Athena Resources

ACN 113 758 900

19 December 2013

The Company Announcements Office
Australian Stock Exchange Limited
4 Floor 20 Bridge Street
SYDNEY NSW 2000

BYRO BASE METAL PROJECT

The Directors of Athena Resources Limited (ASX: AHN) are pleased to advise that the Company received notification that the Company is a successful recipient of the **Royalties for Regions Co-Funded Government – Industry Drilling Program** in 2014.

The purpose of this program is to generate target vectors towards Cu and Ni sulphide accumulations. The program provides for 1500m of diamond drilling at the Milly Milly Cu-Ni Intrusion, a part of the Byro Base Metal Project. Drilling results from this program will provide further geochemical assay data, structural information and most importantly provide a crucial platform for Down Hole Electromagnetic Surveys (DHEM). The DHEM data is to be correlated and integrated with surface moving loop EM and existing VTEM and IP data. The purpose of the program is to generate multilayered information refining an existing high amplitude VTEM anomaly and an unexplained IP anomaly.

Athena Resources Limited
24 Colin Street | West Perth | Western Australia | 6005
PO Box 1970 | West Perth | Western Australia | 6872
Ph 08 9222 5888 Fx 08 9222 5810 E athena@athenaresources.com.au W athenaresources.com.au

Summary of Best Results

- **Persistent elevated nickel sulphide in multi sulphide assemblage**
- **Native copper found as a co constituent in pentlandite - copper aggregate**
- **Best Nickel 22.7m @ 0.301% Ni** from 232.3m Including **0.5m @ 0.64% Ni** from 254.5m
- **Best Chrome 10.5m @ 0.61% Cr** from 354m Including 0.5m @ **1.03% Cr** from 360.5m
- **Best Copper** 10m @ 561ppm Cu from 346.5m Including 0.5m **@ 0.33% Cu** from 353.5m
- **Best Sulphur 0.5m @ 0.31% S** from 254.5m

Summary of Work Completed (previously reported on the ASX)

Historic drilling within the Milly Milly Intrusion intrusion is limited to RC drilling and previously included only 3 drill holes that tested the geochemistry and mineralisation below 100 meters depth. There had been no diamond drilling. The majority of previous work focused on lateritic accumulation of nickel and testing copper/nickel gossans at the south eastern contact of the intrusion.

Complex Exploration Pty Ltd became a recipient of the Royalties for Regions and as part of the September 2010 exploration program. AHDH0001 was drilled in three stages; RC pre collar (AHRC0027) to 150m then diamond tail to 212.4m where water return failed and the hole was temporarily abandoned. The hole was continued from 212.4m to current end of hole at 500m in May 2011.

Drilling and assay

Three RC drill holes were included in Athena's September 2010 program including the co-funded NQ diamond tail added to RC drill hole AHRC0027 reported to ASX in 2011. Figure 1 shows the location of these holes and the interpreted outline of the Milly Milly Intrusion, as defined by the aeromagnetic data.

Table 1: Milly Milly Intrusion Diamond Collar Location (MGA50).

Hole ID	East	North	RL	Dip	Azi	Depth
AHRC0027	**438121**	**7120662**	385	-90	0	149.7
AHDH0001	**438121**	**7120662**	**385**	**-90**	**0**	**500**

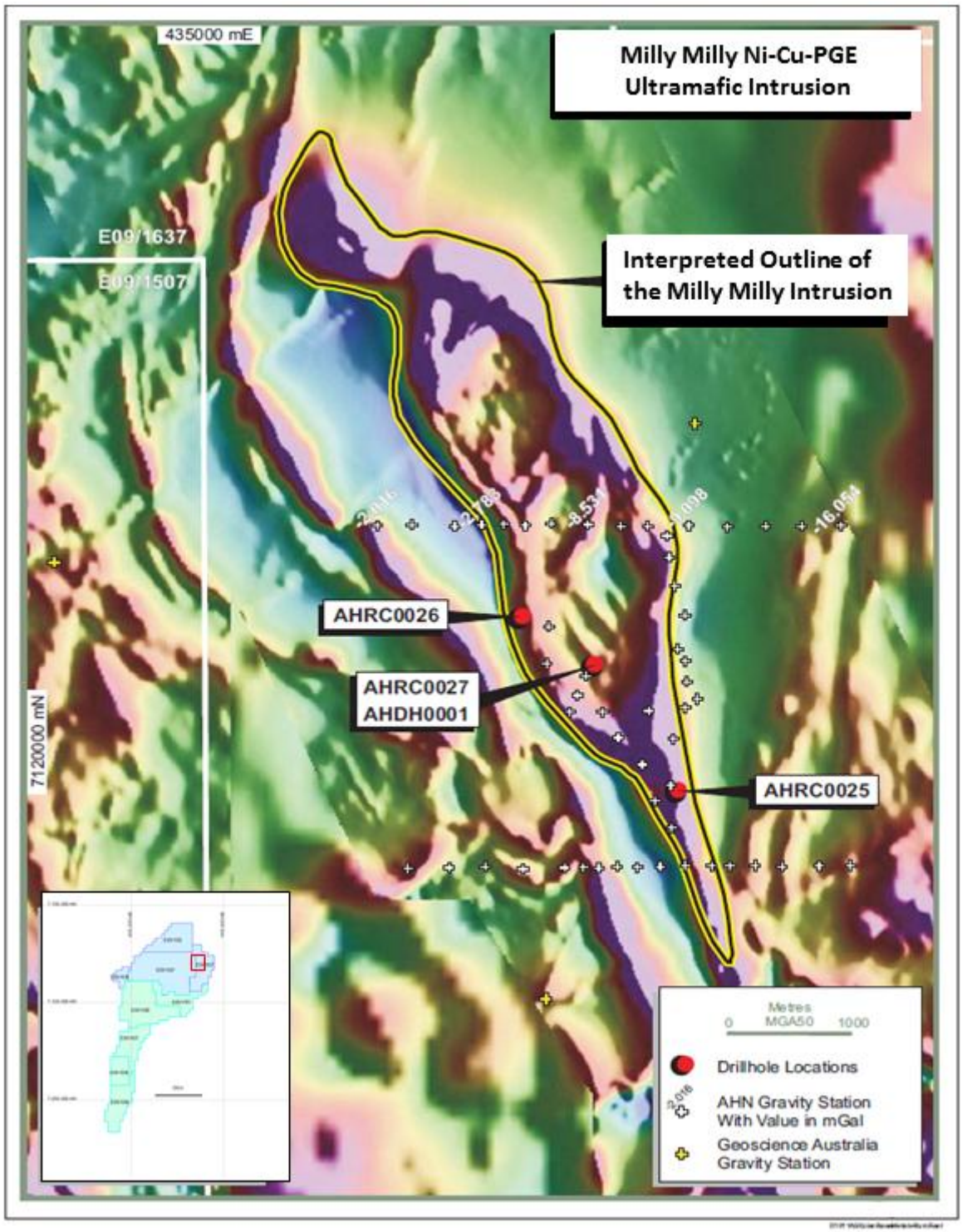
All diamond core to date has been logged, cut and assayed. Initial inspection of the Milly Milly Intrusion assays showed variable geochemistry within the intrusion, delineated by sharp boundaries, indicating some form of differentiation. The zones were identified by relative variations of sulphur, chrome, nickel, copper and PGE's and MgO.

Sharp zonation identified can be attributed to structural controls, fractional crystallisation and or a pulsed series of magma flows from sub chambers. Geochemical assessment is ongoing.

Thin section petrology was commissioned to investigate the relationship of multi element sulphides and native copper observed in core logging. Visible native copper (Cu) was observed at 151.7m in diamond core and was evidenced with elevated Cu in assay from 151.4 to 152.8. Petrographic/ mineralogical identification from a polished thin section from 151.7m confirmed the native copper, and now from 212.4m to 500m native copper is also present, (Plates 2, 3, 4, 5 and 6).

Other sulphides present are pentlandite, millerite, chalcopyrite and traces of chrome spinel. Millerite, (SEM composition 66%Ni previousley reported) replacing pentlandite was present at 157m and now appears commonly with the pentlandites further down hole. An SEM composition of 76%Ni was taken from an inclusion within a pentlandite sample at 406m and 411m down hole, (Plates 1 and 2). This appears to be a secondary metamorphic occurrence and most likely occurred during serpentinisation of the Milly Milly Intrusion. The presence of millerite has significant potential for upgrading the nickel equivalent percentage of nickel in the disseminated accumulations.

Figure 1 Milly Milly Intrusive Aeromagnetic with Drill Hole Locations



Drilling Results from AHDH0001 from 0 to 500m

Assay results demonstrate geochemistry varies significantly through 0 to 212.4m to that from 212.4 to 500m at end of hole. Zones can be identified by variable elevated levels of Ni, Cr, Cu, S and MgO. Ni sulphides tend to be elevated above background levels throughout the pile.

Results of geochemical analysis displayed in Figures 2, 3, 4 and 5 demonstrate the fertility of the olivine peridotite /dunite.

Figure 2

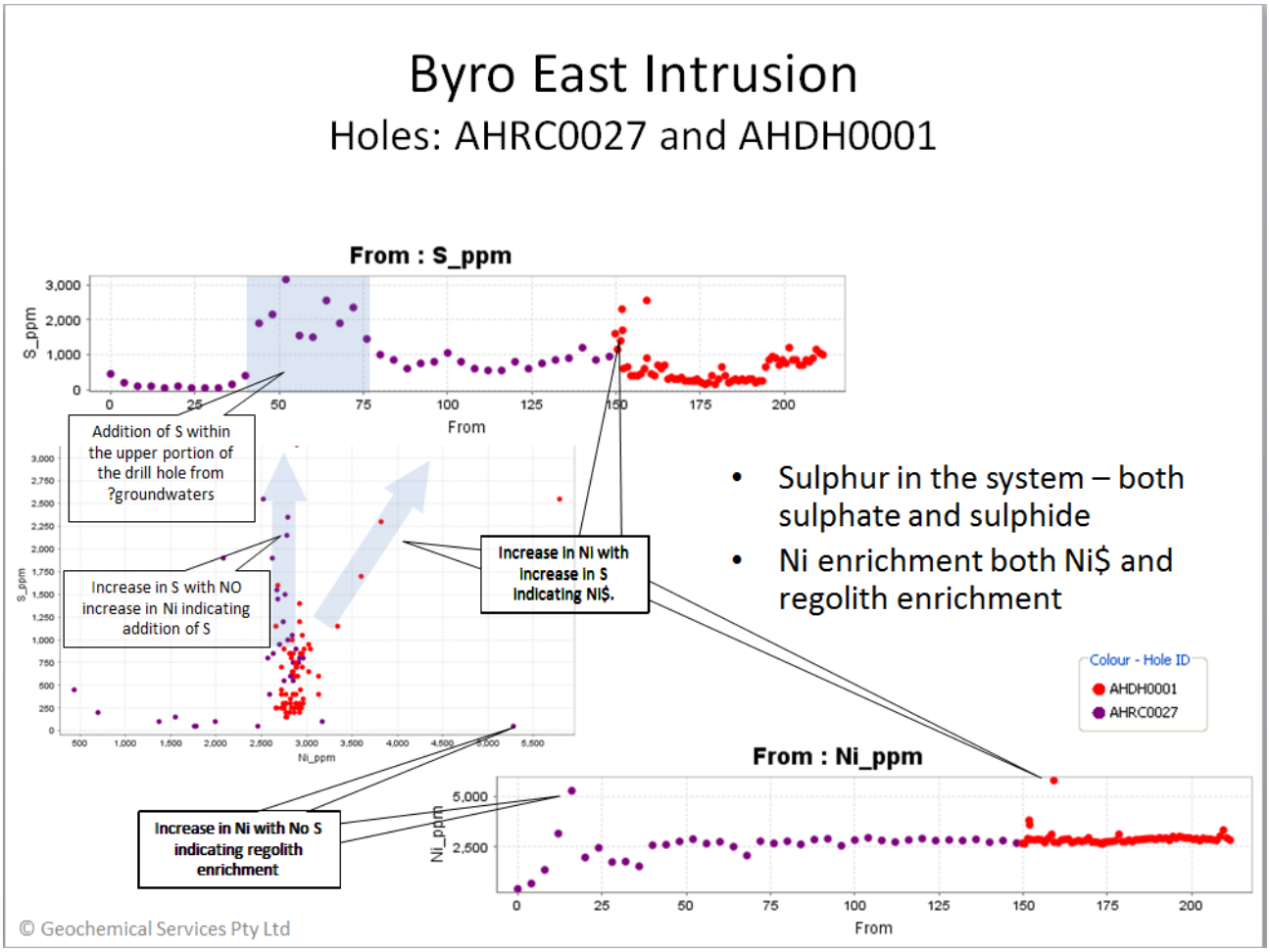
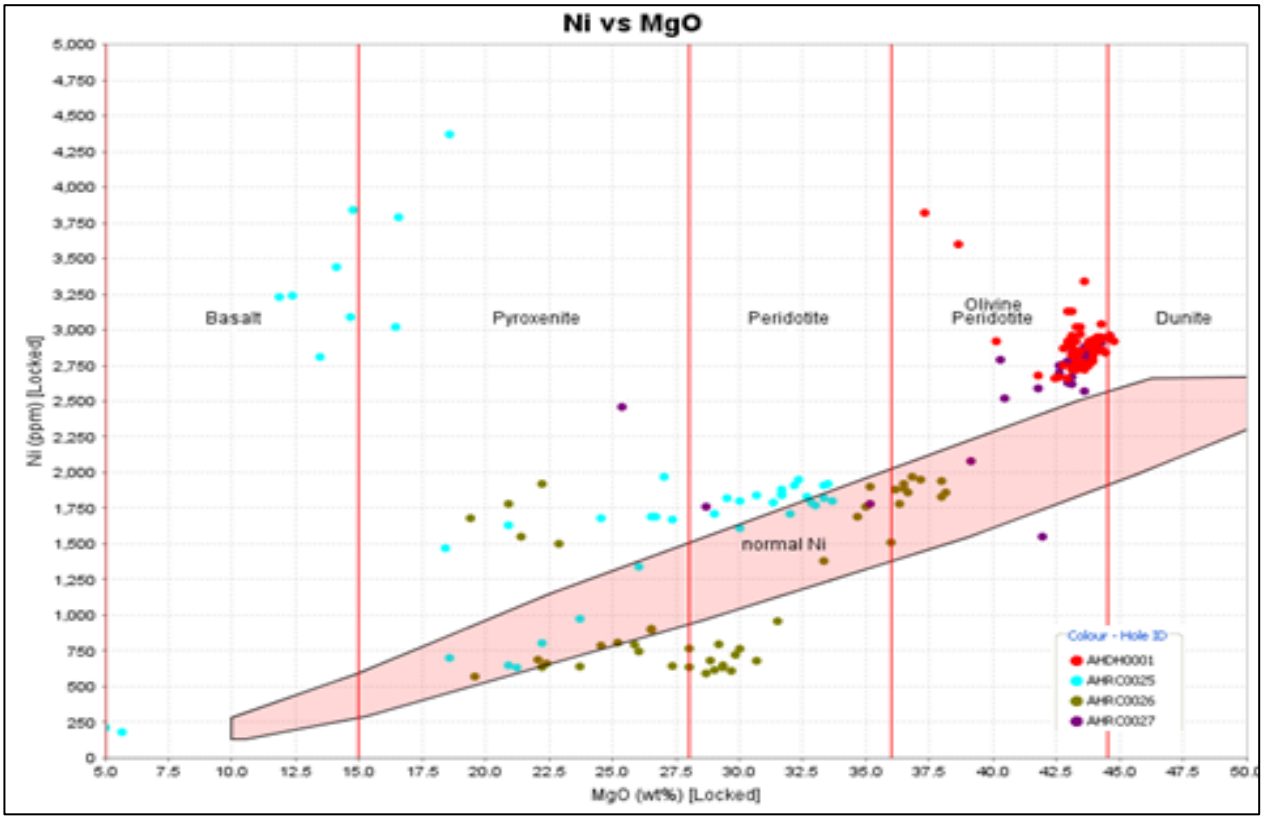


Figure 3



The pink area, (Figure 3), represents the global normative for potential to produce nickel sulhide given MgO content. The mineralized olivine peridotite in AHDH0001 is above the global normative. An olivine peridotite /dunite with a Ni:MgO ratio of this scale is rare and systems like this have the potential to host large volumes of Ni and Cu.

The Mg number of >80 (Figure 4) is further evidence of Nickel sulphide potential. A targeting vector toward optimum Nickel sulphide potential is identified at the interaction of geochemistry between holes AHRC0025 and AHDH0001 (Figure 5)

Figure 4

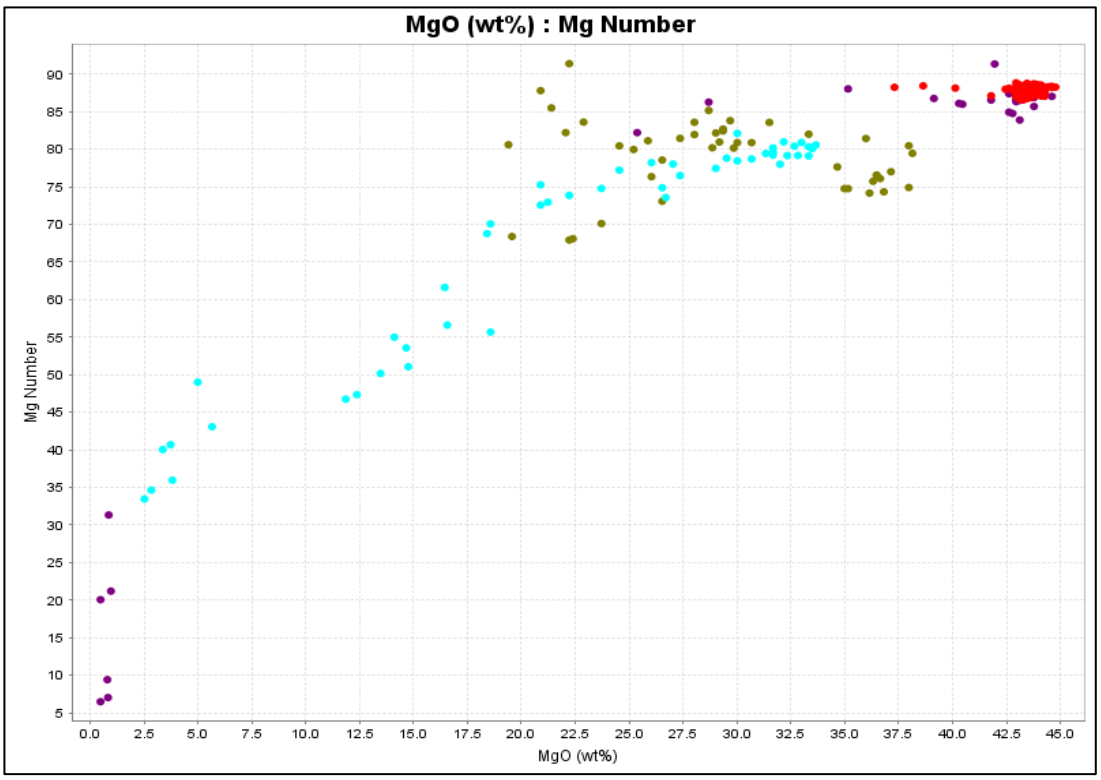
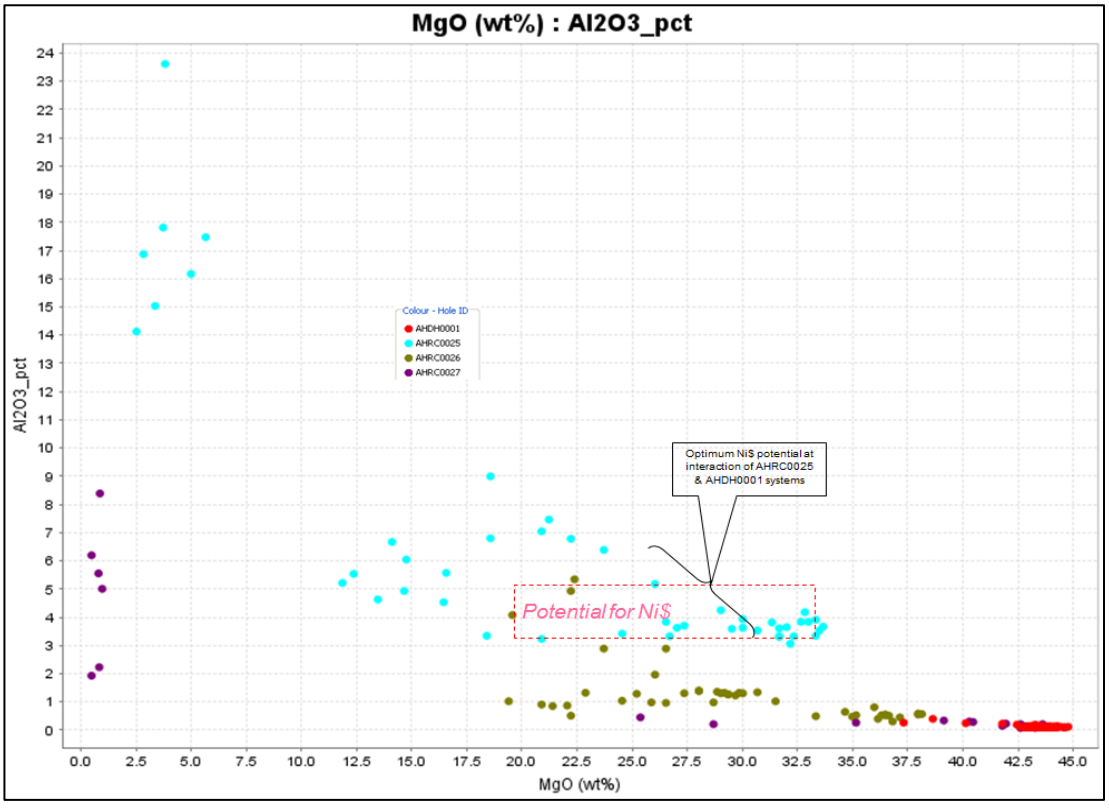


Figure 5

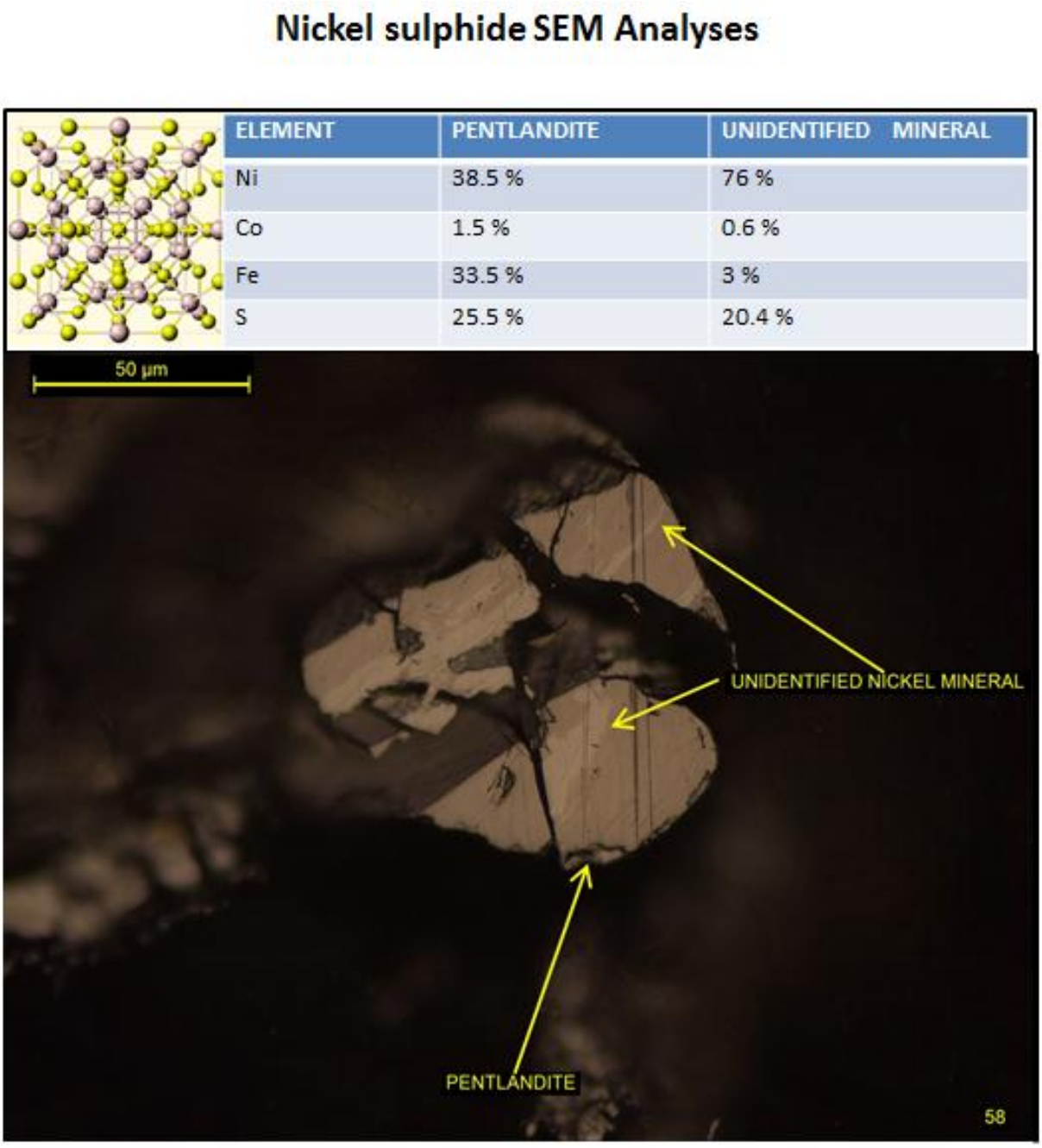


From 212.4 meters to 500m the occurrence of grades greater than 0.3%Ni is greater than the first half of the hole. Grades include an interval of 22.7 meters at 0.301%Ni from 232.3m, as well as 0.5m @ 0.34%Ni from 370m and 7.5m @ 0.304%Ni from 424m

Table 2: (212.4m to 500m)

Results from 212.4m to 500m (2011)						
Interval	Ni Grade	From		Interval	Grade	From
0.5m @	0.301%	214.4m				
1m @	0.301%	217.5m				
0.5m @	0.315%	227m				
1m @	0.302%	231m	Including	0.3m @	0.330%	231m
22.7m @	0.301%	232.3m	Including	0.5m @	0.640%	254.5m
0.72m @	0.302%	259.8m				
6m @	0.300%	271m	Including	0.2m @	0.460%	276.5
1.5m @	0.306%	320m	Including	0.5m @	0.350%	321.5
2.5m @	0.314%	328.5m	Including	0.5m @	0.380%	328.5
1m @	0.305%	335m				
2.5m @	0.302%	343m				
1m @	0.302%	351.5m				
0.5m @	0.308%	355.5m				
0.5m @	0.340%	370m				
0.5m @	0.303%	372m				
1m @	0.303%	381.5m				
7.5m @	0.304%	424m				
1m @	0.314%	467m				

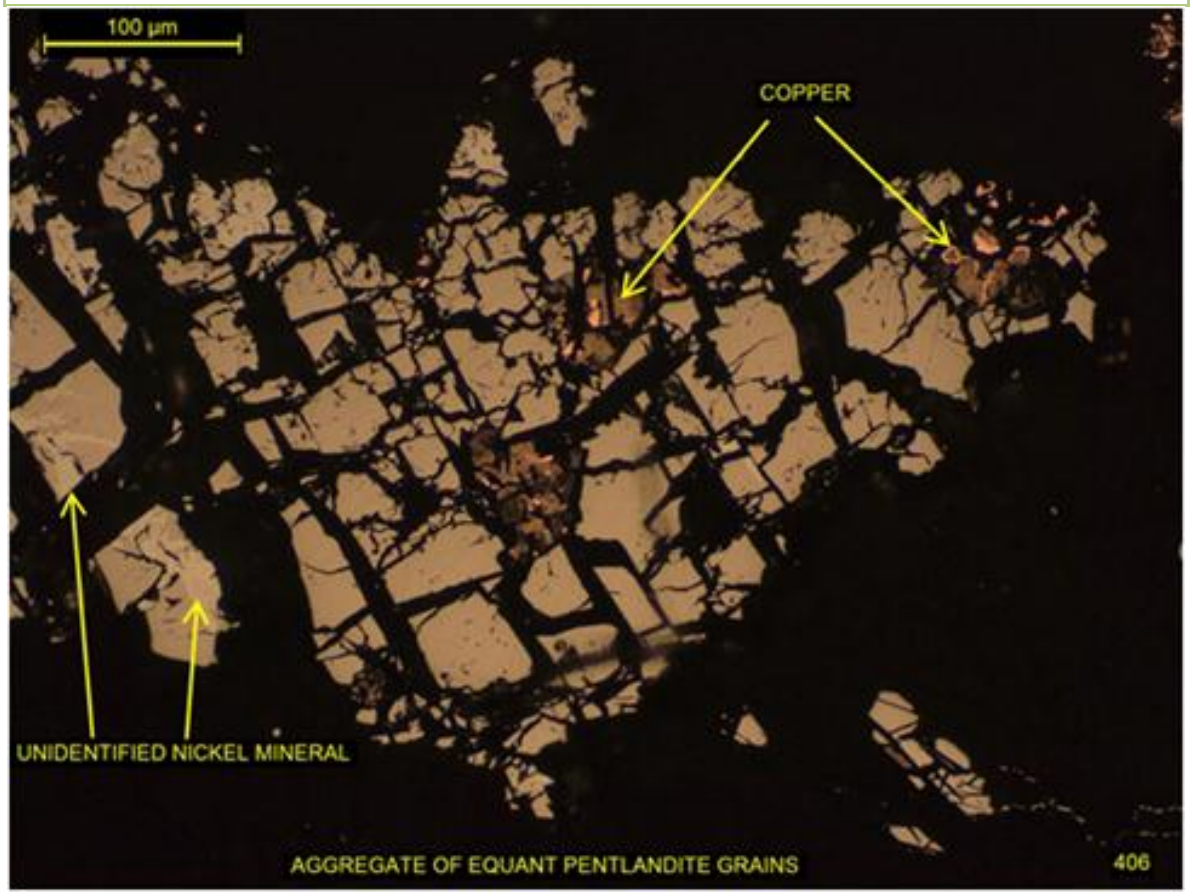
Plate 1 POLISHED THINSECTION FROM 411M



Thin section Petrology from AHDH0001 at 411 meters down hole, shows high tenor 76% Ni sulphide from SEM analyses.

Plate 2 POLISHED THIN SECTION FROM 406m

NON-OPAQUES	DOMINANT
SERPENTINE	DOMINANT
OLIVINE	ACCESSORY
CALCITE	ACCESSORY
ORES	**ACCESSORY**
PENTLANDITE	DOMINANT
CHROMITE	MAJOR
NATIVE COPPER	ACCESSORY
UNIDENTIFIED NICKEL SULPHIDE	TRACE POSSIBLY MILLERITE

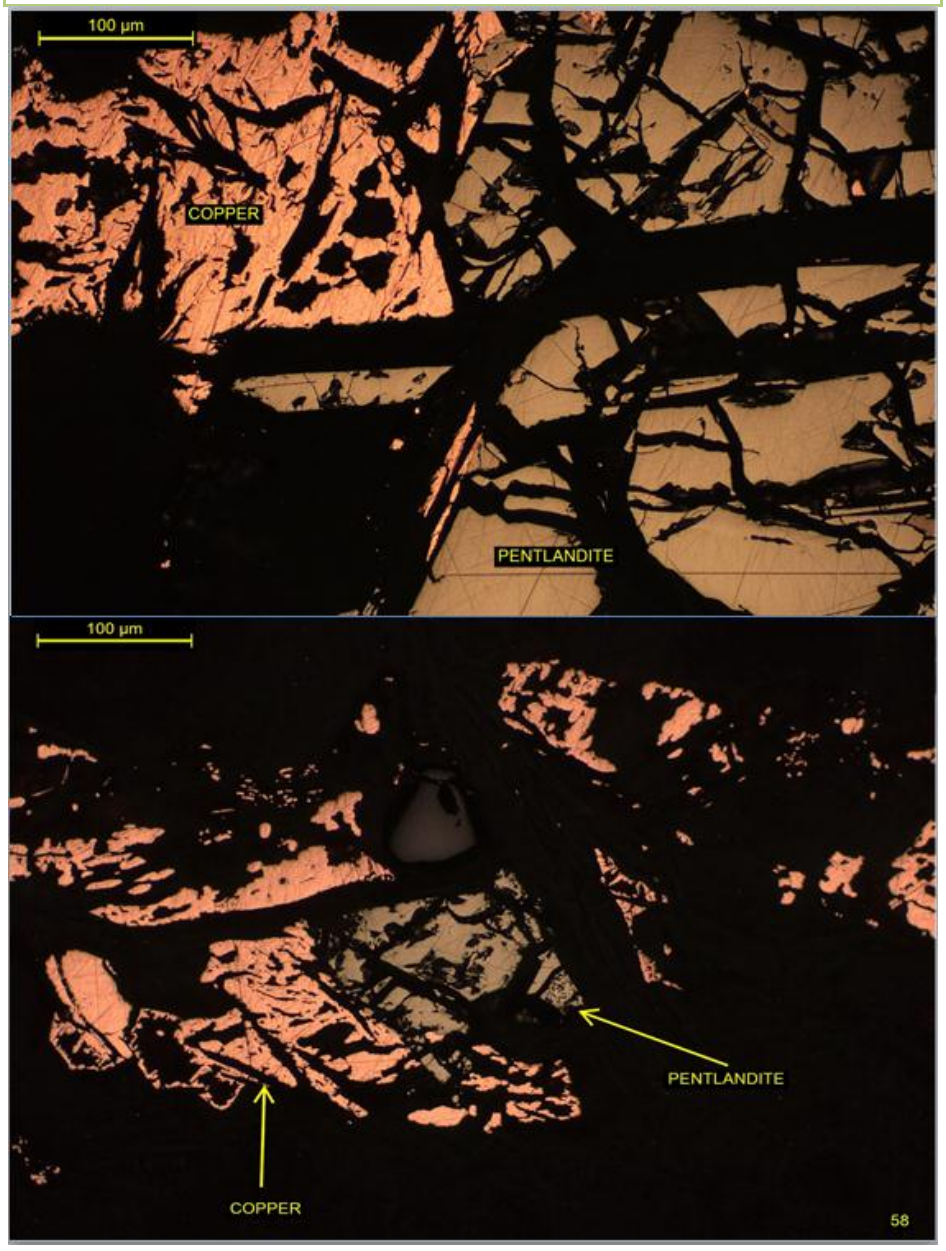


CLASSIFICATION: PENTLANDITE, COPPER AND POSSIBLY MILLERITE IN SERPENTINITE (ALTERED DUNITE)

The nickel mineral in this sample from 406m (Plate 2) is pentlandite with native copper. Pentlandites mainly occur here in aggregates of fractured (broken up) angular, anhedral, equant and elongate grains. The high grade Ni sulphate is also present. The assemblage and relationship of the copper and nickel (Plate 2) as aggregates is of interest and can be seen more clearly in Plate 3 below, where the aggregate copper/pentlandite appear to have nucleated at the same time suggesting a low oxygen fugacity environment.

Plate 3 & 4 POLISHED THIN SECTION FROM 411m

NON OPAQUES	DOMINANT
SERPENTINE	DOMINANT
OLIVINE	ACCESSORY
CALCITE	ACCESSORY
ORES	**ACCESSORY**
NATIVE COPPER	DOMINANT
PENTLANDITE	MINOR
CHROMITE	ACCESSORY
CHALCOPYRITE?	TRACE
UNIDENTIFIED NICKEL SULPHIDE	TRACE



Plates 5 & 6 below show the presence of chalcophile elements in the Milly Milly nickel system. This is of fundamental importance in a fertile system along with the compelling assemblage of multi sulphide elements, Nickel, Native copper, Chromite, Magnetite and Chalcopyrite.

Plate 5

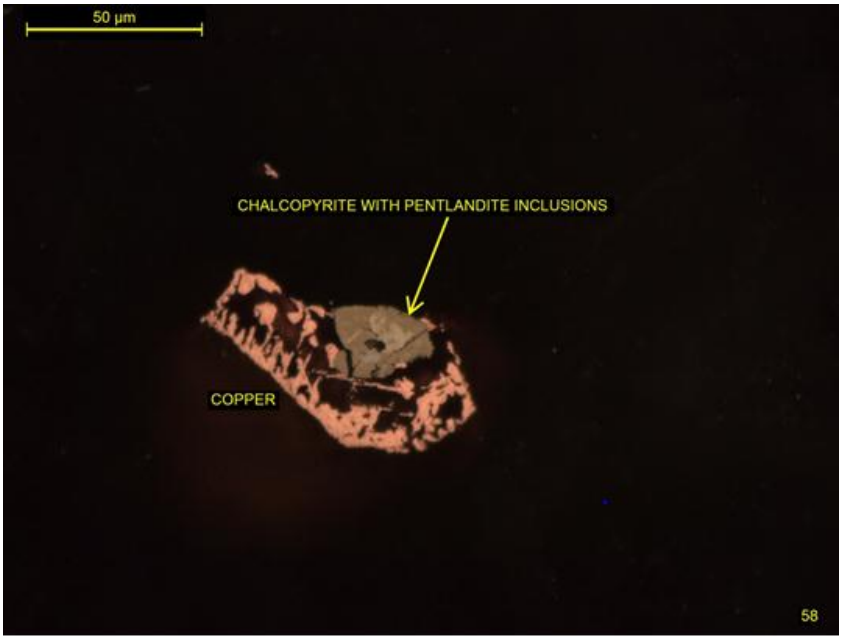


Plate 6

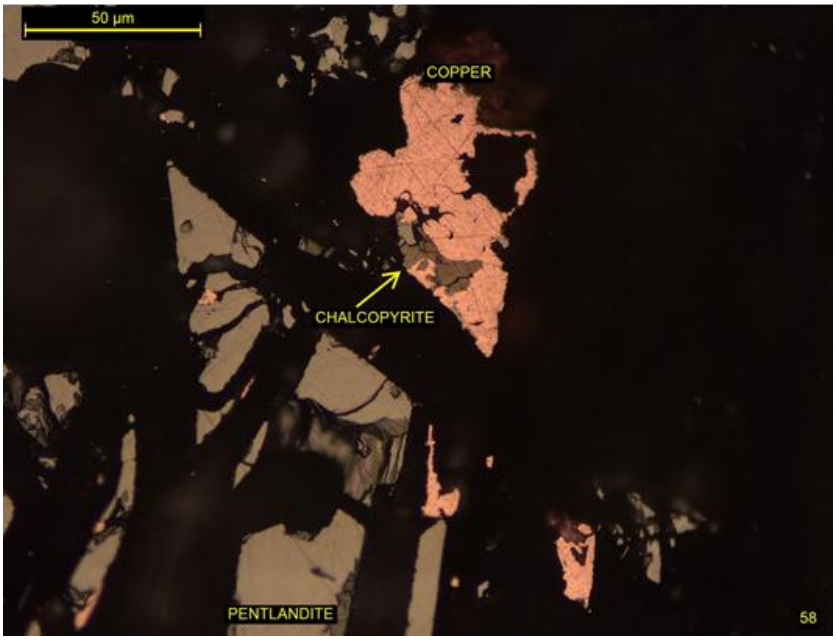


Plate 7 POLISHED THIN SECTION 411.5m

NON-OPAQUES	DOMINANT
SERPENTINE	DOMINANT
CALCITE	ACCESSORY
PYROAURITE?	ACCESSORY
ORES	**ACCESSORY**
PENTLANDITE	DOMINANT
CHROMITE	ACCESSORY
NATIVE COPPER	ACCESSORY
UNIDENTIFIED NICKEL SULPHIDE	TRACE

CLASSIFICATION: **SERPENTINITE (ALTERED DUNITE)**

Plate 7 displays a fine pentlandite vein. The pentlandite appears to have the characteristic of remobilized sulphide concentrated into the vein. The potential for a fertile sulphide bearing ultramafic which dislays signs of sulphide remobilization is very promising.

Significance of These Results

The Milly Milly Intrusive is in a tectonic setting of large scale crustal sutures and extensional rifting, broadly comparable to the major Jinchuan, Voisey's Bay and Raglan deposits. Athena has confirmed the coincidence of undifferentiated mafics, mineralised pyroxenite, gabbros and dunite ultramafic rocks intruding through deeply buried upper amphibolite pelite country rock in the Byro Tenements. This derivation is indicative of a pyroxenitic intrusive parentage in an extensional environment through deep feeder conduits incorporating potential assimilation of country rock. Non silicate hosted multi metal sulphide development of Ni-Cu and PGE's in conjunction with high MgO of 40% to 45% and an Mg number between 80 and 90 determined by assays demonstrate a fertile system that cannot be ignored.

Athena's exploration of this intrusive body has been focused on identifying the primary and possible subsequent styles of mineralisation and triggers for their concentration. Athena has also explored for and found variation in geochemistry at depth and identified possible flow pulses. Thin section petrology from diamond core at 151.75m down hole indicated the high Ni bearing sulphide as probable millerite from SEM composition of 66% Ni and 1% Co most likely related to serpentinisation processes upgrades the Ni tenor. High tenor Ni sulphate has now been confirmed at depth at Byro East and could form an important ore constituent similar to that of the Silver Swan, Wannaway, Cliffs, Honeymoon Well, Yakabindie and Mt Keith (MKD5) ore bodies.

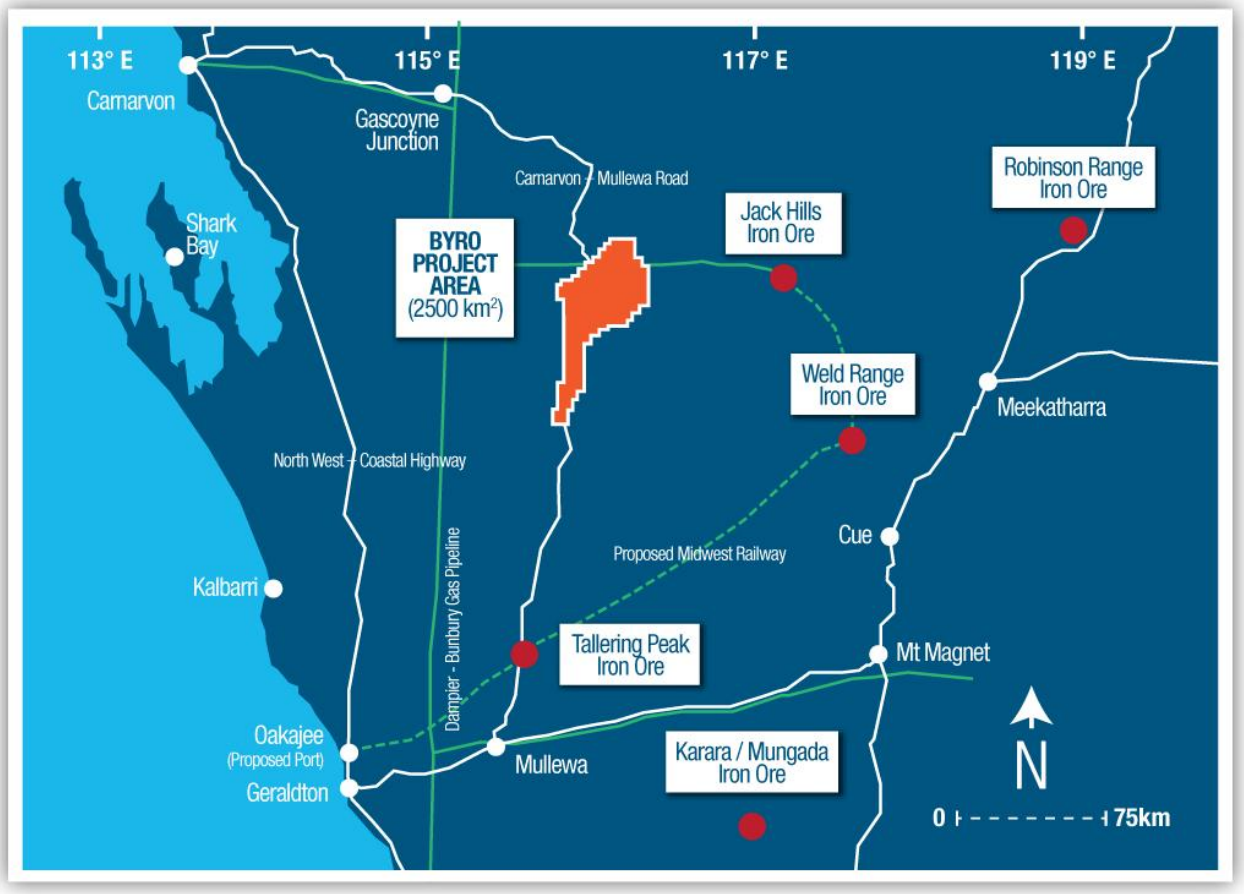
Athena has demonstrated the presence of elevated multi sulphide elements in a finely disseminated fertile ultramafic which demonstrates signs of sulphide concentration and remobilization into dilation zones such as veins. The potential for economic concentrations of nickel and copper are very encouraging. Further drilling, geochemistry and geophysics is warranted and required to understand the potential of this under explored body.

About Athena Resources Limited

Athena Resources Limited (ASX:AHN), which is based in Perth, was listed on the ASX in 2006 and currently has 123 million shares on issue. Athena's major asset is its 100% interest in the Byro Project through its subsidiaries Complex Exploration and Byro Exploration, where it is exploring for copper, nickel, PGE's in addition to iron ore..

The Milly Milly intrusion forms part of the Byro Base Metals Project and is strategically located in tenement E09/1638 some 100km west of the proposed Midwest Iron Ore Railway which is planned to link existing and future iron ore projects in the Mid-West Region to the proposed Oakajee deep water bulk shipping port north of Geraldton.

Figure 5 Byro Location Map



E W Edwards
Managing Director

Appendix

DRILL AND SAMPLING DATA DETAILS

- Drilling techniques used to retrieve sample referred to in this report were a combination of reverse circulation and in some cases followed by NQ diameter diamond tail using standard tube set up.
- Sample location and data points were calculated from GPS collar locations and down hole survey using a Reflex digital down hole camera system.
- Down hole sample location accuracy +/- 100mm following RQD and core recovery checks
- Grid system used MGA_GDA94 ZONE 50 with estimated accuracy of +/-5m.
- All visual inspection and logging of core was cross checked with assay results.
- Down hole sample intervals were at a maximum of 1m composite. Points of interest to a minimum interval of 100mm
- QAQC protocols were followed to reduce any potential sample bias throughout the sampling process and chain of custody was maintained fromsite to lab.
- Assays performed by Amdel-Ultratrace Laboratories of the Bureau Veritas Group using standards supplied by the lab and all processes complying with Bureau Veritas Group protocols.
- Assays are whole rock using the full acid digest, ICP mass spectrometry.
- All intersections reported are based on down hole width.

Geochemical sample and drill data contained in this report have been previously announced on the ASX and to the Department of Mines and Petroleum There is no new data announced in this report.

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

Competent Persons Statement
The technical information relating to Athena’s exploration projects 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 this inclusion of the information in this report in the context and format in which it appears

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