

DECEMBER - 2018 QUARTERLY REPORT

ATHENA RESOURCES LIMITED

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CONTACTS

Mr Ed Edwards
Executive Director

PROJECTS

Byro:

Iron Ore, Nickel-Copper-PGE's

SECURITIES

271M Shares - AHN

SHAREHOLDERS

Brilliant Glory	15.87%
Mr E Edwards	14.07%
Mr P Newcomb	5.69%
Mr D Webster	4.55%

CORPORATE

- **Non-Renounceable Rights Issue fully subscribed for \$541,900.**

BYRO MAGNETITE PROJECT

- **Market studies underway for the following uses of Fe1 Magnetite**
 - **Iron Powders**
 - **Bulk Coal Washing**
 - **Dense Media Separation**
 - **Ammonia and Gas to Liquid Fuel Synthesis Markets**
- **Mining Plan Approval Planning for Byro Fe1 Deposit**

BYRO MAGNETITE PROJECT (Athena Resources 100%)

CORPORATE

NON-RENOUCEABLE ENTITLEMENT OFFER

On 27 December 2018 Athena announced the results of the pro-rata non-renounceable entitlement offer (**Offer**) of new Athena shares (**New Shares**) at an issue price of \$0.01 (1.0 cent) per New Share, as announced on 26 November 2018.

The Offer of 54,190,133 new fully paid ordinary shares in Athena (**New Shares**) on the basis of one (1) New Share for every four (4) existing shares held by eligible shareholders closed on 20 December 2018. Athena advised that it received entitlement acceptances (22,399,114) and shortfall applications (15,436,637) from eligible shareholders for New Shares raising a total of \$378,358.

Accordingly, the shortfall under the Offer is 16,354,382 of the maximum 54,190,133 new fully paid ordinary shares (**Shortfall**). Shortfall applications in excess of this amount were received. Directors and related parties did not made shortfall applications.

The Offer was not underwritten.

The New Shares were issued on 31 December 2018 and holding statements were dispatched on or about 2 January 2019.

BYRO MAGNETITE PROJECT

PRODUCT DEVELOPMENT

MARKETS AND PRODUCTION REQUIREMENT

Athena has identified a high-grade product specification acceptable to industrial and high value markets as follows:

Magnetite in Bulk Coal Wash Market

Magnetite is used in coal beneficiation plants for heavy media separation.

Magnetite in Dense Media Separation

Heavy media gravity separation means separating products with different densities. Magnetite is used to produce dense medium slurry for coal washing (as above), mineral processing and recycling of metals and plastics.

Magnetite in Ammonia and Gas to Liquid Fuel Synthesis Markets

The catalyst market carries one of the highest demands on purity and as such pays high premiums to acknowledge the cost of maintaining a high standard. The Byro FE1 magnetite product meets all requirements for raw material intake for production of iron catalysts for the synthesis of ammonia and Gas to Liquid fuels.

Iron Powder Markets

The Byro Fe1 SPFe and HPFe magnetite products meet all requirements for a raw material additive for powder metal alloy production. The magnetite products are

Athena Resources Limited – Second Quarter Activities

required to be further processed for final consumption as a powder metal by reduction to produce Fe. The two major uses of iron powder are:

3D Printing (Additive manufacturing)

3D Printing or Additive manufacturing is a process of creating a three-dimensional object from a digital file. It is called additive because it generally involves building up thin layers of material, one by one. The technology can produce complex shapes that are not possible with traditional casting and machining methods, or subtractive techniques.

Iron Powder Press-and-Sinter and Metal Injection Moulding

The predominant market for Press/Sinter structural Powder Metallurgy parts is the automotive sector. On average across all geographical regions, around 80% of all Powder Metallurgy structural components are for automotive applications.

Supply of raw magnetite for powder metal alloys and components market is estimated to be worth more than Au\$6 billion by 2020.

▪ Water Filtration

Sand and gravel bed filters used by many municipal water treatment plants can realize benefits by using heavier aggregates in the sand bed.

The heavier specific gravity of magnetite aggregates allow a more aggressive backwash in the cleaning phase without loss of product, and because magnetite is magnetic it can be easily scavenged back from waste water streams for reuse.

▪ Heavy Concrete

When used as the aggregate portion of a concrete mix, magnetite increases the density of the concrete to twice that of standard concrete. This so called "heavy concrete" has become a common building material in nuclear plants as well as (in brick form) for the mitigation of radiation in x-ray facilities. Beyond that, however, heavy concrete is used to make counter weights and as thermal mass in heat storage situations. The most common and growing use is in the design and building of passive solar collection in domestic housing. Still in its infancy, this application has grown out of the search for more efficient heat retention beyond that offered by standard concrete.

The denser the material, the greater its thermal retention properties, and heavy concrete offers twice the mass in the same volume as standard concrete. Being just as strong and flexible as standard concrete, it can be used in the very same applications and offer substantially improved thermal characteristics.

The use of heavy concrete in nuclear power plants is dependent on new plant contracts and old plant repairs. It does not represent a stable consumption but can be an important add-in market in the short term.

The most stable use at the moment is in the production of counter weights for everything from washing machines to pipeline anchors to crane counterweights.

RESOURCE DEVELOPMENT AND MINING PROPOSAL WORK

ENVIRONMENT

A detailed level 2 flora survey was completed for FE1, commencing in October/November 2018. The survey was completed for the development of the FE1 mining proposal in accordance with the Guidelines for Mining Proposals in Western Australia. The final report is at the pier review stage and preparation for announcement.

The survey was designed to examine and retrieve data necessary to assess impacts to flora and vegetation in accordance with the Environmental Protection Authority (EPA) Technical Guidance, Flora and Vegetation Surveys for Environmental Impact Assessment, December 2016 (guidance document):

The survey included areas proposed for the pit, waste rock stockpiles; processing facility workshops (contractors and mine), fuel farm, tailings storage facility and pipeline, water storage ponds, bore field and accommodation camp, and power plant and powerlines. A Linear corridor survey for the haul road was conducted consistent with guidance requirements including a 500 to 1000 m buffer on either side of the proposed corridor and targeted species searches as required.

The survey included the total mining area envelop and included mapping and data acquisition from quadrats and opportunistic sampling over an area of approximately 1272Ha and the establishment of analogue sites for future monitoring.

- This included on-site validation of existing reports, database search results and detailed level survey including if required targeted species survey;
- Determining the presence or otherwise of any TEC's and PEC's in the area and a similar determination for TPF species.
- Evaluation of the potential for priority ecological communities Mount Dugel / Mount Nairn vegetation complexes (banded ironstone formation) to occur within the zone of influence (direct and indirect impacts);
- Assess vegetation in ephemeral drainage lines and occurrence of ground water dependent species; Collect a soil sample representative of each vegetation community type;
- Establish analogue sites for future monitoring purposes of vegetation units affected by mining in areas outside of the zone of impact. These were on or outside of the mining lease.
- Assessment where possible on historical impacts on vegetation and flora from cattle and sheep pastoral activities and threatening processes including invasive species.
- Data and records were compiled consistent with requirements of the EPA based on the *Instructions for the preparation of data packages for the Index of Biodiversity Surveys for Assessments (IBSA)*;

Vegetation condition rating was undertaken ensuring the survey design adequately described and recorded the current flora condition. There were no significant limitations to the survey. PATN Analysis and Pier Review is underway to complete the survey report and recommendations.

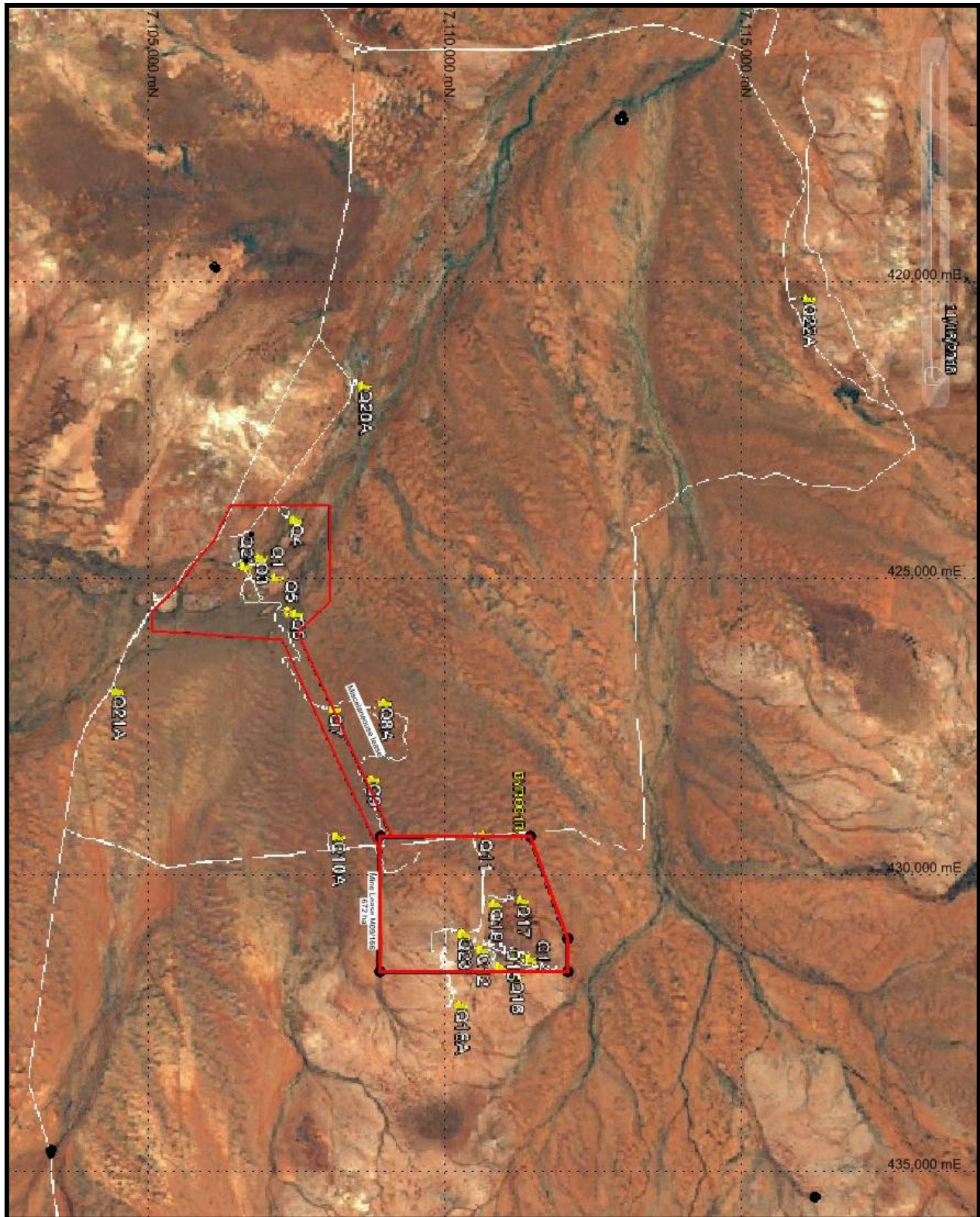
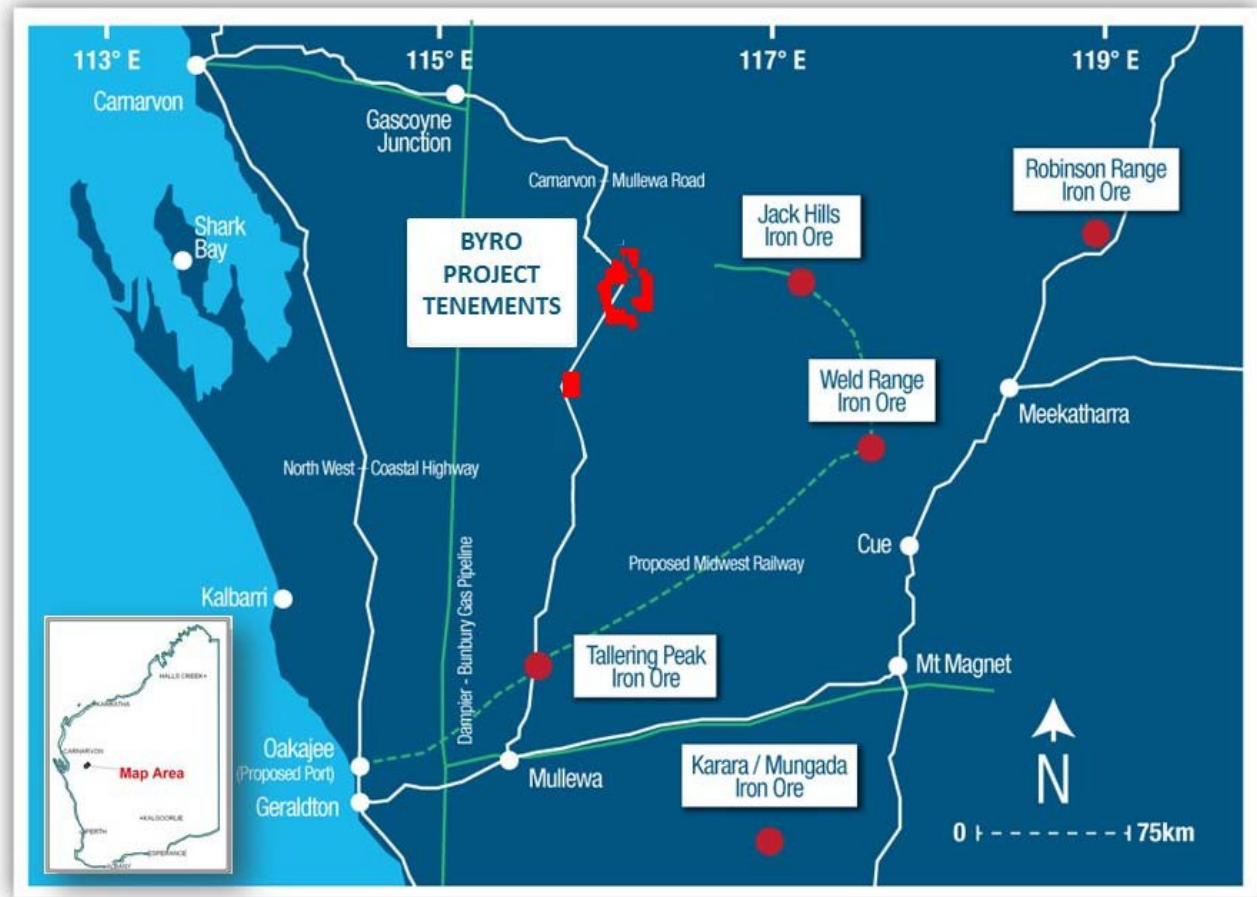


Figure 1 illustrates the quadrats completed for each habitat/vegetation community type.

About Athena Resources Limited.

Athena Resources Limited (ASX:AHN), which is based in Perth was listed on the ASX in 2006 and currently has 271 million shares on issue. Athena owns a 100% interest in the Byro Project through its subsidiaries Complex Exploration and Byro Exploration where it is exploring for copper, nickel, PGE's and iron ore. Figure 2 below, shows the current tenement holdings.

Figure 2 Regional Project Location



Yours faithfully

Ed Edwards
Executive Director
ATHENA RESOURCES LIMITED
 31 January 2019

INTERESTS IN MINING TENEMENTS

INTEREST IN MINING TENEMENTS Athena Resources Limited 100%	Tenement Type
Byro Exploration	
E09/1507	E – Exploration License
E09/1552	
E09/1637	
E09/1781	
E09/1938	
Byro Project Mining	
M09/166	M - Mining Lease
M09/168	

Cautionary Notes

Forward Looking Statements

This announcement contains certain statements that may constitute “forward looking statements”. Such statements are only predictions and are subject to inherent risks and uncertainties, which could cause actual values, results, performance achievements to differ materially from those expressed, implied or projected in any forward-looking statements.

Drilling to date supports aspects of the estimates in this report which were published earlier this year. The quantity and grade reported is conceptual in nature. There has been sufficient exploration to define a mineral resource and further exploration is warranted to improve understanding and reduce uncertainty about this body.

JORC Code Compliance Statement

Some of the information contained in this announcement is historic data that have not been updated to comply with the 2012 JORC Code. The information referred to in the announcement was prepared and first disclosed under the JORC Code 2004 edition. It has not been updated since to comply with the JORC Code 2012 edition on the basis that the information has not materially changed since it was last reported.

Competent Persons Statement

The information included in the quarterly report was compiled by Mr Liam Kelly, an employee of Athena Resources Limited. Mr Kelly is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient relevant experience in the styles of mineralisation and deposit styles under consideration to qualify as a Competent Person as defined in “The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 Edition)”. Mr Kelly consents to the inclusion of the information in the announcement in the context and format in which it appears, and that the historical information was compliant with the relevant JORC Code, 2004 Edition, and new information announced in this report is compliant with the JORC Code 2012 Edition.

Competent Persons Disclosure

Mr Kelly is an employee of Athena Resources Ltd and currently holds securities in the company.