

Andromeda METALS

Andromeda Metals Limited
ABN: 75 061 503 375

Quarterly Report

Period ending 30 June 2018

Corporate Details
ASX Code:
ADN (ordinary shares)
ADNOB (listed options)

Cash at 30 June 2018:
$0.861 million

Issued Capital
at 30 June 2018:
896,028,227 ordinary shares
486,280,451 ADNOB options
2,476,507 unlisted options

Directors
Rhod Grivas
Non-executive Chairman

James Marsh
Managing Director

Nick Harding
Executive Director and
Company Secretary

Andrew Shearer
Non-executive Director

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Summary of the Company's activities for the past quarter.

- **In June Andromeda Metals exercised an option over a joint venture agreement with Minotaur Exploration Limited (ASX:MEP) to secure up to 75% interest in the world class Halloysite Kaolin HPA Poochera Project in South Australia for staged expenditure totalling $6 million over 5 years.**

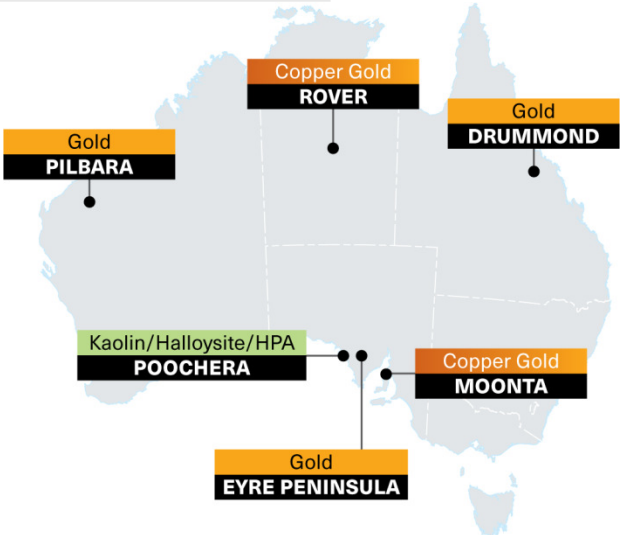
- **Completion of the initial drilling program at the Bunyip gold prospect on the Drummond Epithermal Gold Project in North Queensland where promising gold intersections were achieved in the first seven holes.**

- **Subsequent to the end of the Quarter the Company raised $1.1m via the placement of 186.5 million new shares at $0.06 with funds to be directed towards advancing the Poochera Project and for working capital.**

The board and management of Andromeda Metals Limited (ASX: ADN, the Company) is pleased to provide a summary of its activities for the quarter ended 30 June 2018 and an update on the Company's progress.

In April, Andromeda announced the signing of a binding Joint Venture Heads of Agreement (HOA) with Minotaur Exploration Limited (ASX: MEP) (Minotaur) to acquire up to a 75% interest in its world class halloysite-high purity alumina (HPA) Poochera Project in South Australia, for expenditure of $6 million over a period of up to 5 years. The project contains a high-quality kaolin (+halloysite) JORC 2004 Mineral Resource which has the potential to be a valuable feedstock to the HPA sector. Andromeda has engaged H&S Consultants Pty Ltd (H&SC) to update the resource to JORC 2012.

The signing of the HOA and exercising of the option was a transformational point for the Company, entering it into the newly emerging high growth sector of HPA and associated new age technology advancements that halloysite offers.



Finance and Corporate

- The Company's available cash position stood at $0.861 million at 30 June 2018. Subsequent to the end of the quarter the Company has completed an oversubscribed $1.11 million share placement.
- Mr James Marsh has been appointed as the Company's Managing Director effective 1 June 2018, replacing Mr Chris Drown who has resigned as a Director of the Company. James is an industrial chemist with the skill set to advance the Poochera Kaolin-Halloysite-HPA project into production having gained world class production and marketing experience in kaolin derived industrial minerals products.

Managing Director James Marsh commented on the quarter, "Joining Andromeda at this time as the Company assesses the potential for Poochera, represents a tremendous opportunity for me, especially given my career experience in this commodity. Halloysite kaolin is a high value industrial mineral that is growing in demand whilst global supplies are reducing. It has numerous relatively short-term opportunities with customers who have already given technical approval for the Poochera material, as well as some exciting new high-tech applications for high purity alumina production and nanotubes. The recent capital raising will now allow us to progress through the required stages to production and market supply. This includes the next major step of sending bulk samples to processing plants in Australia and China and then onto end customers to lock in binding supply agreements."

Poochera Project

- **Joint Venture Heads of Agreement signed with Minotaur Exploration Limited (ASX: MEP) for the Poochera Halloysite Kaolin Project**
- **Indicative offtake agreements in place for over 200,000 tpa underlying halloysite kaolin product**
- **Appointment of experienced industrial minerals expert as the Company's new Managing Director to lead the development of the Halloysite Kaolin Project**
- **Preliminary test results for HPA support a considerable project upside**
- **H&SC on behalf of Andromeda has commenced updating the kaolin JORC 2004 resource to JORC 2012**
- **Andromeda to immediately commence additional drilling and feasibility studies**

High Purity Alumina is aluminium oxide (Al_2O_3) a high purity non-metallurgical alumina product with an alumina grade exceeding 99.9% (3N). HPA is experiencing dramatic growth due to its application in the manufacture of today's high performance electronic devices and electric powered vehicles. The HPA market is forecast to grow at a greater than 20% compound annual growth rate over the next five or more years through increasing penetration into traditional markets and increased per capita energy demand driving high specification energy efficient products.

HPA is a new age material critical in the manufacture of many high-tech products of today including:

- the rapidly expanding battery technologies and energy storage sector
- LED lighting industry
- Sapphire glass manufacture used in the production of smart phones and TV screens
- electric vehicle components
- high-strength ceramic tools
- space and aeronautic industry components

In addition, Poochera contains halloysite, a rare nanoclay derivative of kaolin with a nanotube structure. Halloysite has strengthening applications in the ceramics and construction industries and presents niche market opportunities in the nanotechnology sector. Halloysite is in short supply due to the exhaustion of existing global reserves and the closing of environmentally damaging mines in China.

Indicative non-binding offtake agreements are already in place with Asian ceramic manufacturers providing confidence and opportunity for rapid development of Poochera. A recent visit to China by James Marsh (MD) has confirmed the demand and identified a number of potential new customers.

Completion of the transaction provides Andromeda with access to an advanced project potentially capable of being advanced rapidly through feasibility to a development decision within 2 years.

ADN has since completed its due diligence investigations and has exercised its option to enter into the Joint Venture.

The Halloysite Kaolin Project

The Halloysite Kaolin Projects covers two main geographic areas of interest, both situated in the western province of South Australia (Figure 1). The main area of focus, the Poochera Kaolin-Halloysite Project on the Eyre Peninsula comprises three tenements and is located approximately 635kms west by road from Adelaide and 130kms east from Ceduna (Figure 2).



Figure 1 Project location plan

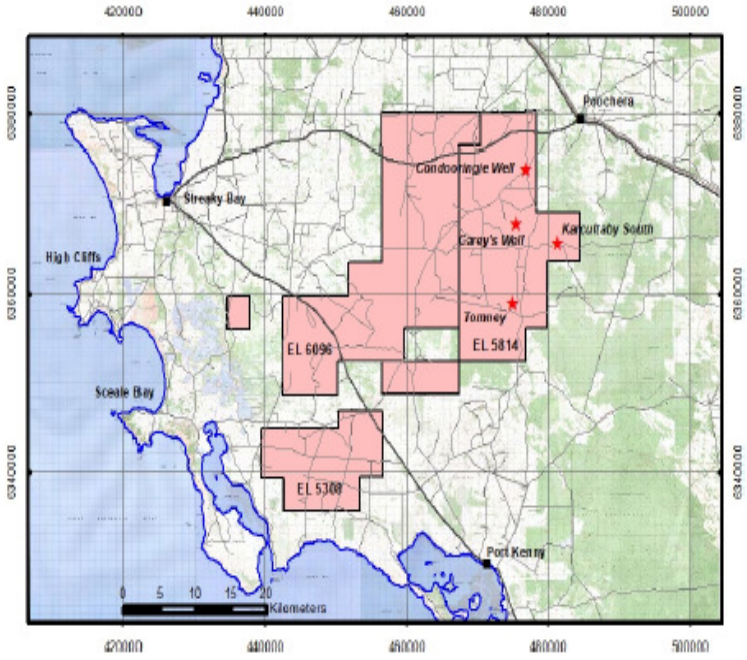


Figure 2 Poochera tenements and key kaolin-halloysite deposits

The port of Thevenard at Ceduna or the Lucky Bay Port development potentially offers export facilities appropriate for likely future production. High quality Halloysite Kaolin occurrences exist extensively across the Poochera Project area (Figure 2) making this a region of global significance for the mineral and capable of supporting a considerable long-life mining operation, should final feasibility studies determine the project to be economically viable.

Halloysite is a rare derivative of kaolin where the mineral occurs as nanotubes. Halloysite has a wide variety of industrial uses beyond simple kaolin and commands a significant premium above the average kaolin price. The Poochera mineralisation contains variable mixtures of kaolin and halloysite that appear amenable to selective mining to produce specific low, medium and high halloysite blends for the ceramic and petrochemical cracking markets, along with new nanotechnology applications in lithium battery technology and as a strengthening additive for concrete.

The potential for Carey's Well to produce high purity HPA represents a significant opportunity for further development. Pilot plant trials conducted by Minotaur on material from Carey's Well has produced one of the purest kaolin feedstocks available (refer Minotaur's Quarterly Report September 2012), while testwork with the goal of confirming that 3N and 4N HPA grades can be achieved is underway in trials being conducted by a BHM Process Consultants and the University of Newcastle researchers.

Resource Estimate by Minotaur for Carey's Well

A resource estimate for the Carey's Well kaolin deposit was publicly reported by Minotaur Exploration on 8 February 2012 titled "Maiden measured resource for SA kaolin project" (refer ASX website https://www.asx.com.au/asxpdf/20120208/pdf/4247hg1j61295n.pdf).

The Mineral Resource estimate of 16.3 million tonnes of kaolinised granite with 45% yield of -45 micron kaolin, using an ISO Brightness R457 cut-off of 75, was classified as Measured in accordance with the requirements of the 2004 edition of the JORC Code. The JORC 2004 Mineral Resource report dated 8 February 2012 included a detailed report on the estimation process as an Appendix.

However, it must be noted that the kaolin resource estimate was not reported in accordance with the JORC Code 2012 and may not conform to the requirements in JORC Code 2012. Andromeda has engaged H&SC to complete an updated JORC Code 2012 resource with results expected during the September quarter.

A Competent Person has not done sufficient work to classify the kaolin minerals resource estimate for Carey's Well in accordance with the JORC Code 2012. It is possible that following further evaluation and/or further exploration work, the estimates previously reported by Minotaur may materially change necessitating fresh reporting by Andromeda in accordance with the JORC Code 2012. Nothing has come to the attention of Andromeda that casts doubt on the accuracy or reliability of Minotaur's estimates, but Andromeda has not independently validated Minotaur's estimates and is not adopting or endorsing those estimates.

Further details on the review conducted by Andromeda were publically reported on 26 April 2018 titled "Andromeda Metals to enter HPA sector and management changes" (refer to ASX website https://www.asx.com.au/asxpdf/20180426/pdf/43th4sw97cfgr7.pdf).

Work Program post HOA signing

As part of the due diligence process Poochera, Andromeda executives recently visited China to determine the current market for halloysite-kaolin by meeting key customers and distributors.

Previously eight Chinese high-quality porcelain manufacturing companies had signed Letters of Intent with Minotaur for offtake of in excess of 200,000tpa of Carey's Well halloysite-kaolin product. Positive meetings were held with these companies in addition to many new ones. All parties confirmed that they were still very keen to secure supply of the halloysite-kaolin material which most had already tested and approved. In most cases their demand had increased, confirming a significant and growing market potential.

Chinese Government anti-pollution measures have resulted in the closure of numerous mines. This combined with limited global availability of high quality halloysite kaolin has Chinese porcelain producers concerned for supply security resulting in price increases.

There is also considerable interest from Chinese kaolin processors who have significant spare capacity due to the dramatic decrease in availability of high quality raw materials, combined with higher product demand. Halloysite kaolin is a relatively high value industrial mineral that is scarce in the world, and Carey's Well is probably the largest resource of its type in the world. This presents a considerable opportunity to fastrack to positive cashflow by starting direct shipping ore business to selected customers who have already indicated urgent, high-volume demand.

Preliminary testwork on alumina content of the Halloysite Kaolin and the ability to produce HPA previously carried out with Bureau Veritas, UniSA and the University of Newcastle showed that the Carey's Well product would be suitable for HPA generation with the added bonus that it gives a significantly higher alumina mass yield than comparable Australian kaolins.

In May Andromeda and Minotaur commissioned the metallurgical testwork through Perth-based BHM Process Consultants. Initial results confirmed Carey's Well Halloysite Kaolin as a potential premium HPA feed material for a targeted 4N Al_2O_3 product with 99.9855% purity achieved on a non-optimised sample. Additional testing is now in progress on an optimised sample to confirm its potential for this application. The naturally extreme low level of impurities indicate a world class potential for an HPA product that will complement other new high-tech halloysite applications.

HPA testwork results by BHM Process Consultants

BHM were commissioned to undertake the necessary concept metallurgical investigation and future process design aspects for upgrading typical hydrous processed kaolin from Carey's Well to a saleable HPA product via industry standard hydrometallurgical processing routes. BHM have specific metallurgical experience and knowledge in the field of HPA production principles as well as being hydrometallurgical specialists that understand the intricate processes involved in HPA production.

The initial BHM testwork indicated that an HPA product with 99.99% purity is readily available from Carey's Well kaolin/halloysite feedstock using an industry standard HCL two-stage dissolution precipitation process, with the initial testwork achieving 99.9855% alumina. Key impurities in the first testwork include Silicon (66.84ppm), Sodium (30.16ppm) and Iron (28.28ppm), each of which can be expected to be further reduced by processing improvements moving forward.

Chemical Signature of the Carey's Well Material

Head	Al (%)	Fe (%)	Ti (%)	Si (%)	Mg (%)	Ca (%)	K (%)	Na (%)
Assay	20.254	0.301	0.059	21.683	0.039	0.023	0.154	0.177

HPA Product Analysis

Final	Al (%)	Fe (ppm)	Ti (ppb)	Si (ppm)	Mg (ppm)	Ca (ppm)	K (ppm)	Na (ppm)
Assay	53.06	28.28	<0.01	66.84	0.698	<0.1	1.555	30.16

Conclusions

- The resultant liquor from the dissolution of the Carey's Well product was shown to be amenable to the HCl gas injection purification process.
- Improvements in performance are expected with improving leach performance and potential pre-concentration methods.
- A product with ~100-140ppm of impurities can be produced with 2 stages of purification precipitation, and it is likely that with 3 stages a product with <20-40ppm can be generated to satisfy the HPA markets

Next steps

- Bulk sampling for full-scale processing and product trials in China and Australia
- Commencing regulatory permitting and approvals process
- Continuation of environmental studies as part of the permitting process
- HPA optimisation test work
- Halloysite high-tech application research
- Commencing feasibility studies
- Resource upgrades, focussing on the high value halloysite

Drummond Epithermal Gold Project, North Queensland

- Drilling program totalling 23 reverse circulation drill holes for 1906 metres completed at the Bunyip epithermal gold prospect.
- Promising gold intersections achieved in early program holes previously reported on 23 March 2018.
- Several later program holes have recorded lower grades of gold.
- The epithermal style of mineralisation discovered is the same as the nearby Pajingo (>3Moz) and Wirralie (1.1Moz) gold deposits
- 20 of 23 holes drilled intersected significant quartz veining, while all 23 holes drilled encountered hydrothermally altered and sulphide-bearing host rocks indicating the presence at Bunyip of a large epithermal system.
- The most significant results were returned from an area to the southeast of the summit of Mount Bunyip, the hill that defines the prospect.
- Mineralised zones in this area are interpreted to be open at depth, giving an area of focus for future follow-up work.

In March Andromeda reported initial results from the first seven program holes at the Bunyip gold prospect on the Drummond Epithermal Gold Project in North Queensland, with intersections including:

- 2 metres at 4.36g/t gold from 8 metres in BUNRC001
- 2 metres at 1.66g/t gold from 13 metres in BUNRC002
- 1 metre at 2.32g/t gold from 61 metres in BUNRC004
- 4 metres at 5.15g/t gold from 7 metres in BUNRC005

The drill program, which totalled 23 reverse circulation drill-holes for 1,906 metres was completed in April. Whilst further gold mineralisation was intersected in a number of the later program holes, intersection grades were below those achieved in the initial holes.

Taken in its entirety, the drilling program confirmed the presence of potentially significant epithermal gold mineralisation at Bunyip, with the better results all achieved in holes testing a specific part of the prospect, presenting a geographic focus for follow-up exploration. The Company's Drummond Epithermal Gold Project comprises four wholly owned, granted Exploration Permits for Minerals (EPM's) that secure a total area of 523km^2 in the gold prospective Drummond Basin in north Queensland.

All 23 holes encountered intervals of hydrothermally altered, sulphide-bearing volcanic host rock, while 20 of the 23 holes intersected one or more quartz veins. Quartz veins with downhole widths in excess of 5 metres were encountered in 11 of the holes.

The host rocks at Bunyip are interpreted as a sequence of volcanic lavas and associated sediments of andesitic to rhyolitic composition. Several holes intersected narrow fine-grained rocks which are interpreted to be volcanic dykes intruding into the volcanic pile. The program holes which recorded better gold intersections and had the widest downhole widths of quartz veining are all located in an area southeast, presenting a geographic focus for follow-up exploration.

The gold intersections achieved southeast of the summit were at relatively shallow depths, and vein textures in these holes are interpreted to indicate a position in the upper levels of the Bunyip epithermal system. The mineralised zones are interpreted to remain open at depth, presenting deeper targets potentially closer to the "boiling zone" where bonanza grades of gold are to be found in epithermal deposits. Andromeda will complete a thorough review of the results before planning any follow-up drilling. The initial results combined with the extent and width of the quartz veins together with the alteration and quartz vein textures suggest that additional drilling is warranted at depth.

Rover Copper Gold Project, Northern Territory

The Rover Project comprises two wholly owned tenements (ELs 27372 and 27292) located 85km by road to the southwest of Tennant Creek (Figure 3).

The Rover Field is prospective for ironstone hosted copper-gold deposits geologically identical to deposits found in the Tennant Creek field, many of which exhibited high grades allowing them to be profitably mined. The potential of the Rover Field to deliver valuable mineral deposits is demonstrated by the Rover 1 deposit, owned by Westgold Resources Limited (ASX: WGX), which persists to the southern boundary, and then crosses into, the Company's tenements.

At 30 June 2017, WGX quoted a Mineral Resource, for that part of Rover 1 falling in its tenements, of 6.81 million tonnes at 1.73g/t gold, 1.2% copper, 0.14% bismuth, 0.06% cobalt and 2.07g/t silver, and WGX's Rover 1 deposit represents arguably the most significant undeveloped mineral resource in the broader Tennant Creek/Rover district.

ADN acquired the Rover tenements in 2005 from a subsidiary of Newmont Mining. In part consideration, Newmont was granted a royalty/buy back interest which it subsequently assigned to Franco-Nevada Australia Pty Ltd in 2009. ADN completed an extensive past exploration program on its Rover tenements, discovering deposits of copper and gold at the Rover 4 and Rover 1 prospects, and recording encouraging exploration results at other targets including Rover 12.

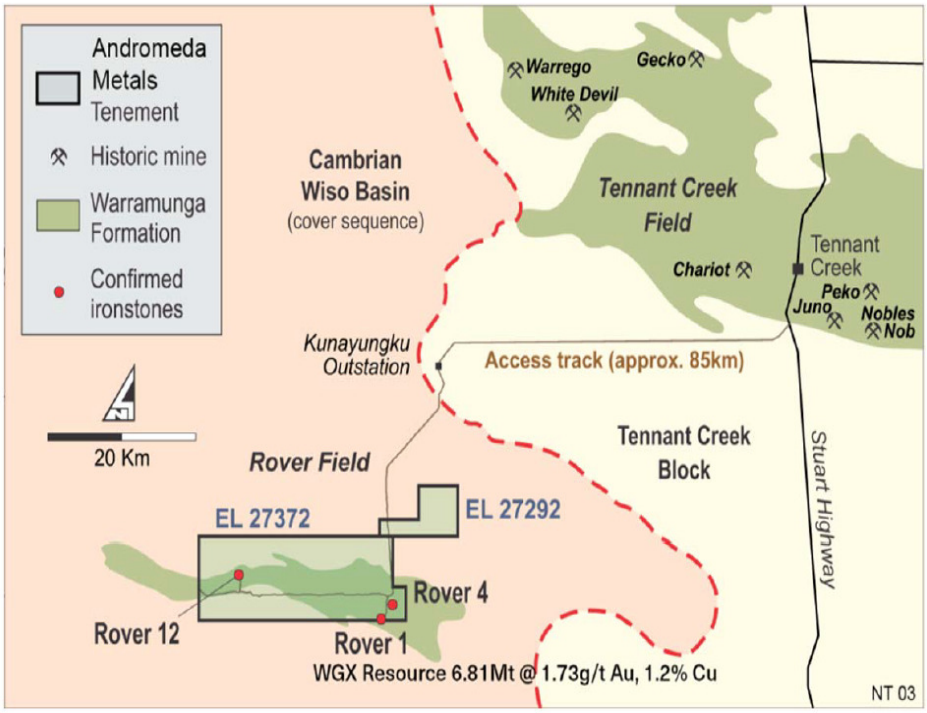


Figure 3: Rover Copper-Gold Project location plan

During the quarter, Minotaur Exploration completed a review of the Rover Project which included a site visit and trial geophysics (Squid EM) on 2 selected prospects. Minotaur elected not to proceed with a joint venture over the Rover Project.

Andromeda Metals continues to hold the view that the Rover Copper-Gold Project is a highly prospective project. The Company remains amenable to third party involvement at Rover and invites parties interested in reviewing this outstanding copper-gold-cobalt exploration opportunity to make contact.

Corporate

Appointment of new Managing Director

Mr James Marsh was appointed as the Company's new Managing Director, commencing 1 June 2018. James is an industrial chemist with extensive experience across a wide range of industrial minerals spanning a 29-year period, including senior technical and marketing roles with two global market leaders.

His knowledge and experience will be of great benefit to ADN as the Company positions itself in the newly emerging high growth sectors of HPA and halloysite application with respect to new age technology advancements.

Exploration Development Incentive Scheme

Andromeda was pleased to advise that it was successful in its application for participation in the Federal Government's Exploration and Development Incentive Scheme (EDI) for the 2016-17 financial year. EDI credits totalling $133, 684 were distributed as a tax credit to shareholders for the 2017-18 tax year return. The benefit received by individual shareholders was pro-rated based on the number of shares held at the Record Date of 30 May 2018.

Competent Person Statement and 2012 JORC Compliance Notes

1. The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information previously reported in accordance with JORC Code 2012 and compiled by Rhoderick Grivas, a Competent Person, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Grivas is employed by the Company and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Grivas consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The information contained in the report relating to exploration completed since 1 Dec 2013 has previously been reported in accordance with the JORC Code 2012, see ADN's ASX releases dated 23 March 2018, 19 April 2018, 16 April 2018, 26 April 2018 and MEPs ASX release dated 8 February 2012.

2. The information contained in the report relating to exploration completed prior to 1 Dec 2013 by the Company and other explorers was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.