85	0.79	38	0.4	96.0
TE11AC023	21	26	5	58	86	1	36	0.6	94.0
TE11AC024	20	23	3	62.5	70	1.32	37	0.4	95.0
TE11AC024	23	28	5	64	81	1	38	0.3	97.0
TE11AC024	29	33	4	60	83	1.04	37	0.4	96.0
TE11AC024	33	36	3	56	81	1	37	0.3	95.0
TE11AC024	36	39	3	56.1	80	1.2	36	0.3	93.0
TE11AC025	18	23	5	58	84	1	38	0.7	96.0
TE11AC025	23	28	5	57.3	85	0.8	38	0.9	94.0
TE11AC025	28	30	2	59	85	1	38	0.9	95.0
TE11AC025	30	35	5	67.2	82	0.9	38	0.9	95.0
TE11AC025	35	40	5	60	77	1	38	0.6	95.0
TE11AC026	17	21	4	66.1	85	0.69	38	0.7	96.0

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061



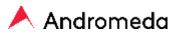
Hole ID	From	То	Interval	-45µm	Reflectance	Fe ₂ O ₃	Al ₂ O ₃	TiO2	Kaolinite
	(m)	(m)	(m)	(%)	(ISO B)	(%)	(%)	(%)	(%)
TE11AC026	21	26	5	61	84	1	37	0.6	96.0
TE11AC026	26	31	5	59.7	80	0.92	38	0.5	96.0
TE11AC026	33	38	5	62	77	1	38	0.6	96.0
TE11AC026	38	42	4	64.9	78	0.57	38	0.7	96.0
TE11AC026	42	45	3	56	75	1	37	0.5	95.0
TE11AC027	20	23	3	68.8	85	0.74	38	0.8	96.0
TE11AC027	23	28	5	64	82	1	38	0.5	96.0
TE11AC027	29	32	3	70.7	77	1	38	0.4	96.0
TE11AC027	32	35	3	60	78	1	37	0.4	95.0
TE11AC028	15	18	3	70.8	83	0.5	37	0.4	96.0
TE11AC028	18	21	3	66	88	0	38	0.4	97.0
TE11AC028	21	24	3	61.8	85	0.54	38	0.5	96.0
TE11AC028	24	28	4	58	83	1	36	0.6	92.0
TE11AC029	16	20	4	57.2	82	0.67	37	0.9	93.0
TE11AC029	20	25	5	58	86	1	38	0.7	94.0
TE11AC029	25	30	5	64.3	83	0.7	38	0.6	96.0
TE11AC029	33	37	4	63	80	1	38	0.7	95.0
TE11AC030	17	21	4	54.3	81	1.02	35	0.5	95.0
TE11AC030	23	27	4	61	84	1	38	0.5	91.0
TE11AC030	27	31	4	64.8	83	0.99	36	0.5	98.0
TE11AC031	20	23	3	54	82	1	37	0.8	97.0
TE11AC031	23	26	3	67.7	77	0.89	38	0.6	95.0
TE11AC031	33	37	4	37	79	1	35	1.0	88.0
TE11AC031	37	41	4	42.7	83	0.57	33	0.9	90.0
TE11AC033	11	15	4	63	85	1	38	0.8	95.0
TE11AC033	16	19	3	54.7	86	0.53	38	0.6	96.0
TE11AC033	19	22	3	58	86	1	38	0.5	94.0
TE11AC034	10	13	3	63.1	81	0.53	33	0.5	79.0

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061



Hole ID	From	То	Interval	-45µm	Reflectance	Fe ₂ O ₃	Al ₂ O ₃	TiO2	Kaolinite
	(m)	(m)	(m)	(%)	(ISO B)	(%)	(%)	(%)	(%)
TE11AC034	15	17	2	64	82	1	38	0.3	97.0
TE11AC034	19	23	4	60.9	84	0.73	38	0.6	97.0
TE11AC034	23	26	3	59	81	1	38	0.7	96.0
TE11AC034	26	30	4	59	80	0.96	38	0.7	96.0
TE11AC034	30	34	4	61	81	1	37	0.6	95.0
TE11AC035	16	20	4	58.5	83	0.71	37	0.5	94.0
TE11AC035	20	22	2	43	77	1	36	0.9	92.0
TE11AC036	17	21	4	55.5	85	0.61	38	0.3	97.0
TE11AC036	21	26	5	53	84	1	38	0.5	96.0
TE11AC036	26	31	5	60.3	85	0.64	38	0.4	96.0
TE11AC036	33	37	4	58	84	1	38	0.4	97.0
TE11AC036	38	41	3	57.6	82	0.5	38	0.4	95.0
TE11AC036	41	45	4	49	80	1	36	0.5	87.0
TE11AC037	19	23	4	56.8	77	1.12	36	0.5	95.0
TE11AC037	25	30	5	59	81	1	37	0.5	94.0
TE11AC037	30	34	4	56.3	79	1.16	37	0.4	94.0
TE11AC037	34	38	4	56	79	1	36	0.4	94.0
TE11AC039	21	25	4	57.3	77	1.09	37	0.6	93.0
TE11AC041	17	22	5	61	83	0	37	0.6	96.0
TE11AC042	26	31	5	61.1	83	0.53	37	0.6	93.0
TE11AC042	35	39	4	50	85	0	33	0.6	93.0
TE11AC042	39	43	4	48.4	81	0.77	34	0.6	91.0
TE11AC043	18	22	4	64	81	1	36	0.4	93.0
TE11AC043	25	27	2	42.9	80	0.63	36	0.8	88.0
TE11AC044	16	20	4	63	84	1	37	0.8	96.0
TE11AC044	20	25	5	62.5	86	0.73	38	0.9	96.0
TE11AC044	25	30	5	60	85	1	38	0.9	96.0
TE11AC044	31	36	5	66.1	78	0.8	38	0.6	97.0

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061



Hole ID	From	То	Interval	-45µm	Reflectance	Fe ₂ O ₃	Al ₂ O ₃	TiO2	Kaolinite
	(m)	(m)	(m)	(%)	(ISO B)	(%)	(%)	(%)	(%)
TE11AC045	17	20	3	68	79	1	37	0.5	96.0
TE11AC045	22	27	5	65.5	84	0.79	38	0.6	96.0

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061 info@andromet.com.au | www.andromet.com.au



APPENDIX 3 – BRONZE WHALER AIRCORE DRILL COLLAR AND SAMPLE INFORMATION

Hole ID	Easting	Northing	Collar RL	Hole	Hole	Final	Drilling	Date	Comment
	Zone 53	Zone 53		inclination	azimuth	depth	method	drilled	
	MGA94	MGA94	(m)	(O)	(0)	(m)			
TW19AC001	471100	6358600	76.1	-90	0	37	AC	22/04/2019	
TW19AC002	471204	6358484	78.6	-90	0	14	AC	22/04/2019	Not sampled
TW19AC003	471396	6358199	81.2	-90	0	24	AC	22/04/2019	
TW19AC004	471298	6358397	80.0	-90	0	9	AC	22/04/2019	Not sampled
TW19AC005	471634	6357931	75.1	-90	0	54	AC	22/04/2019	
TW19AC006	471167	6358454	78.8	-90	0	5	AC	22/04/2019	Not sampled

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061



APPENDIX 4 – BRONZE WHALER RARE EARTH OXIDE RESULTS

									Critical											
	Light										Неаvy									
Hole	From	То	Length	Sc2O3	La2O3	CeO2	Pr6O11	Sm2O3	Nd2O3	Eu2O3	Tb4O7	Dy2O3	Y2O3	Gd2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	TREO
	m	m	m	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
TW19AC001	10	14	4	16.57	280.3	540	44.0	9.3	107.3	1.7	0.82	3.8	10.2	5.9	0.57	1.34	0.19	1.20	0.19	1023
TW19AC001	14	18	4	82.83	370.6	749	74.3	16.2	236.8	6.2	3.47	16.8	48.5	25.8	2.61	5.69	0.70	4.00	0.52	1644
TW19AC001	18	23	5	29.3	485.5	1056	112.6	10.4	352.3	7.2	4.43	24.2	114	29.7	4.55	12.18	1.74	10.67	1.44	2256
TW19AC001	23	28	5	57.06	285.0	626	75.2	10.4	295.1	8.8	7.67	48.9	366	45.2	10.93	34.08	5.29	34.62	4.96	1915
TW19AC003	7	11	4	11.2	444.5	1009	96.3	10.4	272.9	4.0	1.83	8.2	16.9	13.5	1.15	2.40	0.30	1.67	0.22	1894
TW19AC003	11	16	5	14.26	449.2	973	94.1	18.6	263.6	4.1	2.09	10.0	23.4	14.5	1.43	3.28	0.45	2.74	0.34	1875
TW19AC003	16	20	4	57.82	439.8	988	104.5	11.6	328.9	6.4	3.60	17.9	56.5	25.1	2.83	6.62	0.93	5.41	0.65	2057
TW19AC003	20	23	3	85.43	248.6	552	58.7	13.9	195.4	4.9	3.39	18.2	86.1	22.4	3.37	8.91	1.26	7.56	0.99	1311
TW19AC005	17	21	4	26.84	220.5	425	37.0	8.1	109.3	2.1	1.18	5.5	15.7	8.1	0.87	1.93	0.26	1.65	0.24	864
TW19AC005	21	26	5	41.72	310.8	479	67.5	8.1	234.4	5.3	3.32	17.0	55.5	22.8	2.74	6.13	0.78	4.20	0.53	1260
TW19AC005	26	30	4	20.71	285.0	426	46.0	7.0	130.6	3.4	2.63	14.1	45.8	17.1	2.31	5.18	0.59	3.14	0.39	1010
TW19AC005	30	34	4	22.39	224.6	362	45.8	9.3	150.5	3.8	2.63	14.1	45.3	17.8	2.33	5.29	0.65	3.37	0.41	910
TW19AC005	39	44	5	90.8	241.6	585	60.2	10.4	215.8	6.2	4.61	27.0	165	29.4	5.53	15.38	2.31	14.18	1.88	1475

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061



JORC Code, 2012 Edition – Table 1 Tiger and Bronze Whaler Kaolin Deposits

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary				
Sampling techniques	 Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity 	• 2019 ADN : Sampling consists of Aircore drilling to produce chip samples representing 1m of drilled material. Samples are composited to between 1 and 5m via riffle splitting to logged kaolinised granite intervals. Sample processing includes wet sieving to the 45micron fraction. Analysis of this fine -45micron fraction includes measuring reflectance, XRF analysis for element composition and XRD analysis for mineral species abundance including Halloysite testing which was completed at CSIRO.				
	and the appropriate calibration of any measurement tools or systems used.	 Aircore drilling of vertical holes to industry standard overseen by Andromeda Metals ("ADN") generating 1m chip samples. A total of 109 holes for 3,265m completed in 2019. Of these, 6 holes for 143m were drilled in Bronze Whaler prospect. Drilling 				
	 Aspects of the determination of mineralisation that are Material to the Public Report. 	penetrated beyond the kaolin to the partially decomposed parent granite. Ma drilling depth is 54m.				
	 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 	 Samples composited based on logged kaolinised granite intervals. Composite intervals range from 1-5m. 				
	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.	 Sample compositing was carried out at joint venture pilot kaolin processing facility a Streaky Bay, South Australia. Samples were then transferred to a commercial laboratory, Bureau Veritas, in Adelaide for processing. 				
	submarine nodules) may warrant disclosure of detailed information.	 Kaolin is a white, weathered clay product easily distinguished in drilling. The mineralisation forms a flat lying blanket atop a partially decomposed granite. Cover material comprises alluvial clays and sands and calcrete. The kaolin is capped by a silicified zone generally logged as 1m thick. 				
		 2011 MEP: Aircore drilling of vertical holes to industry standard completed by Minotau ("MEP") generating 1m chip samples. Drilling generally penetrated beyond the kaolinite to the partially decomposed parent granite. Maximum drilling depth is 63m. 				
		 Aircore 1m samples were composited based on perceived reflectance levels. Composite intervals range from 1-5m 				
		 Sample preparation and initial testing was carried out at MEP's pilot kaolin processing facility at Streaky Bay, South Australia. 				
		 Sample processing generated results for <45 micron material and reflectance measurement suite. 				

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061



Criteria	JORC Code explanation	Commentary			
		 1995 Commercial Minerals: Light coloured kaolin was assessed visually and a total of 1336 1m samples were bagged and returned to CML depot where on further inspection 102 5m composites were prepared for testing. 			
		1989 SA Paper Clays: Diamond core was logged, split and sampled onsite.			
		•			
Drilling techniques	 Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or 	 2019 ADN : Drilling completed by Mcleod Drilling using an MD1 Almet drill rig. The majority of the drilled metres were completed with 77mm diameter aircore drilling technique. 			
	other type, whether core is oriented and if so, by what method, etc).	 2011 MEP: Drilling completed by contractor Johannsen Drilling using an Edson 2000 drilling. Some drillholes were pre-collared using a rotary air blast (RAB) open hole hammer technique to penetrate hard bands of shallow calcrete and, where present, a silcrete horizon at the top of the kaolinised granite. The majority of the drilled metres were completed with 75mm diameter aircore drilling technique. 1995 Commercial Minerals: In April 1995 a drill program of 100 Rotary percussion/aircore holes for 3427m along roadsides. 			
		• 1995 Commercial Minerals: Rotary percussion then aircore drill program covering 100 holes and 3427m was completed, mainly along road verges and fencelines in the Tomney area and the Poochera-Port Kenny Rd. Drillhole spacing was generally 400m with 200m spaced holes in the Tomney East area. 14 holes for 499m recovered was in the vicinity of the Tiger resource area.			
		• 1989 SA Paper Clays : Drilling completed by Thompson Drilling Co. using rotary mud then diamond drill method to recover core. The 1989 drill program targeted Great White (formerly Careys Well), Manta (formerly Karcultaby South) and various Tomney sites including Tiger (formerly Tomney East). A total of 50 holes were drilled for 1544.2m (755.3m cored), of which 8 were at Tiger for a total of 304.3m, of which 166.9 were cored. These were drilled on a 400m grid.			
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. 	 Geological logging was undertaken by the onsite geologist during each drilling program. Determination of optimal samples and, conversely, intervals of poor recovery 			
	 Measures taken to maximise sample recovery and ensure representative nature of the samples. 	were based on visual observation of kaolinised material collected from each metre drilled.			
	Whether a relationship exists between sample recovery and grade	• Sample recovery is expected to have minimal negative impact on samples collected.			
	and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	 It remains unknown whether any relationship exists between recovery and grades bu none is expected 			
		 2019 aircore ADN : All metre bags that were sampled had their weights recorded before splitting and compositing for assay purposes. With few exceptions, samples 			



Criteria	JORC Code explanation	Commentary					
		recovered were dry with good recoveries. The depth of penetration of the drill bit was noted and the downhole interval recorded for each aircore sample.					
		 2011 aircore MEP: No recovery data is available. Damp intervals were recorded in logging. The depth of penetration of the drill bit was noted and the downhole interval recorded for each aircore sample. 					
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate	 All drill samples were logged by an experienced geologist on-site at the time of drilling Observations on lithology, colour, degree of weathering, moisture, mineralisation and 					
	Mineral Resource estimation, mining studies and metallurgical studies.	alteration for sampled material were recorded.					
	 Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. 	All intersections were logged.					
	 The total length and percentage of the relevant intersections logged. 						
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. 	Bronze Whaler 2019 aircore ADN : Riffle split sample compositing consisted of contiguous 1m drill samples up to 5m in total length, based on drill logs and visual actingation of material. Sample composite water property with the sime set of the set					
	 If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. 	estimation of whiteness of material. Sample composites were prepared with the aim c including kaolinised granite of similar quality within each composite, although in some cases narrow bands of discoloured kaolinised granite were included in the composite					
	 For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	to determine if poorer quality could be carried within the interval. Each metre bag dril sample was weighed before splitting.					
	 Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 	 Sample riffle splitting took place in the MEP pilot plant shed at Streaky Bay in sterile conditions. The samples were run through a 3 tier splitter to compile composite sample of between 2 and 4kg in weight. 					
	 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. 	 of between 2 and 4kg in weight. Bronze Whaler 2019 aircore ADN samples were processed by laboratory Bureau Veritas. Composited Samples were processed by first soaking and agitating the sar 					
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	to disaggregate the kaolin, then wet screened by passing through a Kason 2 screen vibrating deck. Coarser particles were collected, re-agitated and passed through again until a visual estimation that all the kaolin had been removed (ie the water ran clear). The finer separating screen was 45µm. The plus and <45um material was oven dried at 35°C and weighed. The <45um material was then split into several portions by a rotary splitter.					



Criteria	JORC Code explanation	Commentary
		 Tiger 2011 aircore MEP: Sample compositing consisted of only contiguous 1m drill samples up to 5m in total length, based on drill logs and visual estimation of whiteness of material i.e. reflectance. Sample composites were prepared with the aim of including kaolinised granite of similar quality within each composite, although in some cases narrow bands of discoloured kaolinised granite were included in the composite to determine if poorer quality could be carried within the interval. Composite samples ideally weighed between 10 and 15 kg with equal amounts of kaolinised granite being taken from each 1m drillhole sample. In a few cases, because of a lack of sample, the composite samples weighed less than 10kg. When sample processing commenced it was soon found that a minimum sample weight of about 8kg was required for satisfactory blunging and processing. Consequently, a very few composite samples could not be processed.
		• Tiger 2011 MEP aircore samples processed by blunging were at high solids content in a high shear blunger with sodium polyacrylate dispersant to ensure kaolin was fully dispersed and then screened and decanted to remove quartz and mica, to produce a <45 kaolin sample. Particle sizing was confirmed (>99% <45 micron) on site using a Sedigraph 5100 particle size analyser. Based on the measured solids content of the blunged kaolinised granite slurry, the <45micron kaolin percentage was determined by difference, after the >45 micron percentage was determined by wet screening and weighing.
		 Depending upon sufficient sample being available, about every tenth sample was duplicated, and was processed as a separate sample. At CSIRO, Division of Land and Water, Urbrae, South Australia testing was conducted on selected <45µm samples by the method below.
		 The dried <45µm sample was analysed for quantitative elemental and mineralogical testing (including kaolinite:halloysite ratio estimation) by XRD. A 2 gram subsample was micronised, slurried, spray dried and a spherical agglomerated sample prepared for XRD. Quantitative analysis of the XRD data was performed by CSIRO using SIROQUANT and Halloysite:Kaolinite proportions determined using profile fitting by TOPAS, calibrated by SEM point counting of a suite of 20 standards.
		 1995 Commercial Minerals: 1m samples were collected through the kaolinised profile. A total of 1336 light coloured kaolin 1m samples were bagged and returned to CML where 102 5m composites were prepared for testing.
		 1989 SA Paper Clays : The core was logged, split and sampled onsite and selected samples sent to joint venture partner English China Clays in Cornwall for detailed examination. Cores were further examined and stored at ECC's minesite at Pittong in Victoria



Criteria	JORC Code explanation	Commentary
Quality of assay data and	• The nature, quality and appropriateness of the assaying and	• Tiger Kaolin Deposit
aboratory tests	laboratory procedures used and whether the technique is considered partial or total.	Laboratory and field duplicates were submitted for assessment.
	 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 	 2011 aircore MEP: ISO Brightness and L*a*b* colour of the dried -45micron kaolin powder were determined according to TAPPI standard T 534 om-15 using a Technib 1B spectrophotometer at Minotaur's Streaky Bay kaolin processing facility.
	their derivation, etc.Nature of quality control procedures adopted (e.g. standards,	 2011 aircore samples were submitted for XRF testing to Bureau Veritas and XRD testir at CSIRO. Samples weren't analysed by MEP due to budgetary constraints.
	blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	 An approximate 0.7g of sample was dried in an oven at 105 °C and then weighed v the addition of 7g of 57:43 lithium borate flux. This mixture is then heated to 1050°C in Pt/Au crucible for approximately 20mins. The sample is then poured into a 37mm Pt/ mould and once cooled the glass disks were then analysed on a Panalytical Axios Advanced XRF instrument using an in house calibration program.
		 A dried <45 micron sample set was submitted to CSIRO, Division of Land and Water, Urbrae, South Australia for quantitative elemental and mineralogical testing (includi kaolinite:halloysite ratio estimation) by XRD. At CSIRO, a 2 gram subsample was micronised, slurried, spray dried and a spherical agglomerated sample prepared fo XRD. Quantitative analysis of the XRD data was performed by CSIRO using SIROQUA and Halloysite:Kaolinite proportions determined using profile fitting by TOPAS, calibrated by SEM point counting of a suite of 20 standards from the same locality (Janik and Keeling, 1996).
		 ISO Brightness B is an internationally accepted spectral criteria for determinations of brightness, refer Minotaur Exploration ASX announcement 8 February 2012 for more detail.
		 ISO Brightness data values of +75 are classified as Bright White and further subdivide as follows; Ultra High Brightness >84, High Brightness >80 <84 and Moderate Brightness >75 <80.
		Bronze Whaler – REE analyses
		 A dried <45 micron sample set from Bronze Whaler prospect was submitted to Australian Laboratory Services (ALS) for multi-element analyses by Lithium borate fusi by ICP-MS using a four acid digest with an ICP-MS finish (method ME-MS81). A prepared sample (0.100 g) is added to lithium metaborate/lithium tetraborate flux, mixed well and fused in a furnace at 1025°C. The resulting melt is then cooled and dissolved in an acid mixture containing nitric, hydrochloric and hydrofluoric acids. The solution is then analyzed by inductively coupled plasma - mass spectrometry.



Criteria	JORC Code explanation	No standards or blanks were used for the element analysis.				
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. 	 Sample and assay data from 2011 MEP aircore drilling have been compiled and reviewed by the senior geologists involved in the logging and sampling of the drill co 				
	• The use of twinned holes.	at the time. No independent intercept verification has been undertaken. No twin hol were completed by MEP for the 2011 drilling.				
	 Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 					
	Discuss any adjustment to assay data.					
ocation of data points	Accuracy and quality of surveys used to locate drill holes (collar and	No downhole surveys have been completed – all holes are vertical and shallow.				
	down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Grid projection is MGA94 Zone 53				
	Specification of the grid system used.	 2019 aircore ADN : All drill collar locations had survey pick up done by GNSS (Global Navigation Satellite System). Collar surveys were completed by licensed surveyor 				
	Quality and adequacy of topographic control.	Steven Townsend of P.A.Dansie & Associates using a Leica 1200 RTK (Real Time Kinematic) System with horizontal accuracy of +/- 20mm and vertical accuracy of - 20mm.				
		• Survey pickup of 2011 aircore drilling collar locations by differential GPS accurately located and levelled all collars. Collar surveys completed by contractor Peter Crettenden using a Trimble R8 RTK (Real Time Kinematic) System with horizontal accuracy of +/- 20mm and vertical accuracy of +/- 30mm, cross-checked against differential GPS survey data collected by licensed surveyors Hennig & Co in March 2011.				
		1995 Commercial Minerals: unknown				
		 1989 SA Paper Clays : the drillholes were located with theolodolite and tape and levelled by staff and tied into the national grid (WGS84) 				
Data spacing and	Data spacing for reporting of Exploration Results.	• The drillhole spacing for the 2011 MEP program has established a high level of				
distribution	Whether the data spacing and distribution is sufficient to establish the degree of people pipel and grade continuity graphications	geological continuity for the kaolinite. The spacing is also suitable for establishing a reasonable level of grade continuity for the kaolinite and any impurities.				
	the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	 Samples were nominally composited over 5m or less as required on the outside extremities of the mineralisation. 				
	• Whether sample compositing has been applied.					



Criteria	JORC Code explanation	 Commentary 2011 MEP : Drillhole spacing is 100m by 100m with downhole sampling at 1m intervals with sample compositing of only contiguous 1m samples up to 5m based on drill logs and visual estimation of whiteness of material i.e. reflectance.
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. 	 Vertical drilling generally achieved a very high angle of intercept with the flat-lying, stratabound mineralisation. Drilling orientations are considered appropriate with no obvious bias. The analysis of Bronze Whaler samples was done on the <45µm fraction and is expected to have positively biased the REE metal content. The degree of the positive bias is unknown but could be in the order of 200% assuming the >45µm material contains no REE content.
Sample security	• The measures taken to ensure sample security.	 Transport of samples from the Streaky Bay kaolin processing facility to Adelaide and other locations for further test work has been undertaken by competent exploration contractors. Remnant samples are stored securely at the ADN premises in Streaky Bay or Adelaide.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• Andromeda Metals Chief Geologist Eric Whittaker has visited the Tiger Kaolin Deposit.

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 Tiger Kaolin Deposit (formerly Tomney East) is part of the Great White Kaolin Project, which is comprised of Exploration Licences 6588, 6096, 6202 and 6426. The Tiger Kaolin Deposit is located on EL6588 which is held by Andromeda Industrial Minerals Pty Ltd.
	 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. 	• There are no known non-government royalties due.
		• The underlying land title is freehold that extinguishes Native Title.
		 There are no known heritage sites within the Great White/Poochera area which preclude exploration or mineral development.

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061



Criteria	JORC Code explanation	Commentary
		 All tenements are secure and compliant with Government of South Australia Department for Energy and Mining requirements at the date of this report.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	 Minotaur conducted exploration in the Poochera area from when the tenement was granted in 2005 up until 2018 from when Andromeda took over exploration of the tenement package.
		 The general area that is the subject of this report has been explored for kaolinitic products in the past by Transoil NL, SA Paper Clays ECC (Pacific) & Commercial Minerals Ltd. ADN has reviewed exploration conducted by MEP and past explorers.
Geology	• Deposit type, geological setting and style of mineralisation.	 Kaolin deposits, such as Tiger, are developed in situ by lateritic weathering of the feldspar-rich Hiltaba Granite.
		 The resultant kaolin deposits at Tiger are sub-horizontal zone of kaolinised granite resting with a fairly sharp contact on unweathered granite. The kaolinised zone is overlain by loosely consolidated Tertiary and Quaternary sediments.
		 High quality kaolin-halloysite deposits occur extensively across the Great White Project area
		• Halloysite is a rare derivative of kaolin where the mineral occurs as nanotubes. Halloysite has a wide variety of industrial uses beyond simple kaolin and commands a significant premium above the average kaolin price. The Poochera kaolin deposits contain variable admixtures of kaolin and halloysite that appear amenable to selective mining to produce specific low, medium and high halloysite blends for the ceramic markets, new nanotechnology applications and as a strengthening additive in the cement and petroleum fracking industries.
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: 	• The report includes a tabulation of drillhole collar set-up information sufficient to allow an understanding of the results reported herein.
	 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.	



Criteria	 JORC Code explanation 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. 	Commentary
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	 Reported summary intercepts are weighted averages based on length. Samples selected for XRD analysis at CSIRO were generally, but not exclusively, selected based on a nominal reflectance of >75 R457. Maximum or minimum grade truncations have not been applied. No metal equivalent values have been quoted.
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	 Drillhole angle relative to mineralisation has been almost perpendicular, with vertical drillholes through flat horizontal mineralisation related to the regolith. Generally, the stratabound intercepts are close to true width.
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. 	• Appropriate maps and tabulations are presented in the body of the announcement.
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.	Comprehensive results are reported.
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. 	• The iron content of the Tiger Kaolin is slightly higher than other deposits in the area but this does not appear to have affected the ISO Brightness. Further work needs to be done to determine the iron mineral species an affect on fire brightness.



Criteria	JORC Code explanation	Commentary
Further work	 The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). 	 Further metallurgical test work and additional analyses will be conducted as part of future studies.
	 Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. 	 All relevant data were entered into an Access database where various validation checks were performed including; duplicate entries, sample overlap, unusual assay values and missing data.
	Data validation procedures used.	• Further data validation was undertaken using Vulcan again checking for overlap and visual reviews of data were conducted to confirm consistency in logging.
		• Assessment of the data confirms that it is suitable for resource estimation.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. 	 The Competent Person has visited the sites and inspected the Streaky Bay pilot plant where the samples were processed.
	• If no site visits have been undertaken indicate why this is the case.	
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. 	 The geological understanding is quite straightforward with the drillhole spacing allowing for a high level of confidence.
	Nature of the data used and of any assumptions made.	• Consistent logging allows for the 3D modelling of geological surfaces. These surfaces
	 The effect, if any, of alternative interpretations on Mineral Resource estimation. 	include a top of kaolinite mineralisation and a base of kaolinite (generally coincides with the top of partially decomposed granite).
	• The use of geology in guiding and controlling Mineral Resource estimation.	 The surfaces indicate the flat-lying nature to the mineralisation although there are significant variations in thickness of the kaolinite.
	• The factors affecting continuity both of grade and geology.	• Wireframe; termination of wireframes is due a combination of geology and extent of drilling (100m).
		• The existing interpretation honours all the available data; an alternative interpretation is unlikely to have a significant impact on the resource estimates.

Andromeda Metals Ltd | ABN 75 061 503 375 | 69 King William Road Unley SA, 5061



Criteria	JORC Code explanation	Commentary
Dimensions	 The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. 	• The depth below surface to the top of the mineralisation ranges between 7 and 48 metres with an average depth of 23.
Estimation and modelling techniques	 The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. 	• Mineral wireframes and geological surfaces are generated in Vulcan by picking lithological contact points on drillholes then using those 3D points to generate an initial surface. The initial surface is then used to guide the 100m lateral extrapolation beyond the last drillhole.
		 The kaolin wireframes were used to control the composite selection and the loading of subsequently modelled data into the block model.
		 Geostatistics were performed for the <45um recovered material, Al₂O₃, Fe₂O₃, SiO₂, TiO₂, R457 (reflectance). Halloysite and kaolinite percentage was also analysed
	 The assumptions made regarding recovery of by-products. 	separately and combined.
	 Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). 	 Vulcan software was used for the block grade interpolation and block model reporting.
	 In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. 	 Correlation between the main economic elements and deleterious elements Fe₂O₃, and TiO₂ were weak indicating possible mineral zonation, which is not an uncommon
	 Any assumptions behind modelling of selective mining units. 	feature with the type of mineralisation.
	Any assumptions about correlation between variables.	 The deposit was drilled at a nominal 100m spacing with sample compositing of the 1m bulk samples up to 5m (predominantly 3 to 5m).
	 Description of how the geological interpretation was used to control the resource estimates. 	 The ordinary kriging (OK) estimation method was used.
		 140 composites were used with compositing of the drillhole sample data
	 Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	 No top cutting was applied; the coefficients of variation for the relevant composite datasets suggest that the data is not sufficiently skewed or unstructured to warrant top cutting.
		• One search ellipse was used, orientated to follow the strike of the mineral unit.
		 Block size was 50m by 50m by 5m (X, Y & Z), with 10m by 10m by 1m sub-blocking. The only hard boundary used was the kaolin mineral bounding wireframe.
		 Composites used to estimate each block were limited to 15 with a maximum of 3 composites per hole.
		 Model validation has consisted of visual comparison of block grades to drillholes and composite block grades to composite drillhole values and indicated a good match.



Criteria	JORC Code explanation	Commentary
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	 Tonnages are estimated on a dry weight basis. •
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	 The resource estimate has been reported at R457 reflectance of 75 within the upper and lower kaolinite surfaces. A brightness filter was applied when manually selecting the intervals for sample compositing but only to the upper and lower contacts of the kaolin.
		 The <45µm values were used as a mass adjustment factor for reporting the kaolinite and halloysite content.
		 The R457 cut-off grade at which the resource is quoted reflects the intended bulk- mining approach.
Mining factors or	Assumptions made regarding possible mining methods, minimum mining	• The Resource assumes a conventional open pit mining scenario.
assumptions	dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for	 The proposed mining method will be a truck-excavator operation
	eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	• A flitch height of 2.5m is assumed using a 90t to 100t excavator and a fleet of 45t to 65t trucks
		 Assumptions for the mining dilution and recovery for the open pit mine are 0% dilution and 90% recovery.
		 It is anticipated that most of the pit excavation will be mined sequentially with previous voids backfilled by overburden and sand reject material from the processing plant.
		 Material intended for processing will be delivered to a run of mine stockpiles based on physical and chemical properties of the ore.
		 It is likely that processing plant feed will be blended from a variety of in pit sources and stockpiles to maximise the delivery of product meeting market specification requirements.
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	 No test work has been undertaken but the process to undertake the work has commenced. •



Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	 Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. 	 The Tiger deposit area is currently utilised for grazing and cereal cropping. No large drainage systems pass through the area. A storage area for the overburden will be required initially. If processing is undertaken on site approx. 50-60% of sand rejects will be used for sequential backfilling of voids. There will be no tailings.
Bulk density	 Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	 Blocks were assigned a density of 1.44t/m³ which is the average measured density of the Great White Kaolin Deposit.
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit. 	 The Tiger Mineral Resource Estimate was classified Indicated following continuity analysis and the assessment of impacting factors such as drillhole spacing, sampling procedures, QAQC outcomes and geological model. The classification appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	No reviews or audits have been completed.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	 The Mineral Resource Estimate has been classified using a qualitative assessment of a number of factors including the geological understanding in conjunction with the simplicity of mineralisation, the drillhole spacing, drill sample recoveries), sampling procedure, QA/QC data and density data. The Mineral Resource estimate is considered to be accurate globally, but there is some
		uncertainty in the local estimates due to the sample compositing and density data giving a lack of detailed definition of any subtle variations in the deposit.



Criteria	JORC Code explanation	Commentary
	 The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. 	 No mining of the deposit has taken place, so no production data is available for comparison.
	 These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	