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Andromeda
METALS

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7 March 2019

Alex Sutton
Advisor - Geology, Listings Compliance
Australian Securities Exchange
20 Bridge Street
Sydney, NSW 2000

Dear Sir,

As requested, the Company's announcement dated 5 March 2019 titled "Excellent Dry Processing Trial Results from Carey's Well Ore" is re-issued now with a Table 1 Appendix.

Yours faithfully

James Marsh
Managing Director

Andromeda Metals Limited
ABN: 75 061 503 375

Corporate details:
ASX Code: ADN
Cash: $2.54 million
(as at 28 February 2019)
Issued Capital:
1,355,499,211 ordinary shares
486,280,451 ADNOB options
22,476,507 unlisted options

Directors:
Rhod Grivas
Non-Executive Chairman
James Marsh
Managing Director
Nick Harding
Executive Director and Company Secretary
Andrew Shearer
Non-Executive Director

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Andromeda METALS

ASX Announcement

5 March 2019

Excellent Dry Processing Trial Results from Carey's Well Ore

Summary

- **Testing in Australia using dry sorting methods has shown that the quartz sand impurities contained within the raw ore can be reduced from an approximate 50% content down to less than 1%.**
- **The results exceeded expectations, proving that a dry processing method is a feasible option for consideration in studies to upgrade the value of the halloysite-kaolin ore. This is a key step forward in the development of the Poochera Halloysite-Kaolin Project.**
- **In addition, bulk sample testing is due to commence soon at a number of sites owned by potential end users. 140 tonnes is now in China at a wet processing kaolin plant awaiting testing, 20 tonnes is being prepared for shipping to another Chinese wet processor and a smaller amount to a Chinese dry processing plant.**
- **Outside of China discussions have commenced with potential end users in Japan and Europe.**
- **Advancing the halloysite-kaolin potential at Poochera is a crucial step in Andromeda Metals' strategy, whilst continuing to prove the resource as a premium High Purity Alumina (HPA) feedstock.**

Discussion

During October 2018, Andromeda Metals (ASX: ADN) conducted a very successful bulk sampling exercise at the Poochera Halloysite-Kaolin Project and extracted over 200 tonnes of halloysite-kaolin ore (*refer ASX announcement dated 22 October 2018*). The intention was to use this material in both dry and wet conventional kaolin processing trials at commercial scale to determine optimum operational strategy.

WA Kaolin Holdings Pty Ltd ("WA Kaolin"), based in Perth, Western Australia, is a producer of high-quality kaolin products, with state-of-the art dry process technology and was selected to provide a professional evaluation of the commercial viability of using their refining processes on the Carey's Well ore.

The dry processing option was utilised first as the much lower cost and faster turnaround option. The main goals of this work were to determine how the

halloysite-kaolin ore would respond to a conventional dry processing technique, and what level of purity could be achieved. All of the data on recoveries and throughput was collected for use in the Scoping and Feasibility Study.

Approximately 40 tonnes of the halloysite-kaolin was processed through the plant over a two-day period, yielding about 6 tonnes of refined product, which confirmed dry processing as a potential commercial method to produce a refined product.

Figure 1 – Carey's Well raw ore prior to processing

Figure 2 – Bagged fully processed product

The Carey's Well ore contains approximately 50% of sand as a natural impurity and the aim of this work was to determine how much of this could effectively be removed to give either a semi-processed product (>1wt% quartz remaining), or a fully processed product (<1wt% quartz remaining).

The refined product was bagged off into bulka bags of approximately 500kg each with samples taken and sent to Bureau Veritas for detailed mineralogical and chemical testing.

Analysis results showed that the dry processing technique was successful in removing virtually all of the quartz sand to give a final product with less than 1wt% remaining. This is the global standard requirement for customers of kaolin products and being able to meet that criteria without having to use any water represents significant capital and operating cost savings. Conductivity testing also showed that the processed material had salt levels within drinking water levels, which is important for a number of end applications and represents additional process savings.

Andromeda Metals' Managing Director James Marsh commented "knowing that we can use a very low cost and effective dry process to remove all impurities and move straight into a potential market ready product is the best result we could have hoped for with this work and is extremely positive for the financial aspects of the project."

Next Steps

Now that testing of the product is complete, samples of refined product will be sent to targeted customers for application testing, including laboratory, pilot and commercial scale trials. Additional commercial scale dry process testing and wet process testing is planned in China, with 140 tonnes of halloysite-kaolin ore currently delivered to the plant. This testing has been delayed slightly due to Chinese New Year and restructuring of the government owned business and is now expected to be completed during April.

In addition, ADN has identified a number of other potential customers within China, Japan and also in Europe who will be taking either bulk samples of DSO or smaller samples of dry processed material for a range of testing.

Analysis of all of the trial results is expected to identify the optimum processing options, determine final product specifications and allow indicative commodity pricing along with operational costings. The resultant fully processed products will be run through commercial ceramics factories for technical approvals, and samples used for global marketing initiatives. Andromeda Metals will seek binding agreements with customers for DSO (kaolin processors), and fully processed product with end customers in the ceramic market and other selected applications. The positive results from the Western Australian dry processing combined with the results from the pilot plant trails run by Minotaur will be used to cross-check against the results provided by the potential export customers.

The outcomes from the processing trials phase will provide critical information for use in the Scoping Study due for completion in H1 of 2019.

The Poochera Project

The Poochera Kaolin-Halloysite Project covers two main geographic areas of interest, both situated in the western province of South Australia (Figure 3). The main area of focus, the Poochera Kaolin-Halloysite Project on the Eyre Peninsula comprises three tenements and is located approximately 635kms west by road from Adelaide and 130kms east from Ceduna (Figure 4).

Figure 3 -Project location plan

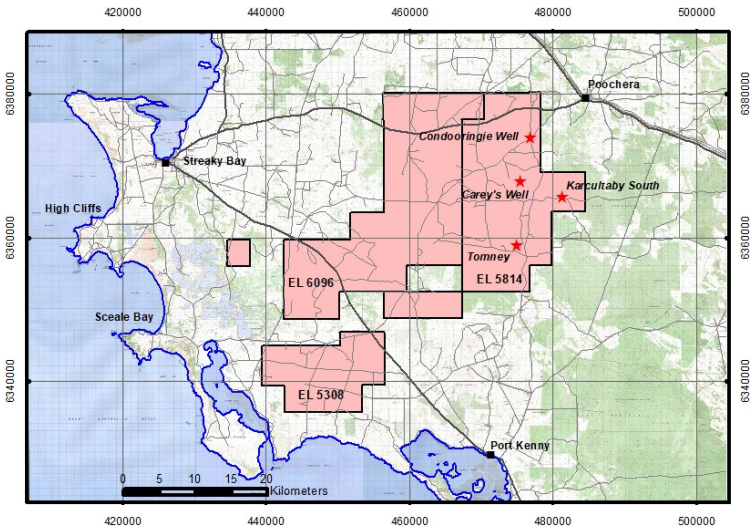

Figure 4 - Poochera Tenements

High quality kaolin-halloysite deposits occur extensively across the Poochera Project area making this a region of global significance for the mineral and capable of supporting a considerable long-life mining operation should final feasibility studies determine the project to be economically viable. 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 contains a variable natural halloysite-kaolin blend that is in demand for the ceramic and petrochemical refining markets, as well as developments in new high-tech and nanotechnology applications.

The northern project area includes the near pure halloysite Camel Lake deposit on EL6128 (Figure 3) that could potentially be processed to provide a very high value pure product for the development of halloysite nanotubes technology in the areas of energy storage and carbon-hydrogen capture and storage.

Extensive test work has been completed on the Carey's Well deposit, including resource drilling, bulk sampling, pilot test trials and marketing, and ADN is working towards a Mining Lease application as part of feasibility evaluations.

Under the terms of the Poochera Halloysite-Kaolin Project Joint Venture, ADN can acquire up to 75% of the project by either sole funding $6.0M over 5 years or alternatively a decision to mine is made by the Joint Venture partners, with an initial 51% interest earned by the Company through the expenditure of $3.0M on advancing the project within the first 2 years.

Contact:

James Marsh
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Competent Person's Statements

Information in this announcement has been assessed and compiled by Mr James Marsh, a member of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr Marsh an employee of the Andromeda Metals Limited 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.

JORC Code, 2012 Edition – Table 1 Poochera 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.	• The sample used in the dry processing test work was from the bulk sampling exercise conducted in 2018. • Approximately 215 tonnes of kaolinite ore was removed for testing using a foundation drilling rig. • A geologist was onsite throughout the bulk sampling to ensure that all collected material was representative. • The extracted material was homogenised and bagged off into approximate 1 tonne bulka bags. • Kaolinite 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 kaolinite is capped by a silicified zone generally logged as 1m thick. • Andromeda excavated the bulk sample from the Carey's Well mineral resource. The resource estimation was updated to JORC 2012 in 2018 by an independent geologist (H&SC Consulting). Refer to ASX announcement 22 August 2018 'Mineral Resource update for the Poochera Kaolin Project'.
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).	• A Soilmec SR-30 Auger Piling Rig was used to extract the bulk sample. • All holes were drilled vertically with a 900mm diameter auger. The sample was returned to the surface and "spun" off the auger. Sampled hole depths ranged from 24m to 33m deep whilst sampled kaolin-halloysite intervals ranged from 7.5m to 17m
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed.	• Not applicable as the sample was recovered from a bulk sampling operation.

Criteria	JORC Code explanation	Commentary
	• 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.	
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	• The samples were qualitatively logged, weighed and labelled by an experienced geologist on-site at the time of drilling. Observations on lithology, colour, degree of weathering, mineralisation and alteration for sampled material were recorded. • The bulk sample was homogenised by placing all material on to a tarpaulin and mixing with a loader before loading into bulka bags. • Data from the bulk sampling has not been used to numerically help define the Mineral Resources.
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.	• All drillholes were geologically logged and the bright white kaolin-halloysite mineralised intervals sampled, with approximately 1 tonne of material collected in bulka bags for each vertical metre sampled. • 40 tonnes of representative kaolin ore were selected by an experienced geologist for the dry processing trials. The dry processing process intimately mixed and homogenised the whole 40 tonnes, along with further homogenising when product was bagged off from the process plant product silo.
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.	• Mineralogical (XRD) and chemical (XRF) analysis was carried out by Bureau Veritas laboratories. • Representative samples were taken from each tonne of the dry processed material.

Criteria	JORC Code explanation	Commentary
	• 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.	
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.	• All bulk sampling information was collected by an experienced geologist and included in a detailed technical report.
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.	• The sample area was selected following geological modelling and extensive analysis of exploration drill samples by CSIRO and Newcastle University's Global Innovative Centre for Advanced Nanomaterials. • Seventeen vertical, 900mm wide diameter holes were drilled to a maximum depth of 33 metres into the bright white kaolin Mineral Resource envelope where the deposit was modelled to include in excess of 10% halloysite. • A topographic surface has been created based on an accurate contour plan of the Poochera kaolin deposit area produced in March 2011 by licensed surveyors Hennig & Co. utilising differential GPS (+/-0.2m accuracy).
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.	• The spacing of the bulk sampling collection points is appropriate and representative of the run of mine grade for Carey's Well.
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	• The bulk sampling was completed to ensure there was no sampling bias.

Criteria	JORC Code explanation	Commentary
	and reported if material.	
Sample security	• The measures taken to ensure sample security.	• The bulk sample was collected by Andromeda personnel then delivered to the dry processing facility by competent haulage operators. • Transport of samples from the dry processing facility to Bureau Veritas for further testwork was undertaken by competent processing engineers and Andromeda personnel. Remnant samples are stored securely Andromeda premises in Adelaide.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No external audits or reviews of the sampling techniques or data have been completed

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 Poochera Kaolin-Halloysite Project (Exploration Licences 5814, 6096 and 6202, which is a subsequent licence to EL5308) includes the Poochera (Carey's Well) deposit, which is 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 historical sites within the Carey's Well/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.	• MEP has conducted exploration in the Carey's Well/Poochera area since the tenement was granted in 2005.

Criteria	JORC Code explanation	Commentary
		• 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 past exploration conducted by MEP.
Geology	• Deposit type, geological setting and style of mineralisation.	• Kaolin deposits, such as Poochera/Carey's Well, developed in situ by lateritic weathering of the feldspar-rich Hiltaba Granite. • The resultant kaolin deposit at Carey's Well is a 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 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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o 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.	• Exploration results have been reported in the public domain with an ASX release for the initial resource estimate publicised on 8 February 2012. • Exploration results not being reported.

Criteria	JORC Code explanation	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.	• Exploration results not being reported.
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').	• Exploration results not being reported. • Drill hole angle relative to mineralisation has been almost perpendicular. 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.	• Exploration results not being reported.
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.	• Exploration results not being 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.	• Metallurgical testwork conducted by BHM Process consultants utilising industry standard two-stage acid dissolution and precipitation product with chemical analysis through Nagrom Mineral Laboratories and Labwest Mineral Analysis.
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,	• Further HPA metallurgical testwork and additional halloysite analyses will be conducted as part of future Scoping and Feasibility studies.

Criteria	JORC Code explanation	Commentary
	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. • 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. • Data linked to Surpac for wireframing, block model creation and resource reporting. • Visual reviews of data were conducted to confirm consistency in logging and drillhole trajectories. • 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.	• No site visit by H&SC personnel was completed due to time and budgetary constraints. • Multiple site visits were completed by Tony Belperio, Executive Director of MEP • A site visit was recently completed by Rhod Grivas, Chairman of ADN. James Marsh, Managing Director of ADN has historically visited the area several times
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 use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• The geological understanding is quite straightforward with the 2008 and 2011 MEP drilling density allowing for a high level of confidence. • Consistent logging has allowed for the definition of a series of 3D geological surfaces. These surfaces comprise a base of soil, a base of silcrete, a top of kaolinite mineralisation (generally coincides with the base of silicified kaolinite), a base of kaolinite (generally coincides with the top of partially decomposed granite) and a base of drilling surface. • The surfaces indicate the flat-lying nature to the mineralisation although there are significant variations in thickness of the kaolinite.

Criteria	JORC Code explanation	Commentary
		• In most cases the top and base of the kaolinite mineralisation is defined by where the material has been assayed. • The 2013 ABC drilling has been used to help define the geological surfaces where appropriate information exists. • Wireframe extrapolation is generally 100m beyond the last drillhole; termination of wireframes is due a combination of geology and a lack of drilling. • On receipt of halloysite analyses from CSIRO the interpretation was advanced with the definition of a halloysite zone using a nominal 10% halloysite (for -45 micron size fraction) • The existing interpretation honours all the available data; an alternative interpretation is unlikely to have a significant impact on the resource estimates.
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.	• Mineralisation can be modelled for 1km of strike length, and down dip for 1.5km (very shallow dip of 2° to the east). The mineralised zone appears to comprise two parallel N-S striking depressions with thicknesses ranging from 3 to 28m. • The depth below surface to the top of the mineralisation ranges between 8 and 24metres.
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. • 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	• Mineral wireframes and geological surfaces are based on interpretations completed on sections with strings snapped to drill holes. • Surpac mining software was used for the interpretation and block model reporting. The GS3 software was used for block grade interpolation. • 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 minus45micron material, Al_2O_3, Fe_2O_3, SiO_2, TiO_2, R457 (reflectance) and 2micron particle size data. Halloysite percentage was also analysed • Correlation between the main economic elements was weak indicating possible mineral zonation, which is not an uncommon feature with the type of mineralisation. • Drillhole spacing is 100m with sample compositing up to 5m (predominantly 4 to 5m).

Criteria	JORC Code explanation	Commentary
	the average sample spacing and the search employed. • Any assumptions behind modelling of selective mining units. • 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.	• 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 12.5m by 12.5m by 1.25m. • The Ordinary Kriging estimation method was used. • 214 five metre (5m) composites were selected using the relevant wireframes; residuals of <2.5m were discarded. 203 samples had halloysite analyses. • 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. • 3 estimation search passes were used with an increasing search radius and decreasing number of data points. • Search size: 150 by 150 by 7.5m (Measured), 250 by 250 by 15m (Indicated) to 250 by 250 by 15m (Inferred) with 8 minimum data (Measured and Indicated) decreasing to 4 (Inferred). • The first and second passes used an octant-based search where at least 4 octants had to be estimated; the remaining pass 3 used a 2 octant based search. • Variography was modest mainly due to the limited amount of sample data, particularly in the down dip direction in combination with localised thinness of some of the mineral zones. • One search ellipse was used, orientated to follow the strike, dip and plunge trend of the mineral unit. • Model validation has consisted of visual comparison of block grades and composite values and indicated a good match. Comparison of summary statistics for block grades and composite values has indicated a very small risk of overestimation of grade for certain elements for certain lodes usually in the Inferred category. This is due to the deposit being open with zones of higher grade material on the margin. • There are relatively limited changes from the MEP 2012 global resource estimates and this provides a good level of confidence in the resource estimates and their classification. • The 2013 ABC drilling data was modelled as a check model as it only covers part of the deposit. This model used different data sources, namely

Criteria	JORC Code explanation	Commentary
		kaolinite and silica percentages, rather than minus45micron and R457 reflectance values. The check model for this sub-area reported only a 5% difference in the interpreted kaolinite content with the MEP model.
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.	• Resource estimates have been reported at a 75 R457 reflectance within the upper and lower kaolinite surfaces. A second constraint uses the area defined as halloysite containing from CSIRO analyses at a nominal 10% halloysite from the -45 micron recovered fraction. The -45micron values were used as a volume adjustment factor being indicative of kaolinite material. • There is a very limited amount of unassayed kaolinite material outside the new resource estimates • The 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.	• H&SC's understanding based on information supplied by ADN is for an open pit mining scenario. • The proposed mining method will be a truck-shovel operation • Minimum mining dimensions are the sub-block size of 12.5m by 12.5m by 1.25m. • The current assumptions for the mining dilution and recovery for the open pit mine are 5% dilution and 95% recovery. The initial plan for mining start up will be sell the product as direct shipping ore.
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.	• Preliminary testwork on alumina content and the ability to produce HPA previously carried out with Bureau Veritas, UniSA and the University of Newcastle showed that the Poochera/Carey's Well product would be suitable for HPA generation with the added advantage that it gives a significantly higher alumina mass yield than comparable Australian kaolins. • BHM Process Consultants were commissioned to undertake the necessary concept metallurgical investigation and future process design aspects for upgrading typical hydrous processed kaolin from Poochera/Carey's Well to a saleable HPA product via industry standard hydrometallurgical processing

Criteria	JORC Code explanation	Commentary
		routes. BHM have specific metallurgical experience and knowledge in the field of HPA production principles as well as being hydrometallurgical specialists that understand the intricate processes involved in HPA production. • The BHM testwork indicates that an HPA product with 99.99% purity is readily available from Poochera/Carey's Well kaolin/halloysite feedstock using an industry standard HCL two-stage dissolution-precipitation process, with the initial testwork achieving 99.9855% alumina. Key impurities in the first testwork include Silicon (66.84ppm), Sodium (30.16ppm) and Iron (28.28ppm), each of which can be expected to be further reduced by processing improvements moving forward.
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.	• A 12 month baseline flora study has already been completed and consultants are being engaged to complete all the environmental studies required for a mining licence. • The Poochera/Carey's Well deposit area is currently utilised for grazing and cereal cropping. There are also areas of unused ground • There will be no tailings. A storage area for the overburden will be required initially. If it is decided to dry semi-processing on site at a later stage there will be approx. 50% of sand rejects that may be stockpiled or used for backfilling. • No large river systems pass through the area.
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.	• In October 2018 a bulk sample programme included designing and implementing an appropriate method to determine bulk rock density on the unconsolidated, porous kaolin-halloysite material. • The method involved vacuum sealing fresh samples and completing weight in air weight/water measurements along with oven-drying the sample. • A total of 220 samples were collected on which density determinations were completed. • The same sample suite was used to determine moisture content. • The average in-situ bulk rock density measured for the material sampled was 1.83 tonnes/m^3, whilst the average dry bulk rock density was 1.44 tonnes/m^3. • The average moisture content of the bulk sample material was measured to

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		be 21.6 wt%. • The average dry bulk rock density of 1.44 tonnes/m^3 is materially different from the density estimate of 1.7 tonnes/m^3 (based on 8 samples) used in the previous Mineral Resource estimates. • This 1.44 t/m^3value has been used as a default density value for subsequent resource estimation. • The default density value is considered reasonable, (possibly slightly conservative); it is generated from a large number of samples but from a relatively small area (the bulk sample).
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.	• Mineral Resources have been classified on the estimation search pass category subject to assessment of other impacting factors such as drillhole spacing (variography), sampling procedures, QAQC outcomes, density measurements, geological model and previous resource estimates. • 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 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	• 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, sample recoveries (the lack thereof), sampling procedure, QA/QC data and density data. • The Mineral Resource estimates 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.

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	available.	