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asx announcement

27 November 2025

Maiden Byro South Mineral Resource Estimate

160% increase in available resources at the Byro Magnetite Project

Athena Resources Limited (**ASX: AHN**) ("**Athena**" or "**the Company**") is pleased to announce the completion of a maiden Mineral Resource Estimate (**MRE**) for its 100% owned Byro South Prospect (**Byro South**), located in the Midwest iron ore province of Western Australia. Byro South, one of five prospect that make up the Byro Magnetite Project, is located 20km from Athena's flagship FE1 Deposit. The maiden Byro South MRE represents a significant expansion of Athena's magnetite portfolio.

Highlights

- **Maiden Inferred Byro South MRE of 47 Million tonnes (Mt) at 29% Fe.**
- **Byro South MRE delivers a 160% increase in the Global Byro Magnetite Project MRE (Byro South + FE1), which now totals 76Mt at 26% Fe.**
- **Initial metallurgical test work demonstrates Byro South has similar properties to FE1 potentially providing increase to the life of the Byro Magnetite Project[1].**

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

"Athena's exploration programs at the Byro Magnetite Project have delivered exciting progress with a Maiden Resource Estimate at Byro South. The Byro South MRE, when combined with our FE1 prospect, has increased available resources by 160% which together have the potential to increase in the life of the Byro Magnetite Project. Further potential resource growth may be possible through exploration of the three other prospects in vicinity of Byro South.

Athena is very excited by the results of the Byro South MRE and testing programs. By demonstrating similar metallurgical properties to FE1, the Byro South prospect has the potential to be an expansion opportunity for the scale of the Byro Magnetite Project."[2]

[1] AHN ASX Announcement 20 May 2024
[2] These are aspirational statements and are not intended to be forecasts, as the Company does not yet have reasonable grounds to expect that those matters will be achieved.

Mineral Resource Estimate

The MRE for the Byro South Magnetite Project, reported above a 22% cut-off and below the 300m RL for total iron content only, is shown below in Table 1:

Byro South Mineral Resource Estimate

Classification	Mass	Grade Fe	DTR (P_{80} 90 µm)
Unit	Mt	%	% mass
Inferred	47.0	29.0	32.0
Total	**47.0**	**29.0**	**32.0**

Table 1: Byro South Inferred Mineral Resource Estimate (22% Fe cut-off) as at 21 November 2025

Notes:

- *Interpretation of the mineralised zones was based on logging geology and magnetic susceptibility.*
- *Mineral Resources were estimated into a model of block size 10m x 10m x 2m.*
- *Tonnages and grades are undiluted and grades uncapped, supported by normal statistics for each element.*

The Global MRE for the Byro Magnetite Project (FE1 and Byro South combined) is shown below in Table 2:

Global Byro Magnetite Project Mineral Resource Estimate (FE1 and Byro South)

Classification	Mass	Grade Fe	DTR (P_{80} 90 µm)
Unit	Mt	%	% mass
Indicated	24.0	25.1	33.4
Inferred	52.3	26.6	32.0
Total	**76.3**	**26.1**	**32.5**

Table 2: Total Mineral Resource Estimate at Byro Magnetite Project

Notes:

- *FE1 Mineral Resource is at 20% cut-off refer to ASX announcement 17 January 2023*
- *Byro South Mineral Resource is at 22% cut-off.*
- *Totals may not be able to be reproduced due to the effect of rounding*

Resource Growth of the Byro Magnetite Project (Mt)

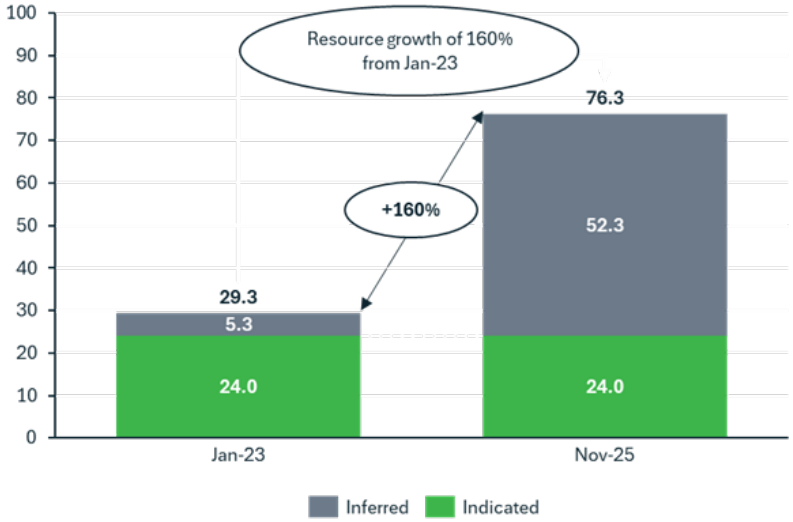

Figure 1: Resource Growth of the Byro Magnetite Project (Mt)

The Byro South MRE has delivered a 160% increase in the Total Byro Magnetite Project MRE as shown above in Figure 1.

Location

Byro South is contained within Exploration Licence E09/1781 which covers an area of 49.3 km² and is located approximately 680km north-north-east of Perth with Gascoyne Junction 160km to the northwest. The Carnarvon-Mullewa Road passes just to the west of the area and the Murchison Roadhouse is located about 90km to the south.

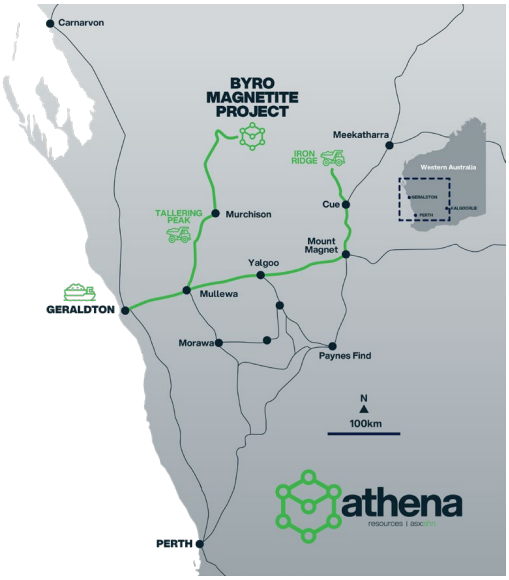

Figure 2: Byro Magnetite Project Location

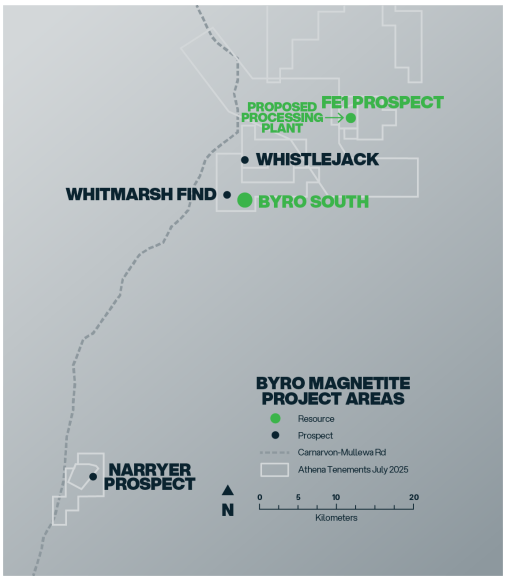

Figure 3: Byro South and FE1 locations

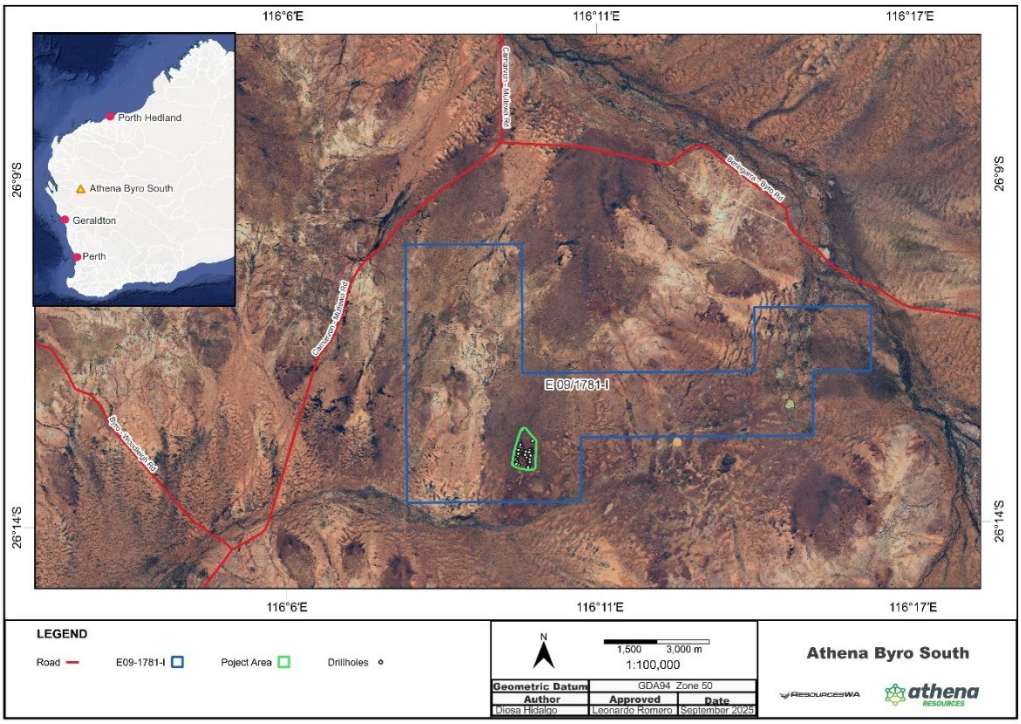

Figure 4: Byro South Project Location

Tenement ID	Type	Holder	Grant Date	Expire Date	Area
E09/1781-I	Exploration Licence	Byro Exploration Pty Ltd	14/04/2011	13/04/2027	49.3 km^3

Table 3: Tenement Summary

Geology & Geological Interpretation

Regional Geology

The Byro Project is situated in the western part of the Archaean Narrayer Terrane, the north-western most subdivision of the Yilgarn Craton. The edge of the craton lies within 20 kilometres to the west of the Project area and is marked by the Darling and Meeberrie Faults.

Phanerozoic sedimentary basins occur beyond this major geological break. Extensive Tertiary weathering and fluviatile/alluvial sedimentary processes have obscured well over 60% of the Archaean bedrock in the Byro Project Area.

Local Geology

The Byro South Project area is flat with occasional breakaway ridges and extremely sparse, low, rock outcrop and is dominated by a variety of regolith types.

Laterised gneiss and migmatites outcrop to the north of the Project area and breakaways often approximate the contact between the quartzo-feldspathic rocks and layered mafic-ultramafic rocks which host the magnetite mineralisation. Layered intrusions are covered by Tertiary sediments and clays of varying thickness and rare gabbro and anorthosite outcrops may be related to magnetite bearing units.

In the south, the ferruginous duricrust and upper saprolite has been eroded, leaving subcroppping gneiss and migmatite.

Athena Resources considers that the Byro South intrusions are prospective for:

- Orthomagmatic magnetite and titanomagnetite deposits;
- Stratabound PGM-enriched sulphide and/or chromite-bearing deposits (reefs) at various stratigraphic levels in the intrusion;
- Magmatic nickel-copper-cobalt-PGE sulphide deposits in embayments along the base of the intrusion; and
- Supergene (laterite-hosted) nickel-cobalt-PGM deposits.

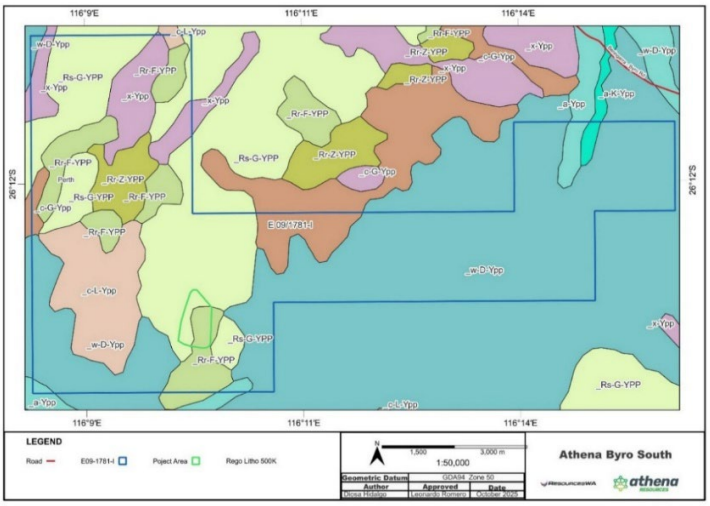

Figure 5: Byro Project Local Geology

Mining and Metallurgical Methods

Resource extraction method will be traditional open pit mining and mineralised iron ore would be extracted above a natural cut-off of approximate 22% Fe.

The mineral processing would be through crushing, grinding and magnetic separation into a concentrate of magnetic iron ore. Flotation could be included to improve quality if techno-economics prove feasible.

Other modifying factors such as access to utilities, approvals and other technical components are assessed as non-fatal flaws, however, further work is required to validate the techno-economic feasibility of the project.

Drilling and Sampling

Athena announced the results of the most recent round of RC drilling at Byro South in May 2025[3]. The 2025 drilling campaign and the previous drilling completed in 2011[4] was used to inform the Mineral Resource estimate, and the description of drilling and sampling is in Table 1. The 2011 drilling results were reviewed in detail and adequately interpreted to ensure JORC 2012 compliance.

The 2011 campaign was completed with a combination of RC and diamond drilling, all holes being drilled vertically. RC drilling was undertaken using a nominal 5 1/2" bit in both the 2011 and 2025 campaigns. Diamond drilling undertaken in 2011 used NQ-sized core.

Sampling was undertaken on two metre intersections for the RC drilling and sampling by lithology for the diamond drilling. All intervals were subjectively logged in the field with magnetic susceptibility being recorded along with lithological information. Magnetic samples were submitted for Davis Tube analysis and a limited geochemical suite including total iron, phosphorus, titanium, aluminium and silica. No specific QAQC analysis is recorded however

[3] AHN ASX Announcement 9 May 2025
[4] AHN ASX Announcement 14 December 2011

QAQC procedures were applied in the laboratory. Drillhole locations were recorded by handheld GPS with an implied accuracy of +/- 5m and downhole surveys were undertaken at approximately 30m intervals.

Samples in both RC drilling campaigns were collected as approximately 5kg splits from a cone splitter for the 2025 campaign and from a riffle splitter for the 2011 campaign. Diamond drill core was halved with a core saw according to magnetic susceptibility readings. Duplicates, blanks and certified standards were inserted into the sample stream at a ratio of approximately 1:5 samples and demonstrated no material bias. Samples were submitted to a laboratory for X-ray diffraction analysis using a calibrated machine, analysing approximately 50g homogenised subsamples. A suite of 27 elements was analysed, including total iron, silica, loss on ignition, phosphorus, titanium, manganese and sulphur. The Competent Person does not observe indications of material sampling bias in the data.

The resultant drill spacing of the 2011 and 2025 campaigns forms a grid of approximately 130m x 280m across the strike of the magnetic anomaly that defined the mineralisation.

The Competent Person is satisfied that the 2011 drilling was undertaken to appropriate standards to inform an Inferred Mineral Resource estimate and that the laboratory QAQC data indicates that there is no bias that is material to sampling and assaying of a bulk commodity that requires secondary processing to produce a saleable product.

The twenty drillholes that were used for the South Byro MRE are listed in Appendix 1.

Estimation Methodology

Geological Modelling Procedures

The mineralisation is interpreted to form an amorphous mass below the base of complete oxidation and at the contact between a layered intrusive and a gneiss. The Competent Person has examined detailed magnetic data for the deposit and considers that there will be some structural control at a micro-scale, probably related to layering and chemical segregation but the current spacing of the drilling does not permit interpretation at this scale.

In the absence of meaningful detailed interpretation, an algorithm[5] was used that internally calculates variograms for drill intercepts and interpolates grades into a block model along the variogram axes. The Competent Person deems this approach to be appropriate for use in an Inferred Mineral Resource estimate for a bulk commodity that produces a saleable concentrate and for which detailed structural controls are less relevant.

Wireframes were created at various cut-off grade intervals from the 22% lower cut-off and were used to report the mineralisation. Observation of the magnetic susceptibility data indicates that magnetite is confined to fresh rock below the 300 m RL (about 30m below surface) and the model has been reported below this level.

Interpolation was performed up to 250m distance from the informing drill holes based on raw variograms (Figure 6) and no extrapolation beyond nominal sampling spacing was completed.

Statistical, Analysis, Compositing and Capping

The block model was populated with centroid easting, northing, RL, Fe (%) and a calculated bulk density. The estimation of contaminants, such as P, Ti, Al, Si, Mn, oxidation state and metallurgical recovery (Davis Tube) was examined; however, in the absence of iron species assays, it was determined that estimation of Fe alone was supported by the data.

[5] Micromine Grade Co-Pilot Version 2025.5

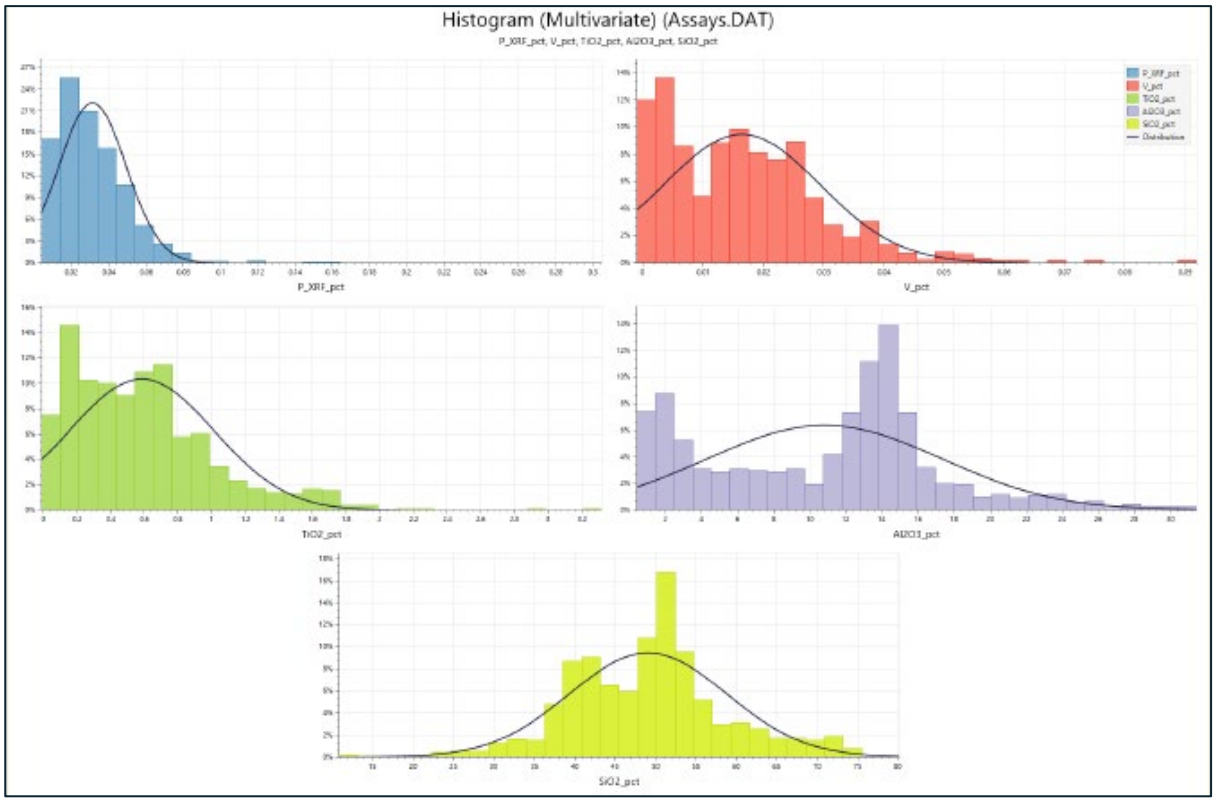

Figure 6: Byro South Minor Element Distributions

The ultimate product is a concentrate and with the metallurgical recovery of equal importance to the model as the headline iron grade.

The raw iron assays were plotted on a histogram and two normally-distributed populations were observed, one with a mean of around 8% Fe and the other with a mean of around 34% Fe. These are interpreted to represent a goethite-limonite alteration product in the oxide zone (the lower population) and magnetite rich material in the fresh migmatite (the upper population).

Raw drill samples were composited to 2m intervals in consideration of the block dimensions and the bulk nature of the mineralisation.

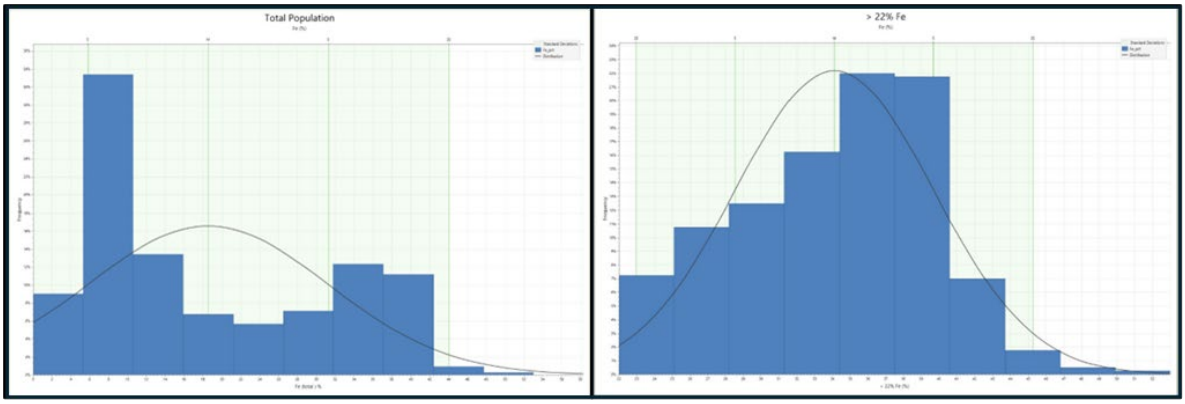

Figure 7: Total Fe Population Histogram

The upper population has a natural statistical cut-off of around 22% Fe and this was used as a cut-off to inform the model based on the processing performance and is deemed suitable cutoff grade and its economic performance is solely determined by its metallurgical processing characteristics rather than contaminant grades.

The maximum value was around 52% Fe and no top cut was applied, based on the shape of the normal distribution (Figure 6).

Interpolation was performed, the algorithm searching to 250m distance from the informing drill holes based on raw variograms prepared from the data. Grade shell wireframes were generated at a series of cut-offs above 22% and the block model reported within the wireframes and below 300m RL (Table 4 and Figure 8).

Cut off (% Fe)	Mt	Grade (% Fe)
22	47	29.8
25.6	39	31.7
29.2	28	33.5
32.8	14	35.7
36.4	5	37.9

Table 4: Byro South Grade Distribution

The interpolation was constrained beneath the topographic wireframe and within the interpreted 22% Fe wireframe. This approach is deemed reasonable by the Competent Person for modelling the geometry and distribution of the mineralisation.

The geological continuity of the mineralisation is considered to be excellent, recognising that this is a bulk deposit developed within a migmatite and evidenced by lithological logging and the behaviour of the variograms. The mineralised migmatite is expected to be extracted in its entirety above a cut-off (22% Fe) and its economic performance solely determined by its metallurgical processing characteristics rather than contaminant grades.

The MRE for Byro South is reported above a 22% Fe cut-off and below the 300m RL for total iron content only (Table 5).

Classification	Mass	Grade Fe	DTR (P_{80} 90 µm)
Unit	Mt	%	% mass
Inferred	47	29	32
Total	**47**	**29**	**32**

Table 5: Byro South Inferred Mineral Resource (22% Fe cut-off)

Notes:

- *Interpretation of the mineralised zones was based on logging geology and magnetic susceptibility.*
- *Mineral Resources were estimated into a model of block size 10m x 10m x 2m.*
- *Tonnages and grades are undiluted and grades uncapped, supported by normal statistics for each element.*

Validation of the MRE was carried out by visually comparing blocks against drillhole assay and magnetic susceptibility data (Figure 8).

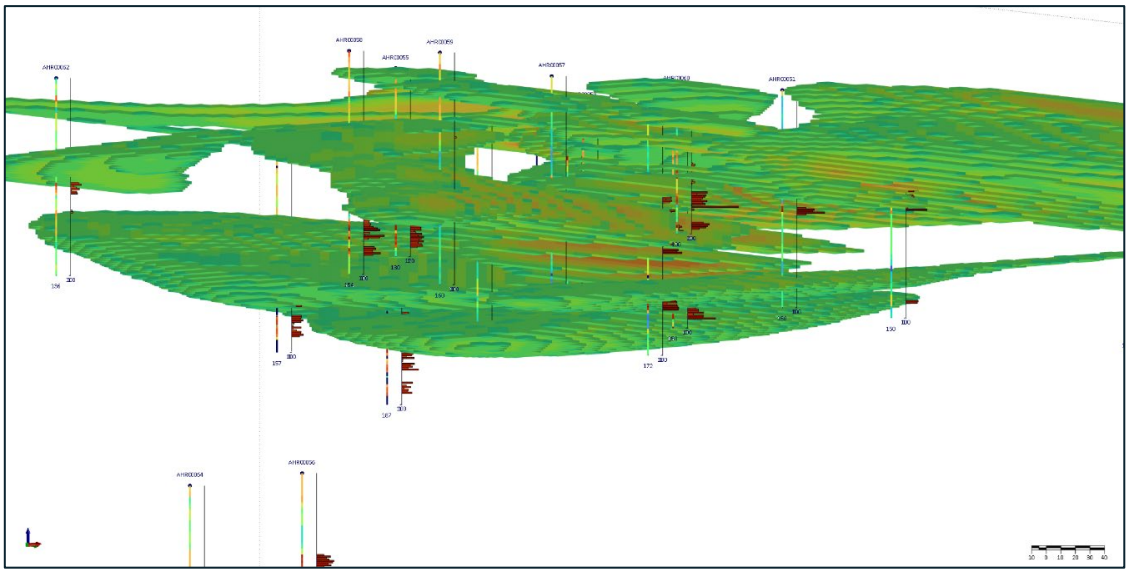

Figure 8: Block Model >22% Fe against drilling and magnetic susceptibility

Reasonable Prospects for Eventual Economic Extraction

The recently completed Davis Tube Recovery (**DTR**) metallurgical test work[6] indicates an average DTR of 32% (by mass) to produce a magnetite product of around 70% Fe at 125µm grind size. Most sediment-hosted magnetite deposits operate at a head grade in the mid 20% Fe at a grind size of 60µm to 40µm for a mass yield of around 30% and metallurgical recovery <60%.

In consideration of the demonstrably coarse grain size and favourable recoveries to produce a saleable product, Athena Resources considers that Byro South has reasonable prospects for eventual economic extraction with a product directed toward the coal washery market or a niche blast furnace feed.

Next Steps

Athena will direct future efforts at Byro South to aim to improve the confidence level of the MRE, Indicated or better, to inform economic studies. The following key activities will be completed:

- Continue examining marketing opportunities for the magnetite product, preferably by supplying test parcels of product to potential customers;
- Assay for a magnetite-centric element suite in future programmes;
- Commission construction of a geophysical inversion model of the magnetic data to better define the shape and location of mineralisation; and
- Undertake a Scoping Study to identify project economics and guide future resource drilling.

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

For further information:

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[6] AHN ASX Announcement 30 September 2025

About Athena Resources Limited

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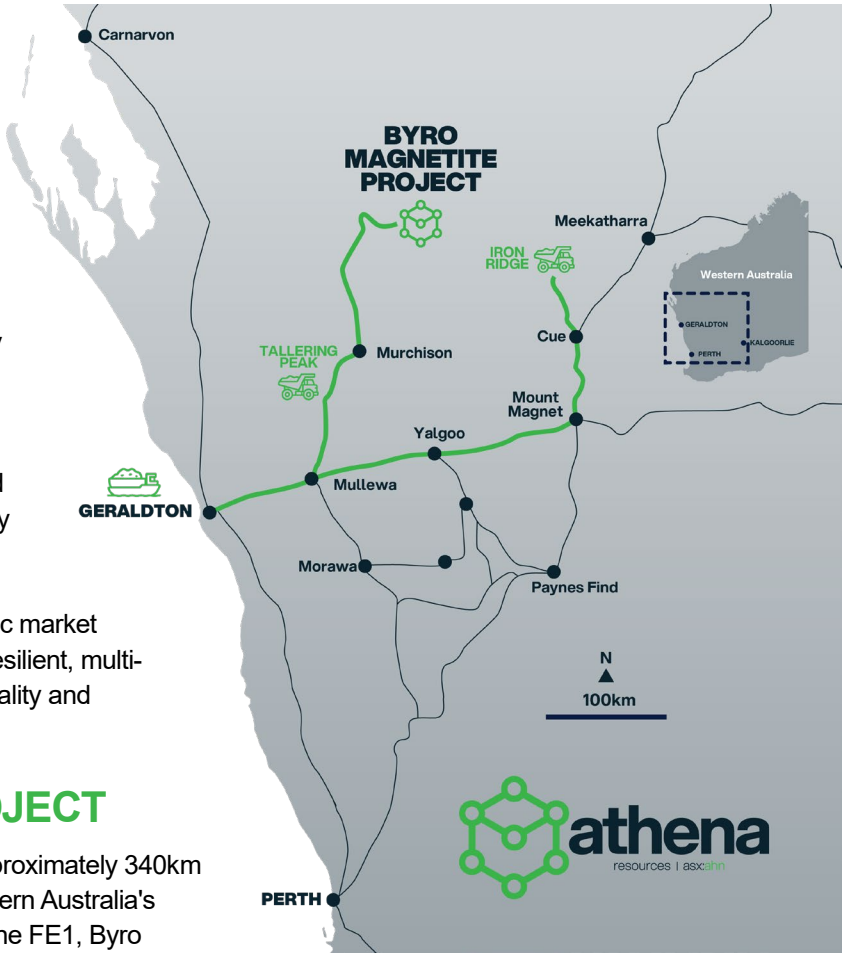
Athena Website

Athena Resources (**ASX: AHN**) is developing premium magnetite solutions for advanced manufacturing and specialty steel markets.

The Company's flagship Byro Magnetite Project in Western Australia has produced concentrate samples of exceptional quality at 70%+ Fe concentrate.

Through technical excellence and strategic market positioning, Athena is seeking to build a resilient, multi-industry minerals business focused on quality and innovation.



BYRO MAGNETITE PROJECT

The Byro Magnetite Project is located approximately 340km northeast of the Port of Geraldton in Western Australia's Mid-West region. The project comprises the FE1, Byro South and Narryer prospects.

Mineral Resource Estimate:

The Mineral Resource Estimate of Byro Magnetite Project (FE1 and Byro South) is currently as follows:

Classification	Mass	Grade Fe	DTR
Unit	Mt	%	% mass
Indicated	24.0	25.1	33.4
Inferred	52.3	26.6	32.0
Total	**76.3**	**26.1**	**32.5**

Note:

- *FE1 Mineral Resource is at 20% cut-off, refer to ASX announcement 17 January 2023 ('Mineral Resource Estimate – Byro FE1 Magnetite Project').*
- *Byro South Mineral Resource is at 22% cut-off.*

CAUTIONARY NOTES AND DISCLOSURES

Forward Looking Statements

This announcement may include forward-looking statements. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should," and similar expressions may be 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 – Geology and Resource Estimation:

The information in this announcement that relates to the Mineral Resource Estimate for the FE1 magnetite deposit has been extracted from the Company's ASX announcement titled 'MRE – upgraded JORC classification and increased tonnes' released on 17 January 2023 and which is available at www.asx.com.au. The Competent Person for the FE1 Mineral Resource Estimate in that announcement was Mr Liam Kelly. Mr Kelly is a Member of the Australasian Institute of Mining and Metallurgy (# 306501). The Company confirms it is not aware of any new information or data that materially affects the Mineral Resource Estimate information set out in the original announcement and confirms that all material assumptions and technical parameters underpinning the Mineral Resource Estimate in the original announcement continue to apply and have not materially changed. The Company also confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the announcement.

The information in this announcement that relates to the Byro South Mineral Resource Estimate is based on, and fairly represents, information and supporting documentation compiled by the Competent Person Mr Jeremy Peters, FAusIMM CP (Min Geo), a full-time employee of Burnt Shirt. Mr Peters has sufficient relevant experience in the reporting of magnetite Mineral Resources, that is relevant to the style of mineralisation and type of deposit under consideration, to act as a Competent Person as defined by the JORC Code and consents to his nomination as such in this report. Mr Peters is a Fellow of the Australasian Institute of Mining and Metallurgy (Member ID 110311) and has more than five years' experience in the exploration for, estimation of and reporting of magnetite mineralisation and qualifies as a Competent Person as defined in the JORC Code. Mr Peters consents to the inclusion in this Announcement of the matters based on his information in the form and context in which it appears. Mr Peters does not currently hold securities in the Company.

Previously announced Exploration Results:

The information in this announcement that relates to previously announced Exploration Results has been extracted from the Company's ASX announcement titled 'Completion of RC Drilling at Byro South' released on 9 May 2025 and which is available at www.asx.com.au.

The Competent Person for the Exploration Results in that announcement was Mr Martin Dormer. The Company confirms it is not aware of any new information or data that materially affects the exploration results information set out in the original announcement and confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the announcement.

The information in this announcement that relates to previously announced Exploration Results has been extracted from the Company's ASX announcement titled 'Byro South Drilling Assays and Metallurgical Test Work Results' released on 30 September 2025 and which is available at www.asx.com.au.

The Competent Person for the Exploration Results in that announcement was Mr Paul Hogan and the Competent Person for the Metallurgical Results was Mr Terence Weston. The Company confirms it is not aware of any new information or data that materially affects the exploration or metallurgical results information set out in the original announcement and confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the announcement.

Mineralisation Estimation Results:

Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of Feasibility or other economic studies.

Mineral Resources which are not Ore Reserves do not have demonstrated economic viability. There is no certainty that all or part of the Mineral Resource will be converted into Ore Reserves. The estimate of Mineral Resources may be materially affected by the Modifying Factors.

The quantity and grade of Inferred Mineral Resources are uncertain in nature and there has been insufficient exploration to define these as an Indicated or Measured Mineral Resource and it is uncertain if further exploration will result in upgrading it to an Indicated or Measured Mineral Resource category.

Appendix 1

Table 1: Drillholes used in the Mineral Resource Estimate

Drillhole	Hole Type	Depth	Grid	East	North	RL
AHDH0004	DDH	172.0	MGA94-50	416,951	7,009,530	325
AHRC0045	RC	150.0	MGA94-50	416,881	7,009,644	334
AHRC0046	RC	150.0	MGA94-50	416,774	7,009,661	339
AHRC0047	RC	78.0	MGA94-50	416,676	7,009,590	334
AHRC0048	RC	12.0	MGA94-50	416,711	7,009,780	337
AHRC0048a	RC	87.0	MGA94-50	416,719	7,009,780	337
AHRC0049	RC	150.0	MGA94-50	419,778	7,009,558	336
AHRC0050	RC	132.0	MGA94-50	416,864	7,009,567	333
AHRC0051	RC	150.0	MGA94-50	419,987	7,009,632	341
AHRC0052	RC	150.0	MGA94-50	417,004	7,009,730	340
AHRC0055	RC	130.0	MGA94-50	416,932	7,009,278	334
AHDH0003	DDH	98.3	MGA94-50	416,710	7,009,707	339
AHRC0053D	RC/DD	186.6	MGA94-50	416,591	7,009,691	338
AHRC0057	RC	150.0	MGA94-50	416,950	7,009,426	338
AHRC0058	RC	154.0	MGA94-50	416,953	7,009,201	339
AHRC0059	RC	160.0	MGA94-50	417,021	7,009,216	335
AHRC0060	RC	100.0	MGA94-50	416,978	7,009,528	335
AHRC0061	RC	150.0	MGA94-50	417,032	7,009,953	343
AHRC0062	RC	136.0	MGA94-50	416,635	7,009,275	344

Code 2012 Edition, Table 1

Section 1: Sampling Techniques and Data

(Criteria in this section applies to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (e.g. 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.* *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* *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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	For the 2025 Reverse Circulation drilling, (RC) was used to obtain 2m composite samples from which 5 kg samples were sent to ALS Laboratory for fused bead XRF multi-element analysis and additional metallurgical testwork. Dry drill samples taken every 1m directly from the cone splitter on the rig. Cyclone cleaned regularly and bulk sample piles separated on the ground. The Competent Person is satisfied that earlier drilling was sampled in an identical manner The 2011 diamond drilling was undertaken in accordance with appropriate standards as evidenced by core photography and the information contained in the drill logs. In both campaigns, magnetic susceptibility readings taken every metre from the first metre until the end of hole utilising a KT-10 Magnetic Susceptibility Meter.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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 in both campaigns was undertaken utilising a 5.5 inch bit. Sample chips were retrieved from a cone splitter assembly located at the drill exhaust cyclone. Diamond drilling in 2011 was undertaken using HQ core All drilling was orthogonal to the strike of magnetic anomalies identified in geophysics.
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.*	Lost or reduced samples due to difficult drilling conditions have been recorded in the logs. Original samples were recovered from the RC drill cuttings at 2m composite intervals Both fines and chips were recovered from the cyclone cone splitter. East metre the rods are lifted off bottom to maintain sample integrity. No sample weights were recorded and quantitative drill sample recovery is undetermined but the No bias was observed or established. Competent Person is satisfied that drill sample recovery will not be material to an Inferred Mineral Resource for a bulk commodity under these circumstances. The Competent Person is satisfied that the 2011 drilling was sampled in an identical manner.

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 are logged by a supervising geologist at the rig. Chip trays are also kept for future re-logging as necessary. Logging is qualitative and chips trays photographed for additional security Each metre is qualitatively logged for lithology, alteration, mineralogy, oxidation state and magnetic susceptibility.
Subsampling 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.* *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* *Quality control procedures adopted for all subsampling stages to maximise representivity of samples.* *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.* *Whether sample sizes are appropriate to the grain size of the material being sampled.*	No core was recovered in the 2025 campaign. A cone splitter was utilised for the 2025 drilling, attached to the cyclone and an approximately 5kg sample recovered from the splitter with the balance (approximately 25kg) being collected in a plastic bag. Sample preparation is conducted by the lab to considered industry standard specifications Industry standard sample preparation machines are cleaned in accordance with laboratory procedures. Laboratory results have been reviewed and checked for deviation using laboratory certified references and in-house standards and duplicates Historic core from diamond drilling was split using a core saw and half-core samples submitted for assay. Historic RC drilling was sampled using a riffle splitter attached to the cyclone in a similar manner to that for the 2025 drilling under then-current industry standards. The Competent Person considers sample sizes and techniques to be appropriate for a magmatic magnetite deposit.
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 quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	Samples are processed at an accredited laboratory. Magnetic susceptibility was verified at the laboratory on selected samples using a calibrated machine. Handheld magnetic susceptibility readings were used as a guide only Standards and duplicates used as QAQC measures at a frequency of approximately 1:5. The lab is not advised of standard or duplicate location within the assay stream. The Competent Person observed no material bias or anomalism in the data. No external lab checks were done
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 was undertaken by a suitably qualified and experienced geologist All primary data from sampling and assaying is recorded in the Company data base after data entry. No assay data is adjusted

Criteria	JORC Code explanation	Commentary
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Drillhole collar locations were measured with a handheld GPS and recorded in GDA94 MGA Zone 50. Drill holes were surveyed for deviation at approximately 30m downhole intervals.
	Specification of the grid system used.	
	Quality and adequacy of topographic control.	Accuracy is considered to be +/- 5m and the Competent Person considers that this is not material in early exploration of a bulk commodity.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The drilling at Byro South is on a grid with collars on a roughly 130m by 280m spacing across the strike of the magnetic anomaly.
	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.	Drillholes sampled at 2m downhole depth. Drillhole spacing variable but spatially coherent across the deposit Data spacing, and drill hole spacing is considered sufficient to make inferences between sections of drilling and between drill holes along sections
	Whether sample compositing has been applied.	Composites were selected for DTR testing based on grade and magnetic susceptibility.
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 in RC chips
	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.	Some fluctuations in the dip direction have been noted but are not considered enough to bias the sampling and could be the result of natural variation due to the metamorphic nature of mineralisation
Sample security	*The measures taken to ensure sample security.*	Chain of custody was maintained from sample site to lab. The supervising geologist collected, packaged and delivered samples personally
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	None performed

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	*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 group includes a single Mining Lease (M09/166-I) and four Exploration Licences (E09/1552-I, E09/1507-I, E09/1781-I, and E09/1637-I) for a combined total area of 379.81 km^2. The tenements are held by Complex Exploration Pty Ltd (80%) and Byro Exploration (20%) both of which are wholly owned subsidiaries of ASX listed company Athena Resources Limited ("AHN").
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Historic exploration activity within the project area is 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 Electrolytic Zinc Co (1969) exploring for chromitite at Iniagi Well, followed closely by Jododex Australia (1970-1974) at Byro East
Geology	*Deposit type, geological setting, and style of mineralisation.*	The geology is predominately quartzo-feldspathic gneisses and migmatites with amphibolites, quartzites, BIF's, felsic volcanics and layered mafic-ultramafic intrusions. Regional folding and thrusting have resulted in a steep dominant westerly dip and north-northeast strike, although locally this varies from north to east.
Drillhole information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:* *easting and northing of the drillhole collar* *elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar* *dip and azimuth of the hole* *downhole length and interception depth* *hole length.* *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.*	Drilling information is consistent broad intersections of recoverable magnetite, associated with haematite and is satisfied that the drilling information supports this interpretation
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* *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.* *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	Drillholes were sampled according to geology and the resultant information composited into 3m composites for modelling, inclusive of internal waste. Magnetite grades were determined by Davis Tube or proprietary Satmagan analysis and compared to the results of downhole magnetic susceptibility measurements. This results in formation of a regression that estimated magnetite grade from total iron grade. The Mineral Resource estimate was based on assay results.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.* *If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').*	There is no relationship between the geometry of mineralisation and drill hole angle – mineralisation is an amorphous chemical exsolution. It exhibits a north-south strike defined in magnetic geophysics and drilling has been undertaken orthogonal to this strike. The Competent Person observes variability in intersections of magnetite within this strike commensurate with its nature and geology but does not consider these to me material in the context of the overall deposit.
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 drillhole collar locations and appropriate sectional views.*	Diagrams are included at relevant sections in this Report. The Competent Person has taken and has attributed these diagrams from various material prepared by Athena and has no reason to doubt their accuracy or veracity.
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.*	Mineralisation has been reported at a variety of cut-off grades and appropriate statistics are reported for the relevant elements
Other substantive exploration data	*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.*	There have been various geological and geophysical surveys at South Byro at various times that have contributed to understanding of the geology of the deposit. These have been the subject of a recent intensive collation and interpretation campaign that has resulted in material improvements and extensions to the understanding of the continuity of both grade and geology. The Competent Person considers these to have been undertaken in an appropriate manner
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Further metallurgical work will be undertaken to obtain definitive and conclusive data to be incorporated into the exploration database. The Competent Person recommends that the Indicated Mineral Resource be used to underpin an economic Scoping Study (as defined by the JORC Code) of the mineralisation.

Section 3: Estimation and Reporting of Mineral Resources

(Criteria listed in section 2, and where relevant in section 2, also apply to this section)

Criteria	JORC Code explanation	Commentary
Database integrity	*Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* *Data validation procedures used.*	The drilling database was independently reviewed and audited by the Competent Person using data verification algorithms within the software. Minor errors were observed and corrected in the South Byro data, mainly relating to elevations corrections to the topography.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	No site visit undertaken by Burnt Shirt given the well-documented history of exploration and the

Criteria	JORC Code explanation	Commentary
	If no site visits have been undertaken indicate why this is the case.	Competent Person's historic activity and familiarity with the area.
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* *Nature of the data used and of any assumptions made.* *The effect, if any, of alternative interpretations on Mineral Resource estimation.* *The use of geology in guiding and controlling Mineral Resource estimation.* *The factors affecting continuity both of grade and geology.*	The Competent Person observes that the geology is locally complicated but the overall geology and magnetite distribution is well understood, at the scale of an Inferred Mineral Resource applied to bulk mineralisation. The continuity of the mineralisation is considered to be good, based on the drilling, geophysical interpretation, geostatistical analysis and geological mapping. It is likely that further drilling will bring considerable detailed variation to sectional interpretation but is unlikely to change the overall understanding of the mineralisation.
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The Mineral Resource estimate for South Byro is defined along approximately 2,500 m of strike length and 2,500 m width for the central portion, to a depth of 250 m
Estimation and modelling techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* *The assumptions made regarding recovery of by-products.* *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* *Any assumptions behind modelling of selective mining units.* *Any assumptions about correlation between variables.* *Description of how the geological interpretation was used to control the resource estimates.* *Discussion of basis for using or not using grade cutting or capping.* *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	Mineral Resource estimation, data validation and geostatistical analysis were undertaken in Micromine Origin 2025 proprietary software. No sectional interpretation (wireframe) was supplied with the data and given the nature of the mineralisation - a mineralised phase within a migmatite. Micromine's implicit modelling function was used to populate a block model and generate wireframes at a range of cut-off grades. The block model was constructed to encompass the South Byro drilling cluster, excluding holes that fall beyond a 250m circle of influence from a nearest neighbour. The model was cut to surface but was reported below the interpreted base of complete oxidation at around 300m RL. Block sizes (10m x 10m x 2m) were selected based on a meaningful selective mining unit. In the absence of geological interpretations and wireframes and considering the nature of the mineralisation, the Competent Person considers this approach to be appropriate to inform an Inferred Mineral Resource estimate.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages are reported on a dry basis.

Criteria	JORC Code explanation	Commentary
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	The mineralised migmatite will be extracted in its entirety above a natural cut-off (22% Fe) and its economic performance solely determined by its metallurgical processing characteristics rather than contaminant grades.
Mining factors or assumptions	*Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	Selective mining is unlikely to be practicable other than distinguishing un-mineralised migmatite and goethite/limonite from the target magnetite.
Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	In consideration of the demonstrably coarse grain size and favourable recoveries to produce a saleable product, the Competent Person considers that South Byro has reasonable prospects for eventual economic extraction, particularly as a satellite to any FE1 project.
Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	The Competent Person is not aware of any extraordinary environmental conditions on the tenements
Bulk density	*Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.* *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Bulk density was estimated into the block model by using a regression based on total iron content according to the formula: Fe (%) x 0.0279 + 2.6, which is commonly used for magnetite estimation.

Criteria	JORC Code explanation	Commentary
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.* *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity, and distribution of the data).* *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The Mineral Resource is classified as Inferred, based on drillhole spacing, data quality (and confidence) and search ellipse distances Uncertainty as to Inferred Mineral Resources because it cannot be assumed that all or any part of an Inferred Mineral Resource will result in estimation of an Indicated or Measured Mineral Resource as a result of continued exploration
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	No audits have been performed other than peer review. This is an initial Inferred Mineral Resource estimate subject to further exploration.
Discussion of relative accuracy/ confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure The Mineral Resource estimate is confined to the central, well drilled portion of the Project, where a geological interpretation is possible for magnetite mineralisation identified in drilling. The Inferred Mineral Resource can be readily increased in confidence through further drilling and metallurgical test work