

10 September 2021

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



BYRO INDUSTRIAL MINERALS PROJECT

FIRST PASS RAB PROGRAM COMPLETED AT THE BYRO E09/1552 TENEMENT

Athena Resources Limited (the Company) (ASX:AHN) is pleased to announce the completion of a RAB drilling program at the Company's 100% owned Byro Industrial Minerals Project within its Byro tenement E09/1552.

The projects drilled were Happy Union, Think Big and Vanderhum, all within tenement E09/1552. The magnetite bodies had not been previously drill tested.

Drilling was undertaken to determine if magnetite outcrop at the three project locations continued to depth, down dip, within the stratigraphic sequence. At the completion of drilling it was confirmed that magnetite at the outcrops continued to depths of greater than 80m.

Intersections were recorded using lithological logging and magnetic susceptibility readings by the onsite geologist. In all three project locations all holes finished within the magnetite bodies and remain open at depth.

Samples were taken at 1m intervals and are awaiting assay for confirmation of grade and assessment of impurities. DTR and LIMS metallurgy will be carried out on the samples to determine the viability of further drill testing.

Drilling was completed under Program of Work (PoW) Registration ID: 91543.

Athena Resources Limited



Figure 1. Project Locations. (green hatch)

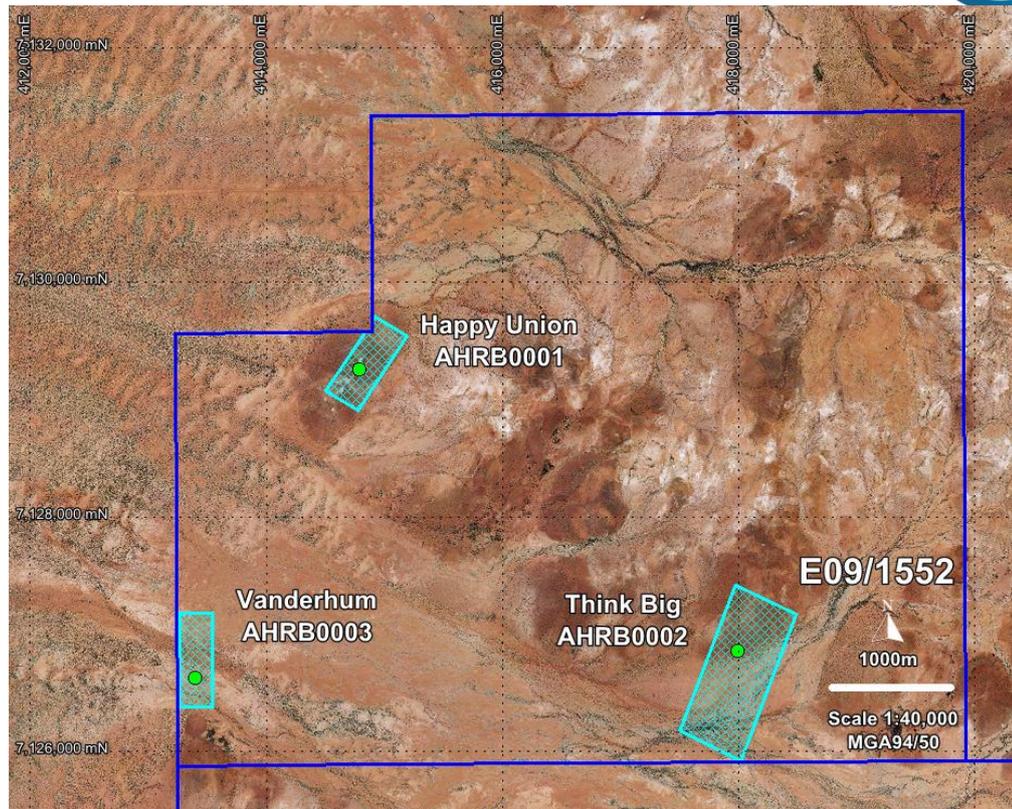


Figure 2. Drill Hole Locations on 1500nT Magnetic Image. (green dots)

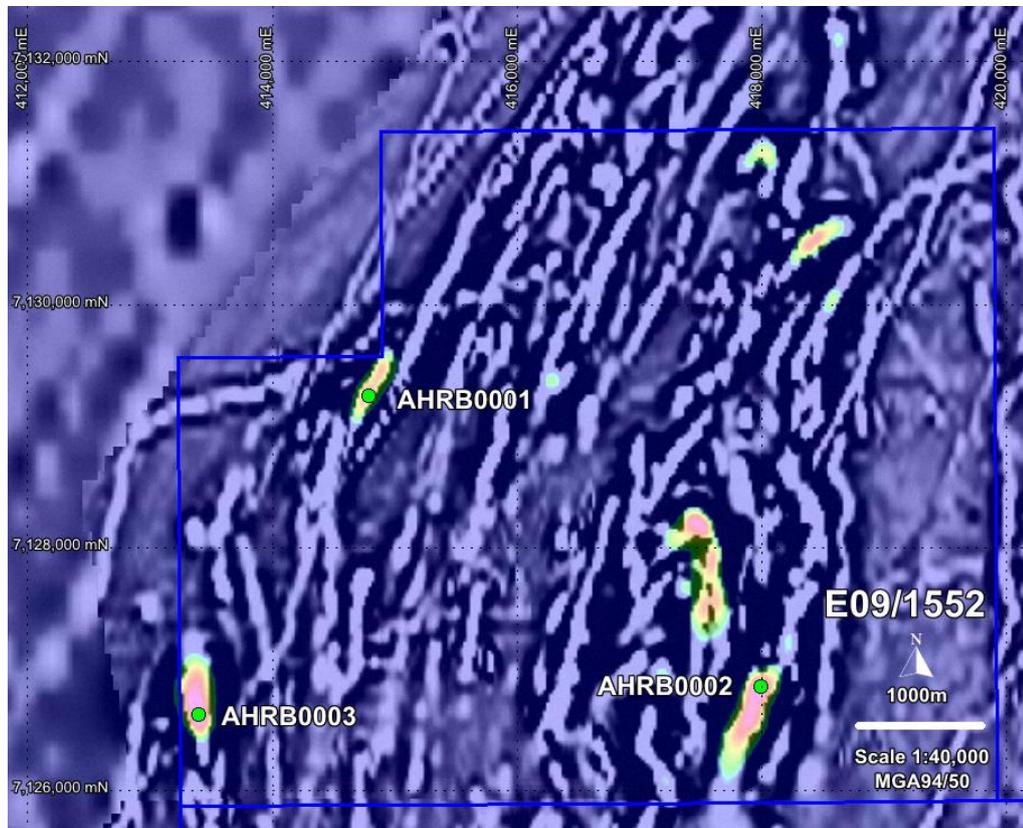




Figure 3. Drill Hole Chip Trays for AHRB0001



Table 1 AHRB0001 MagSus Readings. (within mineralised intersection).

Hole ID	Project	Depth From	Depth To	MagSus
AHRB0001	Happy Union	55	56	8.1
AHRB0001	Happy Union	56	57	112.9
AHRB0001	Happy Union	57	58	118.6
AHRB0001	Happy Union	58	59	125.8
AHRB0001	Happy Union	59	60	213.2
AHRB0001	Happy Union	60	61	214.1
AHRB0001	Happy Union	61	62	213.8
AHRB0001	Happy Union	62	63	213.3
AHRB0001	Happy Union	63	64	217.4
AHRB0001	Happy Union	64	65	212.3
AHRB0001	Happy Union	65	66	214.1
AHRB0001	Happy Union	66	67	214.1
AHRB0001	Happy Union	67	68	210.5
AHRB0001	Happy Union	68	69	211.4
AHRB0001	Happy Union	69	70	214.2
AHRB0001	Happy Union	70	71	219.9
AHRB0001	Happy Union	71	72	212.5
AHRB0001	Happy Union	72	73	210.3
AHRB0001	Happy Union	73	74	227.6
AHRB0001	Happy Union	74	75	128.8
AHRB0001	Happy Union	75	76	213.8
AHRB0001	Happy Union	76	77	214.1
AHRB0001	Happy Union	77	78	213.2
AHRB0001	Happy Union	78	79	212.1
AHRB0001	Happy Union	79	80	212.6



Figure 4. Drill Hole Chip Trays for AHRB0002

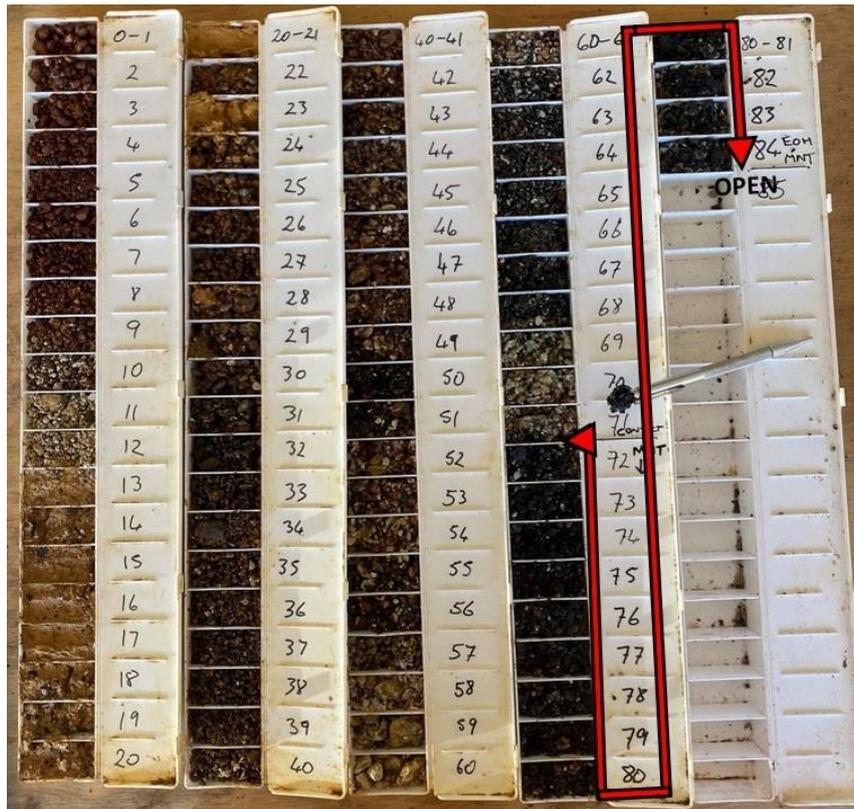


Table 2. AHRB0002 MagSus Readings, (within mineralised intersection).

Hole ID	Project	Depth From	Depth To	MagSus
AHRB0002	Think Big	70	71	9.1
AHRB0002	Think Big	71	72	268.4
AHRB0002	Think Big	72	73	451
AHRB0002	Think Big	73	74	510
AHRB0002	Think Big	74	75	618
AHRB0002	Think Big	75	76	312
AHRB0002	Think Big	76	77	545
AHRB0002	Think Big	77	78	505
AHRB0002	Think Big	78	79	603
AHRB0002	Think Big	79	80	850
AHRB0002	Think Big	80	81	895
AHRB0002	Think Big	81	82	520
AHRB0002	Think Big	82	83	295
AHRB0002	Think Big	83	84	323



Figure 5. Drill Hole Chip Trays for AHRB0003



Table 3. AHRB0003 MagSus Readings (within mineralised intersection).

Hole ID	Project	Depth From	Depth To	MagSus
AHRB0003	Vanderhum	70	71	16.2
AHRB0003	Vanderhum	71	72	456.3
AHRB0003	Vanderhum	72	73	330.5
AHRB0003	Vanderhum	73	74	358.1
AHRB0003	Vanderhum	74	75	355.4
AHRB0003	Vanderhum	75	76	374.3
AHRB0003	Vanderhum	76	77	150.5
AHRB0003	Vanderhum	77	78	141.7
AHRB0003	Vanderhum	78	79	262.5
AHRB0003	Vanderhum	79	80	240.3
AHRB0003	Vanderhum	80	81	253.4

Table 4. Drill Hole Collar Details.

Drill Hole ID	Project	East (MGA94/50)	North (MGA94/50)	Dip	Azi	RL (m)	EoH (m)
AHRB0001	Happy Union	414,784	7,129,257	-90	0	315	80
AHRB0002	Think Big	417,985	7,126,855	-90	0	315	84
AHRB0003	Vanderhum	413,398	7,126,628	-90	0	305	81



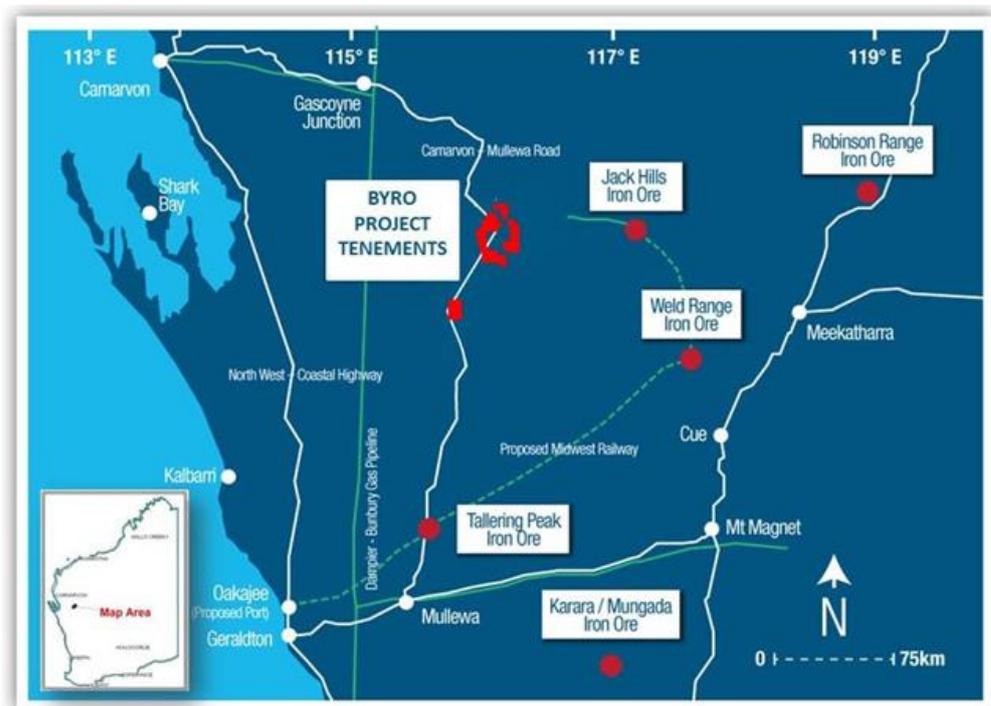
Table 5. Magnetite Intercepts

Hole ID	Magnetite Intercept	(m) From	(m) To	EOH
AHRB0001	24	56	80	80
AHRB0002	13	71	84	84
AHRB0003	10	71	81	81

ABOUT ATHENA RESOURCES LIMITED

Athena Resources Limited (ASX:AHN), which is based in Perth was listed on the ASX in 2006 and currently has 812 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.

Regional Project Location



This announcement was authorised by the Board for release to the ASX.

Yours faithfully

Ed Edwards
Executive Director
ATHENA RESOURCES LIMITED

Athena Resources Limited



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
Sampling techniques	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Drill cuttings were logologically logged and measured for magnetic susceptibility. The measurement tool used for Magnetic susceptibility was a handheld KT-10 with serial number # 8791
	<ul style="list-style-type: none"> Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	<ul style="list-style-type: none"> Multiple magnetic susceptibility readings were taken over 1-meter intervals with the average reading noted from scanning mode
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Rotary Air Blast drilling was used to obtain 1 m samples from which 5 kg samples were taken for assay per 1-meter intervals' Although the nature of RAB drilling includes inherent contamination from previous intervals it is an appropriate drilling method to determine basic lithology.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> Rotary Air Blast (RAB)
Drill sample recovery	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Original samples recovered from drill cuttings at 1m intervals Collection of RAB cuttings both chips and fines No bias was observed between recovery and sample quality or loss or gain



Criteria	JORC Code explanation	Commentary
	<i>and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	
Logging	<ul style="list-style-type: none"> • <i>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.</i> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> • <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • Original drill chips were geologically logged as well as recording major geotechnical features observable in chip over the full depth of the holes by a qualified geologist. • Sample piles and chip trays were photographed. • All intercepts were logged to an accuracy of 1m intervals.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> 	<ul style="list-style-type: none"> • RAB drill cuttings
	<ul style="list-style-type: none"> • <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> 	<ul style="list-style-type: none"> • Original samples were retrieved directly from dry rotary returns for assay
	<ul style="list-style-type: none"> • <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> 	<ul style="list-style-type: none"> • Samples were collected directly from cuttings and are representative of the interval. • Samples are suitable for application of best practice XRF analysis as per ALS Laboratories
	<ul style="list-style-type: none"> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> 	<ul style="list-style-type: none"> • Industry standard sampling preparation procedures were used. Lab results will be reviewed and checked for deviation using lab certified references and in house analysis
	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • 5kg splits were taken directly from drill cuttings using industry standard procedures
	<ul style="list-style-type: none"> • <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> • Original average drill sample size retrieved was 5kg, average chip size is 2-20mm. Sample sizes taken are large enough to be representative of the whole rock constituents.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> • <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the</i> 	<ul style="list-style-type: none"> • XRF Assays pending



Criteria	JORC Code explanation	Commentary
	<p><i>parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <ul style="list-style-type: none"> • <i>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.</i> 	
<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • Initial inspection and logging by onsite Geologist • No adjustments have been made to readings • Samples and assays to be verified using standard QA QC methods • All primary data from drilling is recorded in the Company data base. • Assays pending
<p>Location of data points</p>	<ul style="list-style-type: none"> • <i>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.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • GPS +/- 10m Sample locations were measured with Garmin hand held GPS. Accuracy is within +/-5m • MGA_GDA94 Zone 50 • Topographic surface recorded with handheld Garmin
<p>Data spacing and distribution</p>	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>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.</i> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • 1 meter sample intervals are appropriate for initial drilling of a magnetite lens to determine lithology. • 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. • No sample compositing has been applied throughout the process.
<p>Orientation of data in relation to geological structure</p>	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> 	<ul style="list-style-type: none"> • This report refers to testing a down dip extension of magnetite outcrop with vertical hole orientation. • This report makes no interpretation or reference to the shape or size of the structure.

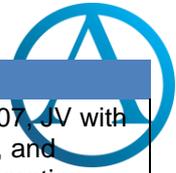


Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> No orientation based sampling bias has been identified in this data at this point
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Chain of custody was maintained from sample site to lab
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No reviews of data management systems has been carried out

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The tenement referred to in this report, E09/1552 is 100% Athena owned and operated within native title determined claim WAD 6033/98, made on behalf of the Wajarri Yamatji People.
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The tenement is in good standing and no known impediments exist. See tenement listing attached.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Historic exploration within the greater 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 Electric 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-



Criteria	JORC Code explanation	Commentary
		<p>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).</p>
Geology	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> • Upper amphibolite to granulite metamorphic facies with mafic to ultramafic intrusive. Granite and migmatite are common
Drill hole Information	<ul style="list-style-type: none"> • <i>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:</i> <ul style="list-style-type: none"> • <i>easting and northing of the drill hole collar</i> • <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> • <i>dip and azimuth of the hole</i> • <i>down hole length and interception depth</i> • <i>hole length.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Refer to body of text for collar location, elevation, dip, azi, intercepts and EoH for holes drilled AHRB0001, -AHRB0002, -AHRB0003 • No information has been excluded
Data aggregation methods	<ul style="list-style-type: none"> • <i>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.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • No weighting, min max, ave, truncation or cut off techniques were used in this report • No metal equivalent are referred to in this report



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> No metal equivalent are referred to in this report
Relationship between mineralisation widths and intercept lengths	<p>These relationships are particularly important in the reporting of Exploration Results.</p>	
	<ul style="list-style-type: none"> If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported 	<ul style="list-style-type: none"> There is no relationship to the geometry of mineralisation or drill hole angle.
	<ul style="list-style-type: none"> 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'). 	<ul style="list-style-type: none"> There is no relationship to the width or depth extent of the body only down hole length.
Diagrams	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All relevant data is tabulated within the body of the announcement .
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> This report contains all meaningful results to date. Assays are pending.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> This report contains all meaningful results to the completion of drilling.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). 	<p>Further metallurgical work will be undertaken to obtain definitive and conclusive data to be incorporated into the exploration database. If warranted further drilling will be undertaken to gain better understanding of the body shape, size and characteristic.</p>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none">• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	<ul style="list-style-type: none">• Planned drilling information is not complete.• Future drilling is commercially sensitive and is not included in this report.



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	

CAUTIONARY NOTES AND DISCLOSURES

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.