





## **Investor Presentation – June 2023 BYRO BASE METAL PROJECT Prospective and underexplored**



#### Disclaimer

The information contained in this Presentation and all other information provided (whether in writing or otherwise) is confidential and has been prepared to assist the recipient in evaluating the business and prospects of Athena Resources Ltd ("Athena") or the Company (ACN 113 758 900).

No representation, warranty or undertaking, express or implied, is made and no responsibility is accepted by Athena as to the accuracy, currency or completeness of any part of this Presentation or any further information supplied by or on behalf of Athena in connection with Athena.

Nothing contained in this presentation, or any other written or oral communication transmitted or made available to the recipient is, or shall be relied upon as, a promise or representation and no representation or warranty is made as to the accuracy or attainability of any technical or financial information set out in this document. Recipients must make their own investigations and inquiries regarding all assumptions, risks, uncertainties and contingencies which may affect the future operations of Athena.

Athena does not accept liability for any loss or damage suffered or incurred by the recipient or any other person however caused (including negligence) relating in any way to this Presentation, including, without limitation, the information contained in it, any errors or omissions however caused, or the recipient or any other person placing any reliance on this Presentation, its accuracy, completeness, currency or reliability.

Athena does not accept any responsibility to inform the recipient of any matter arising or coming to its notice which may affect any matter referred to in this Presentation.

Athena has not authorised any person to make any statements or representations, which are not expressly contained in this Presentation.

To the maximum extent permitted by law, any liability of Athena to a recipient or to any other person arising out of this Presentation is expressly disclaimed and excluded. This report may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning the planned exploration program and other statements that are not historical facts. When used in this report, the words "could", "plan", "estimate", "expect", "intend", "should" and similar expressions are forward-looking statements. Although Athena believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

The statements and information contained in this report are not investment or financial product advice and are not intended to be used by persons in deciding to make an investment decision. In releasing this report, Athena has not considered the objectives, financial position or requirements of any particular recipient. Accordingly, potential investors should obtain financial advice from a qualified financial advisor prior to making an investment decision.

The information in this presentation that relates to previous exploration results has been extracted from various ASX announcements which are available to view on the Company's website or through the ASX website <u>www2.asx.com.au/markets/company/AHN</u>. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant original market announcements. The Company confirms that it explores the presented have not been materially modified from the original market announcements.





# Corporate OverviewBoard and ManagementEdmond EdwardsManaging DirectorPeter NewcombExecutive DirectorHau Wan WaiDirector

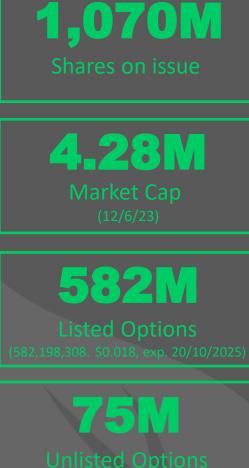
#### **Major Shareholders**



PAGE 3| INVESTOR PRESENTATION - ASX: AHN - ATHENARESOURCES.COM.AU



Capital Structure ASX: AHN (ACN 113 758 900)



(75,000,000. \$0.020, exp. 15/02/2026)

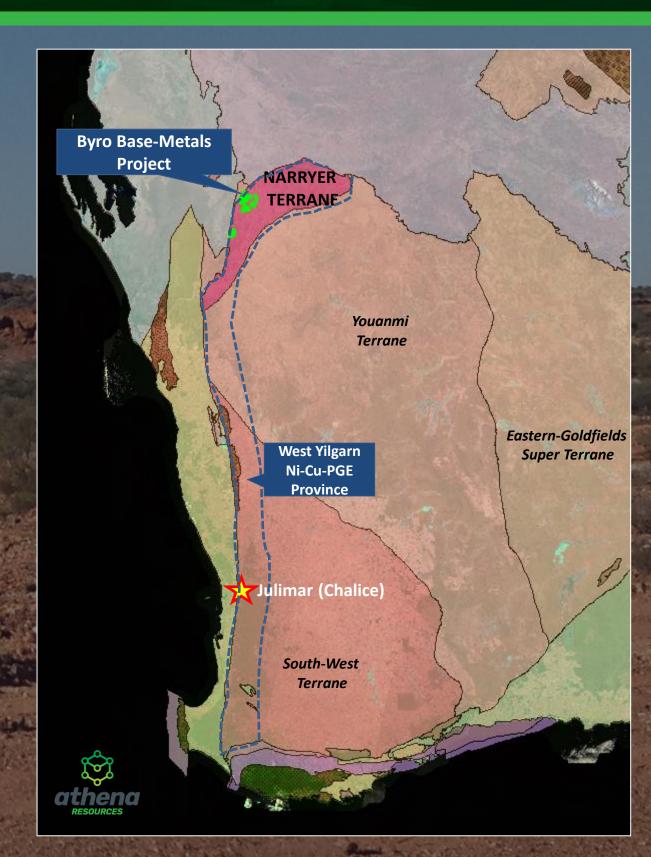


## **Byro Base Metals Project**

## West Yilgarn Ni-Cu-PGE Province

- Situated within the West Yilgarn Ni-Cu-PGE Province. A highly prospective, 1,200km corridor defined by the discovery of the Gonneville Ni-Cu-PGE deposit at Chalice Mining Ltd.'s Julimar Project
- Gonneville (Julimar) MRE metal content includes: 16Moz 3E (Pd, Pt, Au), 860kt Ni, 520kt Cu, 83kt Co.
- This discovery resulted in intense application for tenure with a strong focus on targeting mafic/ultramafic intrusion along the western margin of the Yilgarn Craton.
- Prior to the Julimar discovery, this Province is one of the most underexplored areas of the Yilgarn.
- The north-west margin of the Yilgarn includes the Archaean Narryer Terrane, a highgrade metamorphic Terrane previously mapped by GSWA as predominantly granitic gneiss and migmatites. Extensive work has revealed a significant amount of mafic/ultramafic host rocks.
- Within the project tenements are outcrop, soils geochemical, and drilling occurrences
  of strongly elevated copper, nickel, PGEs.

PAGE 4 | INVESTOR PRESENTATION - ASX: AHN - ATHENARESOURCES.COM.AU

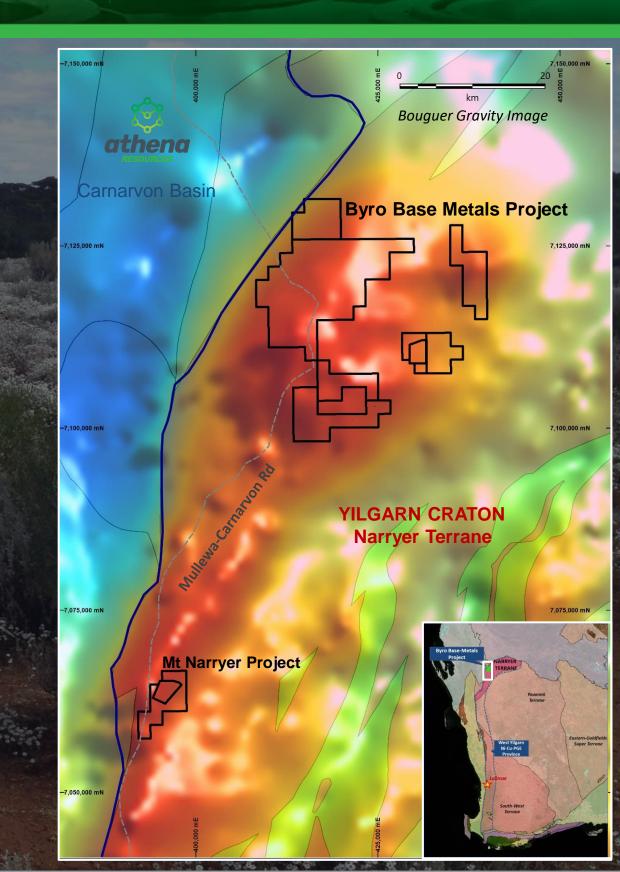


CILICATION BYRO Bas

- Narryer Terrane previously mapped as predominantly granitic gneiss and migmatites. Now show to have extensive regime of layered mafic and ultramafic intrusions mineralised in Ni, Cu, and PGEs within the project area.
- Extensive tenure initially pegged from analysis of regional aeromagnetic anomalies coincident with strong bouguer gravity anomalies.
- Exploration over the last several years has focused on base metal and iron potential with each round of drilling increasing the known footprint of the highly prospective, intrusive lithologies.
- Tenements are adjacent to the north-west margin of the Yilgarn Craton.

PAGE 5 INVESTOR PRESENTATION - ASX: AHN - ATHENARESOURCES.COM.AU

## Byro Base Metals Project



## **Byro Base Metals Project** ESOURCES

## **Project Summary**



380km<sup>2</sup> of tenure. Four granted EL's\*, one granted ML

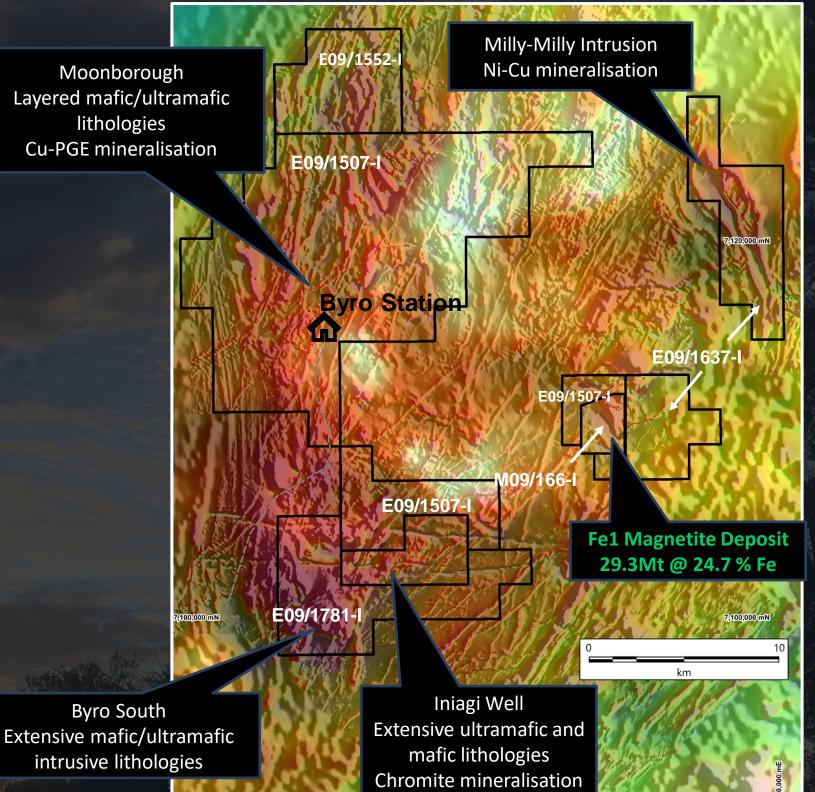
Project area dominantly underlain by mafic/ultramafic intrusive units

Adjacent map shows detailed aeromagnetic image (TMI) draped over regional bouguer gravity imagery. The project area contains strong magnetic/gravity anomalies

To date work has included:

**Detailed aeromagnetic survey VTEM, MLTEM, FLTEM surveys** Bouguer gravity surveys RAB, RC, and diamond drilling **Petrographic analysis** 

\* Athena have applied for exemption from minimum expenditure requirements on tenements E09/1552-I and E09-1507-I An update on the status of these applications was lodged with ASX on 12 June 2023.



## **Byro Base Metals Project**

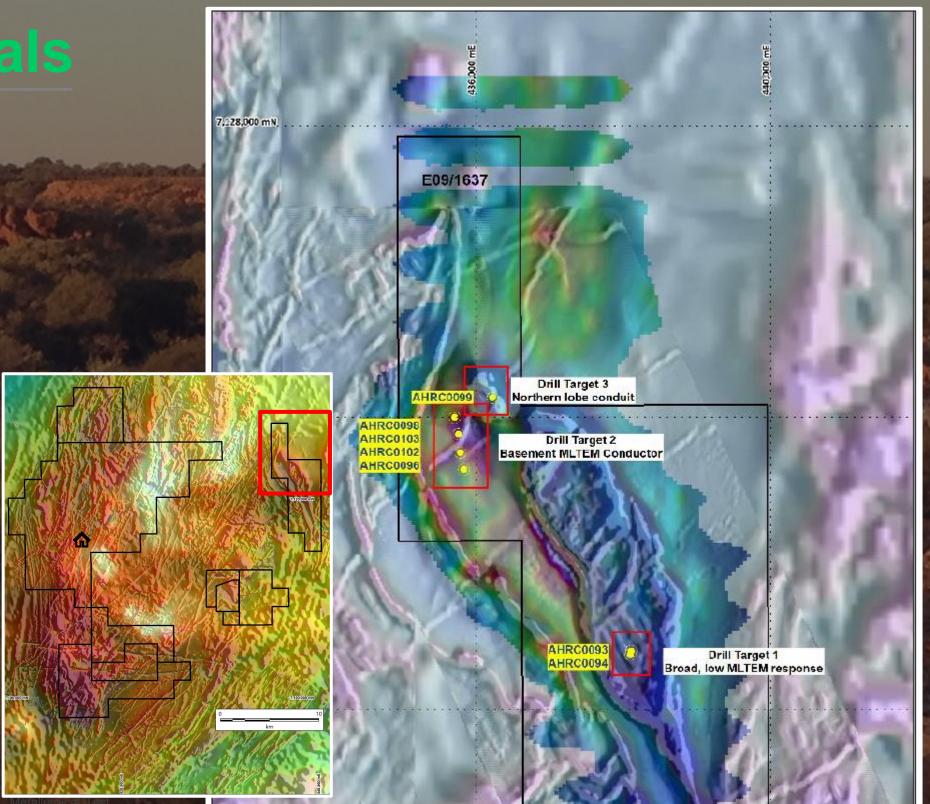
## Milly Milly Intrusion – Battery Metals

Byro Project exploration commenced with the Milly Milly target. Milly Milly Intrusion is a large peridotite-dunite intrusion with Ni-Cu-PGE mineralisation.

Adjacent map shows detailed aeromagnetic image (TMI) underlain by regional bouguer gravity imagery.

To date work has included: Detailed aeromagnetic survey VTEM, MLTEM, FLTEM surveys Bouguer gravity surveys RAB, RC, and diamond drilling Petrographic analysis Historic rock chip copper gossan sample 25.5% Cu (MBCR067)

PAGE 7| INVESTOR PRESENTATION - ASX: AHN - ATHENARESOURCES.COM.AU



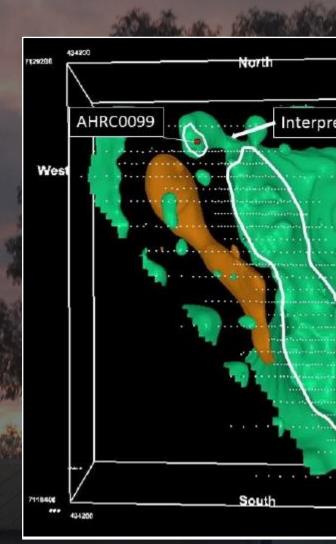


## Milly Milly Intrusion – Battery Metals

- 2021 drilling campaign Drilling of targets based on inverse gravity modelling and MLTEM conductors has shown the intrusion extends considerably to the north and west
- Drilling by Athena has intersected broad zones of nickel sulphide mineralisation including: AHDH001 62.7m @ 0.29% Ni from 149.7m AHRC025 36m @ 0.34% Ni from 0m

(ASX: AHN Announcement 10/09/2010)

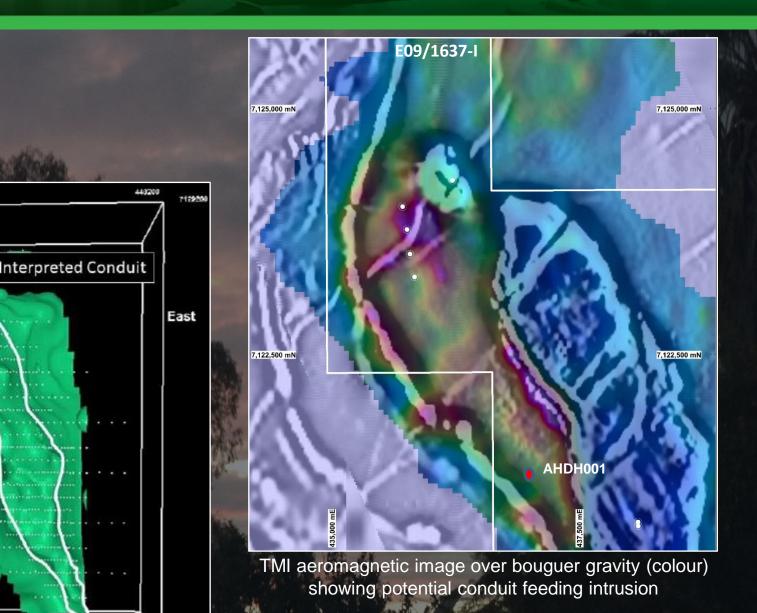
Several drill holes reporting elevated PGE's and Copper

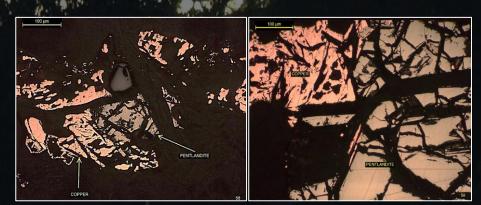


3D gravity inversion modelling

PAGE 8| INVESTOR PRESENTATION - ASX: AHN - ATHENARESOURCES.COM.AU

## Byro Base Metals Project





Copper and nickel sulphide from AHDH001

## **CALERATE Byro Base Metals Project**

## Milly Milly Intrusion – Graphite Intersection

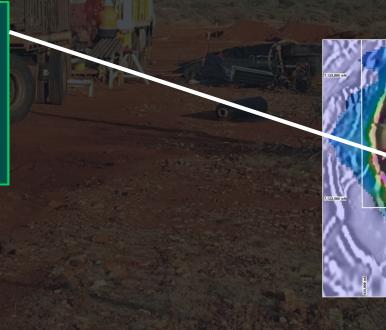
- 2021 exploration campaign included MLTEM surveying across three target areas within and adjacent to the Milly-Milly Intrusion.
- Infill bouguer gravity surveying also carried out to provide definition of the feeder conduit down plunge of the surface exposure of the intrusion.
- Drilling geophysical targets intersected metapelites overlying the gabbroic phase of the north-western portion of the Intrusion
- AHRC0096 intersected significant graphite in the overlying metapelites coincident with a modelled MLTEM conductive plate.

Significant Graphite Intersections – AHRC0096 3m @ 4.83% TGC from 102m including 1m @ 13.02% TGC from 103m 3m @ 3.16% TGC from 107m including 1m @ 5.28% TGC from 108m 2m @ 1.68% TGC from 120m including 1m @ 2.22% TGC from 120m

#### Drilling intersection remains open in all directions

(ASX: AHN Announcement 9/3/2022)

PAGE 9| INVESTOR PRESENTATION - ASX: AHN - ATHENARESOURCES.COM.AU





#### Course flake graphite chips from AHRC0096, 103m





## **Moonborough Intrusion**

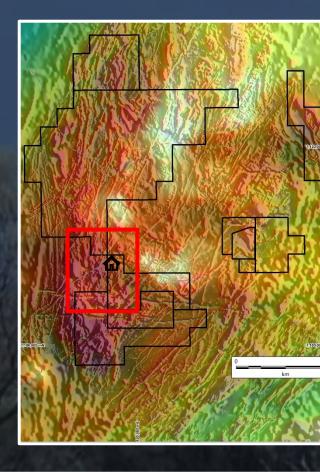
Initially a GSWA mapped minor outcrop of gabbro, pyroxenite, with copper carbonate mineralisation.

Strong soil geochemical anomaly (Pd, Pt, Au)

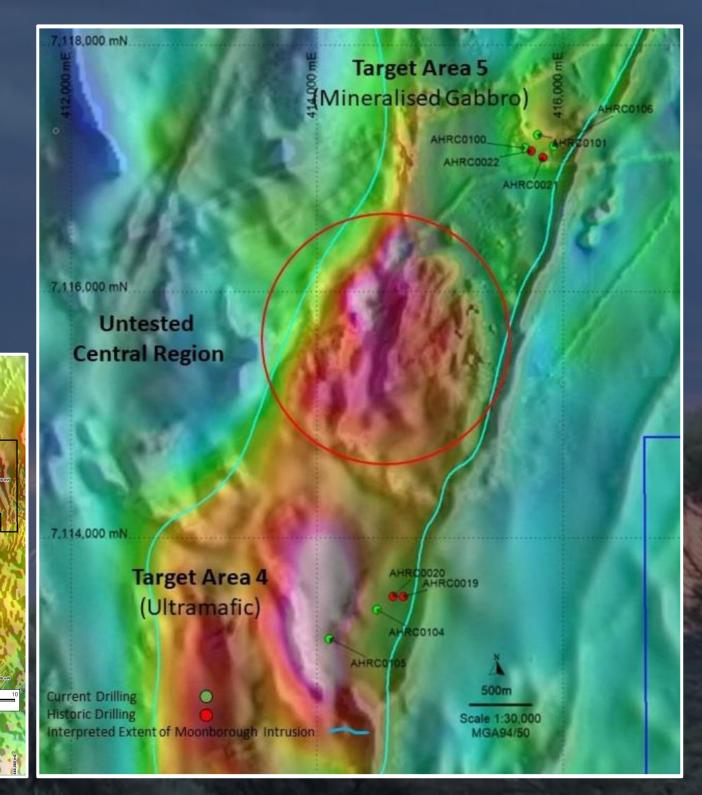
Historic rock-chip samples include: MBRC056 1.22% Cu, 0.13 g/t Pd, 0.48 g/t Au MBCR057 1.93% Cu, 3.01 g/t Pd, 0.53 g/t Au MBCR098 9.11% Cu, 1.97 g/t Pd (ASX: AHN Announcement 8/05/2009)

Recent work included detailed gravity surveying and modelling, FLTEM, MLTEM surveys and drilling.





## **Byro Base Metals Project**



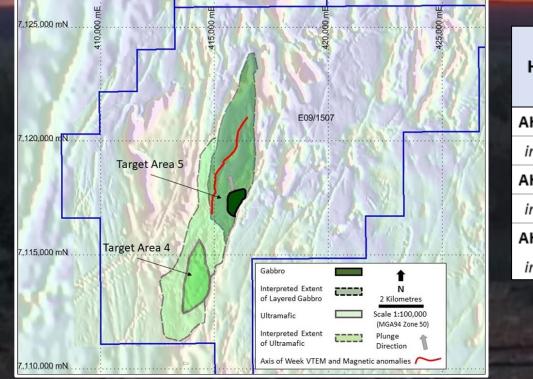


## **Moonborough Intrusion**

- 2021 targeting work included:
  - Infill and extensional bouguer gravilty surveying and inversion modelling
  - MLTEM and FLTEM surveying
  - RC drilling

#### Significant Cu-PGE's intersected

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



PAGE 11  INVESTOR PRESENTATION - ASX: AHI	N - ATHENARESOURCES.COM.AU
---	----------------------------

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

## Byro Base Metals Project

#### Significant Copper Intersections

(ASX: AHN Announcement 7/3/2022)

#### Significant PGE Intersections

(ASX: AHN Announcement 7/3/2022)



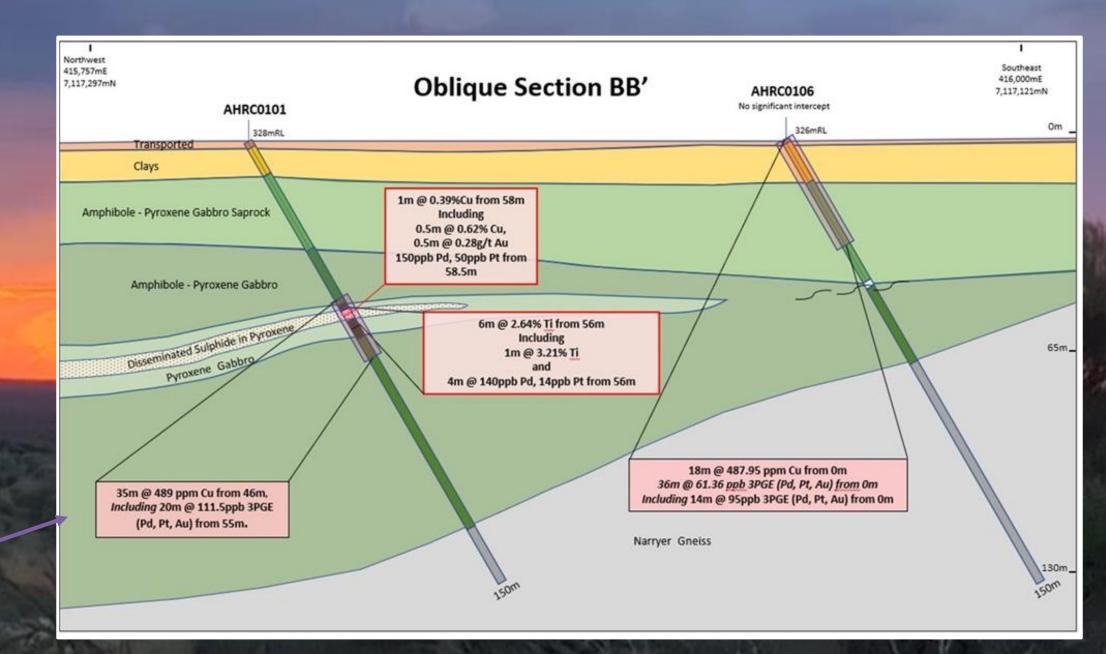
## **Moonborough Intrusion**

With every hole drilled at Moonborough, the extent of the target lithologies increases.

More extensive work needed to determine the extent of the intrusion, understand its internal morphology, and identify further base-metal and PGE targets.

Copper sulphide from AHRC0101

PAGE 12| INVESTOR PRESENTATION - ASX: AHN - ATHENARESOURCES.COM.AU



## Byro Base Metals Project

## **Byro Base Metals Project** RESOURCES

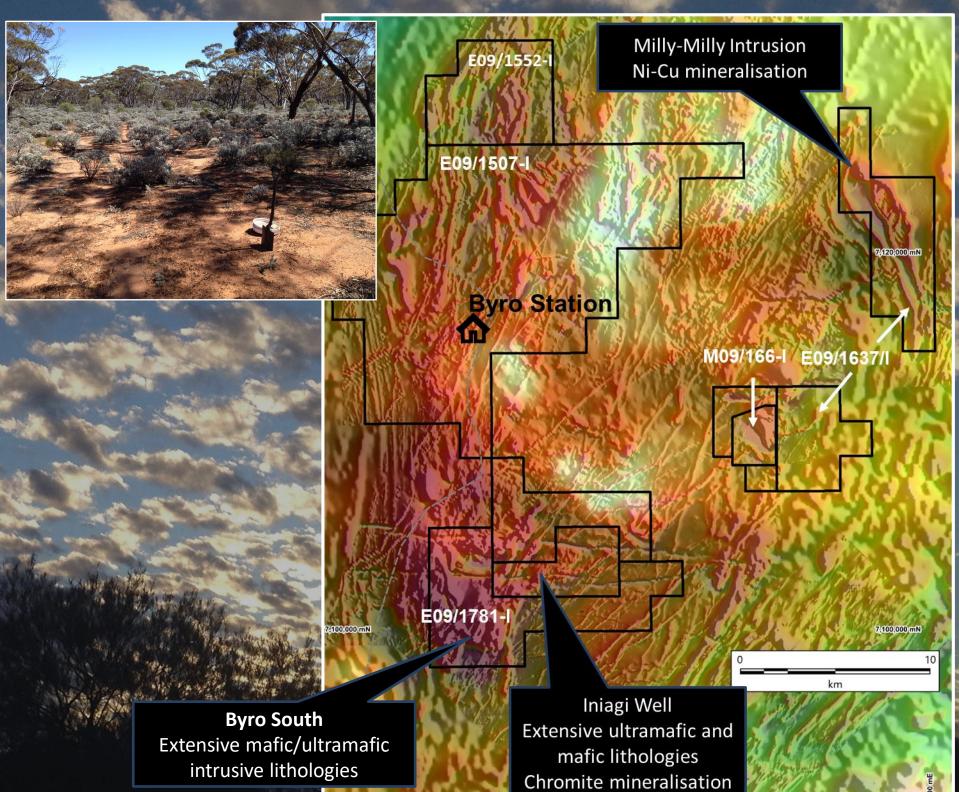
## **Byro South Target**

Extensive mafic and ultramafic lithologies intersected in drilling of high priority iron targets

Situated adjacent to Iniagi Well, a significant magnetic and gravity anomaly

Work to date has focused on the magnetite satellite targets to support the Fe1 iron deposit. Very underexplored for Ni-Cu-PGE-REE targets

Plans underway for extensive soil geochemical sampling program with regolith and geological mapping. Scheduled for Q3 2023



PAGE 13 | INVESTOR PRESENTATION - ASX: AHN - ATHENARESOURCES.COM.AU

## **Investment Summary Base metal and PGE prospectivity in the underexplored** Narryer Terrane, Western Australia

drilling intersections

Milly Intrusion (E09/1637-I)

RESOURCES

- Byro Base Metal Project highly prospective for Ni-Cu-PGE mineralisation
  - Byro Project within the underexplored Narryer Terrane with tenement neighbors including Chalice Mining, IGO Ltd, RareX Ltd, and Narryer Metals Ltd.
    - Milly-Milly and Moonborough Intrusion with known mineralisation
    - Base metals and PGEs from soil geochemistry, rock chip sampling, and

- Nickel and copper sulphide mineralisation supported by petrography
- Geochemical surveys planned for Byro South target (E09/1781-I, and Milly



Ed Edwards - Managing Director ee@athenaresources.com.au +61 448 895 664 Liam Kelly – Exploration Manager Martin Dormer – Head of Geology +61 438 143 296 21 Millstream Rise, Hillarys, WA 6025  $\bigoplus$ athenaresources.com.au