

11 March 2022



**COMPANY ANNOUNCEMENT  
MOONBOROUGH DRILLING UPDATE  
COPPER SULPHIDES AND PGE's INTERSECTED IN RC DRILLING**

Further to the completion of the base metal drilling announcement on 19 October 2021, Athena Resources Limited ("Company") is pleased to announce the preliminary assay results from the Moonborough Intrusion. Study works include lithological logging, cross-sectional interpretation, thin section petrology and XRD scanning and assay results.

Highly encouraging copper and PGE results include the following:

**AHRC0100:** 6m @ **0.32%Cu** from 19m, including 1m @ **0.57%Cu**, **191ppb Pd**, **30ppb Pt** from 22m and 3m @ **0.230g/t Au** from 21m including 1m @ **0.317g/t Au** from 23m. Within a broad zone of

**96m @ 708.4ppm Cu from 0m,**  
**including 33m @ 0.157% Cu from 0m**  
**40m @ 105ppb 3PGE (Au, Pt, Pd) from 0m**

**AHRC0101:** 1m @ **0.39%Cu** from 58m, including 0.5m @ **0.62% Cu**, **0.28g/t Au**, **150 ppb Pd**, **50ppb Pt** from 58.5m in AHRC0101, within a broad zone of

**35m @ 555.9ppm Cu from 46m,**  
**including 9m @ 0.111% Cu from 55m**  
**71m @ 62ppb 3PGE (Pd, Pt, Au) from 10m**  
**Including 20m @ 111.5ppb 3PGE (Pd, Pt, Au) from 55m**

**AHRC0106:** **18m @ 487.95 ppm Cu from 0m**  
**36m @ 61.36 ppb 3PGE (Pd, Pt, Au) from 0m**  
**Including 14m @ 95ppb 3PGE (Pd, Pt, Au) from 0m**

- The northern gabbro within the Moonborough Intrusion is more extensive than previously mapped. It thickens, plunges and is open to the northwest.
- Xray Diffraction analysis, (XRD), was completed on a small sample of drill cuttings from Moonborough. XRD results imply the gabbro assemblage contains two phases, a non-mineralized calcic amphibole phase and a mineralised pyroxene gabbro phase. It is interpreted as a result of a series of magma pulses differentiated by variable geochemistry from a deep magma source, similar to the emplacement of economic layered intrusions in similar tectonic environments.
- Thin section petrology has confirmed that the disseminated ores within the mineralized pyroxene lens comprise of bornite (Cu), chalcopyrite (Cu), and ilmenite (Ti).

**Athena Resources Limited**

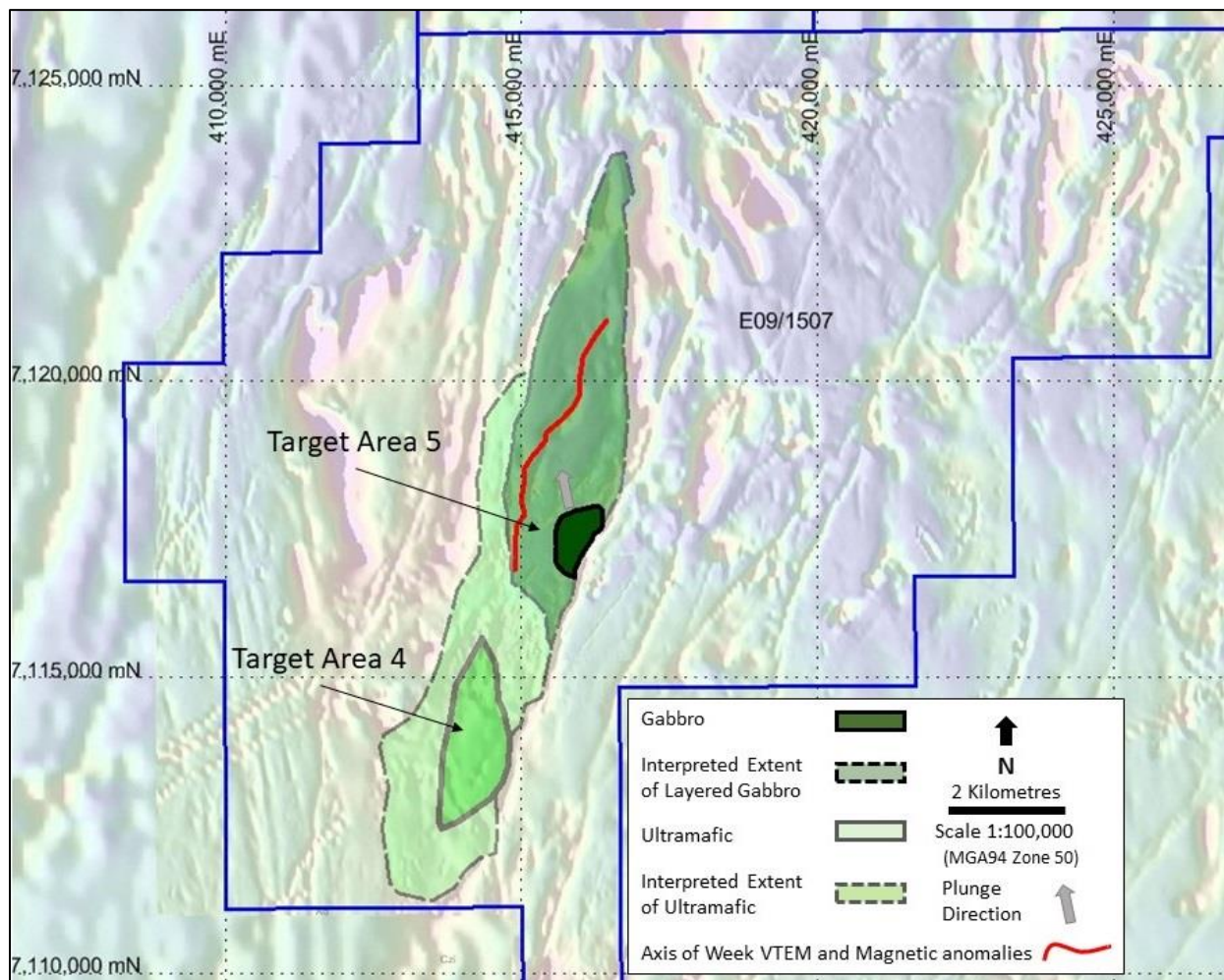
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The northern gabbro within the Moonborough Intrusion is more extensive than previously mapped. The gabbro unit may extend as far as 5 kilometres', it thickens, plunges and is open to the northwest. The broad geochemistry identified from drilling is highly prospective. Preliminary logging indicates development of the intrusive included a pulse forming a pyroxene lens within the amphibole gabbro body.



**Figure 1.** Interpretation of extent of the Moonborough Intrusion on mag imagery



**Table 1.** Moonborough RC Significant copper intercepts

| Hole ID          | From (m) | To (m) | Interval (m) | Cu (ppm)       | Hole Type | Easting MGA | Northing MGA | RL  | Dip | Azimuth (mag) | Depth (m) |
|------------------|----------|--------|--------------|----------------|-----------|-------------|--------------|-----|-----|---------------|-----------|
| <b>AHRC0100</b>  | 0        | 96     | 96           | 708.4          | RC        | 415684      | 7117164      | 328 | -60 | 130           | 108       |
| <i>including</i> | 0        | 33     | 33           | <b>1573</b>    |           |             |              |     |     |               |           |
| <i>including</i> | 18       | 24     | 6            | <b>3,204.6</b> |           |             |              |     |     |               |           |
| <b>AHRC0101</b>  | 46       | 81     | 35           | 555.9          | RC        | 415793      | 7117271      | 326 | -60 | 125           | 150       |
| <i>including</i> | 55       | 64     | 9            | <b>1,106.6</b> |           |             |              |     |     |               |           |
| <b>AHRC0106</b>  | 0        | 18     | 18           | 488            | RC        | 415922      | 7117179      | 324 | -60 | 125           | 150       |

Note: Copper intersections use a 300ppm cut-off.

**Table 2.** Moonborough RC Significant PGE intercepts

| Hole ID          | From (m) | To (m) | Interval (m) | 3PGE (ppb)   | Hole Type | Easting MGA | Northing MGA | RL  | Dip | Azimuth (mag) | Depth (m) |
|------------------|----------|--------|--------------|--------------|-----------|-------------|--------------|-----|-----|---------------|-----------|
| <b>AHRC0100</b>  | 0        | 40     | 40           | <b>104.6</b> | RC        | 415684      | 7117164      | 328 | -60 | 125           | 108       |
| <i>including</i> | 20       | 23     | 3            | <b>371.3</b> |           |             |              |     |     |               |           |
| <b>AHRC0101</b>  | 10       | 81     | 71           | 65           | RC        | 415793      | 7117271      | 326 | -80 | 125           | 150       |
| <i>including</i> | 55       | 75     | 20           | <b>121.5</b> |           |             |              |     |     |               |           |
| <b>AHRC0106</b>  | 0        | 36     | 36           | 61.4         | RC        | 415922      | 7117179      | 324 | -60 | 125           | 150       |
| <i>including</i> | 0        | 14     | 14           | <b>95.36</b> |           |             |              |     |     |               |           |

Note: 3PGE are AU, Pd, Pt assays combined using a 30ppb cut-off

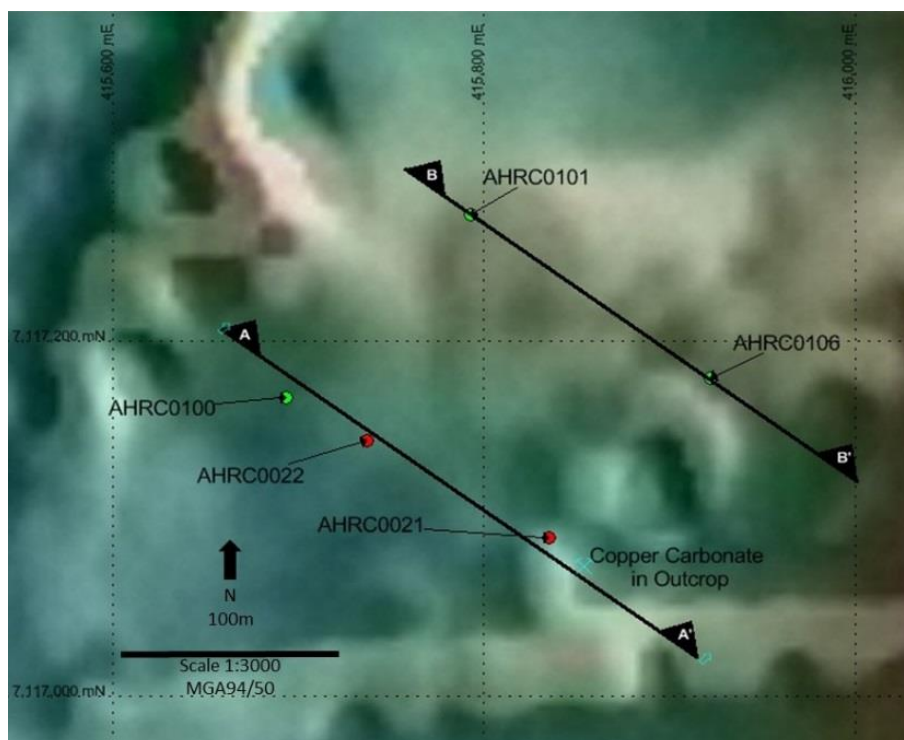
## Area 5 Target (Moonborough)

### Drilling Analysis

Three holes were drilled at Area 5 (Figure 2 & Table 1-2) during the October 2021 campaign, AHRC0100, AHRC0101 and AHRC0106. The holes targeting a weak gravity anomaly coincident with a moderate magnetic signature. The three holes followed up historic holes AHRC0021 and AHRC0022 drilled in 2010, targeting the origin of a copper carbonate occurrence within the outcropping gabbro unit at Moonborough (Figure 2). Key findings in each hole are detailed below.



## Area 5 Target - Drilling Plans and Cross-Section Interpretations



**Figure 2.** Drill Hole Location and Cross Section Lines on mag imagery

### Historical Drilling Analysis (included in cross section interpretation)

These drill holes follow up highly anomalous results from historic drilling from 2010. This program included two RC drill holes which resulted in the following highly anomalous Cu, PGE intersections:

|         |                                                                                                                                                                                |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AHRC021 | 48m @ 49.1 ppb 3PGE (Pd, Pt, Au) from 0m (Max Pd 80ppb)<br>48m @ 344.8 ppm Cu from 0m (Max Cu 620ppm)<br>20m @ 109.6ppm Ni from 28m                                            |
| AHRC022 | 84m @ 742ppm Cu from 0m<br><i>Including</i> 28m @ 0.155% Cu from 0m<br>84m @ 71.71 ppb 3PGE (Pd, Pt, Au) from 0m<br><i>Including</i> 20m @ 136.6 ppb 3PGE (Pd, Pt, Au) from 8m |

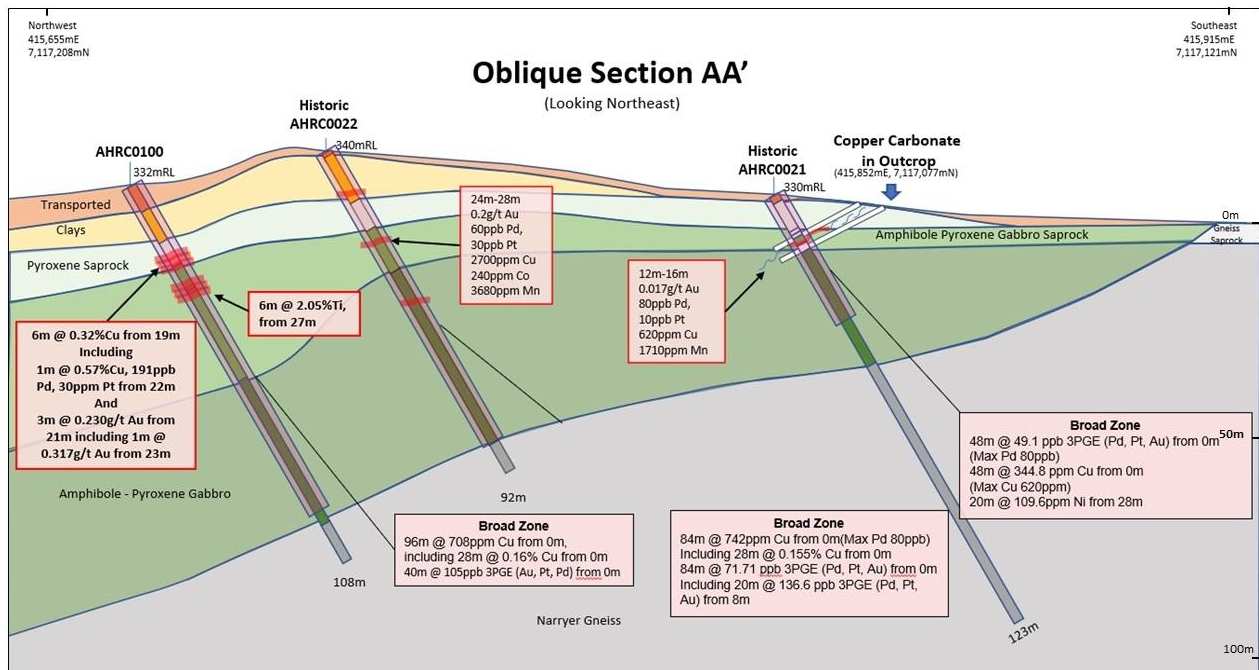


Figure 3. Oblique Cross Section AA'. (All Coordinates in MGA94 zone 50)

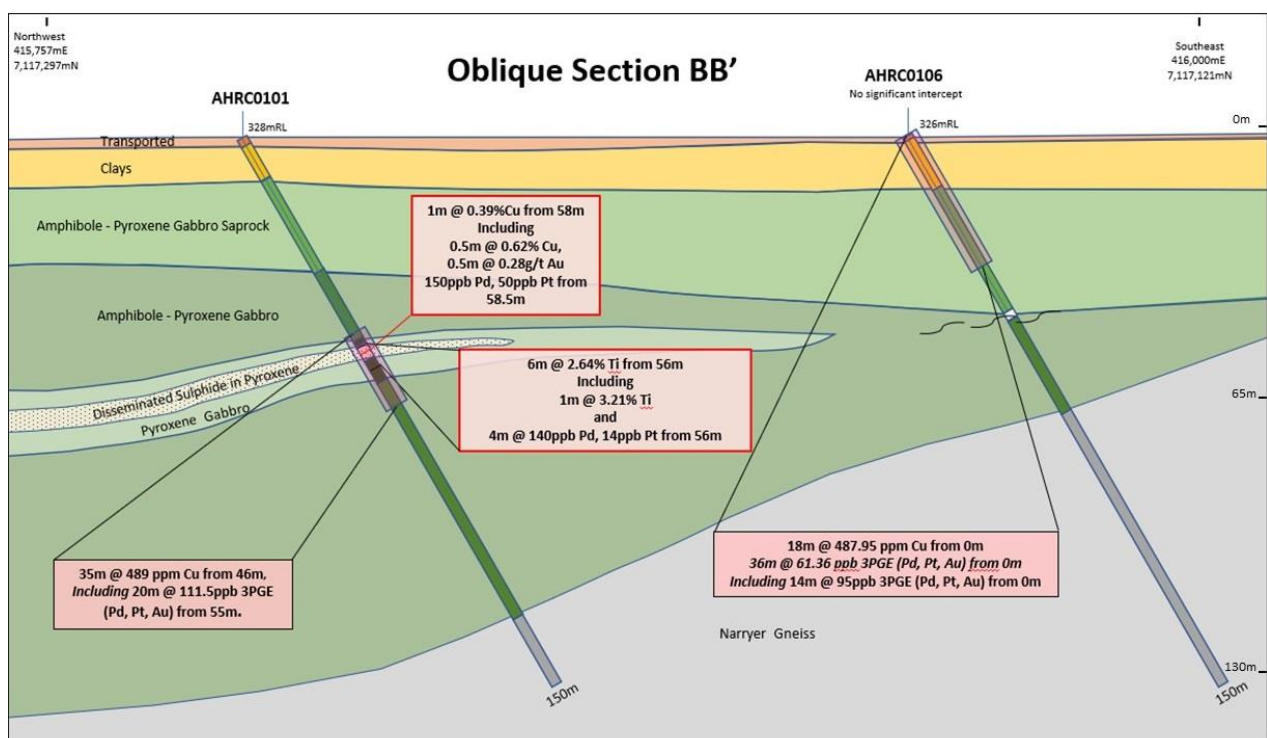


Figure 4. Oblique Cross Section BB'. (All Coordinates in MGA94 zone 50)



**AHRC0100** was stepped out 50m to the northeast of the historic hole AHRC0022 (Figure 2 & Figure 3). The hole intersected an 81m thick sequence of variable amphibole - pyroxene gabbro from 16m to 97m including a 6m wide zone of oxidized pyroxene chips in the weathered zone from 17m to 22m. Within this zone assays included 6m @ 0.32%Cu from 19m, including 1m @ 0.57%Cu, 0.191g/t Pd, 0.03g/t Pt from 22m, and 3m @ 0.230g/t Au from 21m including 1m @ 0.317g/t Au from 23m. A 6m interval of elevated titanium was uncounted @ 2.05%Ti from 27m.

**AHRC0101** was stepped out 140m to the northwest from historic hole AHRC0022 (Figure 2 & Figure 4). The hole intersected a 119m thick sequence of amphibole - pyroxene gabbro from 11m to 130m including an 11m sequence of pyroxene with elevated disseminated sulphides from 56m to 67m down hole. It is interpreted the pyroxenite unit is bounded within the main amphibole gabbroic unit. Within this zone a 1m interval included assays of 1m @ 0.39%Cu from 58m, including 0.5m @ 0.62% Cu, 0.5m @ 0.28g/t Au, 0.15g/t Pd, 0.05g/t Pt from 58.5m and 6m @ 2.64% Ti from 56m, including 1m @ 3.21% Ti and 4m @ 0.14g/t Pd, 0.014g/t Pt from 56m.

**AHRC0106** was stepped out 125m to the northwest from historic hole AHRC0021 Figure 2 & Figure 4). The hole intersected a 60m thick sequence of variable amphibole - pyroxene gabbro from 14m to 74m. Although expanding the extent of the gabbro unit here was no significant intersection in this hole.

## Preliminary Assessment of Mineral Assemblage

### Xray Diffraction Analysis (XRD)

A selection of chips was taken from a one-meter sample within drill hole AHRC0101 at 59m and was subject to a semi-quantitative XRD analysis at the ALS metallurgical laboratory in Perth to determine preliminary mineral assemblage.

The results shown in Table 3 below were normalised to 100%, and the mineral groups shown represent the relative proportion of the crystalline material in the sample in order of abundance.

**Table 3.** XRD Analysis from AHRC0101 at 59m

| Abundance | Mineral          | Mineral Group       |
|-----------|------------------|---------------------|
| Major     | Calcic amphibole | Amphibole           |
| Major     | Quartz           |                     |
| Major     | Plagioclase      |                     |
| Minor     | Ilmenite         | Pyroxene            |
| Minor     | Fe-Mg amphibole  |                     |
| Minor     | Chalcopyrite     |                     |
| Minor     | Chlorite         | Alteration Minerals |
| Trace     | Pyrite           |                     |
| Trace     | Kaolinite        |                     |
| Trace     | Serpentine       |                     |



## Petrology

In addition to XRD analysis a selection of chips was taken from sample within drill hole AHRC0101 at 59m and supplied to Diamantina Laboratories for ore and sulphide identification using thin section petrology. Chips were selected based on content of well-formed disseminated ores. Diamantina Laboratories reported ores are estimated to be 98%, bornite chalcopyrite and ilmenite. Chalcopyrite (Cu) is the most common sulphide and occurs in a variety of habits.

**Chalcopyrite** is present as:

1. Coarse + 0.5mm angular grains separate from bornite. (Plate 3).
2. Coarsely composite in all proportions with bornite. (Plate 4).
3. Uncommonly composite as 0.3mm sizes with pyrite.
4. As fine dissemination through the various silicates. (Plate 1).
5. As veins, often very narrow, in garnet, quartz, with calcite and quartz. (Plate 2).

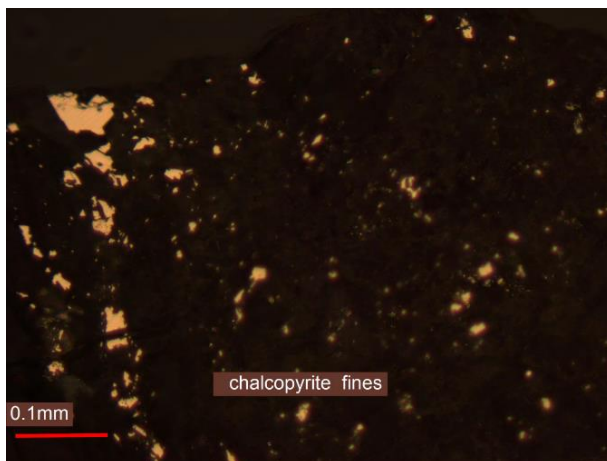


Plate 1

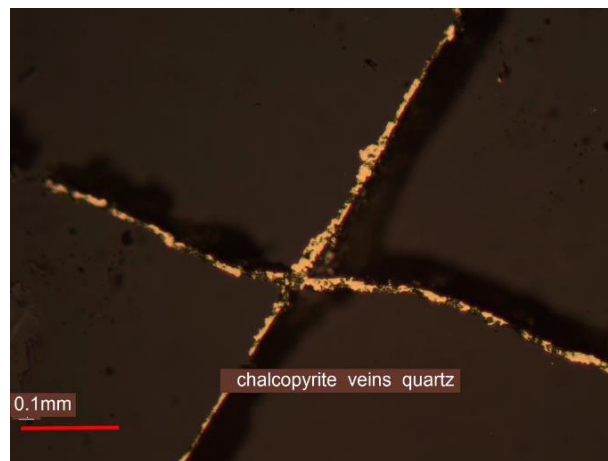


Plate 2

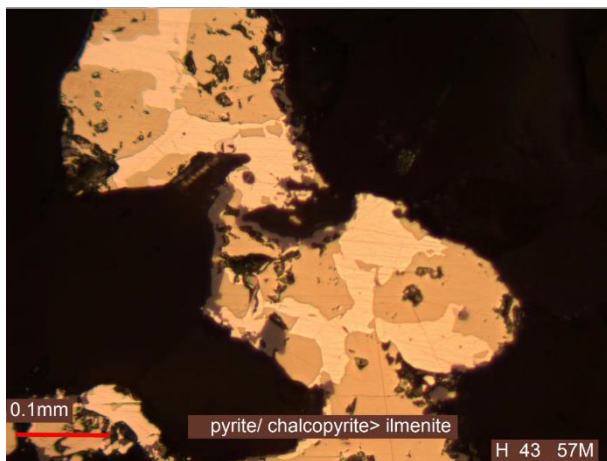


Plate 3

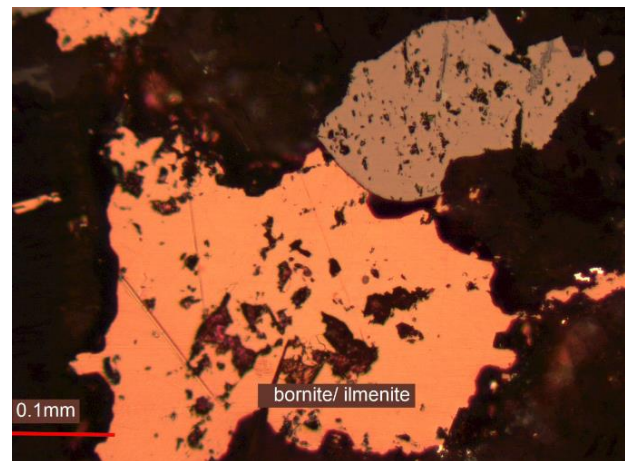


Plate 4



**Bornite** is present as:

1. Coarse composites with chalcopyrite +/- ilmenite. (Plate 4).
2. Of low volume as disseminated fines and attached to chalcopyrite.

**Ilmenite** is present as:

1. Mostly fresh coarse grains, sometimes of reticulate habit.
2. Ilmenite +/- in coarse composites of chalcopyrite and bornite. (Plate 3 and Plate 4).

#### **Area 4 Target (Moonborough).**

##### **AHRC0104**

Reverse circulation drill hole AHRC0104 for 180m depth within Area 4 (Figure 1 & Table 1), encountered a large ultramafic body directly overlying a high gravity anomaly refined from the recently completed gravity survey. The hole encountered large volumes of water within a paleochannel. Sample could not be kept dry and was highly contaminated due to hole collapse on multiple occasions. An attempt to case the hole for DHTM was unsuccessful.

##### **AHRC0105**

Reverse circulation drill hole AHRC0105 for 180m depth encountered a large ultramafic body directly overlying the high gravity anomaly refined from the recently completed gravity survey.

The ultramafic has been classified as a talc chlorite of moderate MgO with common actinolite needles, rare tremolite and containing only trace sulphides. The ultramafic body is intensely foliated throughout the entire drill intersection.

A 3-meter interval of amphibole-clinopyroxene gabbro was intersected from 57m downhole. Notably, the gabbro was not foliated and had sharp upper and lower contacts. The gabbro appears dominated by well-formed medium grain clinopyroxene. Mineralogy from logging and microscopic observations interpret the sequence to be a gabbro intrusion into an existing ultramafic.

Casing was successfully deployed on this hole for DHTM to investigate the down dip extension of the MLTEM conductor refined from the recently completed MLTEM survey. Data from the DHTM is being modelled by Southern Geoscience Consultancy.

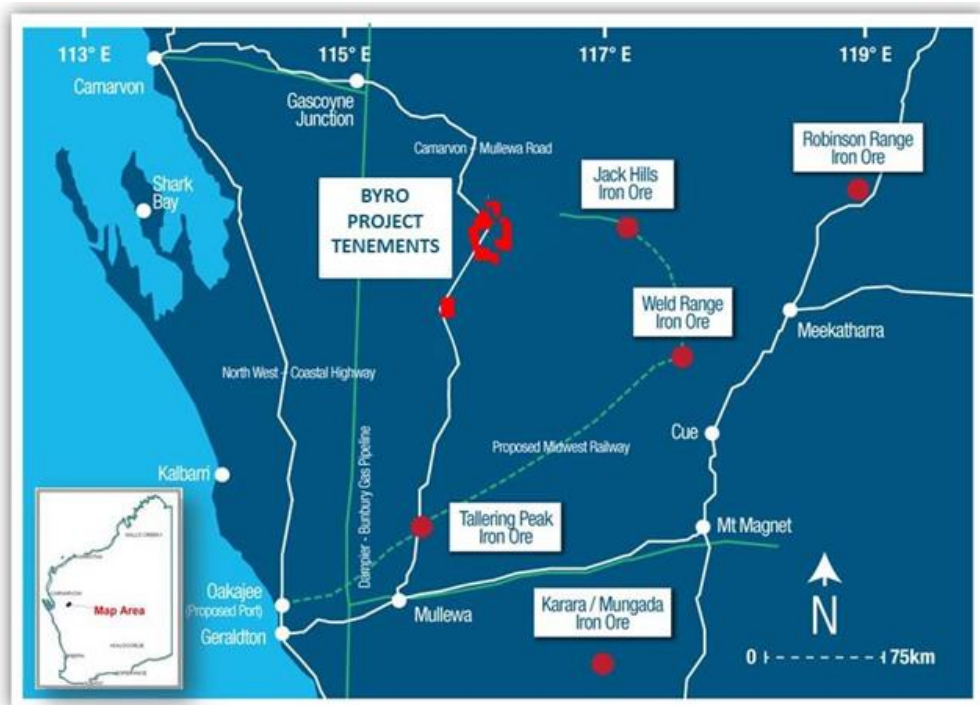
**Table 4.** Collar Table

| Prospect           | Hole ID  | East   | North   | Dip | Azi | EOH |
|--------------------|----------|--------|---------|-----|-----|-----|
| Moonborough Area 5 | AHRC0100 | 415693 | 7117168 | -60 | 125 | 108 |
| Moonborough Area 5 | AHRC0101 | 415793 | 7117271 | -80 | 125 | 150 |
| Moonborough Area 4 | AHRC0104 | 414486 | 7113420 | -60 | 90  | 180 |
| Moonborough Area 4 | AHRC0105 | 414098 | 7113179 | -60 | 90  | 180 |
| Moonborough Area 5 | AHRC0106 | 415922 | 7117179 | -80 | 125 | 150 |



## ABOUT ATHENA RESOURCES LIMITED

Athena Resources Limited (ASX:AHN), which is based in Perth was listed on the ASX in 2006 and currently has 813 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 5.** Project Location

## INTERESTS IN MINING TENEMENTS

| Athena Resources Limited 100% | Tenement Type           |
|-------------------------------|-------------------------|
|                               |                         |
| <b>Byro Exploration</b>       | E – Exploration License |
| E09/1507                      |                         |
| E09/1552                      |                         |
| E09/1637                      |                         |
| E09/1781                      |                         |
| E09/1938                      |                         |
| <b>Byro Project Mining</b>    | M - Mining Lease        |
| M09/166                       |                         |
| M09/168                       |                         |

Submissions for extension of terms for tenements E09/1507 and E09/1552 were granted by the Department of Mines, Industry Regulation and Safety for a further 2-year term.



This announcement was authorised by the Board.

Yours faithfully

E W Edwards

Executive Director



## CAUTIONARY NOTES AND DISCLOSURES

### **Disclosures**

*All data and Information of material nature referred to within this Report with reference to the Milly Milly and Moonborough intrusions have previously been reported on the ASX platform in compliance with the relevant JORC compliance reporting format at the time of data acquisition.*

### **Cautionary Notes and 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.*

### **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 Disclosure**

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

### **Competent Person Statement**

*The information included in the report was compiled by Mr Liam Kelly, an employee of Athena Resources Limited. Mr Kelly has had over twenty years’ experience as a geologist in mining and exploration and is a Member of the Australasian Institute of Mining and Metallurgy, (306501). Mr Kelly 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)”. The historical information included is compliant with the relevant JORC Code, 2004 Edition, and new information announced post that version of the JORC Code is compliant with the JORC Code 2012 Edition. Mr Kelly consents to the inclusion of the information in the report in the context and format in which it appears.*

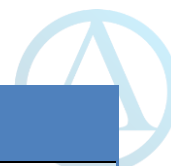


## JORC Code, 2012 Edition – Table 1 report template

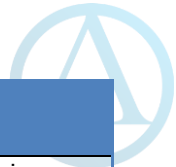
### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

| Criteria                   | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Sampling techniques</b> | <ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> </ul>                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>All sample used in this announcement were taken from Reverse Circulation (RC), drilling.</li> <li>At one-meter intervals a 5kg sample was split from a rotary cyclone using industry standard procedures.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                            | <ul style="list-style-type: none"> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>Sample return was kept dry.</li> <li>The cyclone was cleared at regular intervals to limit contamination between intervals.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                            | <ul style="list-style-type: none"> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul> | <ul style="list-style-type: none"> <li>5kg of sample was combined pulverised and ground in lab conditions to obtain P80/45 micron</li> <li>Au, Pt, Pd using standard Fire assay. All other elements using various acid digestions and ICP finish.</li> <li>Sb,Te,Sb using D1 digest low temp mixed acid, ICP finish</li> <li>Cs,Ga,In,Rb,W using D4Z Fusion and weak acid, ICP finish</li> <li>Ag, As, Ba, Be, Bi, Cd, Co, Cu, Li, Mo, Ni, Pb, Sc, Sr, Th, U, V, Zn using D3 4 Acid Including HF, ICP finish</li> <li>For XRD analysis the sample was pressed into a back-packed sample holder to minimise preferred orientation of the particles. Powder X-ray diffraction (XRD) was used to analyse the sample and a combination of matrix flushing and reference intensity ratio</li> </ul> |



| Criteria                                              | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                                                                              | Commentary                                                                                                                                                                                                                                                      |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                    | (RIR) derived constants was used in the quantification of the minerals identified in the sample                                                                                                                                                                 |
| <b>Drilling techniques</b>                            | <ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>                                                                                                              | <ul style="list-style-type: none"> <li>Reverse Circulation (RC)</li> </ul>                                                                                                                                                                                      |
| <b>Drill sample recovery</b>                          | <ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>                           | <ul style="list-style-type: none"> <li>Original samples recovered from cyclone splitter using 1m intervals</li> <li>Collection of RC cuttings both chips and fines</li> <li>No bias was observed between recovery and sample quality or loss or gain</li> </ul> |
| <b>Logging</b>                                        | <ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul> | <ul style="list-style-type: none"> <li>Original drill chips were geologically logged as well as recording major geotechnical features observable in chip over the full depth of the holes.</li> </ul>                                                           |
| <b>Sub-sampling techniques and sample preparation</b> | <ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>RC Drilling</li> </ul>                                                                                                                                                                                                   |
|                                                       | <ul style="list-style-type: none"> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>                                                                                                                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>Original samples were dry rotary split</li> </ul>                                                                                                                                                                        |



| Criteria                                          | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Commentary                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                   | <ul style="list-style-type: none"> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>Best practice ICP analysis as per ALS and Intertek Laboratories</li> <li>ICP analysis acid digestions selected on fit for purpose basis by laboratory.</li> </ul>                                                                                                                                                  |
|                                                   | <ul style="list-style-type: none"> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>Industry standard sampling preparation procedures were used. Lab results are reviewed and checked for deviation using lab certified references and in house analysis</li> </ul>                                                                                                                                    |
|                                                   | <ul style="list-style-type: none"> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>Sample blended and pulverized using industry standard procedures by ALS Laboratories.</li> </ul>                                                                                                                                                                                                                   |
|                                                   | <ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>Original average drill sample size from splitter was 5kg, average grain size is 2-20mm. Sample sizes taken are large enough to be representative of the whole rock constituents.</li> </ul>                                                                                                                        |
| <b>Quality of assay data and laboratory tests</b> | <ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul> | <ul style="list-style-type: none"> <li>ICP multi acid digest techniques are suitable for the analysis of most mineralogical ores, metallurgical products and complex matrices.</li> <li>No ground geophysical measurements were taken</li> <li>Lab QAQC involved internal lab standards, certified reference</li> </ul>                                   |
| <b>Verification of sampling and assaying</b>      | <ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>Summary inspection by Geologist</li> <li>No adjustments have been made to readings</li> <li>Assays have been verified using standard QA QC methods</li> <li>All primary data from drilling and assay is recorded in a data base.</li> <li>All reserve samples in storage are catalogued in the database</li> </ul> |

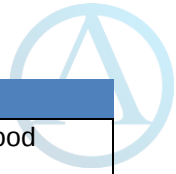


| Criteria                                                       | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                            | Commentary                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                |                                                                                                                                                                                                                                                                                                                                                                                                  | and stored in marked steel drums.                                                                                                                                                                                                                                                                                                |
| <b>Location of data points</b>                                 | <ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>                                                              | <ul style="list-style-type: none"> <li>GPS +/- 10m Sample locations were measured with Garmin hand held GPS. Accuracy is within +/-5m</li> <li>MGA_GDA94 Zone 50</li> <li>Topographic surface recorded with handheld Garmin</li> </ul>                                                                                           |
| <b>Data spacing and distribution</b>                           | <ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul> | <ul style="list-style-type: none"> <li>Spacing is randomly biased by drill collar location.</li> <li>Mineralisation domains have not demonstrated continuity in either grade or geology. Therefore, cannot support the definition of a Mineral Resource or Reserve, and the classifications under the 2012 JORC Code.</li> </ul> |
| <b>Orientation of data in relation to geological structure</b> | <ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> </ul>                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>This report refers to assay results that are not affected by orientation.</li> </ul>                                                                                                                                                                                                      |
|                                                                | <ul style="list-style-type: none"> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>                                                                                                                                     | <ul style="list-style-type: none"> <li>No orientation based sampling bias has been identified in this data at this point</li> </ul>                                                                                                                                                                                              |
| <b>Sample security</b>                                         | <ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>                                                                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>Chain of custody was maintained from sample site to lab</li> </ul>                                                                                                                                                                                                                        |
| <b>Audits or reviews</b>                                       | <ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>                                                                                                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>No reviews of data management systems has been carried out</li> </ul>                                                                                                                                                                                                                     |

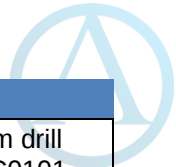
## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

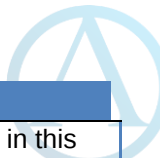
| Criteria                                       | JORC Code explanation                                                                                                                                                                                                                                                                                                          | Commentary                                                                                                                                                                                                             |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mineral tenement and land tenure status</b> | <ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> </ul> | <ul style="list-style-type: none"> <li>Tenement referred to in this report, E09/1507 is 100% Athena owned and operated within native title claim WAD 6033/98, made on behalf of the Wajarri Yamatji People.</li> </ul> |



| Criteria                                 | JORC Code explanation                                                                                                                                                                             | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                          | <ul style="list-style-type: none"> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul> | <ul style="list-style-type: none"> <li>The tenements are in good standing and no known impediments exist.</li> <li>See tenement listing attached.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Exploration done by other parties</b> | <ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>                                                                            | <ul style="list-style-type: none"> <li>Historic exploration within the project area largely confined to south of a line extending from Imagi Well to the Byro East intrusion (Melun Bore). The earliest work with any bearing on Athena's activities is that of Electrolit Zinc Co (1969) exploring for chromitite at Imagi Well, followed closely by Jododex Australia (1970-1974) at Byro East. Much of the exploration of a more regional nature is of limited use either because of the vagaries of the accuracy of positional information and the limited range of elements analysed. More recent surveys pertinent to Athena's current investigations include that of Redback Mining (1996-2002), Yilgarn Mining Limited (2003-2008) and Mithril (2007, JV with Yilgarn) at Byro East, and Western Mining Corporation (1976-1979) and Precious Metals Australia at Imagi Well. Newcrest Mining carried out a limited reconnaissance RAB drilling programme for platinum just to the east of Byro homestead (1998-1990).</li> </ul> |
| <b>Geology</b>                           | <ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>                                                                            | <ul style="list-style-type: none"> <li>Upper amphibolite to granulite metamorphic facies with mafic to ultramafic intrusive. Granite and migmatite are common</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |



| Criteria                        | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Commentary                                                                                                                                                                                                                                                                       |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Drill hole Information</b>   | <ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Samples were taken from drill holes AHRC0100, AHRC0101, AHRC0104, AHRC0105 and AHRC0106 for ICP, XRD and Petrology analysis.</li> <li>For hole details refer to all drill hole information (Table 1), within the announcement.</li> </ul> |
|                                 | <ul style="list-style-type: none"> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>No information has been excluded</li> </ul>                                                                                                                                                                                               |
| <b>Data aggregation methods</b> | <ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> </ul>                                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>No weighting, min max, ave, truncation or cut off techniques were used in this report</li> </ul>                                                                                                                                          |
|                                 | <ul style="list-style-type: none"> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> </ul>                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>No metal equivalent is referred to in this report</li> </ul>                                                                                                                                                                              |
|                                 | <ul style="list-style-type: none"> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>No metal equivalent is referred to in this report</li> </ul>                                                                                                                                                                              |
|                                 | <p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                  |
|                                 | <ul style="list-style-type: none"> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported</li> </ul>                                                                                                                                                                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>The test work announced in this report is metallurgical. There is no relationship to the geometry of mineralisation or drill hole angle.</li> </ul>                                                                                       |



| Criteria                                                                | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                                                                   | Commentary                                                                                                                                                                               |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Relationship between mineralisation widths and intercept lengths</b> | <ul style="list-style-type: none"> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>The test work announced in this report is metallurgical. There is no relationship to the width or down hole length.</li> </ul>                    |
| <b>Diagrams</b>                                                         | <ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>                                                                                                                    | <ul style="list-style-type: none"> <li>The test work announced in this report is metallurgical by nature. All relevant data is tabulated within the body of the announcement.</li> </ul> |
| <b>Balanced reporting</b>                                               | <ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>                                                                                                                                                             | <ul style="list-style-type: none"> <li>This report contains all meaningful assay results for the test procedures undertaken.</li> </ul>                                                  |
| <b>Other substantive exploration data</b>                               | <ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul> | <ul style="list-style-type: none"> <li>This report contains all meaningful assay results for the test procedures undertaken</li> </ul>                                                   |
| <b>Further work</b>                                                     | <ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> </ul>                                                                                                                                                                                                                                                  | Further metallurgical work will be undertaken to obtain definitive and conclusive data to be incorporated into design concepts for further exploration.                                  |
|                                                                         | <ul style="list-style-type: none"> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>The planned drilling information is commercially sensitive and is not included in this report.</li> </ul>                                         |