

Andromeda Metals Limited ABN: 75 061 503 375

Corporate details:

ASX Code: ADN

Cash (30 June 2020): \$2.99 million Issued Capital:

1,698,990,986 ordinary shares 449,045,754 ADNOB options 96,500,000 unlisted options

Directors:

Rhod Grivas

- Non-Executive Chairman
- James Marsh
- Managing Director
- Nick Harding Executive Director and
- Company Secretary
 Joe Ranford
- **Operations Director**

Andrew Shearer Non-Executive Director

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METALS

ASX Announcement

29 September 2020

New Mineral Resource Estimate for Hammerhead Halloysite-Kaolin Deposit

Summary

- The inaugural Mineral Resource Estimate reported in accordance with the 2012 JORC Code and Guidelines has been completed for the Hammerhead Kaolin Deposit in South Australia.
- An Inferred Resource of 51.5Mt of Bright White kaolinised granite is estimated using an ISO Brightness R457 cut-off of 75 yielding 27.1Mt of minus 45-micron quality kaolin product.
- The Resource contains a sub-domain consisting of high halloysite-kaolin totalling 4.7Mt.
- The Hammerhead Deposit is very similar to the Great White Deposit and perfectly suited for the high-quality porcelain ceramics market.
- Recent drilling undertaken in May 2020 has determined that the resource remains open to the east, south and northwest.
- Concrete application testing of Hammerhead halloysite-kaolin is continuing to deliver strong positive results. A 100kg sample of Hammerhead product is being prepared for a full-scale underground mine shotcrete trial.
- Concrete application testing is also to be undertaken on material representing a sizable high halloysite sub domain of the Great White Deposit.
- Steady progress continues to be made with the Definitive Feasibility Study and Mining Lease application process for the Great White Kaolin Project.

Discussion

Andromeda Metals Limited (ASX Code: ADN, Andromeda, the Company) is pleased to report the inaugural Hammerhead Mineral Resource Estimate reported in accordance with the 2012 JORC Code and Guidelines.

The Hammerhead Deposit is located on exploration licence EL 5814 and lies 5kms to the north of the Great White Deposit on the Eyre Peninsula of South Australia and is part of the Great White Kaolin Joint Venture with Minotaur Exploration Limited (ASX: MEP) under which ADN is currently earning a 75% interest. The Company has now received the remaining XRD results for the May 2020 drilling program (refer *ADN ASX announcement dated 11*

September 2020 titled "Hammerhead Drill Results and Potential Construction Product Application") allowing a Mineral Resource to now be estimated for the Hammerhead Deposit.



Fig 1 : Great White Kaolin Project Tenements and Prospects

New 2012 JORC Mineral Resource Summary

An Inferred Resource Estimate for the Hammerhead Deposit of 51.5Mt of kaolinised granite reported at an ISO brightness (R457) cut-off of 75 in the minus 45-micron size fraction is shown in Table 1 below. The Resource includes a halloysite rich sub-domain and remains open to the east, south and northwest.

		PSD	Kaolinite	Halloysite
Domain	Mt	-45µm	%	%
Main	43.1	52.7	43.2	5.4
Halloysite	8.4	52.1	40.5	12.0
Total	51.5	52.6	42.7	6.5

Table 1 – Hammerhead	Kaolin	Mineral	Resource
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Note that all figures are rounded to reflect appropriate levels of confidence

The Resource yields 27.1Mt of High Bright kaolin product (R457 >80 <84) in the minus 45-micron recovered fraction, with the remaining approximate 47.4% of material being largely residual quartz derived from the weathered granite. The Halloysite sub domain contains 4.7Mt of minus 45-micron material comprised of 21.6% halloysite with an ISO B of 82.9 (refer Table 2).

Domain	Mt	ISO B	Kaolinite	Halloysite	Al ₂ O ₃ %	Fe ₂ O ₃ %	TiO₂ %
Main	22.4	82.0	82.7	10.4	36.90	0.63	0.73
Halloysite	4.7	82.9	72.9	21.6	37.47	0.64	0.62
Total	27.1	82.2	81.0	12.3	36.99	0.63	0.71

Table 2 - Hammerhead Kaolin Mineral Resource -45µm

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

Significantly, some areas within the Hammerhead Deposit show high levels of halloysite (>20%) that is similar to the existing resource reported at the Great White Kaolin Deposit.

Mineral Resource Detail

The 2020 Hammerhead Resource Estimate is based on exploration undertaken by MEP in 2011 and by ADN in 2019 and 2020. Work undertaken prior to 2011 was not sufficiently documented to meet JORC 2012 requirements. MEP drillhole samples were analysed by XRF and XRD by ADN in 2019 and 2020. All drillhole data used for the resource estimate is contained in ADN ASX announcements dated 16 March 2020 titled *"High-Grade Halloysite Zone identified at Condooringie"* and 11 September 2020 titled *"Hammerhead Drill Results and Potential Construction Product Application"* and in Appendix 1 and Appendix 2 of this report.

ADN and MEP have completed 112 rotary air blast (RAB) aircore drilling holes (4,942.4 metres) and 2 diamond holes (99.1m) used for geotech and density measurements only. All 114 drillholes were 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.

ADN's composited samples were wet sieved at Bureau Veritas in Adelaide to determine percentage passing -45μ m, with the recovered material then analysed by Bureau Veritas using their XRF 4B method to determine elements that include Al₂O₃, Fe₂O₃, SiO₂ and TiO₂. Brightness on the minus 45-micron material was determined by ADN 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.

Analysis for halloysite and kaolinite content was undertaken by CSIRO on all samples. This data was used to define a flat-lying kaolin deposit that lies between 7 and 62m below the surface. The Resource Estimate covers an area of approximately 1.0km E-W by 2.9km N-S with a kaolin thickness ranging from 2m to 32m and the thickest part of the deposit open to the south/south west. A plan view of the geological interpretation for the kaolin body is shown in Figures 2 and 3 and structure contours of the top of the kaolin mineralisation showing the thickness of the kaolin is shown in Figure 3. Overburden which has an average thickness of 23.6m 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 silicification marks the top of the kaolin resource whilst the change in weathering intensity marks the base of the kaolin resource.



Fig 2: Outline of Hammerhead Resource separately showing kaolin thickness contours (GDA 94 MGA 53)



Fig 3 : Block model and drill collars (composite grade) coloured by ISO Brightness, contoured with cover depth (GDA 94 MGA 53)

The drilling and sampling procedures and analytical methods implemented by ADN were the same used for the Great White Kaolin Deposit at Poochera which had been reviewed by H&S Consultants and assessed as having no obvious issues with the sampling or analysis of the data. Composite intervals were extracted from the drillhole database constrained by the kaolin wireframes. Grade interpolation of the kaolinite and halloysite was completed for the minus 45 micron recovered material, along with Al₂O₃, Fe₂O₃, SiO₂, TiO₂ and R457 all obtained on the minus 45-micron fraction. Statistical analysis of the composite data was undertaken and showed 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. Variography showed that current drillhole spacings are insufficient to support Indicated or Measured classification.

	Assay	Minimum	Maximum	Mean	Geometric mean	Standard deviation (SD)	Coeff of Variation (CV)	Variance	Skewness
	Halloysite	0	66	12.212	6.415	11.983	0.981	143.6	2.2
VDD	Kaolinite	32	98	80.436	79.398	12.182	0.151	148.407	-1.552
ARD	Crystalite size	34.7	146.2	74.718	73.169	15.876	0.212	252.063	1.042
	Hinckley Index	0.519	1.575	0.942	0.918	0.217	0.231	0.047	1.019
	Al2O3	26.7	45.4	36.467	36.396	2.211	0.061	4.889	-1.27
	Fe2O3	0.11	2.29	0.727	0.673	0.291	0.4	0.085	1.231
XRF	К2О	0.05	4.2	0.996	0.56	0.964	0.967	0.929	0.802
	SiO2	24.96	57.26	47.613	47.545	2.46	0.052	6.051	-0.943
	TiO2	0.21	2.27	0.741	0.706	0.235	0.317	0.055	1.227
	R457	54.4	89.61	80.501	80.307	5.402	0.067	29.177	-1.292
Duightungen	L	88.19	96.95	94.674	94.663	1.413	0.015	1.997	-1.199
Brightness	ASTAR	-0.9	3.49	0.074	0.427	0.668	9.077	0.446	1.63
	BSTAR	2.43	19.13	5.502	5.114	2.327	0.423	5.417	1.744
Particle Size Distribution	<45µm	18.607	73.605	50.296	48.976	10.72	0.213	114.92	-0.62

Table 3 - Hammerhead Univariate Statistics for Composites

Inverse distance squared (ID2) was chosen as the most appropriate method for the grade interpolation. Maptek's Vulcan software was used for modelling and the grade interpolation which used a single flat lying search domain of 300m by 200m by 5m (long axis orientated to 145 degrees) to reflect the overall consistency in strike and dip of the mineralisation. Block size was 50m by 50m by 5m (X, Y & Z), with 10m by 10m by 1m sub-blocking. Two wireframes were used to define the upper and lower saprolite within the mineralised zone. Other wireframes were used to map out geological boundaries above the mineralised zone but these have no impact on the resource.

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 4. No significant issues were noted.

Density measurements for the deposit were calculated from drill core using a modified Archimedes method with the drill core sealed prior to submersion. An average dry bulk density of 1.39t/m³ was assigned to the upper saprolite and a density of 1.52 t/m³ lower saprolite.

Future work to upgrade the resource estimation category will require additional drilling to reduce the drillhole spacings, obtain more samples for dry bulk density determinations and undertake hydrogeological studies.



Fig 4 : Selected cross sections showing block model and drill traces coloured by halloysite % (Vertical exaggeration 2:1, GDA 94 MGA 53).

Concrete Application Testwork

The concrete application testing work reported earlier this month (*refer ADN ASX announcement dated 11 September 2020 titled "Hammerhead Drill Results and Potential Construction Product Application"*) has now passed the 28-day milestone and the positive trends with strength gain and bleed reduction have continued.



Fig 5: Comparable Strength Gain and Bleed in 40MPa Concrete up to 28 Days

Compliance testing AS1478.1-2000 Type SN is continuing and on track to provide compliance for concrete industry supplied mix designs by late November. Following completion of this testing the identified high-halloysite material from the Great White Resource will be tested in selected concrete mix designs. A 100kg sample of Hammerhead material equivalent to the potential product already being tested is being prepared for a planned commercial scale trial in underground mine shotcrete that should be completed in Q4 this year.

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Competent Persons Statement

Information in this announcement has been assessed and compiled by Mr James Marsh, a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM). Mr Marsh an employee of the Andromeda Metals Limited who holds shares and options in the company, and has sufficient experience, which is relevant to metal recovery from the style of mineralisation and type of deposits under consideration and to the activity being undertaking to qualify as a Competent Persons under the 2012 Edition of the 'Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves'. This includes over 30 years of experience in kaolin processing and applications.

The data in this report that relates to Mineral Resource Estimates for the Hammerhead Kaolin Resource is based on information 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 consents to inclusion in this document of the information in the form and context in which it appears

APPENDIX 1 – HAMMERHEAD 2020 AIRCORE DRILL COLLAR AND SAMPLE INFORMATION

Hole ID	Easting	Northing	Collar RL	Hole	Hole	Final	Hole	Sampled	Sampled	Sampled	Sampled	Interval
		Ŭ		inclination	azimuth	depth	Diameter	Start depth	End depth	Start depth	End depth	sampled
	(MGA94)	(MGA94)	(m)	(°)	(°)	(m)	(mm)	(m)	(m)	(m)	(m)	(m)
CD20AC001	476797	6373397	95.0	-90	0	47	77mm	30	36			6
CD20AC002	476796	6373598	89.6	-90	0	38	77mm	16	28			12
CD20AC003	476601	6373602	92.5	-90	0	59	77mm	42	57			15
CD20AC004	476594	6373394	93.2	-90	0	44	77mm	24	39			15
CD20AC005	476597	6373199	97.6	-90	0	47	77mm	23	46			23
CD20AC006	476793	6373199	96.5	-90	0	58	77mm	37	56			19
CD20AC007	476992	6372994	97.4	-90	0	47	77mm	34	40			6
CD20AC008	476791	6373002	101.8	-90	0	58	77mm	34	37			3
CD20AC009	476594	6372994	102.7	-90	0	41	77mm	24	39			15
CD20AC010	476592	6372795	108.0	-90	0	54	77mm	25	48			23
CD20AC011	475991	6373392	90.3	-90	0	37	77mm	27	34			7
CD20AC012	476187	6373396	96.2	-90	0	41	77mm	18	35			17
CD20AC013	476388	6373396	91.4	-90	0	58	77mm	20	52			32
CD20AC014	476391	6373191	96.9	-90	0	33	77mm	21	31			10
CD20AC015	476192	6373193	94.5	-90	0	39	77mm	17	36			19
CD20AC016	476395	6372986	101.4	-90	0	26	77mm	17	24			7
CD20AC017	476397	6372798	107.4	-90	0	38	77mm	27	33			6
CD20AC018	475784	6373360	90.7	-90	0	66	77mm	36	60			24
CD20AC019	475796	6373593	89.0	-90	0	66	77mm	34	59			25
CD20AC020	475995	6373784	89.3	-90	0	62	77mm	48	51			3
CD20AC021	476199	6373797	89.6	-90	0	45	77mm	35	39			4
CD20AC022	476407	6373792	92.1	-90	0	53	77mm	Hole Not Sam	oled			
CD20AC023	476599	6373995	89.4	-90	0	51	77mm	33	44			11
CD20AC024	476797	6374000	93.2	-90	0	52	77mm	19	50			31
CD20AC025	477007	6373601	90.2	-90	0	43	77mm	12	42			30
CD20AC026	476998	6373799	89.5	-90	0	47	77mm	12	43			31
CD20AC027	477195	6374000	89.6	-90	0	40	77mm	33	39			6
CD20AC028	477190	6373781	93.8	-90	0	33	77mm	Hole Not Sam	oled			
CD20AC029	477189	6373779	93.8	-90	0	43	77mm	34	41			7
CD20AC030	477195	6373594	90.7	-90	0	40	77mm	23	37			14
CD20AC031	477191	6373396	93.0	-90	0	27	77mm	16	26			10
CD20AC032	477199	6373203	89.8	-90	0	29	77mm	18	26			8
CD20AC033	477199	6373000	89.9	-90	0	30	77mm	17	24			7
CD20AC034	477198	6372793	91.5	-90	0	35	77mm	20	33			13
CD20AC035	477799	6372396	99.0	-90	0	59	77mm	Hole Not Sam	oled			
CD20AC036	476998	6373402	95.3	-90	0	50	77mm	22	42			20
CDW11AC001	476699	6373798	88.8	-90	0	46	75mm	18	31	39	42	16
CDW11AC005	476400	6373647	90.9	-90	0	53	75mm	29	42	47	53	19
CDW11AC012	476902	6373501	92.0	-90	0	55	75mm	19	39	41	45	24
CDW11AC013	476899	6373397	94.4	-90	0	59	75mm	33	39	44	56	18

APPENDIX 2 – HAMMERHEAD 2020 ANALYTICAL RESULTS

Hole ID	From	То	Interval	-45µm	Reflectance	Fe2O3	Al2O3	TiO2	Kaolinite	Halloysite
	(m)	(m)	(m)	(%)	(ISO B)	(%)	(%)	(%)	(%)	(%)
CD20AC001	30	33	3	32.6	79.3	0.64	34.8	0.87	85	0
CD20AC001	33	36	3	28.7	75.9	1.03	34.0	0.97	85	0
CD20AC002	16	18	2	46.4	67.7	1.43	35.4	1.01	92	0
CD20AC002	18	20	2	46.9	74.4	0.76	35.7	0.70	89	0
CD20AC002	20	25	5	32.7	67.5	1.17	33.7	0.92	82	3
CD20AC002	25	28	3	27.5	70.1	1.32	31.2	0.99	78	0
CD20AC003	42	44	2	55.4	71.2	0.94	37.6	0.68	98	0
CD20AC003	44	49	5	56.6	80.5	0.69	37.9	0.81	85	11
CD20AC003	49	54	5	53.2	81.0	0.74	37.6	0.81	87	11
CD20AC003	54	57	3	54.8	80.4	0.92	37.7	0.79	97	0
CD20AC004	24	26	2	44.3	78.0	0.79	37.1	0.77	97	0
CD20AC004	26	31	5	55.8	84.3	0.51	38.2	0.67	93	5
CD20AC004	31	36	5	55.5	80.0	0.87	38.1	0.88	92	6
CD20AC004	36	39	3	55.2	77.1	1.07	37.5	0.79	98	0
CD20AC005	23	26	3	45.7	83.5	0.40	37.1	0.77	97	0
CD20AC005	26	30	4	50.0	85.4	0.51	37.8	0.68	92	6
CD20AC005	30	32	2	47.1	74.2	0.73	36.0	0.73	76	14
CD20AC005	32	37	5	42.7	83.5	0.64	35.0	0.67	74	12
CD20AC005	37	41	4	39.3	68.7	0.99	34.4	0.75	81	5
CD20AC005	41	44	3	35.7	79.9	0.80	35.0	0.86	78	8
	44	46	2	35.7	81.0	0.87	34.6	0.81	85	1
	37	40	4	54.8	75.1	0.83	37.5	0.86	95	0
	41	45	4	53.0	78.5	0.74	36.3	0.00	91	0
	41	45	4	/8.1	78.4	0.74	34.3	0.71	86	0
	45	54	5	40.1	81.6	0.75	22.0	0.01	78	4
	54	56	2	36.4	81.0	0.00	30.0	0.95	77	0
	24	27	2	50.4	70.5	1 12	25.1	0.98	88	0
CD20AC007	27	40	2	50.5	70.5	0.04	24.6	0.91	07	0
CD20AC007	37	40	3	52.0	79.5	0.94	34.0	0.84	97	0
CD20AC008	20	30	4	50.5	05.1	0.71	30.3	0.89	01	с С
CD20AC008	30	42	4	42.0	66.1	1.00	30.2	0.82	68	14
CD20AC008	42	44	2	42.0	00.1	0.40	35.9	0.85	70	10
CD20AC008	44	40	4	40.4	02.0	0.40	35.9	0.74	70	18
CD20AC008	48	51	3	32.9	82.8	0.51	34.7	0.85	75	-
CD20AC008	51	52	1	18.6	81.2	0.73	33.1	0.86	75	6
CD20AC008	52	54	2	35.9	63.9	1.72	33.0	0.91	02	0
CD20AC008	54	57	3	27.5	80.7	0.66	34.3	0.88	85	11
CD20AC009	24	28	4	52.5	86.3	0.59	37.6	0.39	04	
CD20AC009	28	31	3	49.7	86.3	0.33	36.1	0.55	88	0
CD20AC009	31	34	3	38./	85.3	0.47	35./	0.67	00	0
CD20AC009	34	37	3	34.0	//.6	1.24	35./	0.72	90	0
CD20AC009	37	39	2	33.6	82.9	0.70	35.8	0.85	09	0
CD20AC010	25	30	5	53.3	83.5	0.36	38.1	0.53	66 91	32
CD20AC010	30	35	5	52.8	84.5	0.61	38.0	0.62		15
CD20AC010	35	38	3	54.7	72.9	0.76	37.9	0.68	68	29
CD20AC010	38	40	2	57.4	82.0	0.60	38.0	0.65	97	U
CD20AC010	40	42	2	55.4	70.2	0.87	37.9	0.66	95	3
CD20AC010	42	46	4	54.3	85.5	0.29	37.9	0.68	91	5
CD20AC010	46	48	2	48.2	78.0	1.34	34.5	0.62	85	0
CD20AC011	27	30	3	47.3	82.9	0.59	36.9	0.68	93	1
CD20AC011	30	31	1	44.6	82.8	0.60	35.9	0.63	75	13
CD20AC011	31	34	3	45.0	77.5	0.87	34.9	0.76	80	6
CD20AC012	18	23	5	56.0	85.7	0.46	37.7	0.56	85	11

Hole ID	From	То	Interval	-45µm	Reflectance	Fe2O3	Al2O3	TiO2	Kaolinite	Halloysite
	(m)	(m)	(m)	(%)	(ISO B)	(%)	(%)	(%)	(%)	(%)
CD20AC012	23	25	2	46.8	87.1	0.27	35.3	0.61	83	3
CD20AC012	25	28	3	43.9	83.3	0.63	35.0	0.68	87	0
CD20AC012	28	32	4	30.6	80.0	0.79	35.5	0.93	89	0
CD20AC012	32	35	3	27.3	75.3	1.13	34.8	0.90	87	0
CD20AC013	20	22	2	39.4	79.2	0.74	35.6	1.15	87	5
CD20AC013	22	26	4	59.8	83.9	0.67	38.2	0.76	98	0
CD20AC013	26	30	4	60.0	85.3	0.64	38.4	0.83	98	0
CD20AC013	30	35	5	54.8	68.1	0.87	38.0	0.87	88	9
CD20AC013	35	37	2	45.8	79.2	0.73	37.2	0.84	80	16
CD20AC013	37	41	4	27.8	79.9	0.60	30.7	1.06	62	19
CD20AC013	41	45	4	27.1	80.8	0.60	30.6	0.99	64	15
CD20AC013	45	47	2	24.5	80.2	0.71	29.9	1.13	73	0
CD20AC013	47	52	5	20.1	78.0	0.92	30.0	1.37	73	4
CD20AC014	21	25	4	52.2	80.0	0.33	35.9	0.59	87	3
CD20AC014	25	28	3	43.5	77.8	0.73	33.9	0.65	61	23
CD20AC014	28	30	2	45.0	79.9	0.84	34.8	0.64	69	17
CD20AC014	30	31	1	42.3	76.4	1.14	34.2	0.69	77	8
CD20AC015	17	22	5	47.6	80.6	0.87	35.2	0.75	77	14
CD20AC015	22	26	4	40.4	83.0	0.81	34.2	0.81	64	20
CD20AC015	26	29	3	31.9	65.3	1.54	35.0	0.91	86	3
CD20AC015	29	33	4	29.6	77.1	0.84	35.2	0.90	89	0
CD20AC015	33	36	3	28.8	78.5	0.92	34.4	0.95	86	0
CD20AC016	17	21	4	55.7	85.1	0.36	38.4	0.47	97	2
CD20AC016	21	24	3	58.6	86.9	0.11	38.3	0.52	97	0
CD20AC017	27	29	2	47.8	79.0	0.80	36.5	2.27	92	4
CD20AC017	29	33	4	60.9	84.4	0.36	38.5	0.69	76	22
CD20AC018	36	38	2	55.2	73.1	0.92	37.7	0.81	92	5
CD20AC018	38	43	5	54.0	80.8	0.86	37.5	0.87	97	0
CD20AC018	43	45	2	52.2	80.0	0.79	37.5	0.86	90	7
CD20AC018	45	50	5	52.8	84.1	0.66	36.6	0.86	83	10
CD20AC018	50	54	4	46.3	82.9	0.70	34.5	0.95	74	10
CD20AC018	54	57	3	44.2	82.4	0.73	33.8	0.91	73	9
CD20AC018	57	60	3	42.9	79.1	0.90	33.9	0.88	81	1
CD20AC019	34	36	2	33.7	83.3	0.47	36.4	0.99	94	0
CD20AC019	36	39	3	38.0	81.1	0.51	35.1	1.14	91	0
CD20AC019	39	42	3	50.3	61.4	1.60	36.6	1.11	87	7
CD20AC019	42	45	3	52.3	81.1	0.63	37.0	1.10	85	7
CD20AC019	45	48	3	39.8	82.8	0.44	35.3	1.40	73	14
CD20AC019	48	52	4	33.2	81.7	0.56	33.1	1.27	71	6
CD20AC019	52	56	4	42.5	81.4	0.80	34.4	1.11	82	2
CD20AC019	56	59	3	34.5	79.2	0.83	34.2	1.25	75	11
CD20AC020	48	51	3	40.5	75.2	0.94	32.8	1.05	76	6
CD20AC021	35	39	4	44.1	75.1	1.06	35.1	0.61	60	31
CD20AC023	33	36	3	60.4	76.2	0.99	37.5	0.63	97	0
CD20AC023	36	39	3	52.4	70.4	1.22	35.9	0.79	87	6
CD20AC023	39	44	5	42.6	75.6	1.06	34.2	0.84	70	14
CD20AC024	19	21	2	58.1	75.7	0.96	37.7	1.08	95	2
CD20AC024	21	26	5	59.8	80.7	0.83	37.8	1.02	97	0
CD20AC024	26	27	1	60.3	69.1	1.04	37.8	0.95	93	4
CD20AC024	27	30	3	59.7	82.5	0.84	37.9	1.09	94	3
CD20AC024	30	34	4	51.0	81.8	0.57	37.8	0.95	74	21
CD20AC024	34	36	2	57.4	72.2	0.93	37.8	0.68	78	18
CD20AC024	36	40	4	51.6	82.4	0.63	37.4	0.83	69	25
CD20AC024	40	42	2	45.9	83.1	0.69	34.8	0.93	71	13
CD20AC024	42	45	3	36.7	73.1	0.97	33.6	0.99	82	0

Hole ID	From	То	Interval	-45µm	Reflectance	Fe2O3	Al2O3	TiO2	Kaolinite	Halloysite
	(m)	(m)	(m)	(%)	(ISO B)	(%)	(%)	(%)	(%)	(%)
CD20AC024	45	50	5	31.3	80.0	0.77	32.6	1.16	77	0
CD20AC025	12	16	4	66.2	83.6	0.59	38.5	0.75	98	0
CD20AC025	16	20	4	61.5	81.6	0.64	38.1	0.81	98	0
CD20AC025	20	23	3	56.5	82.4	0.63	37.9	0.78	74	24
CD20AC025	23	28	5	54.1	80.4	0.59	38.2	0.63	57	40
CD20AC025	28	31	3	56.0	74.5	0.79	38.0	0.62	65	31
CD20AC025	31	34	3	58.3	82.3	0.30	38.4	0.61	80	17
CD20AC025	34	38	4	57.8	82.7	0.29	37.8	0.61	93	2
CD20AC025	38	42	4	41.7	80.3	0.94	34.7	0.73	86	0
CD20AC026	12	17	5	60.2	83.0	0.66	38.2	0.87	96	0
CD20AC026	17	22	5	55.9	84.6	0.66	38.3	1.04	97	0
CD20AC026	22	26	4	57.1	85.0	0.70	38.2	0.89	98	0
CD20AC026	26	30	4	54.2	84.3	0.64	38.5	0.93	97	0
CD20AC026	30	33	3	54.1	82.8	0.74	38.2	0.85	97	0
CD20AC026	33	36	3	53.8	70.1	1.06	37.9	0.76	93	4
CD20AC026	36	40	4	50.5	75.4	0.74	37.1	0.72	82	11
CD20AC026	40	43	3	37.8	81.9	0.69	34.3	0.92	72	11
CD20AC027	33	35	2	56.5	83.3	0.53	37.9	0.46	83	13
CD20AC027	35	36	1	53.6	75.4	0.80	37.9	0.68	93	3
CD20AC027	36	39	3	41.6	83.9	0.40	35.4	0.83	75	10
CD20AC029	34	36	2	45.5	79.7	0.70	38.1	0.56	79	18
CD20AC029	36	38	2	49.0	81.9	0.54	37.9	0.53	76	20
CD20AC029	38	41	3	46.1	79.0	0.64	35.9	0.80	81	7
CD20AC030	23	28	5	53.8	78.8	0.96	37.0	0.87	96	0
CD20AC030	28	33	5	56.9	79.9	0.64	38.0	0.59	81	15
CD20AC030	33	37	4	51.2	81.3	0.41	36.9	0.58	68	25
CD20AC031	16	19	3	61.2	81.9	0.60	38.0	0.62	77	20
CD20AC031	19	23	4	57.0	84.1	0.47	38.4	0.58	81	16
CD20AC031	23	26	3	62.6	84.6	0.33	38.0	0.42	97	0
CD20AC032	18	23	5	62.4	81.7	0.53	37.9	0.44	78	18
CD20AC032	23	26	3	53.0	81.6	0.69	36.9	0.47	61	32
CD20AC033	17	20	3	40.0	81.5	0.67	35.1	0.72	76	9
CD20AC033	20	22	2	32.7	83.1	0.53	35.8	0.75	88	0
CD20AC033	22	24	2	31.0	80.6	0.64	36.1	0.81	90	0
CD20AC034	20	23	3	52.5	79.3	0.87	37.6	0.90	97	0
CD20AC034	23	25	2	54.6	62.3	1.70	37.4	0.55	63	34
CD20AC034	25	27	2	53.8	79.0	0.74	37.8	0.58	52	44
CD20AC034	27	31	4	50.0	83.6	0.80	35.9	0.65	70	19
CD20AC034	31	33	2	39.9	79.6	1.16	34.0	0.89	64	20
CD20AC036	22	24	2	61.5	79.7	0.79	37.7	0.53	68	27
CD20AC036	24	28	4	58.1	81.2	0.55	37.8	0.54	61	36
CD20AC036	28	33	5	52.8	78.2	0.65	37.8	0.64	67	30
CD20AC036	33	35	2	57.3	66.7	1.18	37.5	0.53	66	31
CD20AC036	35	39	4	54.8	82.2	0.52	36.2	0.62	76	15
CD20AC036	39	42	3	44.6	81.9	0.38	34.6	0.73	67	16
2011 samples										
CDW11AC01	39	42	3	26.0	79.0	1.10	31.3	0.74	59	10
CDW11AC05	50	53	3	64.0	84.0	0.96	36.5	0.78	72	21
CDW11AC12	41	45	4	39.0	79.9	0.92	34.3	0.97	74	10
CDW11AC13	44	49	5	44.0	82.0	0.92	31.3	0.92	75	10
CDW11AC13	49	52	3	36.0	82.0	0.94	30.6	1.09	75	11
CDW11AC13	52	56	4	35.0	80.8	0.99	29.9	1.08	78	9

JORC Code, 2012 Edition – Table 1 Hammerhead Kaolin Deposit

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	 2020 ADN: Aircore drilling consisted of vertical holes to industry standard completed by Andromeda Metals ("ADN") generating 1m chip samples. 45 holes for 2,064m were drilled at Hammerhead deposit in May 2020. Drilling penetrated beyond the kaolin to the partially decomposed parent granite. Maximum drilling depth was 81m. Sample compositing was carried out at MEP's kaolin processing facility at Streaky Bay, South Australia A bulk sample of approx. 2000kg was collected by RAB blade drilling in July 2020. The single hole at Hammerhead was drilled to 56m depth and sampled from 9m to 43m. The hole had 6m of surface casing installed to limit overburden contamination. 2011 MEP: Aircore drilling of vertical holes to industry standard completed by Minotaur ("MEP") generating 1m chip samples. Drilling generally penetrated beyond the kaolinite to the partially decomposed parent granite. Maximum drilling depth is 60m. 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 generated results for minus 45 micron material and reflectance measurement suite.
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	 May 2020 ADN: Drilling completed by McLeod Drilling Pty Ltd using an MD1 Almet drill rig. All drilled metres were completed with 77mm diameter bit using aircore or slim line drilling techniques. All intervals sampled for analysis were drilled by aircore. July 2020 ADN : RAB Drilling completed by Underdale Drilling using an Atlas T3W rig. Drilling was with 200mm blade bit for bulk recovery of sample.

Criteria	JORC Code explanation	Commentary
		 2011 MEP: Drilling completed by contractor Johannsen Drilling using an Edson 2000 drill rig. 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.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	 2020 ADN: All metre bags from the air core drilling that were sampled had their weights recorded before compositing and splitting for assay purposes. With a few exceptions, samples recovered were excellent, dry and competent. The depth of penetration of the drill bit was noted and the downhole interval recorded for each aircore sample. July 2020 ADN: RAB Drilling samples were recovered in 1m intervals, where drilling would cease and the sample containers from that 1m collected were amalgamated. Geological logging was undertaken by the onsite geologist during each drilling program. Determination of optimal samples and, conversely, intervals of poor recovery were based on visual observation of kaolinised material collected from each metre drilled. Sample recovery is expected to have minimal negative impact on samples collected. It remains unknown whether any relationship exists between recovery and grades but none is expected 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 Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant 	 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 alteration for sampled material were recorded. All intersections were logged.

Criteria	JORC Code explanation	Commentary
	intersections logged.	
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 May 2020 ADN: Riffle split sample compositing consisted of contiguous 1m drill samples up to 5m in total length, based on drill logs and visual estimation of whiteness of material. Sample composites were prepared with the aim of including kaolinised gneiss of similar quality within each composite, although in some cases narrow bands of discoloured kaolinised gneiss were included in the composite to determine if poorer quality could be carried within the interval. Each metre bag drill sample was weighed before splitting. Sample riffle splitting took place in MEP's kaolin processing plant in Streaky Bay in sterile conditions. The samples were run through a 3 tier splitter to comple composite samples of between 2 and 4kg in weight Samples were processed by laboratory Bureau Veritas. Sample weights were recorded before any sampling or drying. Samples are dried at low temperature (60C) to avoid destruction of halloysite. The dried sample was then pushed through a 5.6mm screen prior to splitting. A small rotary splitter is used to split an 800g sample for sizing. The 800g split is then wet sieved at 180µm and 45µm. The +180 and +45µm fractions are filtered and dried with 2micron paper. A small portion of the -45µm material is split for XRF analysis and 4x100gm reserves are retained by Andromeda. 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 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. 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

Criteria	JORC Code explanation	Commentary
		 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. 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 wet screening and weighing. 90 composite samples from 22 Hammerhead (formerly Condooringie) drillholes were prepared and tested for brightness and particle size distribution in 2011. All 90 of these samples were assayed by XRF in 2019 and 69 of these were selected and tested by XRD in 2019/2020. A further 6 samples were tested by XRD in September 2020. Depending upon sufficient sample being available, about every tenth sample was duplicated, and was processed as a separate sample.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	 All assay methods were appropriate at the time of undertaking. Laboratory and field duplicates were submitted for assessment. 2020 ADN: ISO Brightness B and colours L*a*b* were determined on - 45µm kaolin powder in house in an enclosed laboratory room at Bureau Veritas using ADN's Technidyne Colourtouch CT-PC Spectrophotometer in accordance with Tappi standard T534 om-15. 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 Technibrite 1B spectrophotometer at Minotaur's Streaky Bay kaolin processing facility. ISO Brightness B is an internationally accepted spectral criteria for

Criteria	JORC Code explanation	Commentary
		 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 subdivided as follows; Ultra High Brightness >84, High Brightness >80 <84 and Moderate Brightness >75 <80.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 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 core at the time. No independent intercept verification has been undertaken. No twin holes were completed by MEP for the 2011 drilling.
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 2020 ADN: All aircore drill collar locations had survey pick up done by GNSS (Global Navigation Satellite System). Collar surveys were completed by licensed surveyor Steven Townsend of Townsend Surveyors using a Leica 1200 RTK (Real Time Kinematic) System with horizontal accuracy of +/-20mm and vertical accuracy of +/-20m. No downhole surveys have been completed – all holes are vertical and shallow. Grid projection is MGA94 Zone 53 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.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	 Hammerhead extensional drillhole spacing is 200m by 200m 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. Some drillholes within the deposit were placed within the 50m grid. The drillhole spacing for the MEP work and the 2020 ADN drilling program has established a high level of geological continuity for the kaolinite. The spacing is also suitable for establishing a reasonable level of grade continuity for the kaolinite and any impurities.

Criteria	JORC Code explanation	Commentary
		 May2020 ADN Sample splitting took place in the Streaky Bay kaolin processing facility in sterile conditions. The samples were run through a 7:1 3 tier splitter to compile composite samples of between 2 and 4kg in weight. Samples were nominally composited over 5m or less as required on the outside extremities of the mineralisation. 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.
Sample security	• The measures taken to ensure sample security.	 The 2020 ADN aircore drill samples were collected by Andromeda personnel and delivered to the kaolin processing facility at Streaky Bay.
		• 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 MEP 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 Hammerhead site during the drilling to review drilling and sampling procedures.

Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 The Great White Kaolin Project is comprised of Exploration Licences 5814, 6096, 6202 and 6426. The Great White (formerly Carey's Well) and Hammerhead (formerly Condooringie) deposits are located on EL5814. The Poochera Project is held by subsidiaries of Minotaur Exploration Limited and is joint ventured to Andromeda under terms detailed in the ADN ASX release dated 26 April 2018. There are no known non-government royalties due beyond the Minotaur JV agreement terms. 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. 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 has conducted exploration in the Great White/Poochera area since the tenement was granted in 2005. 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 Poochera/Great White, developed in situ by lateritic weathering of the feldspar-rich Hiltaba Granite. The resultant kaolin deposits at Great White and Hammerhead (formerly Carey's Well and Condooringie) 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 Poochera 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

Criteria	JORC Code explanation	Commentary
		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: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	 The report includes a tabulation of drillhole collar set-up information sufficient to allow an understanding of the results reported herein.
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 by were selected based on a nominal reflectance of >75R457 and Al2O2 > 35% 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 	 Appropriate maps and tabulations are presented in the body of the announcement. Sections are not required as kaolinsed granite is a consistent flat lying regolith unit across the prospects with varying thickness

Criteria	JORC Code explanation	Commentary
	drill hole collar locations and appropriate sectional views.	as shown in the plan views
Balanced reporting	 Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	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. 	•
Further work	 The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Further metallurgical test work and additional halloysite analyses will be conducted as part of future studies.

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. Data validation procedures used. 	 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. 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. If no site visits have been undertaken indicate why this is the case. 	• The Competent Person was present when the same field crew and drillers were undertaking resource drilling at Great White and has confidence the work was undertaken at the same standard.
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. 	 The geological understanding is quite straightforward with the drillhole spacing allowing for a high level of confidence. Consistent logging allows for the 3D modelling of geological surfaces. These surfaces include a top of kaolinite mineralisation and a base of kaolinite (generally coincides with the top of partially decomposed granite).

teria JORC Code explanation	Commentary
 The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 The surfaces indicate the flat-lying nature to the mineralisation although there are significant variations in thickness of the kaolinite. 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.
 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.
 imation and 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. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. 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. 	 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 Vulcan software was used for the block grade interpolation and block model reporting. Correlation between the main economic elements (including contaminants Fe₂O₃, and TiO₂) were weak indicating possible mineral zonation, which is not an uncommon feature with the type of mineralisation. The deposit was drilled at a nominal 200m spacing with sample compositing of the 1m bulk samples up to 5m (predominantly 3 to 5m). Parent block sizes were 50m in the X (east) direction, 50m in the Y (north) direction and 5m in the Z (RL) direction with sub-blocking to 5m by 5m by 1m. The inverse distance square (ID2) estimation method was used. 504 composites were used with compositing of the drillhole sample data 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.

Criteria	JORC Code explanation	Commentary
		 Search size: grade interpolation used a single flat lying search domain of 300m by 200m by 5m (long axis orientated to 145 degrees) to reflect the overall consistency in strike and dip of the mineralisation. 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 (1m) used to estimate each block were limited to 15 with a maximum of 5 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.
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	 Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for 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. 	 The Resource assumes a conventional open pit mining scenario. The proposed mining method will be a truck-excavator operation 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.

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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.
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 Hammerhead 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. 	 Density measurements for the deposit were calculated from drill core using a modified Archimedes method. The method involved vacuum sealing fresh drill samples and completing weight in air weight/water measurements along with oven-drying the sample. An average density of 1.39t/m3 was assigned to the upper saprolite and a density of 1.52 t/m3 lower saprolite. Overburden (unconsolidated sand) was assigned a density of1.72 t/m3
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 	 Mineral Resources have been classified on the estimation subject to assessment of other impacting factors such as drillhole spacing, sampling procedures, QAQC outcomes, geological model and previous resource estimate. The classification appropriately reflects the Competent Person's view of the deposit.

Criteria	JORC Code explanation	Commentary
	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 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. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	 The Mineral Resources have 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 are 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. No mining of the deposit has taken place so no production data is available for comparison.