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COMPLETION OF RC DRILLING AT BYRO SOUTH

Athena Resources Limited (ASX: AHN) ("Athena" or the "Company") is pleased to announce the successful completion of reverse circulation (RC) drilling at the Byro South Prospect ("Byro South"), an expansion opportunity which forms part of the Company's flagship Byro Magnetite Project in the Mid-West of Western Australia.

HIGHLIGHTS

- Nine RC drill holes completed at Byro South Prospect for a total of 1,405m.
- Magnetite mineralisation intersected in eight of the nine drill holes with down-hole width up to 68m.
- Geological logging and magnetic susceptibility readings delineated new magnetite intersections and improved the resolution of host lithologies, mineralisation, and structural interpretation.
- Test work commenced including head assay analysis, definitive liberation testwork, grind optimisation studies, and Davis Tube Recovery (DTR) testwork.
- Results will inform a further drilling program to focus on infill and extensional targets with the objective of delivering a maiden Mineral Resource Estimate (MRE) at Byro South.

Athena's Managing Director & CEO, Mr Peter Jones, commented:

"Drilling at Byro South is an opportunity to demonstrate the potential for resource expansion at the Byro Magnetite Project. It is pleasing to have rapidly re-established the Company's exploration focus. Nine RC drill holes have been completed for a total of 1,405 metres. Significant intersections of magnetite mineralisation were logged with the largest being 68 metres. We are eagerly await the assay results and will be progressing a metallurgical text work program."

Byro Magnetite Project

Athena's flagship Byro Magnetite Project is located within the Murchison Province of Western Australia. The Murchison Province forms a part of the Mid-West Region, a well-established mining and pastoral hub. The Project is situated approximately 90km north of the Murchison Shire Settlement, 285km north-northeast of the town of Mullewa, 340km north-east of the Port of Geraldton, and 650km north of Perth.



Figure 1 Byro Project location

The Byro South prospect is located approximately 18km south-east of the proposed location of the Byro Magnetite Project. Byro South is an expansion opportunity aimed at extending the life of the Byro Magnetite Project.

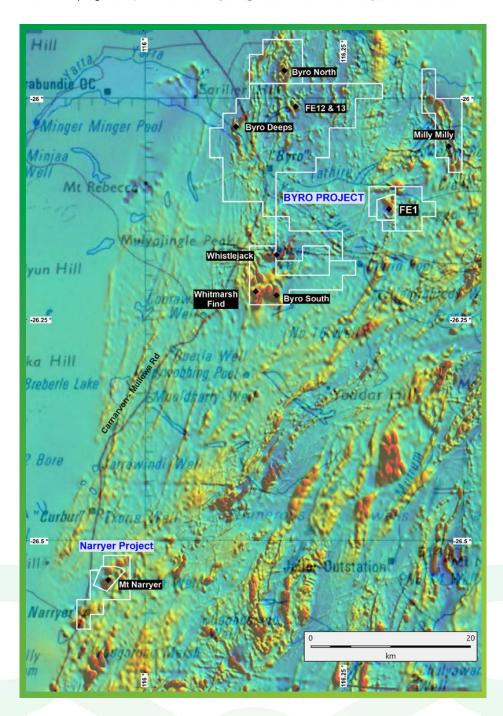


Figure 2: Byro South Prospect in relation to other Magnetite Prospects within the Byro Magnetite Project

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Byro South Drilling Program

Athena has completed a new RC drilling program at Byro South comprising nine holes totalling 1,405 metres. The program complements previous drilling activities at Byro South which included 22 holes for 2,284 metres of RC drilling and 753.3 metres of diamond drilling. The cumulative drilled metres at the prospect now totals 3,037.3 metres.

The primary objective of the drill program was to further delineate the known magnetite mineralisation and refine the geological model to facilitate more accurate planning for future exploration. Targeted drilling of existing sections has enhanced resolution of mineralisation, lithological controls, and structural architecture. This improved understanding will inform the design of further drilling to focus on infill and extensional targets with the objective of delivering a maiden Mineral Resource Estimate (MRE) at Byro South. An MRE at Byro South will be incorporated into future economic studies for the Byro Magnetite Project and have the potential to enhance the project outcomes.



Figure 3: NDRC Pty Ltd reverse circulation rig in action at Byro South

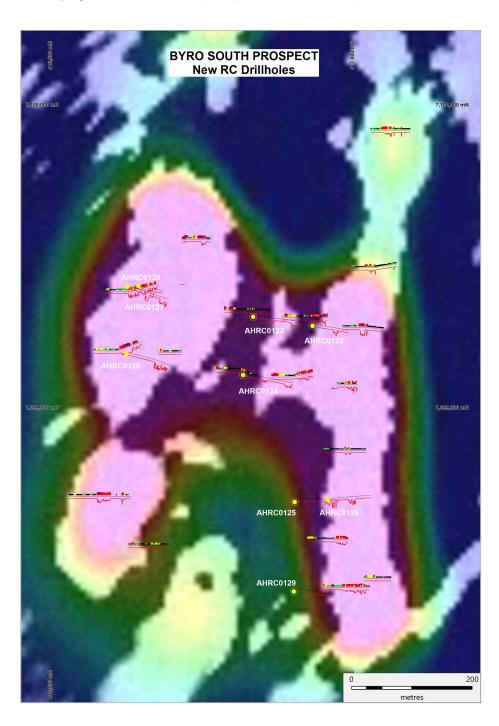


Figure 4: Byro South drilling on magnetic imagery. New RC collars in yellow. Iron histograms to side of drill trace, with red line graph plotting magnetic susceptibility.

Magnetite intersections in the recent drilling were recorded visually, from geological logging, and with a KT-10 Magnetic Susceptibility Meter, used by field geological staff. Magnetic susceptibility is a near direct measurement of magnetite concentration within this environment, and readings are very strongly correlated with iron grades in unweathered material. Magnetic susceptibility readings for the new RC drill holes are tabulated below (Table 1). Also below in Figure 5, is a cross section displaying the correlation between magnetic susceptibility in new RC drill hole AHRC0128, and the magnetic susceptibility and iron assay results in 2011 diamond tailed RC drill hole AHRC0063D³.

Table 1: 2025 RC drilling downhole magnetic susceptibility intersections. Readings were taken of each metre of the drilling spoils and recorded. Coordinates are all in MGA94 zone 50.

Hole ID	Туре	Depth (m)	East	North	RL		From (m)	To (m)	Interval (m)	Mag Sus x10-3 SI Units
AHRC0122	RC	130	416937	7099636	335		69	88	19	789.1
AHRC0123	RC	180	416840	7099650	333		51	65	14	482.2
ARKC0123	KC	180	410840	7099650	333	and	125	168	43	762.3
ALIDC0124	D.C.	106	416031	7000555	222		65	83	18	470
AHRC0124	RC	186	410821	416821 7099555	5 333	and	147	179	32	744.3
AHRC0125	RC	180	416906	7099348	332		116	135	19	705.5
ARKCU125	KC	180	410900	7099348	332	and	143	156	13	1245.1
AHRC0126	RC	150	416956	7099348	331		75	98	23	1044.1
AHRC0127	RC	99	416640	7099700	331		59	71	12	1533
AHRC0128	RC	180	416625	7099590	330		112	180	68	1247.9
AUDC0120	D.C.	150	416630	7000700	221		67	81	14	1466.6
AHRC0130	RC	150	416630	7099700	331	and	120	150	30	1253.7

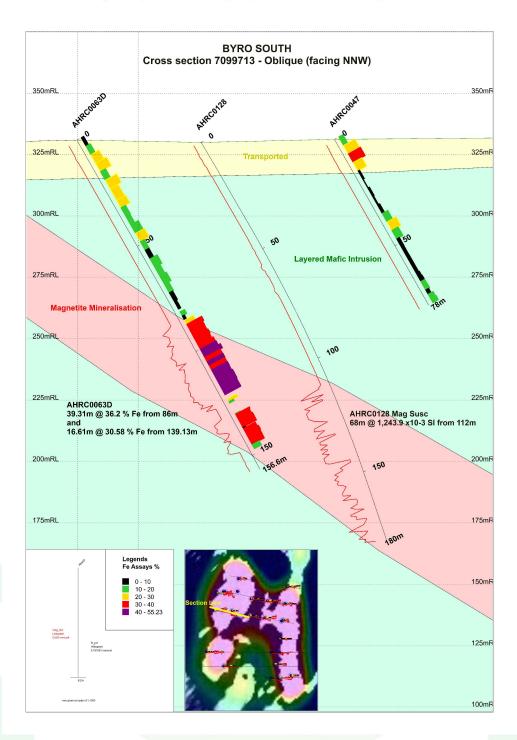


Figure 5: Oblique cross section 7099713, facing NNW of the west limb of the Byro South anomaly. Iron histograms to the right of the drill trace show magnetite mineralisation, while the red line graph left of the drill trace plots magnetic susceptibility. 2011 diamond tailed RC drill hole intersected iron mineralisation adjacent to 2025 RC drill hole AHRC0128.

Byro South - Background and Overview

The Byro South Prospect forms part of the Company's flagship Byro Magnetite Project in the Mid-West of Western Australia. The Byro Magnetite Project includes the FE1 magnetite deposit with a Whole Rock Mineral Resource of **29.3Mt @ 24.7% Fe (10% cut-off)** (24.0Mt indicated at 25.1% Fe and 5.3Mt inferred at 22.7% Fe) with a Magnetite Mineral Resource of **21MT @ 70.7% Fe (DTR, 20% cut-off)** (17.7 Mt indicated at 70.7% Fe and 3.3 Mt inferred at 70.8% Fe). The Byro South Prospect holds similar potential to produce significant tonnes of high purity magnetite concentrates.

The Mineral Resource estimate for the FE1 deposit, is shown in Tables 2 and 3 below.

FE1 Mineral Resource Estimate (ASX: AHN 17/01/2023)

Table 2. Byro Open Pit Whole Rock Mineral Resource within mineralised domains interpreted at 10% Fe cut-off

Mineral Resource Category	Weathering	Tonnes (Mt)	Fe (%)	SiO2 (%)	Al2O3 (%)	P (%)	S (%)	TiO2 (%)	LOI (%)	Density
Indicated	Fresh	24.0	25.1	49.3	5.48	0.052	0.079	0.32	-0.059	3.27
Inferred	Fresh	5.3	22.7	50.6	6.56	0.048	0.085	0.37	0.023	3.21
То	tal	29.3	24.7	49.6	5.68	0.051	0.080	0.33	-0.044	3.26

No cut-off grade used in the report.

Totals may not be able to be reproduced due to the effects of rounding.

Table 3. Byro Open Pit Magnetite Mineral Resource within mineralised domains interpreted at 20% DTR cut-off

	Mineral Resource Category	Weathering	Tonnes (Mt)	DTR (%)	Fe (%)	SiO2 (%)	Al2O3 (%)	P (%)	S (%)	LOI (%)	Density
	Indicated	Fresh	17.7	33.6	70.7	1.23	0.32	0.003	0.021	-3.20	3.30
4	Inferred	Fresh	3.3	32.3	70.8	0.95	0.34	0.002	0.023	-3.17	3.26
	To	tal	21.0	33.4	70.7	1.18	0.32	0.003	0.021	-3.19	3.29

No cut-off grade used in the report.

Totals may not be able to be reproduced due to the effects of rounding.

The estimated Magnetite Mineral Resource is contained within the whole rock Mineral Resource, and they are not cumulative.

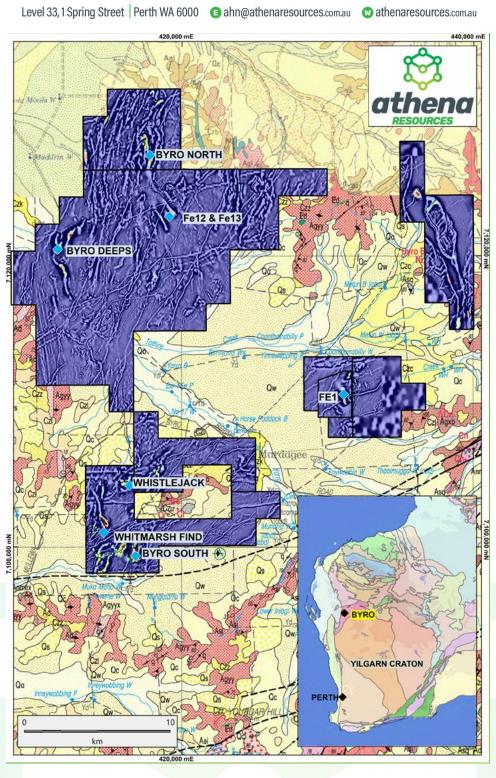


Figure 6: Byro Magnetite Project showing iron prospects

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Metallurgical testwork at Byro South, undertaken from previous drilling, included Davis Tube Recovery ("DTR") testwork, Wet Low Intensity Magnetic Separation ("Wet LIMS"), and flotation tests. A Wet LIMS test carried out on a sample with a head assay of 31.97% Fe produced a magnetite concentrate assaying 69.36% Fe, after this Wet LIMS concentrate was subjected to gangue removal by flotation the resultant magnetite residue assayed 70.61% Fe.

On average, iron head grades at Byro South are higher than those at the flagship FE1 deposit, demonstrating that Byro South is a significant target for magnetite mineralisation, complementing the findings of the Byro Project Scoping Study². The results will contribute to a greater understanding of the scale and quality of the magnetite mineralisation and its economic potential. Drilling activities are expected to be completed within two weeks, with assay results anticipated approximately one month after submission. The Company will provide further updates as results become available.

The Byro South Prospect has been identified as a significant target for magnetite mineralisation, complementing the project's flagship FE1 deposit. While the May 2024 Scoping Study primarily focused on the FE1 deposit, it acknowledged the potential of Byro South and other prospects to contribute additional resources, thereby enhancing the project's overall mine life and economic viability. Advancing exploration at Byro South aligns with Athena's strategy to expand its resource base within the Byro Magnetite Project.

Success at Byro South could lead to increased production capacity and extended mine life, thereby enhancing the project's overall value. Essentially, the Byro South Prospect represents a promising opportunity within Athena Resources' portfolio, with the potential to significantly bolster the company's magnetite resources and contribute to the long-term success of the Byro Magnetite Project.

References

¹ Mineral Resource Estimate – Byro FE1 Magnetite Project 17/01/2023

² Byro Project FE1 Scoping Study 20/05/2024

³ Drilling Update – Byro South Iron Ore 14/12/2011

This announcement has been authorised for release by the Board of Athena Resources Limited.

Peter Jones Managing Director Athena Resources Limited

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About Athena Resources Limited

Athena Resources Limited (ASX: AHN) is an Australian mineral exploration company focused on the development of its Byro Magnetite Project in Western Australia. The Company aims to unlock the potential of its high-grade magnetite mineralisation to deliver value to shareholders.

Athena is focused on the exploration and development of high-quality magnetite projects in Western Australia to support the emerging global green steel industry. The Byro Magnetite Project is strategically located within 100km of Sinosteel's Jack Hills Magnetite Project, approximately 180km from Fenix Resources Limited's Iron Ridge Iron Ore Mine, and 340km from Geraldton Port.

Byro has unique project advantages in quality, scale, location and metallurgy which provide an opportunity to partner with relevant regional project partners to build an integrated value chain. Work completed at Byro demonstrates the project can produce an exceptionally high-grade clean magnetite



CAUTIONARY NOTES AND DISCLOSURES

Disclosures

All data and Information of material nature referred to within this Report with reference to the Byro FE1 ore body have previously been reported on the ASX platform to meet the guidelines of the relevant JORC compliance reporting format at the time of data acquisition.

Forward Looking Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Athena Resources Ltd (ASX: "AHN") planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should," and similar expressions are forward-looking statements. Although Athena Resources Ltd (ASX: "AHN") 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.

Competent Person Statement

The information included in this ASX Announcement is based on information compiled by Mr Martin Dormer, a consultant to Athena Resources Limited. Mr Dormer is a Member of the Australasian Institute of Mining and Metallurgy (Member ID 304615), and the Australian Institute of Geoscientists (Member ID 7370). Mr Dormer has sufficient relevant experience in the styles of mineralisation and deposit type under consideration, and to the activity which he is undertaking, 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 Dormer consents to the inclusion in this Announcement of the matters based on his information in the form and context in which it appears.

Martin Dormer currently holds securities in the Company.

Exploration Results

The information in this announcement that relates to exploration results has been extracted from the ASX announcement titled Drilling Update – Byro South Iron Ore released on 14/12/2011 and which is available at www.asx.com.au. The competent person for the exploration results in that announcement was Liam Kelly. The Company confirms it is not aware of any new information or data that materially affects the exploration results set out in the in the original announcements.

INTERESTS IN MINING TENEMENTS

Athena Resources Limited 100%	Tenement Type
Byro Exploration	E – Exploration License
E09/1507	
E09/1552	
E09/1637	
E09/1781	
E09/1938	
Byro Project Mining	M - Mining Lease
M09/166	
M09/168	
Byro Project Water	
L09/112	L – Miscellaneous Licence

Section 1 Drilling and Magnetic Susceptibility Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	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.	Drill samples taken every 2m. Magnetic susceptibility readings taken every metre from the first metre till the end of hole utilising a KT-10 Magnetic Susceptibility Metre.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	The sample intervals will provide a reasonable guide of down hole metal grades. Magnetic susceptibility readings are used as a guide to support geological logging and in this environment, reflect magnetite concentration in unweathered material.
	• 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.	 Reverse Circulation drilling, (RC) was used to obtain 2m composite samples from which 5 kg samples were taken for assay per 2-meter interval. Samples were checked in the field and sent to ALS Laboratory for XRF analysis and metallurgical testwork.
Drilling techniques	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).	Reverse Circulation (RC) drilling was used for each drill hole. Chips/cutting retrieved from cyclone/splitter assembly.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	 Every metre chip trayed and logged by field geologist. Chip trays photographed for record. Standard field procedures were used. No bias was observed or established.

Section 1 Drilling and Magnetic Susceptibility Data

Criteria	JORC Code explanation	Commentary
Logging	 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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 Samples were collected directly from cuttings and core and are representative of the interval. Samples are suitable for application of best practice XRF and DTR analysis as per ALS Laboratories
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. 	No core drilling Cone splitter utilised by drill crew as part of sampling assembly
	 For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	The sample size, fraction size, and distribution of the drill samples is considered appropriate.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Industry standard sampling preparation procedures were used such as Blanks, Standards and Repeat assays. Lab results will be reviewed and checked for deviation using lab certified references and in house analysis
	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.	 5kg splits were collected directly from cyclone using industry standard procedures and sent directly to lab. Blanks, Standards and Repeat assays have been included at set intervals throughout sampling.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate for this methodology.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. Nature of QC procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy and precision have been established. 	 Samples are currently being submitted with assays pending. No geophysical tools used. Standards and duplicates used as QC measures at a frequence of approximately 1:20.

Section 1 Drilling and Magnetic Susceptibility Data

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 Sampling and logging by contract field geologist. No assays presently. No holes twinned. All primary data from sampling and assaying is recorded in the Company data base. Documentation and QA QC review completed prior to final entry into database. Assays pending.
Location of data points	 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. Specification of the grid system used. Quality and adequacy of topographic control. 	 GPS +/- 5m. Sample locations were measured with Garmin handheld GPS. MGA_GDA94 Zone 50 Topographic surface recorded with handheld Garmin. Reflex True north seeking gyro used to downhole survey each hole.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	 No assays reported, assays pending. Data spacing, and drill hole spacing is considered sufficient to make inferences between sections of drilling and between drill holes along sections. Samples were typically 2m composites.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	 Orientation of sampling is considered unbiased. Interpretation subject to change with the addition of new data such as the recently completed drilling.
	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.	The interpretation, particularly on the cross section in the main body of this announcement, is an example of how new data changes interpretation, namely the dip of the magnetite bearing unit. Previously thought to be dipping steeply ENE, it now appears to be dipping moderately to the WSW.
Sample security	The measures taken to ensure sample security.	Chain of custody is being maintained from sample site to lab
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No reviews of data management systems have been carried out.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 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. 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. 	The tenement referred to in this report, E09/1781-I is 100% Athena owned and operated within native title determined claim WAD 6033/98, made on behalf of the Wajarri Yamatji People. The tenement is in good standing and no known impediments exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Historic exploration within the greater project area largely confined to south of a line extending from Iniagi Well to the Byro East intrusion (Melun Bore). The earliest work with any bearing on Athena's activities is that of Electrolic Zinc Co (1969) exploring for chromitite at Iniagi 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.
Geology	Deposit type, geological setting and style of mineralisation.	Upper amphibolite to granulite metamorphic facies with mafic to ultramafic intrusive.
Drill hole Information	 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: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 	See table 1 of this document.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
	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.	No information has been excluded.
Data aggregation methods	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.	 Magnetic susceptibility results were averaged between intersections. No assay data reported
	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.	No metal equivalent used.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No assumptions used. Magnetic susceptibility is a strong indication of the concentration of magnetite mineralisation, however, this is in no way an absolute figure such as a laboratory assay.
Relationship between mineralisation	These relationships are particularly important in the reporting of Exploration Results.	
mineralisation widths and intercept lengths	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported	Drill hole azimuth approximately perpendicular to the strike of the mineralisation as it is known so far, and supported by aeromagnetic data.
	• 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').	True width not included in this document, only down hole intervals.
Diagrams	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.	See maps and tables within the body of this report.
Balanced reporting	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.	 The reporting of preliminary drill results, including magnetic susceptibility data is considered representative. Assays pending.
Other substantive	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological	All meaningful data and relevant information are contained within this report.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
exploration data	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.	
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	 Further work to include analysis of the assay data, and metallurgical testwork. This work will be followed with further infill and extensional drilling in order to elicit a maiden mineral resource estimate.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	 Planned drilling information is not complete. Maps within this report show the main anomalies and areas of interest.