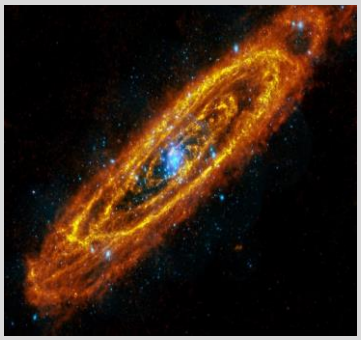

Andromeda Metals Limited
ABN: 75 061 503 375

Corporate details:

ASX Code: ADN

Cash (31 Dec 2019): $4.37 million

Issued Capital:
1,470,904,645 ordinary shares
674,632,095 ADNOB options
99,000,000 unlisted options

Directors:

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

Contact details:

69 King William Road,
Unley, South Australia 5061

PO Box 1210
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Andromeda METALS

ASX Announcement

6 April 2020

Wet-Processing Delivers Improved Economics for Poochera Halloysite-Kaolin Project

Updated Scoping Study Highlights

- **An Updated Scoping Study to consider wet-processing on site has delivered further significant improvement to the project economics for the proposed Poochera Halloysite-Kaolin Project.**
- **Wet-processing at site provides improved kaolin recoveries over dry-processing leading to additional revenues and lower costs per unit sold.**
- **Updated Life of Mine (LOM) key financial metrics[1] compared to the original Scoping Study based on dry-processing now comprise:**
  - **All In Sustaining Cost[2] (AISC) averages A$374/tonne (down from A$396/tonne) of fully refined kaolin with an anticipated selling price[3] of A$700/tonne;**
  - **Refined kaolin produced (LOM) increases to 227ktpa (up 40ktpa);**
  - **Pre-production capital is estimated at A$13M with a maximum cash requirement of A$29M prior to initial revenues being received;**
  - **Project Cashflow is now A$1,049M, an increase of A$251M;**
  - **Net Present Value (@ 8% discount rate) is A$544M, up A$131M;**
  - **Internal Rate of Return unchanged at 175%;**
  - **Payback period unchanged at 15 months from start of mining, with a projected A$35M wet-processing plant, funded by start-up Direct Shipping Ore (DSO) material shipping and toll wet-refining activities, planned to be constructed during the second year of operations.**
- **An initial mine life of 15 years producing premium grade refined kaolin to meet the large and growing supply shortfall in high value bright-white halloysite-kaolin product for ceramics applications is unchanged.**
- **The mine plan Production Target[4] is based on the February 2019 Mineral Resource[5] and involves shallow open-cut mining of kaolinised granite at 500ktpa, or 7.6 Mt over the LOM, which after processing and refining yields a LOM 2.8 Mt of premium product.**
- **Both the initial bulk DSO material and subsequent wet-processed filter cake product will be shipped through existing, or under development, port facilities.**
- **Estimated workforce of 30-40 people to reside locally or at Streaky Bay.**
- **The wet-processing results will be incorporated into the Pre-Feasibility Study currently underway due for release in the second quarter 2020.**

The economic and financial impact of the COVID-19 pandemic is still to be determined. This study uses the same assumptions and metrics as the original Scoping Study released in September 2019 with no update to currency rates, market pricing or timing.

Cautionary Statement

The Updated Scoping Study referred to in this announcement has been undertaken to determine the potential viability of a direct shipping and wet-processing operation to produce high-quality halloysite-kaolin product from the Kaolin Resource at Poochera in South Australia to provide Andromeda Metals with the confidence to undertake further and more detailed Feasibility Studies for the Project. It is a preliminary technical and economic study of the potential viability of the Poochera Halloysite-Kaolin Project. It is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves. Further exploration and evaluation work and appropriate studies are required before Andromeda Metals is in a position to estimate any ore reserves or to provide any assurance of an economic development case.

The Production Target referred to in this announcement is based on Measured and Indicated Resources for the mine life only, with Inferred Resources not considered. Andromeda Metals has concluded that it has reasonable grounds for disclosing a Production Target, however there is no certainty that the Production Target or preliminary economic assessment will be realised.

The Updated Scoping Study is based on the material assumptions outlined elsewhere in this announcement. These include assumptions about the availability of funding. While Andromeda Metals considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Updated Scoping Study will be achieved.

To achieve the range of outcomes indicated in the Updated Scoping Study, funding in the order of A$29M, inclusive of working capital, is likely be required. Investors should note that there is no certainty that Andromeda Metals will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Andromeda Metals' existing shares. It is also possible that Andromeda Metals could pursue other 'value realisation' strategies to provide alternative funding options.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Updated Scoping Study.

This announcement includes forward looking statements. For further information on forward looking statements please refer to the end of this release.

Summary

Andromeda Metals Limited (ASX: ADN, Andromeda, the Company) is pleased to announce the results of an Updated Scoping Study to consider on site wet-processing of kaolinised granite sourced from a proposed open-cut mine at the Carey's Well deposit located on the Poochera Halloysite-Kaolin Project on the Eyre Peninsula of South Australia.

The Updated Scoping Study builds on the highly positive Original Scoping Study (OSS) released in September 2019 (*refer ADN ASX announcement dated 30 September 2019 titled "Scoping Study delivers robust economics for Poochera Halloysite-Kaolin Project"*) which was based on dry-processing on site and confirmed the potential for the Poochera Halloysite-Kaolin Project to be a long-term supplier of high-quality halloysite-

kaolin product able to meet a growing global demand from ceramics industry manufacturers and hence provide significant cash flows for Andromeda and its joint venture partner Minotaur Exploration Limited (ASX: MEP, Minotaur).

The Updated Scoping Study again considers an initial phase of Direct Shipping Ore (DSO) and toll wet-refining overseas to generate early cash flows that will be used to fund the majority of costs associated with the construction of an onsite wet-processing facility during the second year of operation. Production is then scheduled to convert to on site wet-processing of mined kaolinised granite to remove the majority of the contained quartz sand, which will generate significant transport and shipping savings, with the concentrated kaolinitic product shipped in bulk as filter cake rather than in bags, for toll wet-refining in order to produce a premium bright-white halloysite-kaolin product.

Wet-processing allows bulk transport and shipping of filter cake to be used, which has a lower cost per tonne than the bagged transport considered for the dry-processing option. Offsetting the transport cost saving per tonne transported, the wet process has a lower concentration of kaolin clay and a significantly higher moisture content in the transported material, so the total transport cost per tonne of final product is increased. The annual cost of transport is further increased by the greater tonnage of kaolin clay recovered and shipped. Both the initial bulk DSO material and wet-processed bulk filter cake product will be shipped through existing, or under development, port facilities.

The prime advantages identified of wet-processing over dry-processing at site is that it delivers improved recoveries of refined kaolin clay material made available for sale, and hence generates considerably higher revenues, in addition to providing lower processing costs due to the operating efficiencies of the wet-processing plant that is proposed. These advantages are partially offset by increased transport and shipping costs on account of the increased moisture content in the kaolin material shipped as noted above, and a modest increase in capital costs for the wet-processing plant. This is reflected in a reduction in the average AISC reported for wet-processing in comparison to dry-processing that was considered in the OSS.

The Updated Scoping Study has again been based upon the February 2019 Mineral Resource estimate used for the OSS (*refer ADN ASX announcement dated 12 February 2019 titled "Poochera Project Halloysite-Kaolin Mineral Resource"*) of 9.7Mt of kaolinised granite to be consistent with the resource used in the OSS. A new December 2019 Mineral Resource estimate of 10.6Mt of kaolinised granite (*refer ADN ASX announcement dated 23 December 2019 titled "Significant increase in Mineral Resource for the Poochera Kaolin Project"*) will be used for the purposes of the Pre-Feasibility Study.

A mining rate of 500ktpa of raw material for the 7.6 Mt Production Target over a 15 year mine life has been assumed for the Updated Scoping Study, again to be consistent with the OSS, producing on average 227 ktpa (OSS 187 ktpa) of refined premium halloysite-kaolin product.

The Project is anticipated to create approximately 30-40 jobs once the wet-processing plant is operating with most employees to be sourced locally and reside in the Poochera-Streaky Bay district.

At an assumed selling price of A$700/tonne (using USD exchange rate of 0.7), total LOM revenues of A$2,379M (OSS: A$1,953M) are estimated to be generated by the Project under a site wet-processing scenario, a 22% increase. Total AISC averages A$374/tonne (OSS: A$396/tonne) over the Life of Mine (LOM) and so presents a significant cash margin to be generated by the Project given LOM capital expenditure totals A$75M (OSS: A$62M) which includes initial start-up and working capital expenditure of A$29M (OSS: A$25M) and the cost of construction of a wet-processing plant of a further A$35M in year 2. Total cumulative cash flow generated over the LOM by wet-processing on site is A$1,049M (OSS: A$798M), which is an increase of 31%. At an assumed discount rate of 8%, the Project has an NPV of A$544M (OSS: A$413M) an improvement of 31%, an IRR of 175% (OSS: 174%) and payback of initial capital and operating expenditures within 15 months from commencement of operations.

Additional other kaolin market areas, including selling stockpiled lower grade halloysite free bright white kaolin, supplying the High Purity Alumina (HPA) sector and halloysite nanotechnology research, have not been considered as part of the Updated Scoping Study and represent potential future opportunities to be evaluated.

A summary of the key physical and financial statistics associated with both the Original and Updated Scoping Studies is shown in Table 1.

Table 1 – Key Project Statistics

Mine Plan – Production Target	Original SS Dry-Processing	Updated SS Wet-Processing
From Measured Resources	4.2 Mt	4.2 Mt
From Indicated Resources	3.4 Mt	3.4 Mt
From Inferred Resources	0.0 Mt	0.0 Mt
Total Production Target	**7.6 Mt**	**7.6 Mt**
Capital Costs		
Initial Capital Costs	$9M	$13M
Working Capital	$16M	$16M
Maximum Cash Requirement	**$25M**	**$29M**
Processing Plant Costs	$28M	$35M
Sustaining Capital Costs	$9M	$11M
Production Summary		
Mine life (years)	15	15
Processing rate of kaolinized granite (ktpa)	500	500
Stripping Ratio (Waste:Ore)	2.3	2.3
Annual Refined Kaolin Produced (ktpa)	187	227
Yield of Refined Kaolin (LOM average)	37%	45%
Project Economics		
Refined Premium Kaolin Price Average (AUD)	$700/t	$700/t
Revenue	$1,953M	$2,379M
AISC equivalent (LOM average)	$396/t	$374/t
EBITDA (LOM)	$844M	$1,109M
Cashflow	$798M	$1,049M
NPV (8% pre-tax)	$413M	$544M
IRR	174%	175%
Payback from start of site works	15 months	15 months

Note – all figures are on a 100% project basis and rounded to reflect appropriate levels of confidence

The anticipated timeline for the Project development is to complete a Pre-Feasibility Study by the second quarter 2020, and to then conduct environmental impact assessments and prepare a mining proposal application over the balance of the 2020 calendar year. Subject to satisfactory progress negotiating agreements with key stakeholders, obtaining of all necessary regulatory approvals and completion of a subsequent Definitive Feasibility Study, commencement of operations is targeted for late 2021. The impact of the COVID-19 pandemic is immeasurable and is likely to affect global and local business access and therefore influence these targets.

Key Components of Scoping Study

1. Scoping Study Project Team

MinEcoTech Pty Ltd acted as the Study Manager and compiled the Updated Scoping Study based on studies and reports from historical and recent sources including employees of the two joint venture partner companies and specialist consultants. Contributors to the main aspects of the updated study include the following:

Table 2 – Updated Scoping Study Consultants Used

Consultant	Scope of Work	Work Performed
H&SC Consultants (Simon Tear)	Resource estimation	2018-19
Golder Associates	Mine geotechnical review	2018
Groundwater Science (Ben Jeuken)	Hydrogeology review	2018
Mark Pitt (Andromeda employee)	Mine design and schedule	2019
Bureau Veritas	Metallurgical testing	2018-19
CSIRO	Halloysite testing	2018-19
RSG (USA)	Dry-process pilot tests	2019
Scott Dryers (USA)	Dry-process pilot tests	2019
CPC Project Design	Dry-process plant design	2019
Ginn Materials Technology (USA)	Wet-process metallurgy	2019
Grinding Solutions Cornwall (UK)	Wet-process metallurgy	2019
CDE Global (Northern Ireland)	Wet-process plant design	2020
Cultivise (Adam Chilcott)	Transport and logistics	2019
Qube Logistics	Transport and port logistics	2020
Asiaworld Shipping Services	Shipping	2020
Ian Wilson Consultancy (Ian Wilson UK)	Market study	2019
Inside Infrastructure	Water supply	2020
First Test Minerals (Frank Hart UK)	Market study	2019
Rural Solutions	Preliminary flora survey	2011
Envirocom (Andrew Minns)	Environmental, Community & Permitting	2018-20
MinEcoTech (Paul Griffin)	Mineral Technology & Project Management	2019-20

2. Project Location

The Poochera Halloysite-Kaolin Project covers two main geographic areas of interest, both situated in the western province of South Australia. The current main area of focus is the Carey's Well deposit, which is located near Poochera on the western part of the Eyre Peninsula of South Australia approximately 635 kms west by road from Adelaide and 130 kms south-east from Ceduna, and which is the subject of this Updated Scoping Study.

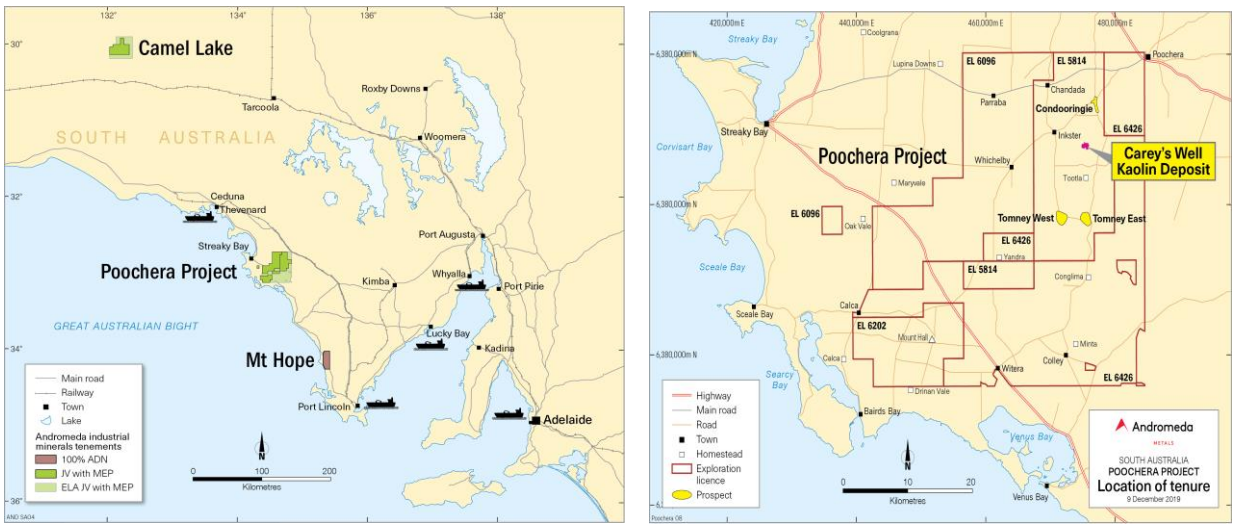

Figure 1 – Project Location Map

The Project comprises 5 tenements (including Camel Lake to the north east of the Poochera Project) covering an area of 2,069 kms^2 with a new tenement application of 481 kms^2 for ground adjacent to the Camel Lake tenement that is considered prospective for high-quality halloysite-kaolin currently lodged with the SA Department of Energy and Mining and pending approval.

The Carey's Well deposit is situated on the Tootla tenement EL 5814 within the Poochera Halloysite-Kaolin Project. The area is flat to gently undulating with much of the land cleared for sheep grazing and cereal crops, with remnant patches of mallee open scrub vegetation.

The local government authority is the District Council of Streaky Bay, with the main population and service centre being the township of Streaky Bay (c. 1,400 people). Streaky Bay has a range of community services including a police station, medical centre, high school, emergency services, recreation centre, hotel, and numerous sporting clubs and community organisations.

3. Project Ownership

The Poochera Halloysite-Kaolin Project is a joint venture between Andromeda and Minotaur Exploration Limited executed in April 2018. Under the terms of the joint venture, Andromeda can earn up to a 75% equity interest in the Project by either sole funding $6.0M over 5 years or alternatively a decision to mine is made by the joint venture partners. On 4 March 2020 the Company announced that it had met the Stage 1 expenditure commitment of $3.0M within 2 years of execution of the agreement and had therefore earned a 51% interest in the Project. Andromeda at the same time elected to immediately proceed to Stage 2 through the sole contribution of a further $3.0M to be spent by April 2023 in order to acquire a further 24% interest.

On Andromeda reaching a 75% interest, each party will then contribute to the Project budget as per their equity interest or otherwise be reduced as per the standard industry dilution formula. If an equity interest falls below 5%, that party's interest will convert to a 2% net smelter royalty over the Project.

The tenement package is secure and compliant with the requirements of the SA Department of Energy and Mining as at the date of this announcement.

4. Mineral Resources *(No Change from Original Scoping Study)*

An updated Mineral Resource estimate reported in accordance with the 2012 JORC Code and Guidelines for the Carey's Well kaolin deposit was released to the market in February 2019 (*refer ADN ASX announcement dated 12 February 2019 titled "Poochera Project Halloysite Kaolin Mineral Resource"*).

The resource estimate was completed by independent geological consultancy group H&S Consultants Pty Ltd. A summary of the kaolin Mineral Resource is shown in Table 3.

Table 3 – Kaolin Mineral Resource

Halloysite Zone	Category	Volume Mm^3	Mt	Reflectance
	Measured	0.8	1.1	83.7
SE Area	Indicated	0.9	1.3	83.5
	Inferred	0.3	0.5	84.7
Sub Total		2.0	2.8	83.8
	Measured	2.8	4.1	82.5
North	Indicated	1.8	2.5	82.4
	Inferred	0.2	0.3	84.0
Sub Total		4.8	6.9	82.5
Total		**6.8**	**9.7**	**82.9**

The estimate total is 9.7Mt of kaolinised granite in the halloysite zone, with minimum raw kaolin ISO brightness (R457) of 75. The kaolinised granite is primarily coarse sand in the +45 micron fraction with predominantly kaolinite and halloysite in the -45 micron fraction. The -45 micron fraction contains an average halloysite grade of 18.4%.

A bulk sample program was undertaken in October 2018 which included designing and implementing an appropriate method to determine bulk rock density on the unconsolidated, porous kaolinite-halloysite material. 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 be 21.6 wt.%. The average dry bulk rock density of 1.44 tonnes/m^3 was used in the February 2019 Mineral Resource.

No ore reserves have been delineated to date.

5. Geotechnical *(No Change from Original Scoping Study)*

A preliminary geotechnical study has been undertaken by Golder Associates. Auger drilling samples were logged on site and samples tested in a geotechnical laboratory.

The preliminary guidance on typical batter slopes for the material types encountered during the investigation was:

- Calcrete, Clayey sand and Silty calcareous sand: Slope 1V:1.5H
- Sandy Clay, Sandy calcareous clay, and Silcrete: Slope 1V:1H to 1.5V:1H

Note that these typical batter slopes are indicative only at this stage and will require to be assessed during further investigation stages.

6. Hydrogeology *(No Change from Original Scoping Study)*

A preliminary hydrogeology assessment was completed by Groundwater Science in 2019 which included the installation of three groundwater monitor bores over the resource area. The groundwater level was found to vary between 18-24 metres below the surface, with an apparent step change between the west side and the east side of the resource area. The groundwater on the west side was saline (36,000 TDS) as is typical for the region, while that water on the east side was less saline than expected (1,300 TDS).

Transmissivity was found to be very low, indicating that bore yields would be practically unpumpable (approximately 0.05 L/s) and that groundwater flow in the pits would be low seepage. Consequently, most pit water management would involve rainwater and be managed with normal pit sumps and small submersible pumps and small diameter pipelines.

Further hydrogeology work is planned in the next stage of the Project to seek near site groundwater supplies and to generate further data for mine closure planning and to support environmental approval applications.

7. Mining and Mine Design *(No Change from Original Scoping Study)*

The Project is proposed to comprise two shallow open pits, located close to the processing plant, to be mined sequentially in 11 stages with overburden and reject sand from the process plant to be backfilled into the previous voids.

Production is envisaged to be managed by Andromeda and undertaken by an earthmoving contractor using excavators and trucks to haul ore and waste to respective stockpiles, though in practice much of the overburden earthmoving may be more cheaply done by dozers and scrapers.

It is envisaged that the in-situ material can be easily excavated because it is predominantly soft and easy digging, except for thin bands of harder calcrete rock near the surface and silcrete rock just above the kaolinized granite that may both require limited blasting.

Mining is planned to commence at the shallower western end of the northern pit and proceed in eight further ~200m cutback stages over 11 years to the eastern end of the pit, and then proceed to the south pit.

Overburden from the initial starter pit is planned to be deposited into the overburden dump and subsequent overburden placed into the previous mined-out area.

Pit optimisation was not needed due to the very simple and shallow resource geometry being amenable to a manual interactive pit design based on the two higher halloysite zones of the resource. The slope angles in the pit design are based on an interberm face angle of 45^{o} with 7m wide berms at 15m intervals and allowances made for pit access ramps, which are in line with the geotechnical assessment. Pit optimisation and new pit re-design are planned to be done during the next feasibility study phase.

An allowance for ore loss is included in the Production Target estimate. All inventories have been reported based on the 0% global dilution and 10% ore loss. The assumed dilution is 0% because it must be avoided for product quality, and to achieve this a low mining recovery of 90% is assumed which is lower than normal for a free digging thick mineralisation ore body.

The Scoping Study Mine Plan results in a Production Target to mine for processing 4.2Mt of the 5.2Mt Measured Resources, 3.4Mt of the 3.8Mt Indicated Resources and none of the 0.8Mt Inferred Mineral Resources. The Mineral Resources underpinning the Production Target published by the Company on 12 February 2019 have been prepared by a Competent Person in accordance with the requirements of the 2012 JORC Code as noted in the Compliance Statement in section 19 of this announcement.

The mining schedule has been developed to permit plant throughput rates of 500ktpa (dry basis), giving over 15 years operating life. The Production Target has total material movement of approximately 16.9M bank m^3 (BCM) of total earth moved and 7.6 Mt of kaolinized granite delivered to the ROM stockpile. Pre-stripping of starter pit overburden is scheduled to start three months before the commencement of shipping. The Scoping Study pit design layout is shown Figure 2.

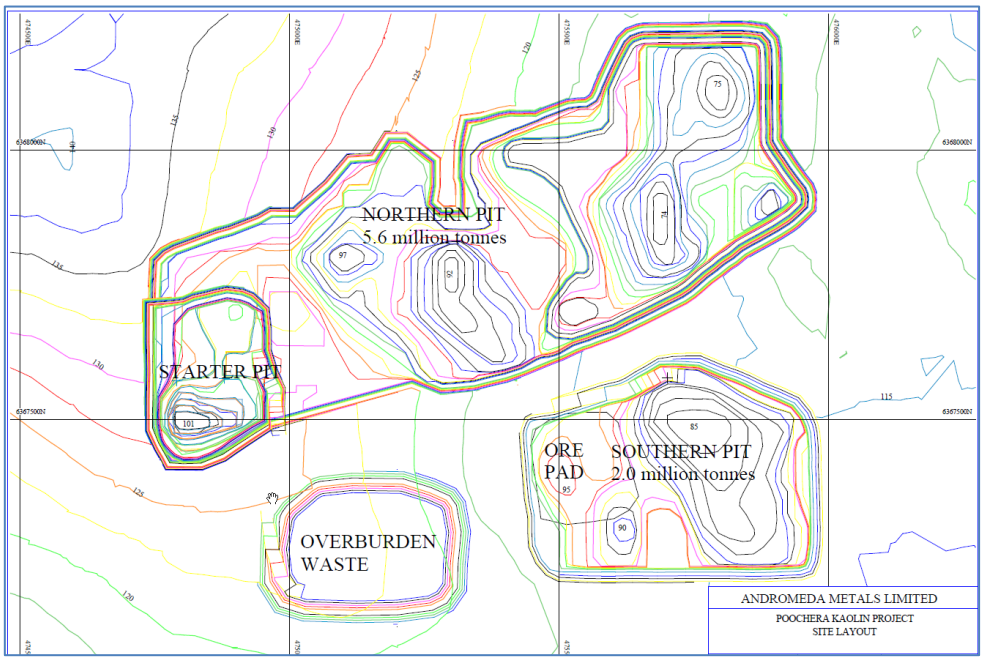

Figure 2 – Carey's Well Open Pits

8. Metallurgy and Processing

Figure 3 – Carey's Well raw kaolinized granite, after auger sampling.
The visible intact lumps are easily broken by hand.

Dry-Processing *(No change from Original Scoping Study)*

Metallurgical test work has been undertaken historically, and more recently at laboratory and pilot scales, to assess the response of the Carey's Well kaolinized granite to various processing approaches. Dry-process pilot trials completed in the USA have shown approximately 40% yield of kaolin clay at less than 5% contained sand, which is suitable as feed for wet-process refining that has previously been shown to be effective at producing kaolin with low levels of impurities.

The pilot scale testwork done to date has shown consistent results for both wet and dry-processing performance, but this may be because the samples used in this work have come from a restricted area,

in the eastern part of the resource. To address the remote possibility that markedly different pilot scale results would be obtained in the western part of the orebody, work on “variability testing” is desirable. This work can be scheduled for the Definitive Feasibility Study phase after a choice between wet and dry-processing is made during the Pre-Feasibility phase.

CPC Process Engineering (CPC) were retained to carry out a site process plant design and capital and operating cost estimates. The process design has been developed from the metallurgical testwork to meet the design objective of 500ktpa throughput using the dry processing approach and the plant design includes the following areas:

- Front end loader feed from the ROM stockpiles
- A hopper, apron feeder and singe drum toothed oversize breaker
- Power station heat supply, LPG gas heater, and heat recovery equipment
- Dryer
- Classifier
- Bag house
- Bagging plant
- Reject sand handling
- Product warehouse
- Road train loading area

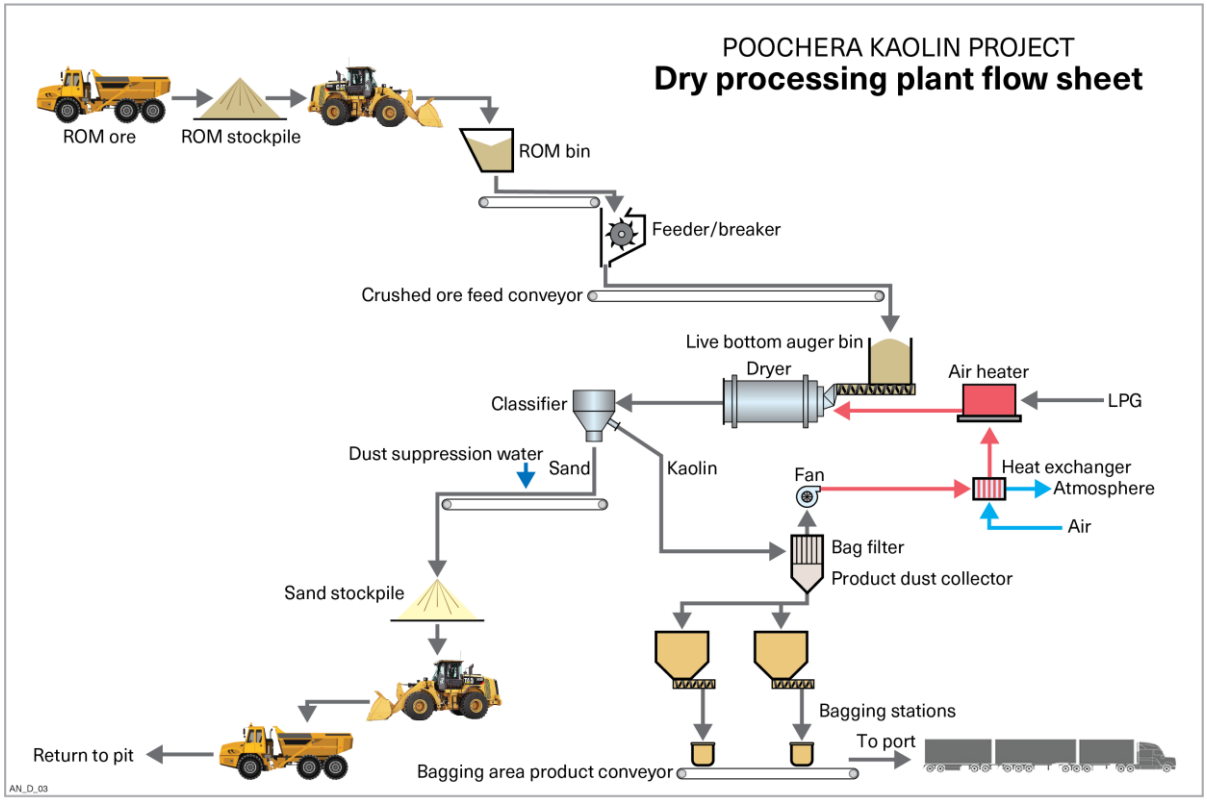

Figure 4 - Dry Process Design Flow Sheet

The feeder breaker is sized to match the combined drier capacity, which is nominally 75 tonnes per hour. The dryer/classifier product collection and bagging systems are based on two parallel independent trains of nominally 40 tonnes per hour each. The plant will operate continuously, with an assumed operating time of 8,000 hours per year, for 91.3% utilisation.

For the original Scoping Study, the following fundamentals were adopted for consideration of dry-processing at site:

- Metallurgical recovery of kaolin clay 76%
- Filter cake kaolin clay grade 97%
- Process plant mass yield 39%
- Dry plant product solids content 100%

Wet-Processing

Wet-processing has now been evaluated as an option in this Updated Scoping Study with positive results which will be further evaluated in the Pre-Feasibility Study phase.

Testwork for wet-processing was carried out by Grinding Solutions in Cornwall, UK and by CDE Global in Cookstown, Northern Ireland. The work involved breaking up the raw kaolinised granite feed to pass 4mm, then treating it as a slurry in a high attrition scrubber to rub the kaolin clay off the sand. The resulting slurry was subsequently passed through a hydrocyclone to separate the -45µm kaolin clay from the coarser sand.

Based on the testwork the following indicative metallurgical performance is anticipated:

- Metallurgical recovery of kaolin clay 92-95%
- Grade of the hydrocyclone overflow 85-90%

Using these parameters and other observed and tested properties of the raw kaolinised granite plant feed, a wet-processing flow sheet has been developed by CDE in conjunction with Andromeda staff.

The flow sheet is presented in Figure 5 and a general arrangement of the conceptual plant design is shown in Figure 6.

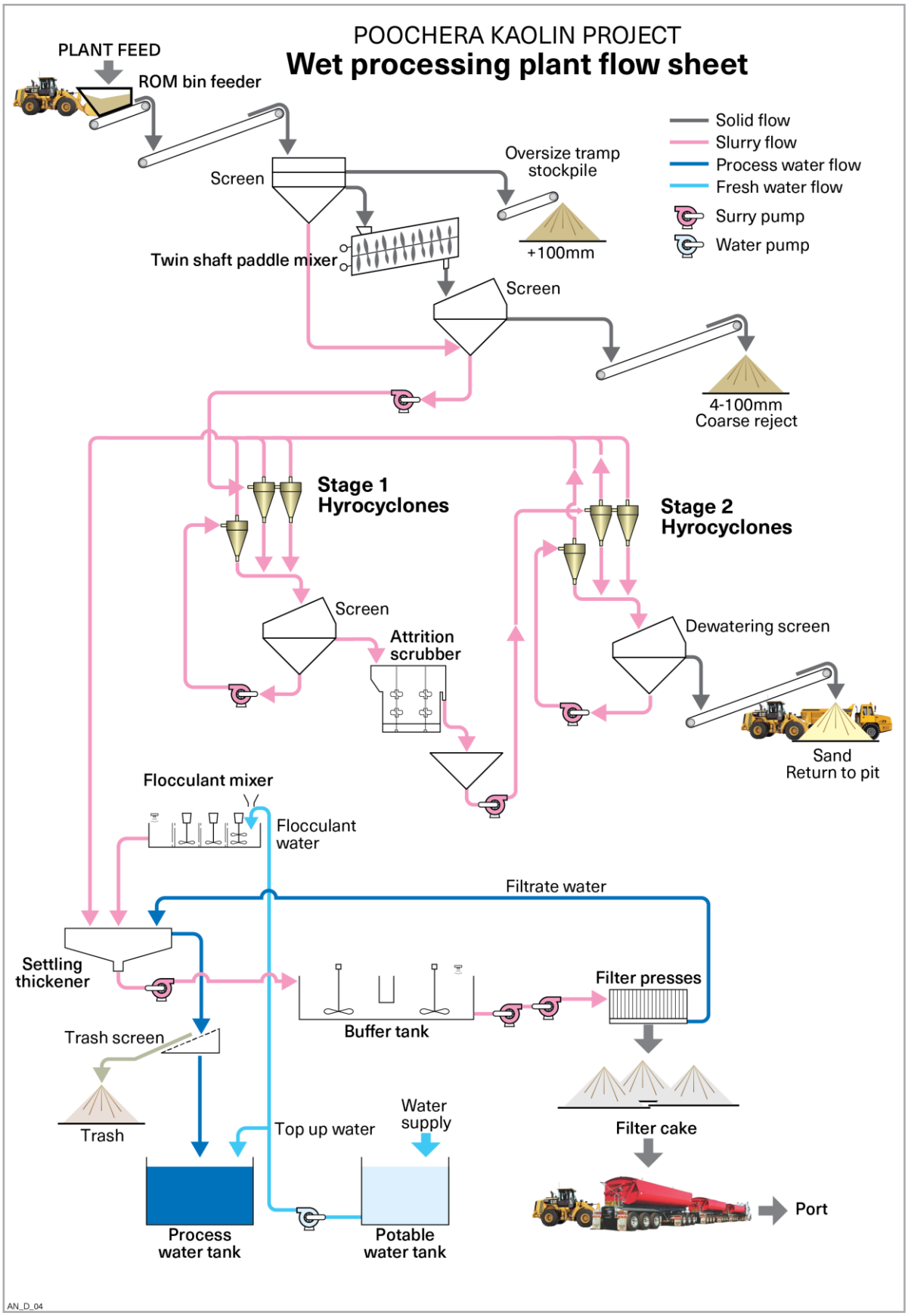

Figure 5 – Wet Process Design Flow Sheet

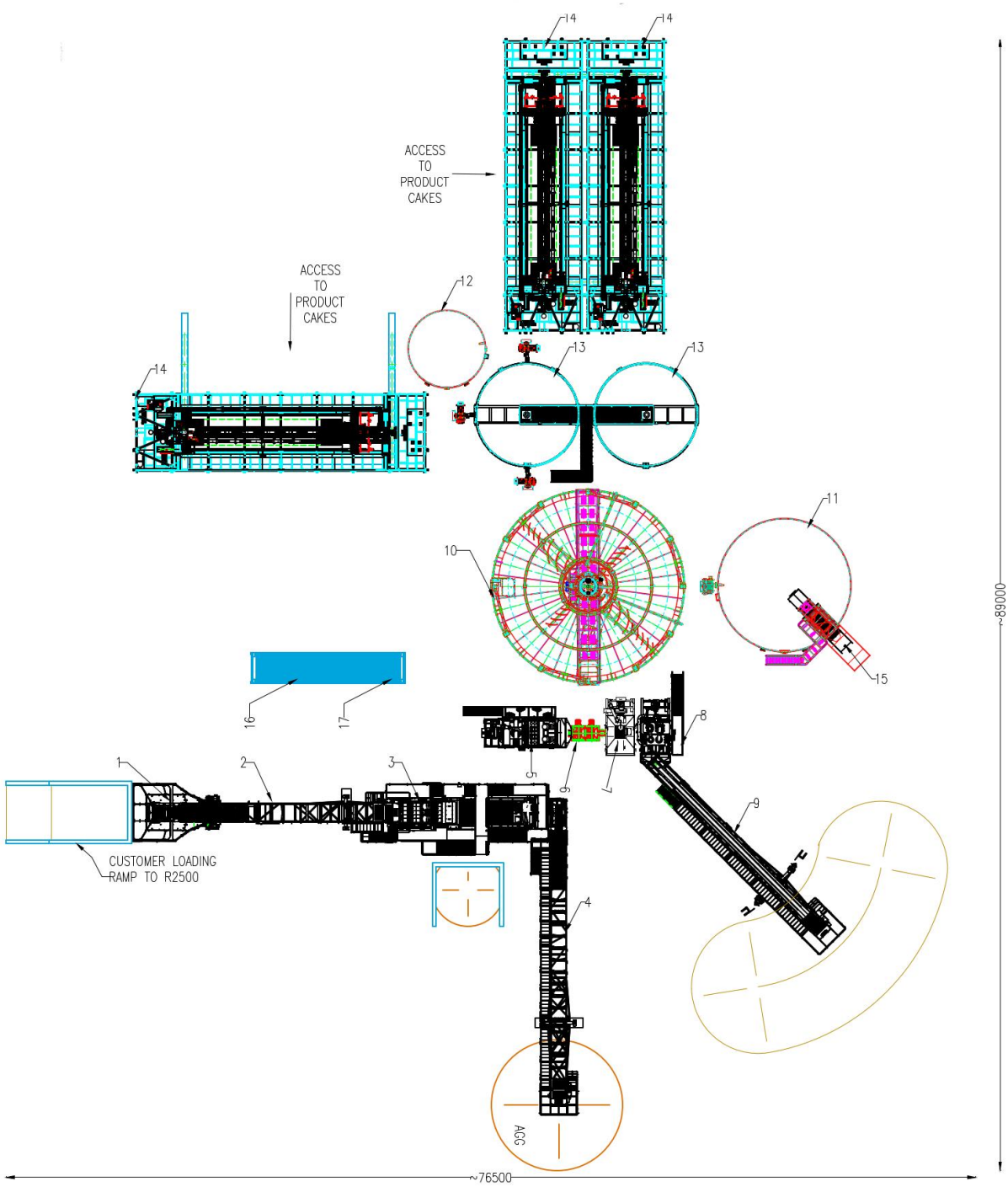

Figure 6 – Wet Process General Arrangement

A description of the wet plant is as follows, with the numbers referring to components in the general arrangement above:

- From the ROM stockpiles a front-end loader feeds the ROM hopper, and an apron feeder (1) and conveyor (2) feed a first stage coarse pre-screening plant (3a) which removes tramp size +100mm material.
- Associated with the coarse screening plant is a twin shaft paddle mixer (log washer) (3b) that breaks up the -100mm material with a target size of -4mm.
- A wet screening plant (3c) removes oversize (+4mm) material which is transferred by conveyor (4) to a coarse reject stockpile.
- The wet screened -4mm material is pumped as a slurry through the Stage 1 cyclones (5).
- The cyclone underflow coarse material (+45µm) is directed to attrition scrubbers (6) which rub the kaolin clay from the associated sand.

- The scrubbed sand and clay slurry is directed through a second set of cyclones (8a) with the coarse underflow passing over dewatering screens (8b) to produce damp sand to return to the open pit.
- The fine cyclone overflow material from the cyclone Stages 1 and 2 flows to a thickener (10) which draws off a thick slurry of predominantly kaolin clay.
- The kaolin clay slurry is held in buffer tanks (13) before being batch pumped at high pressure into three banks of filter presses (14) and pressed to form solid filter cake.
- Filtrate water from the filter presses is returned to the thickener for recycling.
- The thickener overflow water passes through a trash screen (15) to the process water take (11) for recycling to the various parts of the circuit.
- The filter cake is stockpiled and then loaded onto road trains for delivery to the port.
- Fresh water is delivered into a potable water tank (12) from where it is pumped as required to the process water tank (11) and a small containerised mixing plant (16) that makes up a flocculant solution that helps the kaolin settle in the thickener.
- Freshwater may also optionally be pumped to the filter presses for a cake wash process that flushes freshwater through the filter cake while it is inside the press to reduce the salt content of the product filter cake.
- The plant is controlled by a programmable logic controller located in a central control room (17).

For the Updated Scoping Study, the following fundamentals were adopted for the consideration of wet-processing at site:

- Metallurgical recovery of kaolin clay 90%
- Filter cake kaolin clay grade 85%
- Process plant mass yield 54%
- Filter cake solids content 70%

9. Plant Infrastructure

The plant is proposed to be located close to the pits, and the plant and site infrastructure is assumed to be designed and built on an engineering, procurement and construction management (EPCM) basis.

The Project area is a greenfield development with the following site infrastructure items proposed to be constructed:

- Site and internal access roads
- Water control drains
- Area for run of mine (ROM) ore stockpiles
- Administration office complex and emergency response building
- Mining operations and maintenance facilities
- Process plant workshop and store and reagent store
- Assay laboratory
- Infrastructure
    - Water supply pipeline
    - Power station
    - Power station LPG storage
    - Mobile equipment diesel fuel storage

10. Water Supply

The wet-processing plant is designed to minimise water consumption and most water is recycled within it so that water is only lost from the plant in the damp product pressure filter cake and in the damp sand returned to the open pit.

In addition to the main demand for processing, water is also required for dust suppression on the internal mine haul roads and stockpile areas, and in minor amounts at the site offices and facilities. Water used for dust suppression can be minimized by using dust suppression chemicals.

A small amount of mainly saline ground water is anticipated to be recovered from open pit dewatering and can be used for internal road dust suppression, but this is expected to drop off over time.

During heavy rain events, water flows inside the mine operations area will be captured and used for processing and dust suppression. Due to the unreliability of such rain events, these cannot be relied on for project water supply planning.

Discussions are in the early stages with SA Water for a future water supply. SA Water have indicated it is possible for a water supply to be made available to support the project. The water supply would be subject to any required network upgrades to ensure any water supply or pressure to existing customers are not impacted.

The Updated Scoping Study includes preliminary cost estimates to augment the network for a new water supply pipeline and ongoing water charges as a baseline option. More detailed studies on the alternative options will form part of the Pre-Feasibility Study.

11. Infrastructure and Services

Access to the site from Adelaide is excellent via the Eyre Highway with most fuel and operational supplies likely to be freighted to site via this route. Within the Project area, access is available by a network of well-maintained District Council bitumen and gravel roads. The mine and plant can be accessed by a planned mine road from the Poochera-Port Kenny Road several kms to the east, via a route to be determined by environmental, land ownership, terrain, and haul distance considerations.

Project site personnel, anticipated to be approximately 30-40 people, are likely to be housed in Streaky Bay, or alternatively could reside at other localities within self-driving distance from the mine. Overflow and shutdown motel accommodation is available in Streaky Bay. A bus service from Streaky Bay is intended for shift changes.

The power supply adopted is provided by LPG fuelled generation on site to be supplied on a Build-Own-Operate (BOO) basis by an independent power producer under a price per kWhr contract, with the generator waste heat able to be used on the process plant driers. Grid power may be considered in the longer term.

It is proposed that LPG will be supplied and delivered under an all-inclusive $/L or $/GJ contract.

12. Product Transport

The site is well serviced by roads and regional ports with transport to the shipping port options under consideration envisaged to be by truck. Both the DSO and the filter cake product from the wet-processing plant would be transported in side-tipper trailers.

Transport to the five existing ports in the region that are potentially capable of handling bulk DSO and filter cake were evaluated in the Updated Scoping Study. A transport and Logistics study by Qube Logistics has been prepared and indicative costs from this have been used to determine road transport, port storage and ship loading estimates. Midpoint costs from the study have been assumed for the financial evaluation, with further refinement and clarification of costs, along with more detailed consideration of port options, to be undertaken during the Pre-Feasibility Study phase.

13. Product Shipping

Indicative break bulk shipping costs for DSO and filter cake material have been obtained from Asiaworld Shipping Services for shipment of product from a number of regional ports to port options in northern and southern China, and these have been applied in the financial evaluation. The shipping costs are slightly lower than previously assumed in the OSS because bulk materials can be more cheaply loaded and unloaded than material in bulk bags.

14. Refining

The Company has been in discussions with the management of several wet-processing facilities in China and Japan. Many of these facilities are experiencing a shortfall in available supply of suitable quality raw material and so have spare capacity for toll processing to manufacture final saleable product to Andromeda's specifications. The technical parameters of the wet-process refineries are in line with or, because of enhanced equipment such as centrifuges and magnetic separators, superior to the basic pilot plant conditions under which the Poochera kaolin has been assessed. The Company therefore expects the technical specifications of the wet-refinery product to meet and possibly exceed those of the pilot plant test product upon which potential customers have based their written letters of intent. It is therefore intended in the next stage of the Project studies to assess in detail the technical performance, as well as the costs, of the candidate wet-refineries.

The indicative available capacity and refining fees of several wet-refining facilities have been received and are used in the Scoping Study financial model. Ongoing negotiations towards toll refining agreements are planned to be part of the next stage of studies.

Because of lower handling costs and slightly higher refinery recovery of the valuable kaolin clay, the cost of refining wet-process filter cake is slightly lower than the previously considered dry-processed material delivered in bulk bags.

15. Marketing and Sales

Whilst the international market for kaolin is based on individual supplier vendor negotiations, Andromeda staff and its industry specialist advisors have a good understanding of market volumes and prices, and this information has been used in the Scoping Study.

The Poochera halloysite-kaolin is suitable for sale into high value ceramics markets globally. Refining by conventional dry or wet processes has proven to yield desirable products with low levels of impurities that give excellent properties in ceramic applications.

Market demand for this type of mineral is extremely high and growing, and importantly global production is reducing due to the closure of several significant high-quality sources. The 15 year mine and supply life proposed in the Study is considered by the Company to make Poochera kaolin a valuable long-life strategic source to currently suffering customers.

Because Andromeda offers both superior quality and long-term reliable strategic supply, eight potential ceramic companies have signed Letters of Intent (LOI's) for approximately 210,000tpa of the premium wet-refined grade of Poochera halloysite-kaolin, and this market volume is the basis of the Updated Scoping Study. The LOI's were based on ceramic testing of the premium wet refined product produced at the Streaky Bay pilot plant facility and additional testing will form part of the next Study stage.

Based on advice from industry advisors, and Andromeda's own discussions with its agents and customers, the prices applicable to this grade of product are in the range of US$500-800/t on an ex-works basis for sources in China and other countries. Using the lower end of this range, US$500/t and

an exchange rate of 0.7, an ex-refinery price of A$700/t, packaged in bulk bags, has been adopted for the Study.

The higher recovery of kaolin clay in the wet-processing option produces more kaolin than has been identified in the high value ceramic market. An additional 183,000 tonnes can be produced over the LOM. It is known that market prices for this grade of material in Japan and Europe are higher than in China, so it is intended to service the global market with this additional material, with the cost of shipping being offset by the higher market prices outside China.

The Scoping Study assumes the wet-refining process is used to make premium, world-class product, allowing the full market value to be captured. Direct Shipping Ore is planned to be initially shipped for wet-refining in Asia to give early cashflow, and to fund construction of a wet-process plant on site. The site wet-process would produce filter cake with approximately 85% contained clay, to be shipped to Asia for toll wet-refining.

As determined in the dry-process pilot plant work, the major benefit of dry-processing over shipping run of mine DSO material is the removal of approximately 60% waste (sand and moisture), which dramatically reduces transport and handling costs, reduces the wet-refining cost and gives high refinery recovery.

The major benefit of wet-processing over dry-processing is the recovery of additional valuable kaolin clay, which more than offsets the additional moisture that is shipped in the wet-process filter cake product. The filter cake gives a slightly higher refinery recovery than the dry-process feed.

15.1. Other Kaolin Market Areas Not Considered in the Scoping Study

Conventional Grades

The wet-refined grade of product could also be packaged and sold into higher value export markets outside China to further increase margins and volumes.

In addition to the wet-refined product, other potential customers in China and Japan have given technical approval and signed offtake Letters of Intent (LOI) for 760,000tpa of unprocessed Direct Shipping Ore (DSO), and dry-processed product. While these are lower priced markets, they also have much lower production costs.

High Purity Alumina (HPA)

HPA metallurgical testing of Poochera halloysite-kaolin has indicated that 4N purity could be achieved with only one stage of purification, and this result was confirmed by additional rounds of testing. Opportunities for collaboration are being considered by Andromeda to realise the full potential of supplying this rapidly growing sector.

High Purity Halloysite

Global occurrences of high purity halloysite are extremely rare, and yet demand is growing significantly due to its use in a large range of new high-tech applications. The current market price for suitable grade is approximately US$3,000/t, but it is not commercially available in any significant amounts in the required form. Exploration drilling in the Poochera area and at Camel Lake has shown the existence of high purity halloysite on the joint venture exploration tenements, and more extensive drilling is being planned to quantify these occurrences.

Halloysite Nanotechnology Research

Application research commenced in 2017 and is ongoing on the natural nano-properties of Poochera halloysite by researchers at the Global Innovative Centre for Advanced Nanomaterials

(GICAN), based at the University of Newcastle. This world-leading work includes carbon capture, energy storage potential and the manufacture of carbon nanostructures using halloysite nanotubes (HNT). A separate 50/50 joint venture has been formed between Andromeda and Minotaur to work with GICAN to develop intellectual property associated with halloysite nanotechnology research for potential future commercialisation.

16. Capital Costs

16.1. Initial Capital Cost

The estimated initial capital cost is A$13M (±35%) for construction of an access road, mining mobilisation and site establishment, and general site costs. The capital cost estimate does not include the cost of any mining equipment as this is incorporated in the budget earthmoving contract rates.

16.2. Working Capital

A working capital allowance of A$16M is assumed for pre-striping overburden, mining, administration, shipping and toll processing operations which occur before these are offset by receipt of revenues from sales.

16.3. Wet-Processing Plant Capital Cost

The cost estimate for the deferred plant construction has been developed with input primarily from CDE Global and Andromeda staff.

The wet-processing plant capital cost estimate is A$35M which is higher than the dry-processing plant costs of $28M. The wet-processing plant capital cost includes:

- Direct costs of the processing equipment;
- Indirect costs associated with the design, construction and commissioning of the new facilities;
- Insurance, operating spares and first fills;
- Provision of water supply;
- Contingency on Project scope definition and risks.

The estimate is based upon preliminary engineering, quantity take-offs, tendered price quotations for vendor supplied components and budget price tendered quotations for major equipment and bulk commodities. Unit rates for installation are based on market enquiries specific to the Project and benchmarked to those achieved on similar projects undertaken recently within the Australian context.

The capital costs associated with the gas supply facilities and the gas-fired power station are not included in the estimate as these are both to be provided under a Build-Own-Operate (BOO) style contract and are captured in the gas supply and power unit cost used in the operating cost estimates.

Approximately half of the capital costs are directly exposed to possible foreign exchange variation.

The Project execution strategy assumes a 12-month process for off-site construction, on-site construction and commissioning and orders on long lead items to be placed shortly after the first product sales.

16.4. Sustaining Capital Cost

The sustaining capital expenditure estimate represents the cost necessary to sustain or maintain the capital assets to perform to the Project design criteria through the LOM. The Study assumes these will be 2% per year of the relevant initial capital costs.

A summary of the capital cost for a dry-processing and a wet-processing plant is presented in tables 4 and 5 respectively.

Table 4 - Dry-Processing Capital Cost Estimate

Area	Year 0 A$M	Year 1 A$M	Year 2 A$M	Years 3-15 A$M	Total Capital A$M
General Site Costs	6				
Access Road	2				
Mining Mob & Establish	1				
Initial Capital	**9**				**9**
Working Capital		**16**			**16**
Processing Plant			26		
First Fills and Spares			2		
Processing Plant			**28**		**28**
Sustaining				**9**	**9**
Total	**9**	**16**	**28**	**9**	**62**

Table 5 - Wet-Processing Capital Cost Estimate

Area	Year 0 A$M	Year 1 A$M	Year 2 A$M	Years 3-15 A$M	Total Capital A$M
General Site Costs	5				
Access Road	7				
Mining Mob & Establish	1				
Initial Capital	**13**				**13**
Working Capital		**16**			**16**
Processing Plant			33		
First Fills and Spares			2		
Processing Plant			**35**		**35**
Sustaining				**11**	**11**
Total	**13**	**16**	**35**	**11**	**75**

At the date of this announcement there has not been an audit of the capital cost estimates undertaken, and this would be scheduled to occur just before financial commitment to commence the Project.

17. Operating Costs

Cash operating costs can be subdivided into mining, processing, site general & administration (G&A), shipping, refining, and marketing. Additional costs are royalties and the overhead costs of marketing, corporate overheads, and ore depletion reserve replacement. Tables 6 and 7 provide a summary of all operating costs by key area for dry and wet-processing respectively.

Table 6 – Dry-Processing Operating Cost Summary (LOM)

Area	LOM A$M	A$ / t Ore mined & processed	A$ / t Product sold
Mining (incl load road trains)	155	20	55
Dry-Processing	217	29	78
Administration	30	4	11
Total Site Costs	**402**	**53**	**144**
Shipping	289	38	103
Refining	320	42	114
Marketing	16	2	6
Royalties	58	8	21
Corporate Overheads	16	2	5
Reserve Replacement	8	1	3
Total (AISC)	**1,109**	**146**	**396**

Note: All $/t on an equivalent contained dry tonnes basis

Table 7 – Wet-Processing Operating Cost Summary (LOM)

Area	LOM A$M	A$ / t Ore mined & processed	A$ / t Product sold
Mining	147	19	43
Wet-Processing	71	9	22
Administration	30	4	8
Total Site Costs	**248**	**32**	**73**
Shipping	517	68	152
Refining	404	53	119
Marketing	16	2	5
Royalties	65	9	19
Corporate Overheads	16	2	5
Reserve Replacement	4	1	1
Total (AISC)	**1,270**	**146**	**374**

Note: All $/t on an equivalent contained dry tonnes basis

17.1. Mine Operating Costs

The Scoping Study cost model assumes an earth moving contract with a mining contractor and excavation and minor blasting costs for the Project have been based on estimated prices from reputable mining contractors. Allowances have been made for dewatering, site rehabilitation

and supervisory staff. The mining support equipment is planned to include a highway legal water truck and grader to maintain the gravel sections of the access roads in a dust free condition until the roads are sealed.

17.2. Processing and Administration Operating Costs

Dry-Processing

An operating cost estimate for the dry-process plant was estimated by CPC as part of the plant design costing study. This includes common site overheads as General and Administration (G&A) costs.

Wet-Processing

An operating cost estimate for the wet-process plant was estimated by CDE Global as part of the plant design costing study. Common site overheads as General and Administration (G&A) costs are taken to be the same as for dry-processing.

General

The operating cost estimate was developed for the Project and is presented in A$ using prices obtained in, or escalated to, Q3 2019 and Q1 2020. The estimate has an accuracy of +/-35% and was developed by CPC and CDE Global using inputs sourced from local suppliers, similar projects and in-house databases where appropriate.

The estimate includes costs for:

- Processing labour;
- Power;
- Gas;
- Water consumption;
- Processing chemicals (flocculants);
- Diesel consumption;
- Process maintenance;
- Mobile vehicles for the process operations;
- Other direct general and administrative costs relative to the process plant and non-processing infrastructure.

Power costs are based on industry standard rates, and gas and water costs are based on quoted budget prices.

17.3. Product Transport Costs

An allowance for transport by road from the mine to the port has also been made based on a transport and ship loading study carried out by Qube Logistics and costs from this study have been applied to the Updated Scoping Study.

17.4. Shipping Costs

A budget purposes quote has been received for shipping through the port of Lucky Bay from its developer, and additional budget purpose shipping costs have been obtained from other regional ports.

In Q1 2020 budget pricing was obtained from Asiaworld Shipping Services for break bulk shipping of DSO raw material and wet-processed filter cake from a range of regional ports to Asian ports. A representative midpoint of these costs has been adopted for the Updated Scoping Study.

The shipping costs have been adjusted where necessary for Andromeda's own anticipated supervisory and coordination costs.

17.5. Refinery Operating Costs

The LOM operating cost estimate for the toll treatment wet process refinery plant is based on budget purpose quotes received from large and small wet-refining plants in China and Japan. A tonnage capacity weighted-average of these proposals was used as the cost basis in the Study.

17.6. Other Costs

A South Australian State government royalty of 3.5% on net sales (after reducing for shipping costs) has been incorporated in the financial model.

Corporate overhead and head office costs have been allowed for by an annual charge of $1M.

Marketing and sales support costs have also been provided for by an annual cost of $1M.

Reserve replacement is covered by a provision of $0.50/t of ore mined for drilling and geology services to replace depleted reserves by resource extensions of the original pits, or by the development of new resources on the joint venture exploration tenements in the Poochera District.

18. Financial Modelling and Evaluation

The operating costs highlight a conventional technology, low cost and high margin operation with the following LOM average "All In Sustaining Costs" (AISC) per tonne of product:

- Dry-processing A$396/tonne
- Wet-Processing A$374/tonne

The AISC is applied to the Poochera Project to indicate the full cost of maintaining an enduring long-life business and includes the following costs: mining, processing, site administration, shipping, offshore refining, marketing, sustaining capital, royalties, site rehabilitation, corporate overheads, and reserve replacement exploration.

At a price for premium refined kaolin for the ceramics market of A$700/tonne (US$500/tonne), and using an 8% discount rate, the Project generates the following pre-tax financial outcomes:

- Dry-processing NPV of A$413M and an IRR of 174%
- Wet-Processing NPV of A$544M and an IRR of 175%

Both Project scenarios have a payback of 15 months after commencement of site activities.

18.1. Sensitivity Analysis

Under the assumed forecast revenues and costs presented above, the financial analysis completed as part of the Updated Scoping Study indicates that the Project is viable in this estimate.

The investment cases was subjected to a sensitivity analysis on the Net Present Value (NPV) and Internal Rate of Return (IRR) against the key variable parameters of refined premium kaolin price, product yield, operating costs and capital costs. In the sensitivity analysis, the operating costs include all direct, indirect and overhead costs except royalties and the capital costs include all initial deferred and sustainable costs except working capital. Each parameter was estimated

for a +30% to -30% variation on the base case assumption. Refer to Tables 8 to 11 for results of sensitivity analysis conducted for both dry and wet-processing.

Dry-Processing

Table 8 – Dry-Processing Sensitivity Analysis of pre-tax $NPV_{8\%}$ for ± 30% variation of parameters ($M)

NPV Parameter	(Low/Med/High)	70%	85%	100%	115%	130%
Product Price (A$/t)	(490-700-910)	96	254	413	571	729
Product Yield (%)	(25-36-47)	13	193	413	671	968
Operating Costs ($/t mined)	(97-138-179)	597	505	413	320	227
Capital Costs ($M)	(32-46-60)	423	418	413	407	401

Table 9 – Dry-Processing Sensitivity Analysis of pre-tax IRR for ± 30% variation of parameters (%)

IRR Parameter	(Low/Med/High)	70%	85%	100%	115%	130%
Product Price (A$/t)	(490-700-910)	30	84	174	289	415
Product Yield (%)	(25-36-47)	14	93	174	255	335
Operating Costs ($/t mined)	(97-138-179)	405	278	174	101	57
Capital Costs ($M)	(32-46-60)	225	197	174	155	140

These relationships are illustrated graphically in the “spider charts” shown in Figure 7 for NPV and Figure 68for IRR.

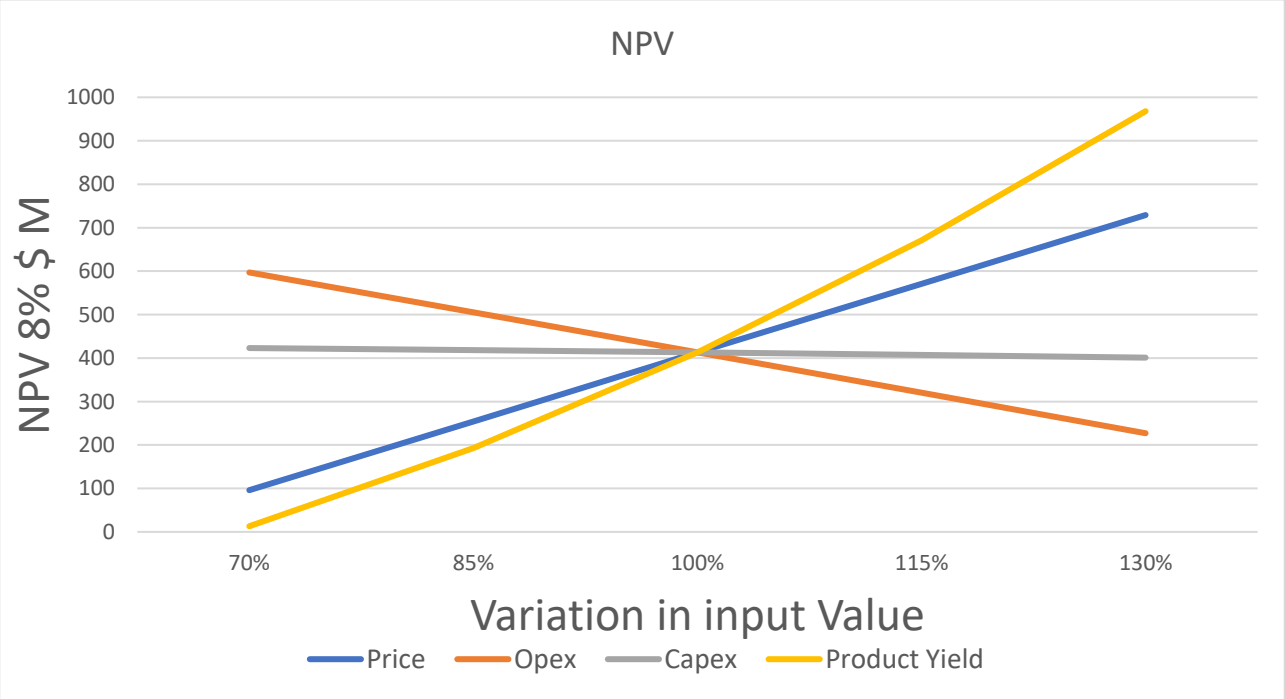

Figure 7 – Dry-Processing Sensitivity Analysis of the pre-tax $NPV_{8\%}$ for ± 30% variation of key parameters

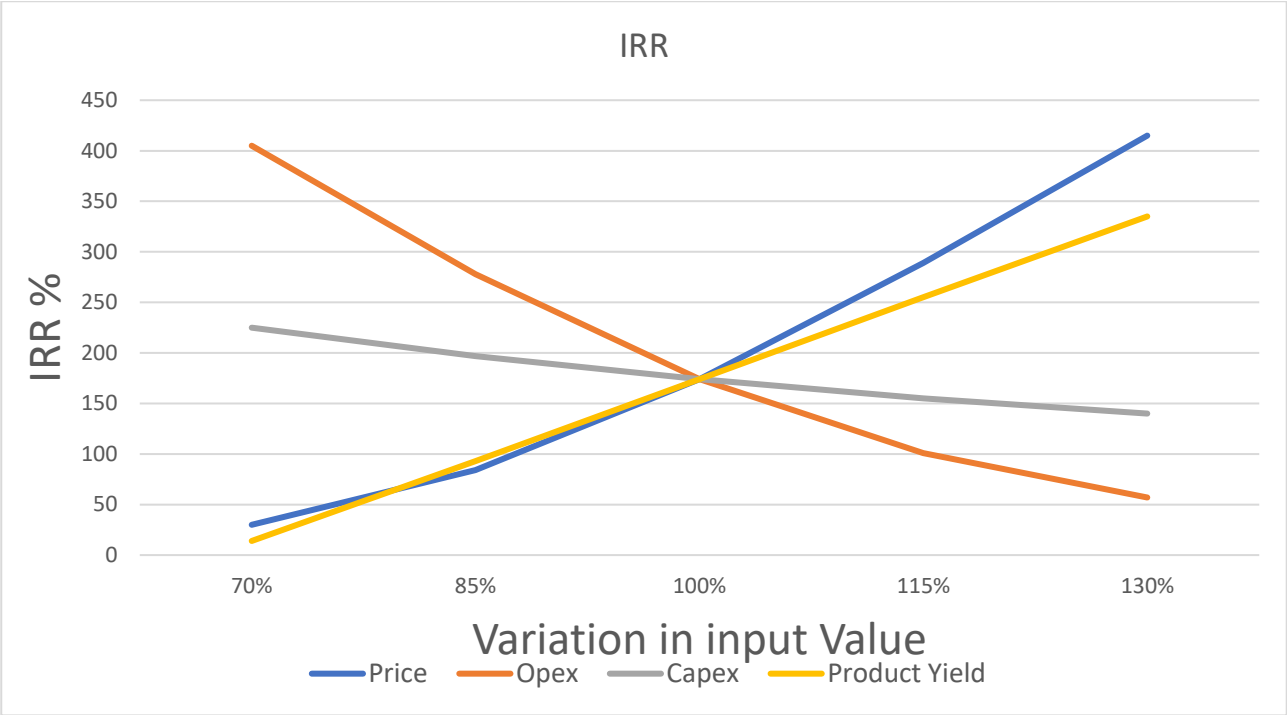

Figure 8 – Dry-Processing Sensitivity Analysis of the Pre-Tax IRR for ± 30% variation of key parameters

Wet-Processing

Table 10 – Wet-Processing Sensitivity Analysis of pre-tax $NPV_{8\%}$ for ± 30% variation of parameters ($M)

NPV Parameter	(Low/Med/High)	70%	85%	100%	115%	130%
Product Price (A$/t)	(490-700-910)	181	362	544	725	906
Product Yield (%)	(31-45-NA)	54	275	544	NA	NA
Operating Costs ($/t mined)	(111-158-205)	752	648	544	439	335
Capital Costs ($M)	(41-59-77)	558	551	544	536	529

Table 11 – Wet-Processing Sensitivity Analysis of pre-tax IRR for ± 30% variation of parameters (%)

IRR Parameter	(Low/Med/High)	70%	85%	100%	115%	130%
Product Price (A$/t)	(490-700-910)	45	99	175	264	359
Product Yield (%)	(31-45-NA)	21	82	175	NA	NA
Operating Costs ($/t mined)	(111-158-205)	343	252	175	115	73
Capital Costs ($M)	(41-59-77)	230	199	175	155	139

These relationships are illustrated graphically in the “spider charts” shown in Figure 9 for NPV and Figure 10 for IRR.

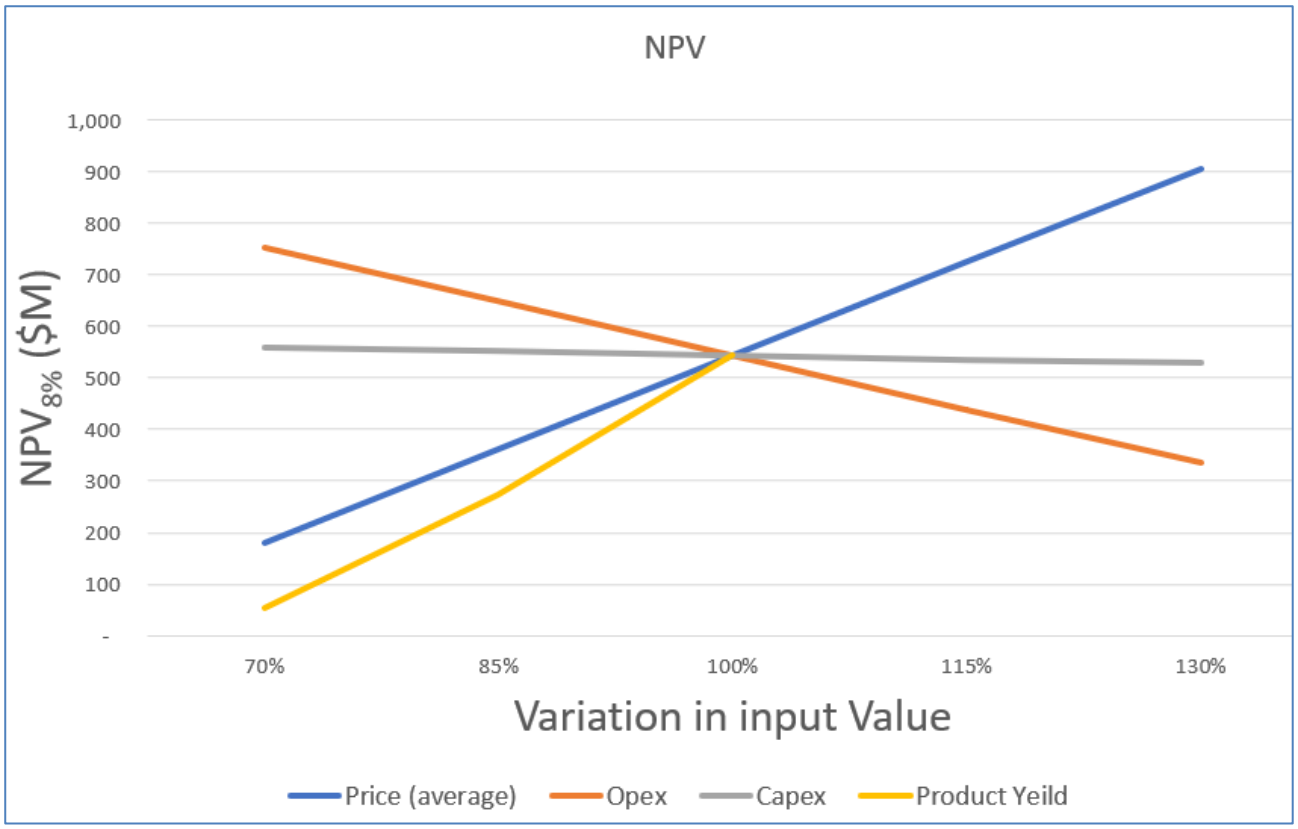

Figure 9 – Wet-Processing Sensitivity Analysis of the pre-tax $NPV_{8\%}$ for ± 30% variation of key parameters

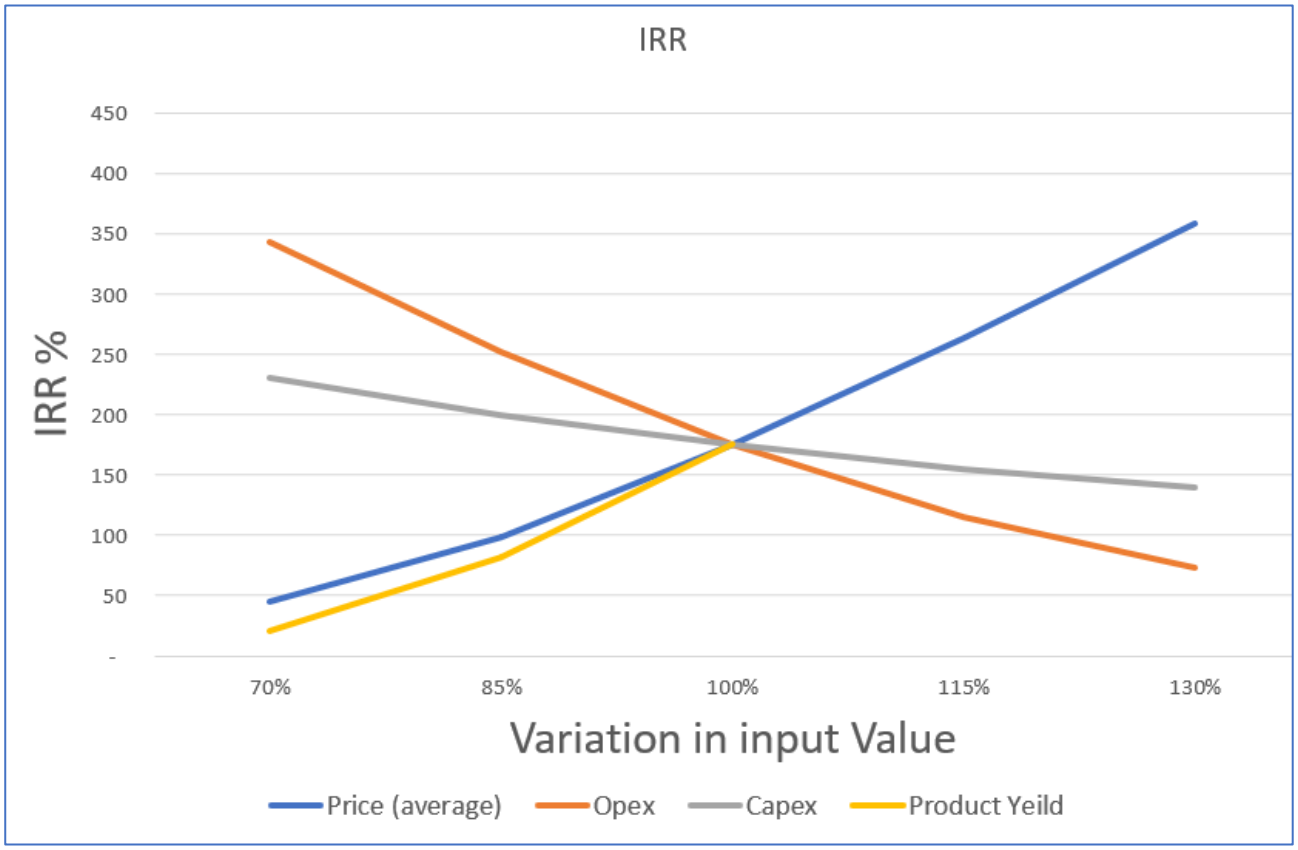

Figure 10 – Wet-Processing Sensitivity Analysis of the Pre-Tax IRR for ± 30% variation of key parameters

The sensitivity analysis shows that the Project is remarkably robust. The capital cost has a very small effect on the NPV and indeed the Project NPV is practically immune to 30% changes in the

capital cost. The operating cost has a greater but still modest influence on the NPV whilst the price and processing yield, which have a direct correlation with revenue, have the strongest influence. Noticeably even a 30% reduction to what is for practical purposes an impossibly low yield of Poochera kaolin still produces a viable project.

For wet-processing, because the kaolin content in the ore is approximately 50% and yields in the region of 90% of this are being obtained, it is not appropriate to model upside kaolin yield sensitivity above 100%.

An unlikely reduction in the product price of 30% still produces a positive NPV.

19. Planned Activity and Approvals

Company staff and consultants have been routinely working on the Project over the last 12 months in dispersed locations at Poochera, Streaky Bay, Adelaide, Perth, Brisbane and Sydney. Andromeda is now holding project team meetings by videoconferencing and most technical staff and consultants are working from their home or private offices.

However, despite being well-placed to continue the project work through the COVID-19 crisis, the daily productivity of several key project staff and consultants has been adversely affected, and ongoing interruptions and delays are anticipated over the coming months. Importantly, key meetings planned with some vital external stakeholders may potentially be delayed or postponed. The Pre-Feasibility Study however is well advanced with the expected completion to be delayed by only a few weeks. The impact assessment and approval application phase is expected to be delayed, and the remainder of the project schedule is currently uncertain. The project schedule and approvals timeline is being carefully reviewed and an announcement of the project timeframe is anticipated with the release of the Pre-Feasibility Study.

The anticipated work program through the remainder of 2020 is to continue advancing the Pre-Feasibility Study and complete baseline and impact assessment studies in addition to the preparation of the mining lease application. This activity includes:

- Flora and fauna report;
- Soil surveys report;
- Surface water hydrology report;
- Ground water hydrogeology report;
- Noise and dust impact assessment;
- Geotechnical report;
- Road traffic studies;
- European and aboriginal cultural heritage surveys (although Native Title for the Project is deemed to be extinguished because all tenure is on freehold land, an aboriginal cultural heritage survey is required);
- Land access negotiations.

The longer-term work program is being planned from mid-2020 to prepare necessary application documents for regulatory approvals and licences and advance a Definitive Feasibility Study, including:

- Ongoing baseline measurements;
- Drafting all necessary regulatory approval applications.
- Further pilot scale testwork to confirm advanced processing plant design for the site processing options.

Based on the studies to date and the anticipated project impacts, it is expected the main environmental approval will be via a Mining Proposal submitted to the Department for Energy and

Mines. Preparation of approvals documentation for submission to various regulatory agencies is being planned to occur though mid to late 2020, and the approval process is currently anticipated to be completed by late 2021. Allowing for the time required for site establishment and mine pre-stripping, shipping, refining and product delivery, the first sales of halloysite-kaolin clay product would therefore be in early 2022.

20. Project Funding

To achieve the range of outcomes indicated in the Updated Scoping Study, funding of approximately A$29M is expected be required for capital works (including contingency), pre-production operating costs, and working capital. It is anticipated that most of the required finance will be sourced through a combination of equity and debt instruments from existing shareholders, new equity investment and debt providers from Australia and overseas. In addition, the Company has received signed Letters of Intent from a number of potentially large Chinese customers that may enable Andromeda to negotiate early receipt of sale proceeds, while also there are currently on issue approximately 675 million listed options (ASX: ADNOB) having an exercise price of 1.2 cents and expiry date of 30 November 2020 which are "in the money" and would provide the Company with funds in the order of $8.1 million should they all be exercised prior to the expiry date.

The Company has enough cash on hand at the date of this announcement to undertake the next stage of planned work surveys and studies.

Andromeda believes that there is a reasonable basis to assume that funding will be available to complete all feasibility studies and finance the pre-production activities necessary to commence production on the following basis:

- The Board and executive team of Andromeda have a strong financing track record in developing resources projects;
- The Company has a proven ability to attract new capital;
- The Board believes the Updated Scoping Study demonstrates the Project's strong potential to deliver favourable economic return; and
- Other companies at a similar stage in development have been able to raise similar amounts of capital in recent capital raisings.

21. Material Assumptions

Material assumptions used in the Scoping Study which determined the Production Target and financial outcomes presented in this announcement are summarised below:

Criteria	Commentary
Mineral Resources	The recent Mineral Resource estimate dated 12 February 2019 was used for the Study. These Mineral Resources have been prepared by a Competent Person in accordance with the requirements of the 2012 JORC Code as noted in the Compliance Statement in section 22 below.
Site visits	The site has been visited by the Scoping Study Report Author, the Resource Competent Person, and at least one of the authors of the Hydrogeology, Geotechnical, Flora, and Mining contributing technical reports.
Study status	This announcement is based upon the March 2020 Updated Scoping Study. Financial modelling completed as part of the Updated Scoping Study shows that the Project is economically viable under current assumptions. Modifying Factors (mining, processing, infrastructure, environmental, legal, social and commercial) have been considered in the Updated Scoping Study.

Criteria	Commentary
Cut-off parameters	A mining cut-off was not applied and all kaolinized granite contained within the pit design is scheduled to be mined as ore and processed. The pit design was limited to contained kaolin clay classed as bright white and with a halloysite/kaolinite ratio above 10%.
Mining factors or assumptions	To ensure there is no contamination of the kaolinized granite, a 10% mining ore loss factor and 0% mining dilution is assumed. Pit optimisations were not done for the Updated Scoping Study, and a detailed manual and interactive pit design constrained to bright white and halloysite rich zone was completed. Detailed staged pit designs were done with due consideration of geotechnical, geometric, and access constraints. These pit designs were used as the basis for production scheduling and economic evaluation. Conventional mining methods (diesel powered truck and excavator and supporting equipment), and costs were used in the Study. The geotechnical parameters applied in the pit deigns were compliant with those suggested in the preliminary geotechnical study. Inferred Mineral Resources are not included in the calculation of the Production Target. The Updated Scoping Study Mine Plan is based on a Production Target of the following LOM quantities: Measured : 4.2Mt of the 5.2Mt in Mineral Resources Indicated : 3.4Mt of the 3.8Mt in Mineral Resources Inferred : none of the 0.8Mt in Mineral Resources The Mineral Resources, published on 12 February 2012, underpin the Production Target.
Metallurgical and mineral processing factors or assumptions	Site based wet-process concentration and high specification wet refining are considered in the Updated Scoping Study. These processes have been successfully tested multiple times at both laboratory and pilot scale, and the techniques are widely and routinely used at full plant scale in the kaolin industry. Representative samples of mineralisation types suited to the two processing approaches above have been obtained by RC or air core drilling and tested in kaolin processing laboratories and by bulk auger drilling and testing in pilot plants. Bulk auger drilling was focussed at an accessible portion of the orebody and further drilling and testing is required across the orebody. Metallurgical parameters applied to the resource model were 37% yield with dry-processing and 45% yield for wet processing of kaolinized granite and 98% recovery of wet refining of the wet processed kaolin concentrate. Steady plant throughputs of 500ktpa are assumed after the pre-stripping phase for the LOM.
Environmental	All primary environmental, heritage and tenure approvals required under State and Commonwealth legislation are being progressed.
Infrastructure	Mine site is readily accessible from Adelaide by multiple sealed highways and local gravel roads. The workforce will be housed in either Streaky Bay or localities within 30 minutes' drive of the mine. Infrastructure is plentiful and readily available in the region. The mine development will be on private land to be acquired by the Company. Appropriate power and water supplies have been identified and costed.

Criteria	Commentary
Capital Costs	Capital estimates have been based on lump sum quoted budget prices or known factors and industry standard unit costs. Projected capital costs for the wet-processing option have been based on a study report by CDE Global together with budget estimates by specialist suppliers as well as current knowledge and industry experience where applicable.
Operating Costs	Mining costs are based on industry standard unit rates and checked by contractor budget prices. Processing operating cost estimates were developed by CPC from vendor budget quotes, and first principles. Transport and shipping costs are based on quoted budget prices. Power costs are based on industry standard rates, and gas and water costs are based on quoted budget prices. Toll basis wet refining charges at plants in China and Japan have been used in the Study, based on budget purpose quotes. The SA Government retains a 3.5% net royalty on product sales, less shipping costs, and this is accounted for in the Study financial assessment.
Deleterious elements	Deleterious elements or product characteristics were assessed in the assay process, and subgrade materials were excluded from the mineral resource.
Currency and Exchange rates	Cost estimates are made in September 2019 Australian dollars, using an exchange rates of USD:AUD of 0.70, and CNY:AUD of 4.8, and GBP:AUD of 2.0 where applicable.
Revenue factors	The mined head grades (as kaolin clay content in the kaolinized granite) are estimated utilising industry accepted geostatistical techniques with the application of relevant modifying Factors. The halloysite-kaolin clay price assumed for LOM operations for the wet-refined premium specification kaolin clay being produced, based on expert advice and discussions with potential customers, with CNY or USD conversions to AUD is US$500/t of A$700/t on an ex-refinery bass for the ceramics market.
Market assessment	Whilst the international market for kaolin is based on individual supplier vendor negotiations, Andromeda staff and its industry specialist advisors have a good understanding of market volumes and prices and this information has been used in the Updated Scoping Study.
Economic	A financial model of the Project has been prepared by Andromeda using input factors as outlined above. The model shows the Project is comfortably economically viable with a low initial capex, short payback, high NPV and high IRR. A discount rate of 8% has been used in the financial analysis, and the inflation rate has been assumed at 0%, with fixed costs and product prices through the LOM. Sensitivity of the Project to changes in the key drivers of sales price, operating cost (mining and processing cost) was carried out and showed the Project NPV to be most sensitive to significant changes in sales price. The Study is based on Pre-tax and on a 100% Project basis for the financial assessment.
Social	Andromeda is negotiating a range of commitments with private landowners for land access. Further negotiation is required with the affected landowners, as well as regulatory approvals from the Shire Council and state authorities to enable operations. The Company has been involved with the site for more than 2 years and engaged with the local community extensively over that period. The

Criteria	Commentary
	community supports the mine development and the contribution it will make both economically and socially.
COVID-19	This Scoping Study is an update of the OSS and has used the assumptions of that study. At the date of this study the world is heavily impacted by the COVID-19 pandemic and its global and local economic and financial impact is still to be fully understood. This has created immense volatility and uncertainty not limited to financial markets and global businesses which is virtually impossible to quantify as part of this study.
Naturally Occurring Risks	Thus far, there are no identified material naturally occurring risks affecting the Project.
Other	This Scoping Study has confined itself to determining the economic viability of developing the Project, and its potential material impacts on the environment and community. The Company holds current Exploration Leases over the resource and surrounding areas. Access to the site is subject to the approval of the immediate landowners, and an agreement with them is required to enable approval of the Project and grant of the mining lease to enable operations of the Project to proceed. Arranging finance to develop the Project is required and would occur after completion of the final Feasibility Study, along with tendering for suitable contractors to construct the process plant and associated infrastructure. A range of governmental agreements and licences are required prior to the decision to commence construction can be made, in particular the Mining Proposal and Mining Lease Application. It is expected all necessary approvals and licences will be forthcoming when applied for progressively over the ensuing phases of the Project.
Classification	The underlying Mineral Resource classification consists of Measured, Indicated and Inferred Mineral Resources, but only Measured Mineral Resources and Indicated Mineral Resources are included in the Production Target.
Audits or reviews	The various elements of the contributing reports have been internally reviewed, but no external audits or independent peer reviews have been done.
Study Accuracy	The estimates in this Study are based on a ±35% level of accuracy in technical studies and costings.

22. Competent Person's Statement – Mineral Resources

The data in this announcement that relates to Mineral Resource Estimates for the Poochera Kaolin Project is based on information in the original "Scoping Study delivers robust economics for the Poochera Halloysite-Kaolin Project" announced on 30 September 2019 and available to view on the Andromeda Metals website.

For the purposes of this Scoping Study update to the original Scoping Study, aside from the changes and updates identified in this update announcement, the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the original market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the

Competent Person's findings are presented have not been materially modified from the original market announcement.

23. Forward Looking Statements

Some of the statements contained in this announcement are forward looking statements. Forward looking statements include, but are not limited to, statements concerning estimates of tonnages, expected costs, statements relating to the continued advancement of Andromeda's projects and other statements that are not historical facts. When used in this announcement, and on other published information of Andromeda, the words such as "will", "planned", "expected", "projected", "estimated", "may", "scheduled", "intends", "anticipates", "believes", "potential", "nominal", "conceptual" 'aim', 'could', 'intend', 'should' and similar expressions are forward looking statements. Although Andromeda believes that its expectations reflected in the forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements. Various factors could cause actual results to differ from these forward-looking statements include the potential that Andromeda's Project may experience technical, geological, metallurgical and mechanical problems, changes in market prices, financial markets and other risks not anticipated by Andromeda.

Andromeda is pleased to report this summary of the Study in a fair and balanced way and believes that it has a reasonable basis for making the forward-looking statements in this announcement, including with respect to any mining of mineralised material, modifying factors, production targets and operating cost estimates.

This announcement has been compiled by Andromeda from the information provided by the various contributors to the Study. All financial assumptions and estimates are quoted in Australian Dollars ('A$' or 'AUD') only, unless indicated otherwise.

Footnotes

1. Pre-tax, 100% Project basis, Q3 2019 Australian Dollars (A$), 8% discount rate
2. All In Sustaining Costs (ASIC) include mining, processing, site admin, shipping, offshore refining, marketing, sustaining capital, royalties, site rehabilitation, corporate overheads and reserve replacement exploration costs
3. Price for premium grade wet-refined bright while halloysite-kaolin for ceramics, ex works
4. All the material in the Production Target is sourced from only Measured and Indicated resources
5. Resource announced 12 February 2019