



Andromeda

Great White Kaolin Project
Eyre Peninsula, South Australia

Nov 25, 2021

ASX:ADN

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Andromeda

An emerging industrial minerals producer
with numerous potential value chains

Corporate overview



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\$410M
MARKET
CAPITALISATION

\$46M*
*30 Sep 2021
CASH

\$0M
DEBT

2,483M
FULLY PAID
ORDINARY SHARES

\$0.165
CURRENT SHARE
PRICE

Board members

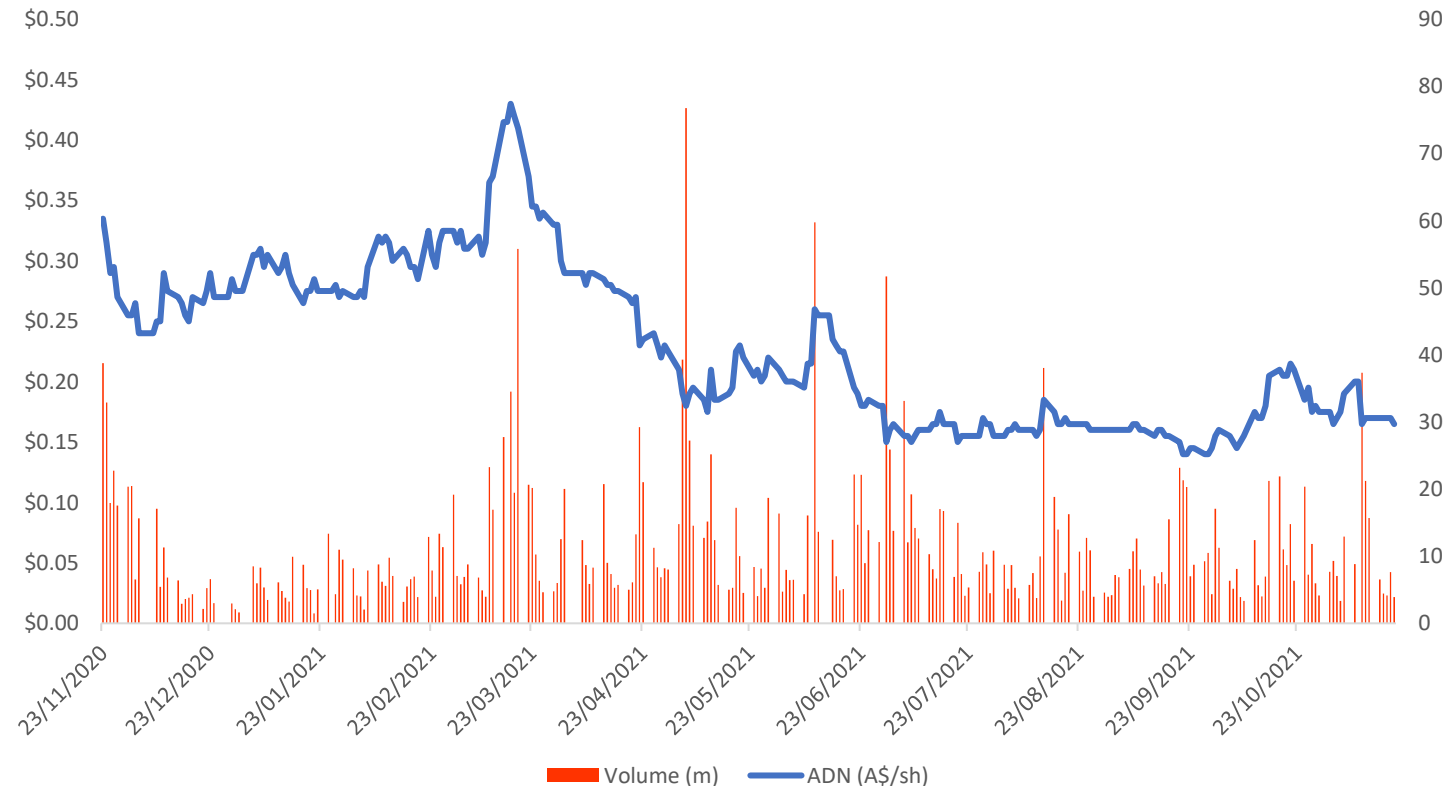
Rhod Grivas
Non-Executive Chairman

James Marsh
Managing Director

Joe Ranford
Operations Director

Andrew Shearer
Non-Executive Director

Melissa Holzberger
Non-Executive Director



Acquisition of Minotaur

Transaction Summary



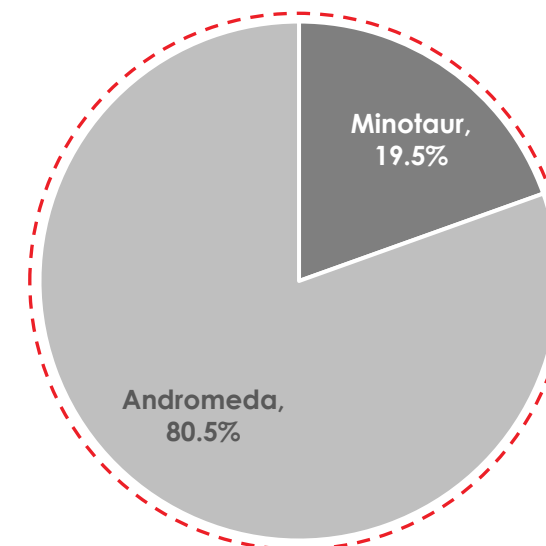
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Andromeda and Minotaur to combine and create a leading Australian industrial minerals and technology company

- Andromeda to acquire Minotaur via an unanimously recommended off-market, all scrip takeover
- Andromeda to become a leading Australian kaolin / halloysite and technology company by consolidating 100% ownership of Great White and Natural Nanotech
- Accretive transaction for Andromeda, increasing Andromeda shareholders' effective equity interest in Great White and Natural Nanotech
- Andromeda offering 1.15 new Andromeda shares for every 1 Minotaur share held – Minotaur shareholders will hold ~19.5% of the enlarged Andromeda
- Minotaur shareholders retain exposure to the upside of Great White and Natural Nanotech and receive shares in Demetallica (formerly Breakaway Resources the demerger of Minotaur's existing copper and gold assets)
- Full details of the offer will be outlined in Andromeda's Bidder's Statement

Andromeda Pro-Forma Ownership



Great White Kaolin Project – 100%

Natural Nanotech – 100%

Market Cap ~\$550m* & Cash >\$40m

*Approximate pro-forma market capitalization based on 1.15x offer ratio and Andromeda's 5-day VWAP prior to announcement date

Acquisition of Minotaur

Key Benefits for Andromeda and Minotaur Shareholders



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- **Accretive Transaction** – Increases Andromeda shareholders' effective equity interest in Great White and Natural Nanotech and provides Minotaur shareholders with an attractive premium and continued exposure
- **Benefits of Great White and Natural Nanotech Ownership Consolidation** –
 - Simplifies ownership structure and streamlines management, providing Andromeda with full development optionality ahead of DFS completion, financing and construction
 - Enhances project finance and development alternatives, optimising the funding and development of Great White
 - Increases Andromeda's scale, market relevance and trading liquidity
- **Financial Strength** – All scrip acquisition allows Andromeda to preserve its strong balance sheet (~\$46 million in cash at 30 September 2021), creating a strong platform to progress Great White as well as Andromeda's other potential high value initiatives including concrete, HPA and cosmetics

Provides an enhanced investment proposition for existing and new shareholders with potential for a market re-rating of Andromeda's share price post completion

Andromeda's core assets



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KAOLIN and HALLOYSITE-KAOLIN



Great White JV (75% ADN:25% MEP)

Mount Hope 100%

Eyre Kaolin 100%

**All in South
Australia**

>100Mt of JORC Resources^{1,2,3,4}

Legacy Project Assets

- Alford Copper JV - SA
- Eyre Peninsula Gold JV - SA
- Drummond Gold Project - QLD

Natural Nanotech (50:50 JV)

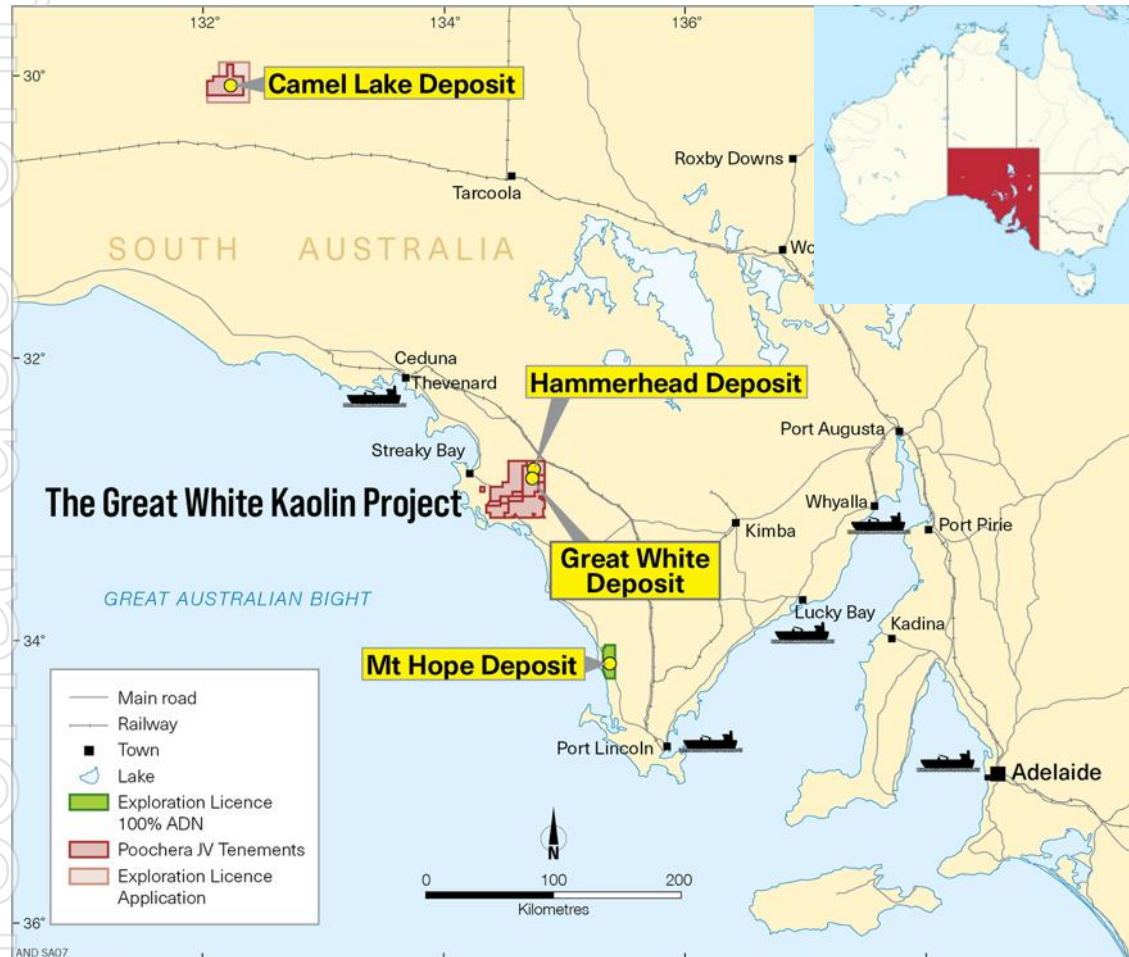
1. ASX 23 December 2019, "Significant increase in Mineral Resource for the Poochera Kaolin Project".
2. ASX 29 September 2020, "New mineral resource estimate for Hammerhead Halloysite-Kaolin Deposit".
3. ASX 11 August 2020, "New Mineral Resource for the Mount Hope Kaolin project"
4. "The Company is not aware of any new information or data that materially affects the information in the relevant market announcements. All material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed."

Great White Kaolin Project

Primary project focus – Halloysite-Kaolin



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Primary Project Focus – Halloysite-Kaolin

- Operations scheduled to start in 2022
- Legally Binding Offtakes underpinning the business
- Current demand exceeding initial planned production
- Located close to essential infrastructure
- New high-value concrete industry opportunity
- De-risked High Purity Alumina (HPA) project with potential combined Rare Earth Element (REE) opportunity
- Multiple Nanotechnology opportunities

Mine and Plant Plan

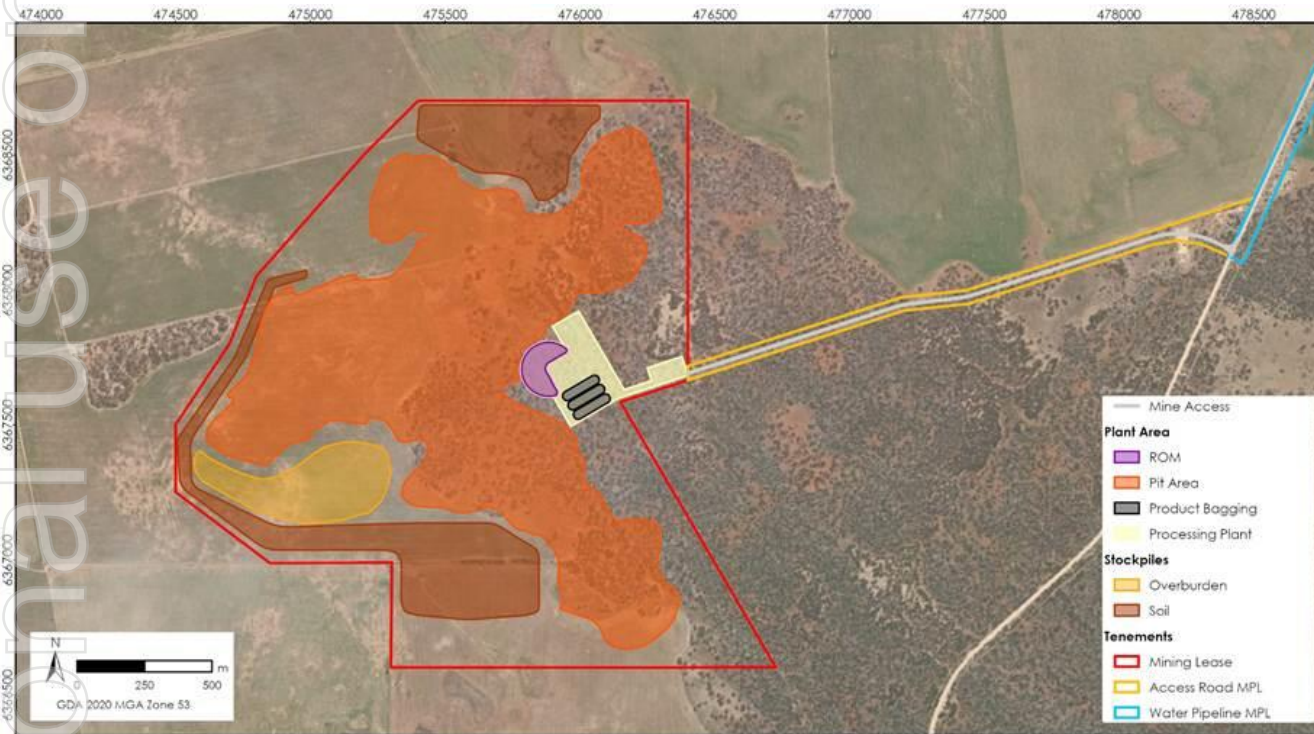
Primary project focus – Halloysite-Kaolin



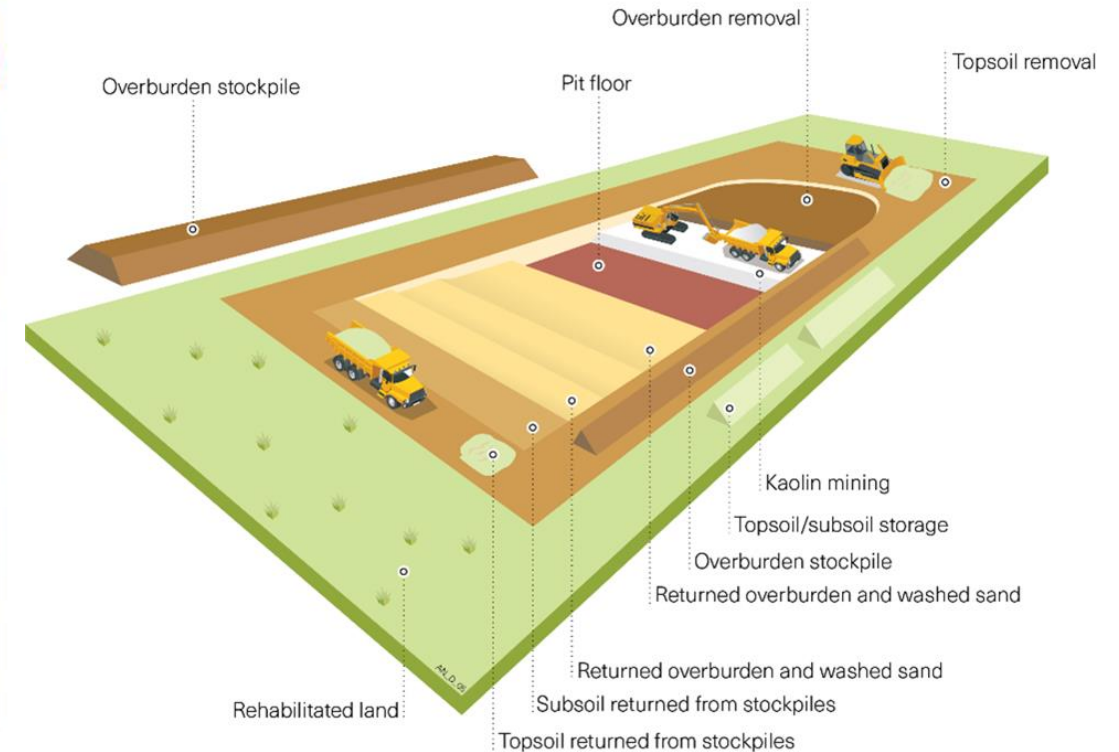
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Mine Design and Plant Position



Generalised Planned Mining Operation



crossroads

crossroads



crossroads

crossroads



- crossroads

Binding off-takes in place

Initial business already underwritten



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Ceramic Product (Great White CRM™)

Fired Brightness Off The Scale

- Binding Offtake signed for 5,000t/pa with Japanese customer @ A\$700/t

Paint Product (Great White PRM™)

World Class Performance

- Binding Offtake signed for 70,000t/pa with Chinese customer
- Price fixed for three years and higher than A\$700/t



New concrete application

Halloysite rheology modifier (HRM™) in construction products



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Potential Benefits

- Carbon footprint reductions
- Cost reductions
- Performance improvements
- Handling improvements
- Safety improvements



Commercial testing and bulk sampling in progress



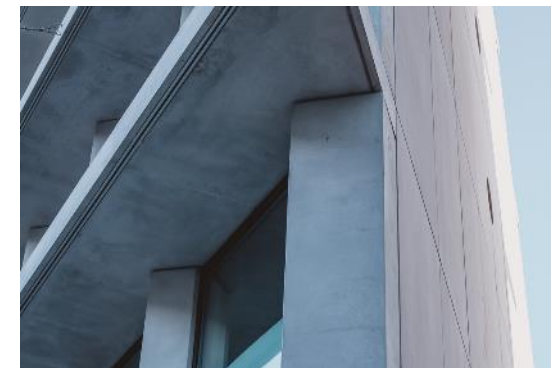
Only **1kg** in **3 tonnes** of concrete required

Next Steps

- Resource being defined
- Bulk sample testing
- Commercial agreements
- Additional applications



Australian Concrete Industry Standard Passed



Huge potential high-value market with true global reach

Halloysite & Nanotechnology

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- Most researched clay mineral in the world
- Use only constrained by supply shortage
- The Natural Nanotech is spending >\$1M/pa on R&D leading to commercialisation

- Great White halloysite-kaolin is working at 40% purity
- Bulk sample being processed targeting >80% purity
- Market price for this refined mineral is approx. \$5000/t
- Second stage cosmetic product approval testing in progress



Carbon Dioxide
Capture/Storage &
Conversion to Fuels



Patent Filed & Pilot
Plant under
Construction



Batteries & Super-
Capacitors



Patent Filed



Water Purification



Patent Filed

Natural Nanotech (NNT) R&D in Progress



Agriculture \$2.4M
Gov Funding



Medical Delivery of
Drugs



Hydrogen Storage
and Transport

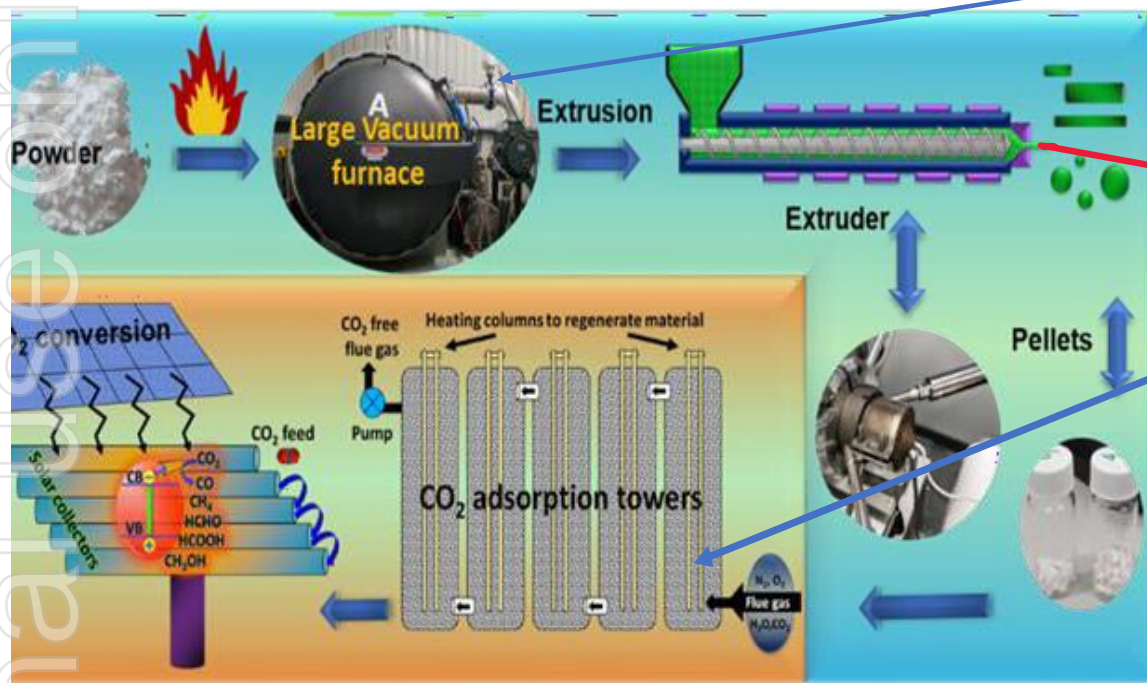


Remediation of
Contaminated Soils

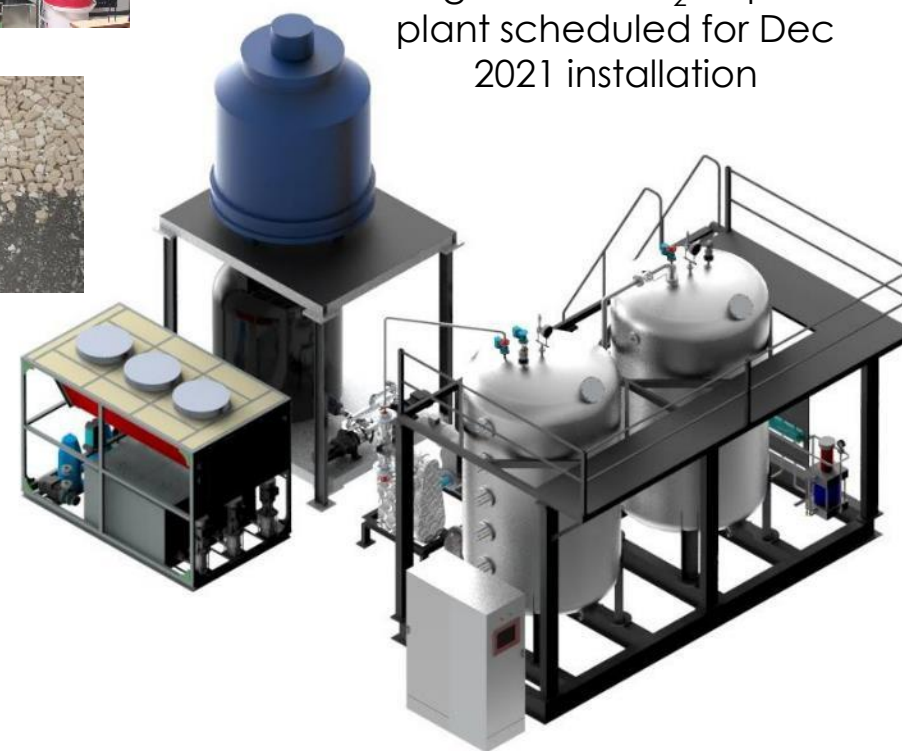
Pilot Plant to Demonstrate Carbon Capture & Conversion Commerciality



Bulk production facility has been established at the Newcastle Institute for Energy and Resources



Large-scale CO₂ capture plant scheduled for Dec 2021 installation



Demonstration plant will prove the scalable capture of CO₂ and conversion into clean fuel, effectively closing the circle of emissions

Our Aim: Demonstrate Direct Air Capture or Flue Gas Capture achievable at or below A\$20/t CO₂

High purity alumina project



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- High Purity Alumina (HPA) is recognised as a key component in the Lithium-Ion Battery supply chain
- Annual demand is set up to quadruple between 2020 and 2028 causing a significant shortfall in supply
- Current 4N purity (99.99%) HPA pricing is approx. US\$24,000/t and 5N purity (99.999%) up to US\$50,000/t
- HPA is also used extensively in LED lights and Smartphone Glass



- Andromeda has proven premium quality kaolin feed for HPA production
- Very high end 4N purity repeatedly achieved with only one stage of purification
- MoU signed with Advanced Energy Minerals for exclusivity to their technology in Australia and New Zealand
- AEM has the only globally operating commercial facility capable of producing HPA from kaolin
- AEM is currently designing a UK plant with support from the UK government
- Andromeda has engaged a world class international team of metallurgists to develop process optimisations
- Potential to include REE processing

Economic Impact of Great White Project

South Australia

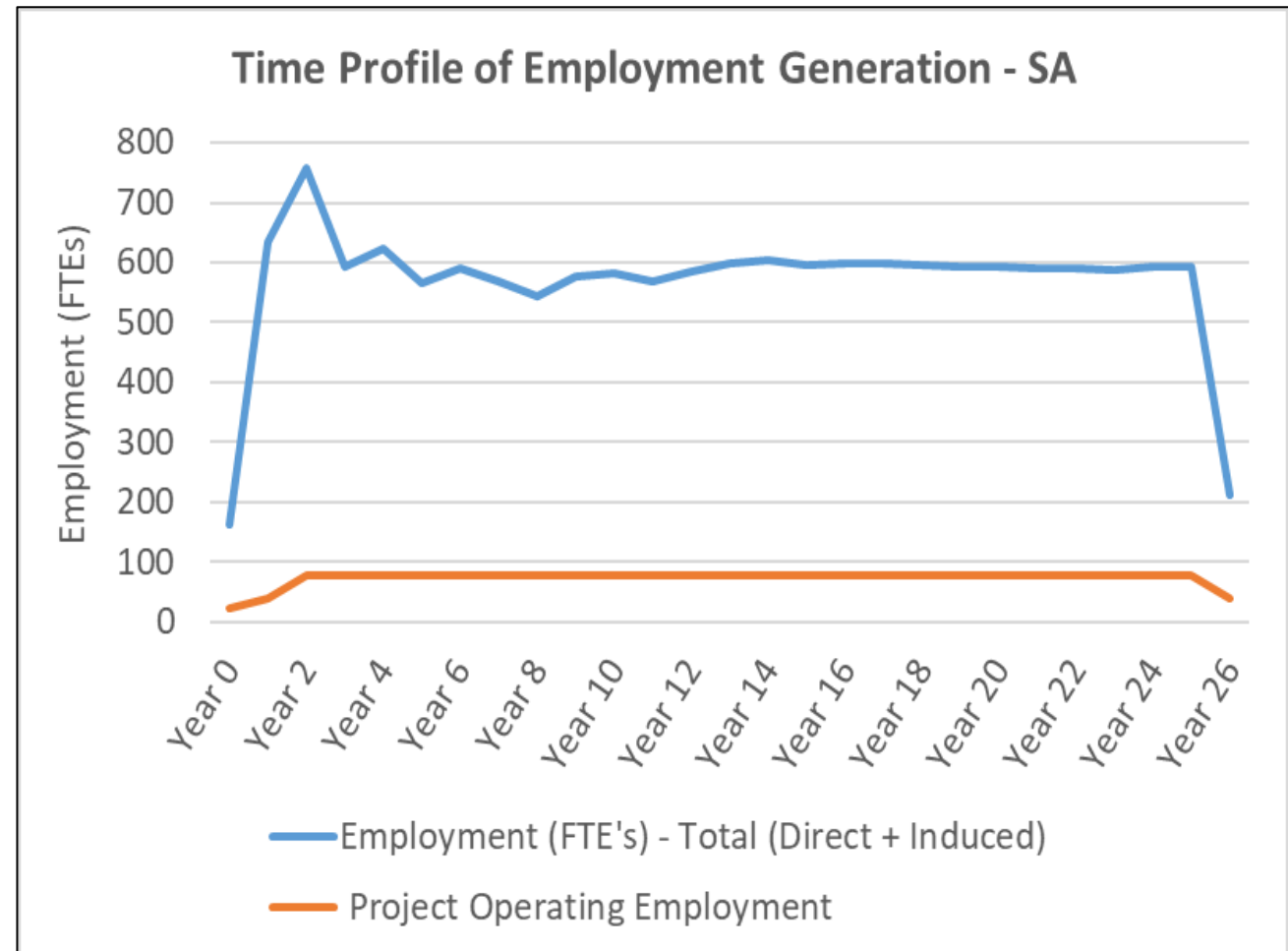


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Economic Modelling Shows (Project Life):

- Household income \$801M
- Contribution to State Gross Profit \$1.7B
- Person years of employment 15,229



Economic Impact of Great White Project

Eyre Peninsula



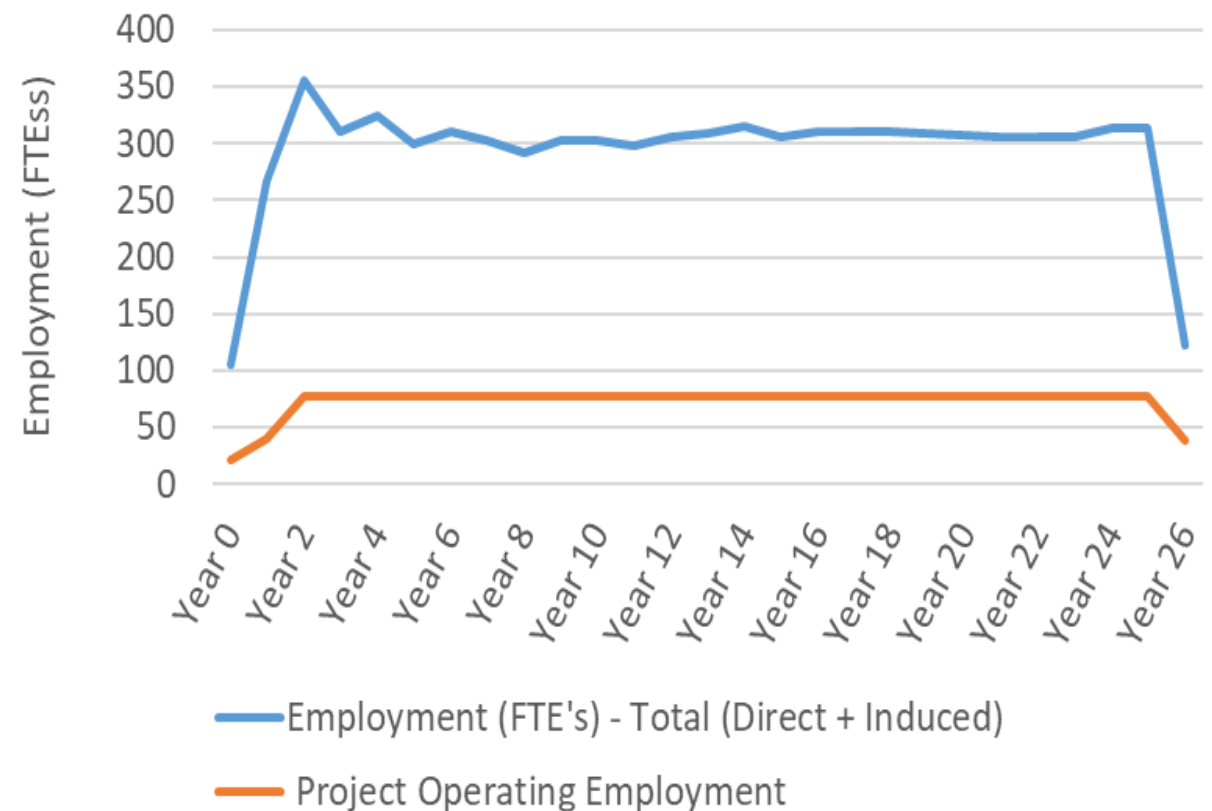
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Economic Modelling Shows (LOM):

- Capital expenditure \$102.4M
- Direct wages \$178M
- Household income \$424M
- Operating expenditure \$2.0B
- Person years of employment 7,919

Time Profile of Employment Generation - Eyre Peninsula



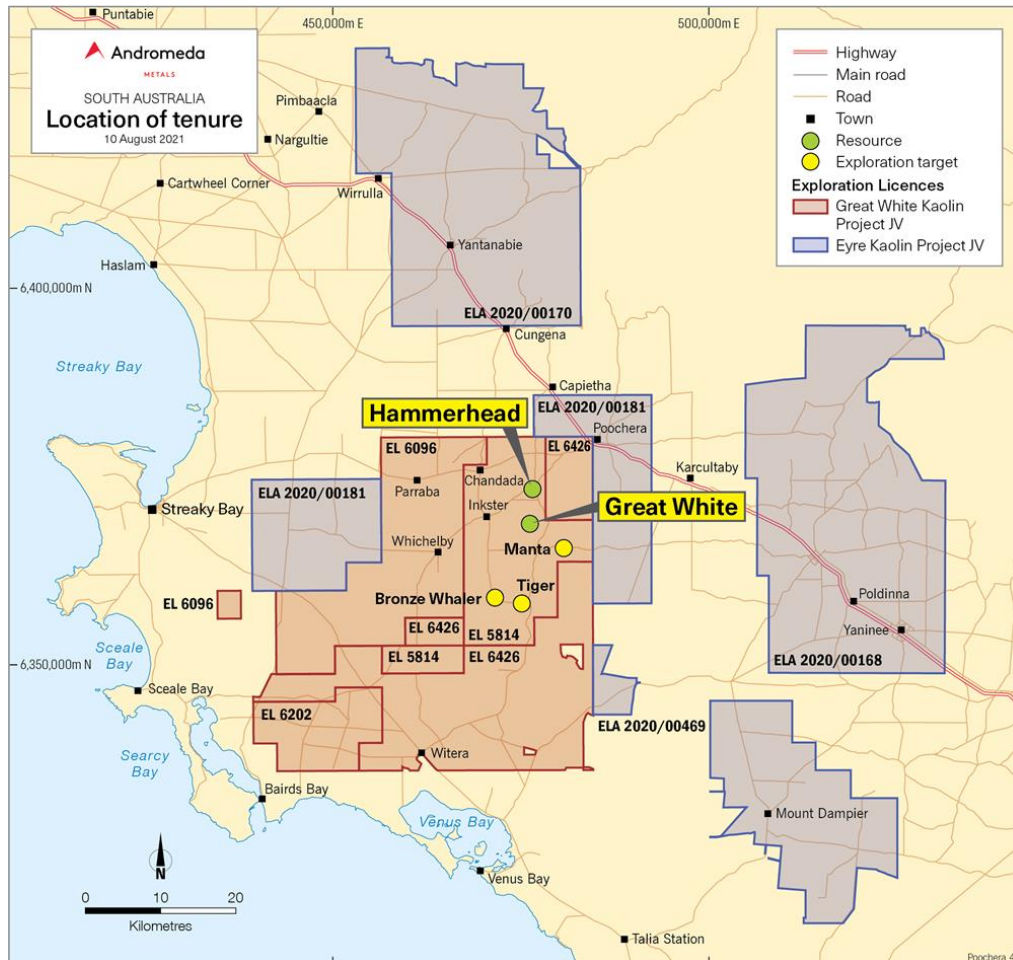
Eyre Kaolin Project

Highly Prospective for Halloysite-Kaolin



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- Approx. 2,800km²
- Recorded occurrence of kaolin
- Previous drilling found >60m thick kaolin intercepts
- Geology looks suitable for halloysite formation
- Resource drilling planned early next year

Alford Copper Project

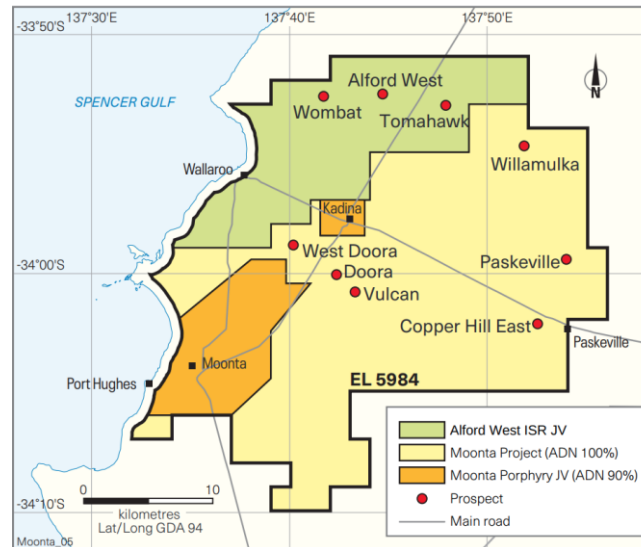
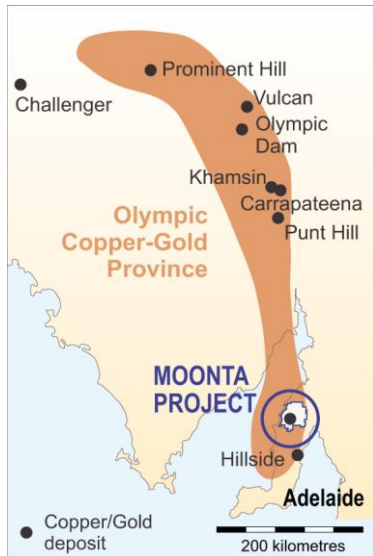
In Situ Recovery (ISR)



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- Environmental Copper JV with EMR¹ sole funding \$4 million to earn 51%²
- Defined Resource of 66.1Mt @ 0.17% copper containing 114kt of copper (Mining Plus³)
- Additional Exploration Target of 158-190Mt @ 0.18 - 0.23% copper defined^{4*}



- Enviro Copper have advanced considerable research on the potential for ISR copper recovery at its nearby Kapunda Project
- Initial lab test work undertaken by Enviro Copper at Alford suggests favourable conditions for ISR
- ISR progress at Alford is anticipated to accelerate over the next 12 months
- Enviro Copper is considering potential for listing, Andromeda and Enviro Copper are in early discussions regarding (potential consolidation of Andromeda's copper assets) or (consolidation transaction that may be beneficial to shareholders of both entities)

- The Moonta Project is located at the southern end of Olympic Copper-Gold Province which hosts the giant Olympic Dam iron oxide copper gold deposit and the world class IOCG deposits
- The tenement captures the historical "Copper Triangle" mining district which in the 1870s became the largest producer of copper in the British Empire

¹ EMR is a subsidiary of EnviroCopper Ltd.

² Andromeda ADN announcement dated 19 December 2018 "Joint Venture to progress In-Situ Recovery of Copper at Moonta"

³ Thor THR ASX announcement dated 15 August 2019 "Substantial Mineral Resource Estimate Moonta Copper"

⁴ Thor THR ASX announcement dated 6 March 2019 "Strategic Development Australian Copper Interests"

* Exploration Targets are conceptual in nature and there has been insufficient exploration to define a Mineral Resource under the JORC Code and it is uncertain if further exploration will result in the determination of a Mineral Resource.

What's next?

What's on the horizon for Andromeda



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First Commercial Products anticipated to Market by late 2022

- Mining Approval
- Complete Minotaur acquisition
- DSO opportunity
- Sell the Phase 1 processing plant capacity 100% out
- Concrete product commercial agreement
- Release Definitive Feasibility Study
- Complete Bankable Feasibility Study and Secure debt funding
- High Purity Halloysite – resource and/or purification
- Additional Kaolin/Halloysite Resources
- Nanotechnology commercialisation
- High Purity Alumina – feasibility studies

Thank you



Andromeda

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Managing Director

james.marsh@andromet.com.au

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STATEMENTS

Cautionary Statements

The preliminary feasibility study (Pre-Feasibility Study, PFS) referred to in this announcement has been undertaken to study a range of options to produce high-quality halloysite-kaolin product from the Kaolin Resource at Poochera in South Australia in order to provide Andromeda Metals with a basis for more detailed Definitive Feasibilities Studies for the Project. It is a technical and economic study to identify preferred mining, processing and infrastructure requirements but it has not finalised these. The PFS work has advanced assessments of environmental and socio-economic impacts and requirements, but these are also not finalised. The estimation of ore reserves has been done.

The Production Target referred to in this announcement is based on this PFS and supported mainly by Measured and Indicated Resources and only minor Inferred Resources. Andromeda Metals has concluded that it has reasonable grounds for disclosing a Production Target, however there is no certainty that the Production Target or the economic assessment will be realised.

The PFS 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 PFS will be achieved.

To achieve the range of outcomes indicated in the PFS, funding in the order of A\$28M, inclusive of working capital, is likely to 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 PFS. This announcement includes forward looking statements. For further information on forward looking statements please refer to the end of this release.

Forward Looking Statements

Some of the statements contained in this report 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 report, and on other published information of Andromeda, the words such as 'aim', 'could', 'estimate', 'expect', 'intend', 'may', 'potential', '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 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. All financial assumptions and estimates are quoted in Australian Dollars ('A\$' or 'AUD') only, unless indicated otherwise heading.

Competent Person's Statements

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

JORC Resource Reference Tables 1

Table of Resources – Clay <45µm

		MEASURED RESOURCE				INDICATED RESOURCE				INFERRED RESOURCE				TOTAL RESOURCES			
	ANDROMEDA INTEREST (%)	TONNES	PSD	KAOLINITE	HALLOYSITE	TONNES	PSD	KAOLINITE	HALLOYSITE	TONNES	PSD	KAOLINITE	HALLOYSITE	TONNES	PSD	KAOLINITE	HALLOYSITE
		(Mt)	<45µm	(%)	(%)	(Mt)	<45µm	(%)	(%)	(Mt)	<45µm	(%)	(%)	(Mt)	<45µm	(%)	(%)
2020																	
Great White ^{1,2}	50																
Hammerhead	-																
Mount Hope	-																
Total (100%)	-																
Total 2020 (Andromeda share)																	
2021																	
Great White ^{1,3,4}	75	2.9	83.9	78.8	13.8	7.3	82.8	82.3	9.9	7.2	83.3	81.7	9.9	17.4	83.2	81.5	10.5
Hammerhead ^{1,4,5}	75													271	82.2	81	12.3
Mount Hope ^{1,4,6}	100													7.5	82.2	81.4	3.3
Total (100%) ¹	-													41.8	82.4	81.2	10.3
Total 2021 (Andromeda share) ¹														33.2	82.4	81.3	9.9

Table of Resources – Clay <45µm continued

		MEASURED RESOURCE				INDICATED RESOURCE				INFERRED RESOURCE				TOTAL RESOURCES			
ANDROMEDA INTEREST (%)		TONNES (Mt)	Al ₂ O ₃ (%)	Fe ₂ O ₃ (%)	TiO ₂ (%)	TONNES (Mt)	Al ₂ O ₃ (%)	Fe ₂ O ₃ (%)	TiO ₂ (%)	TONNES (Mt)	Al ₂ O ₃ (%)	Fe ₂ O ₃ (%)	TiO ₂ (%)	TONNES (Mt)	Al ₂ O ₃ (%)	Fe ₂ O ₃ (%)	TiO ₂ (%)
2020																	
Great White ^{1,2}	50																
Hammerhead	-																
Mount Hope	-																
Total (100%)	-																
Total (Andromeda share)	-																
2021																	
Great White ^{1,3,4}	75	2.9	36.7	0.52	0.32	7.3	36.6	0.51	0.5	7.2	36.4	0.51	0.45	17.4	36.5	0.51	0.45
Hammerhead ^{1,4,5}	75													271	37	0.63	0.71
Mount Hope ^{1,4,6}	100													7.5	35.3	0.51	0.62
Total (100%) ¹	-													41.8	36.6	0.59	0.65
Total (Andromeda share) ¹	-													33.2	36.5	0.58	0.65

JORC Resource Reference Tables 2

Table of Reserves – Clay

		PROBABLE RESERVE					TOTAL RESERVE				
		WHOLE ROCK		WITHIN <45µm FRACTION			WHOLE ROCK		WITHIN <45µm FRACTION		
ANDROMEDA INTEREST (%)		TONNES (Mt)	RECOVERY <45µm FRACTION (%)	HALLOYSITE (%)	KAOLINITE (%)	HALLOYSITE + KAOLINITE (%)	TONNES (Mt)	RECOVERY <45µm FRACTION (%)	HALLOYSITE (%)	KAOLINITE (%)	HALLOYSITE + KAOLINITE (%)
2020											
Great White											
Total (100%)											
Total (Andromeda share)											
2021											
Great White ^{1,12,13,14}	75	12.5	52	15	78	93	12.5	52	15	78	93
Total (100%)	-	12.5	52	15	78	93	12.5	52	15	78	93
Total (Andromeda share)¹	-	9.4	52	15	78	93	9.4	52	15	78	93

1 Figures are rounded to reflect appropriate levels of confidence. Apparent differences may occur due to rounding.

2 ASX 23 December 2019, "Significant increase in Mineral Resource for the Poochera Kaolin Project".

3 ASX 26 November 2020, "Updated mineral resource for the Great White Kaolin JV Deposit".

4 ISO brightness (R457) cut-off of at 75 in the <45µm size fraction.

5 ASX 29 September 2020, "New mineral resource estimate for Hammerhead Halloysite-Kaolin Deposit".

6 ASX 11 August 2020, "New mineral resource for the Mount Hope Kaolin Project".

7 ASX announcement released 8 May 2019 "Increased ounces in updated Wudinna Gold Project Mineral Resource".

8 The Wudinna Gold Project Mineral Resources estimates have been reported at a 0.5 g/t gold cut-off grade to reflect extraction by open pit mining.

9 ASX release dated 15 August 2019 "Substantial initial copper resource – Moonta Project, inferred ISR copper resource of 114,000 tonnes contained copper".

10 Figures are rounded to reflect appropriate levels of confidence. Apparent differences may occur due to rounding.

11 Environmental Copper Recovery Pty Ltd earning a 75% interest.

12 ASX release dated 10 July 2020 "Maiden Ore Reserve for Carey's Well Deposit".

13 Great White Reserve estimated based off the 2019 Great White Resource estimate (refer ADN ASX release dated 23 December 2019 "Significant Increase in Mineral Resource at Poochera").

14 The maiden Ore Reserve Estimate is drawn from the PFS released in June 2020 (refer ADN ASX announcement dated 1 June 2020 titled "Pre-Feasibility Study further improves Poochera Halloysite-Kaolin Project Economics").

15 Ore Reserves have been reported from Measured and Indicated Resources only.