DECEMBER 2019 – QUARTERLY REPORT

ATHENA RESOURCES LIMITED

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CONTACTS

Mr Ed Edwards
Executive Director

PROJECTS

Byro Project (Athena 100%):

Industrial Minerals, Iron Ore, Nickel-Copper-PGE's

SECURITIES

301 million Ordinary Shares

SHAREHOLDERS

Brilliant Glory	14.30%
Mr E Edwards	12.68%
Goldway Mega	9.86%
Mr P Newcomb	5.69%
Mr D Webster	4.11%

BYRO INDUSTRIAL MAGNETITE PROJECT

- **CORPORATE**

Placement to Raise $280,000

- **PRODUCT DEVELOPMENT**

Magnetic Characterisation Completed

Development of magnetite DMS product for Coal washeries completed

- **MARKET DEVELOPMENT**

Athena Resources has held discussions with members of the international Coal Preparation Congress, (ICPC) and attended the International Coal Preparation Conference in New Delhi hosted by the Coal Preparation Society of India, (CPSI) November 2019.

Athena Resources has held discussions with several international coal producers for supply of magnetite for Dense Media Separation.

This PDF is bookmarked for ease of navigation

CORPORATE

PLACEMENT

On 3 December 2019 Athena Resources Limited announce that it had completed a placement of 8,000,000 fully paid ordinary Athena shares at an issue price of $0.035 each to raise $280,000 (**Placement**).

The shares under the Placement (**Placement Shares**) were issued to Goldway Mega Trade Limited (**Goldway**), a Hong Kong registered company. Goldway is not a related party of Athena.

PRODUCT DEVELOPMENT

MAGNETIC CHARACTERISATION

Athena Resources Limited is pleased to announce the Company has completed test work in cooperation with International Magnetic Solutions defining the magnetic characteristic of the Byro Industrial Magnetite.

Key Magnetic Characteristics

1. Relative Ease to Get Magnetised
2. Saturation Magnetism.
3. Force Needed to Demagnetise
4. Magnetism Remaining After Magnetisation
5. Saturation Moment

Sample Preparation

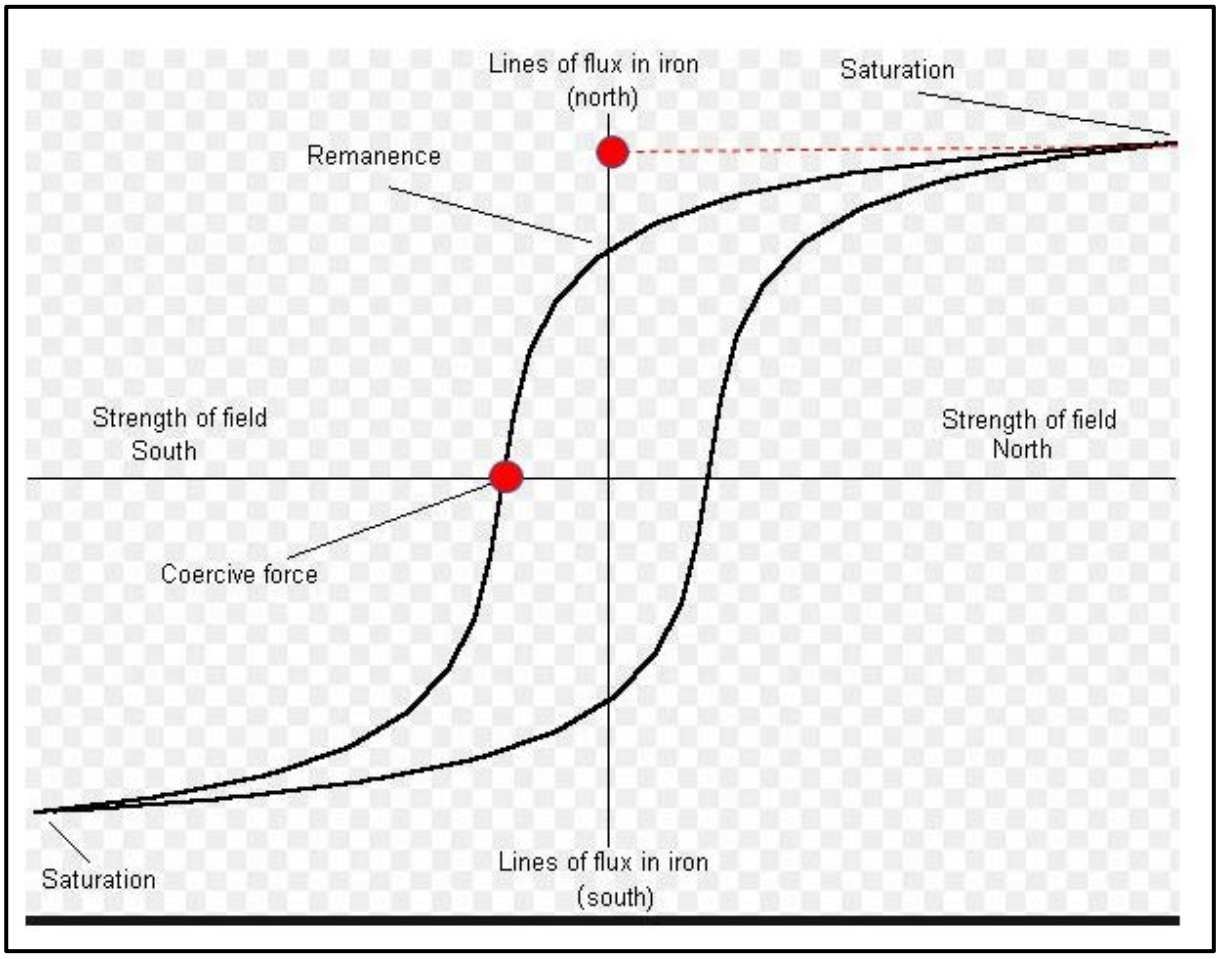
Sample was prepared as a composite for the test work to represent the statistical average magnetic susceptibility of the ore body from previous drilling reported in 2010 and 2011 at AHRC0008 and AHRC0043. Hole details are as follows

AHRC0008: Collar, 431052mE, 7110035mN. End of hole 159m, RL 350m, Ore Zone 82m @32.43% Fe from 68m.

AHRC0043: Collar431049mE, 7110652mN. End of hole 156m, RL 348m
Ore Zone 18m @32.34% Fe from 94 and 16m @ 24.79%Fe from 130.

Applied Technology

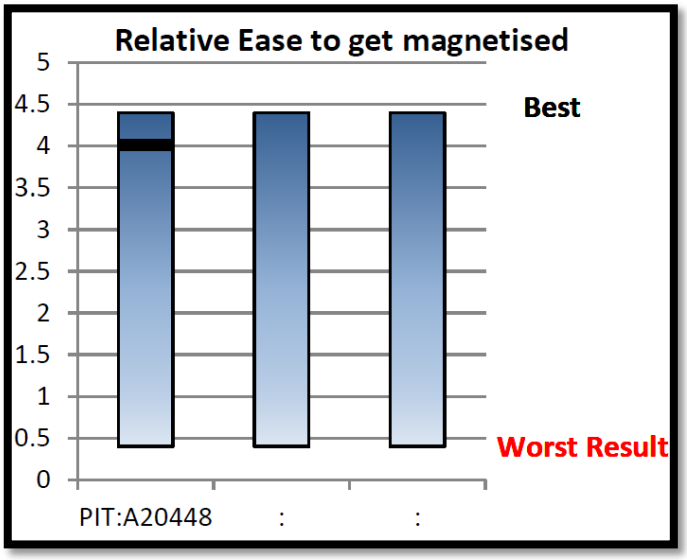
The sample was tested to determine magnetic characteristics using a Computer controlled Magnetic Hysteresis Graph testing machine with a controlled power supply to a magnetising coil that houses the magnetite sample. The sample is subjected to a variable magnetic field which saturates the sample and the resulting fields are measured with an induction coil and gauss meter. This results in a Hysteresis Loop and through data collected showing the magnetic properties of the magnetite sample. A typical hysteresis loop is shown in the Figure below.



Magnetic Hysteresis Loop

Result from test work and Explanatory notes for items 1-4

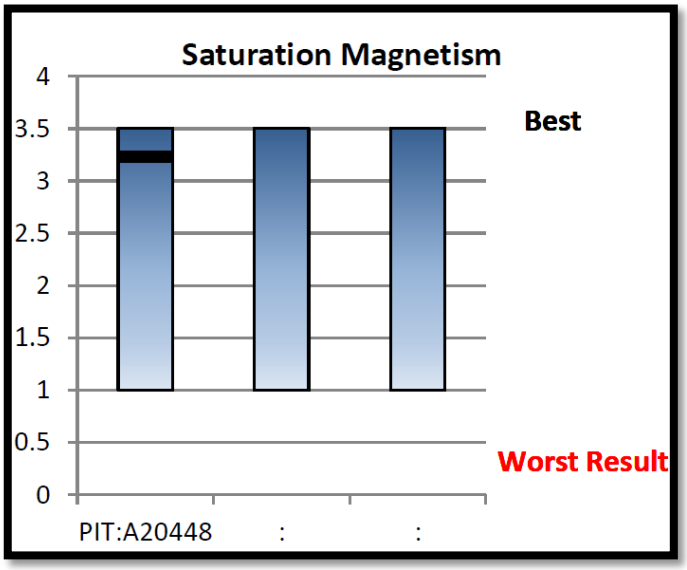
1. Relative Ease to get magnetised (Result)



4.0112 Permeability at 400 (Applied field Oe)

This is a measure of how much magnetic field enters the magnetite with respect to the amount of magnetic force applied and hence the attractive force on the magnetite to the recovery magnets. The easier it is to magnetise the magnetite the easier it will be to recover the magnetite from a processing stream.

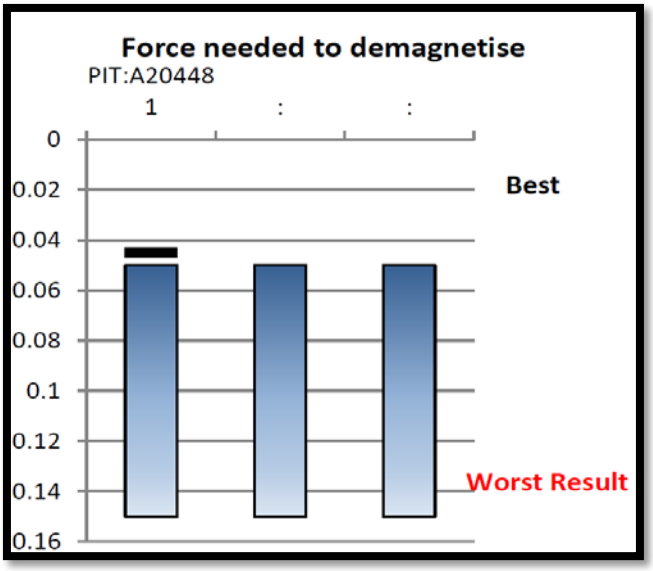
2. Saturation Magnetism. (Result)



3.2276 Js (kGs)

This is a measure of the maximum magnetic field the magnetite can absorb and attract and is a measure of the maximum holding force that the magnetite experiences from a magnetic separator. This is an indicator of potential for extraction.

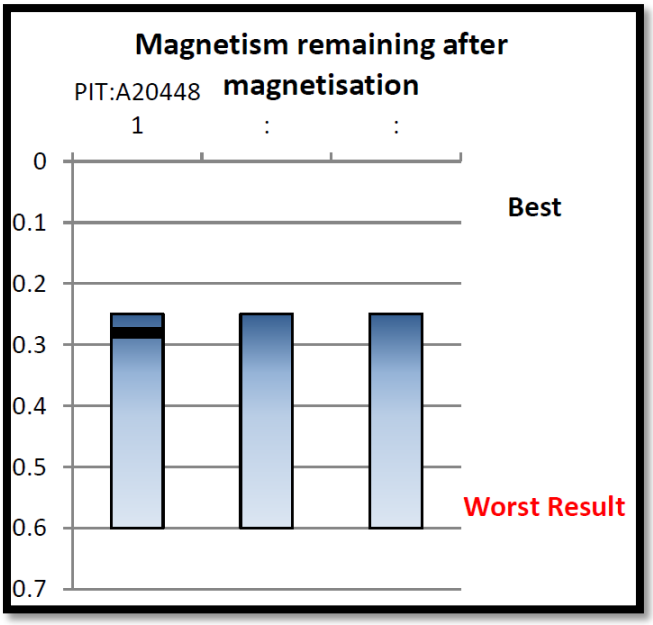
3. Force needed to demagnetise. (Lower the better)



0.045 (kOe)

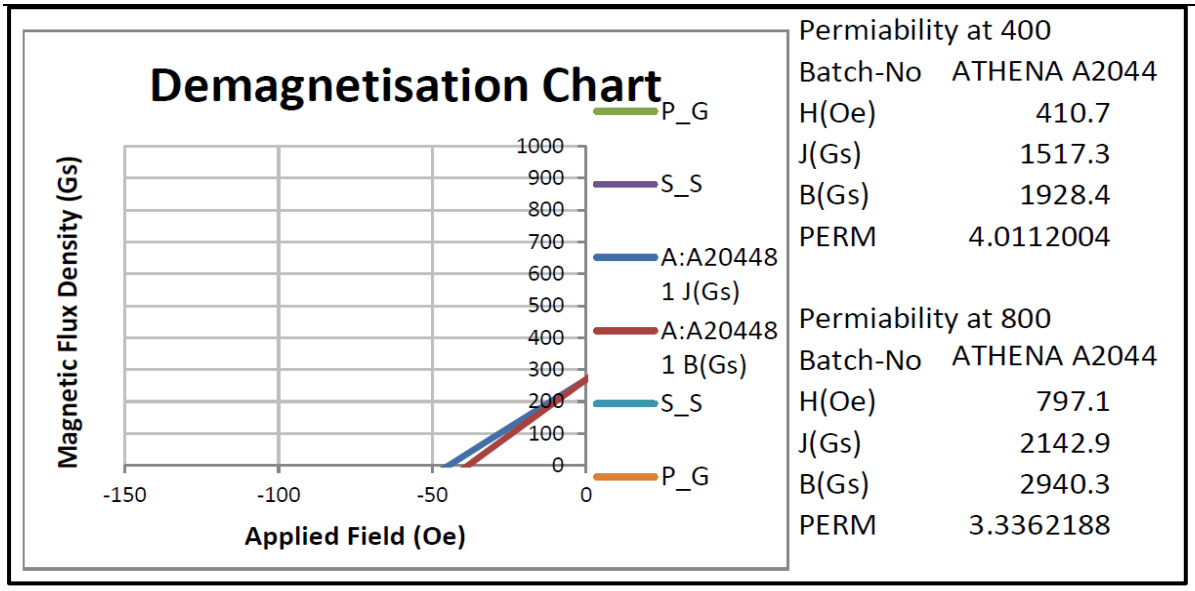
This is a measure of the force needed to demagnetise the magnetite. Hence an indication of how easily the magnetite loses its residual magnetic field. The easier the better for density control.

4. Magnetism remaining after magnetisation. (Result)



0.281 Br (kGs)

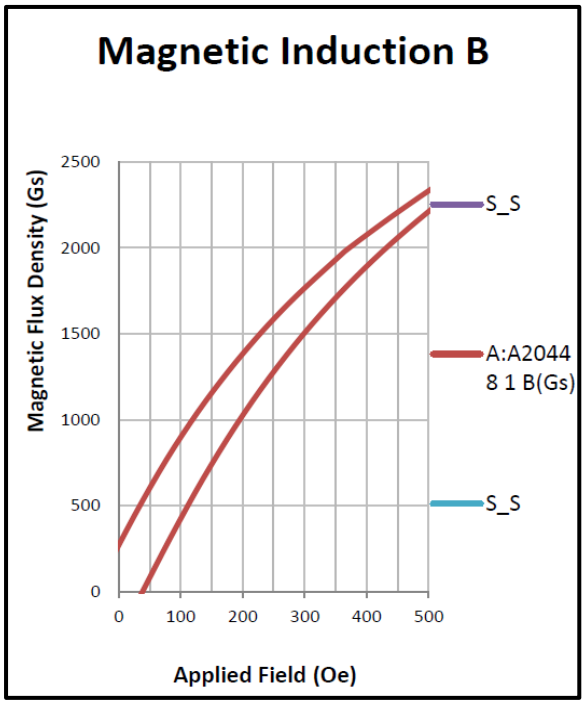
This is an important measure of how magnetic the magnetite remains after being exposed to a strong magnetic field. If this is high the magnetite is more likely to act as a magnet and hence encouraging the fine particles to stick together, hence increasing partial size and encouraging flocculation. This makes density control more difficult. The value recorded is well within the required field for a coal washery specification.

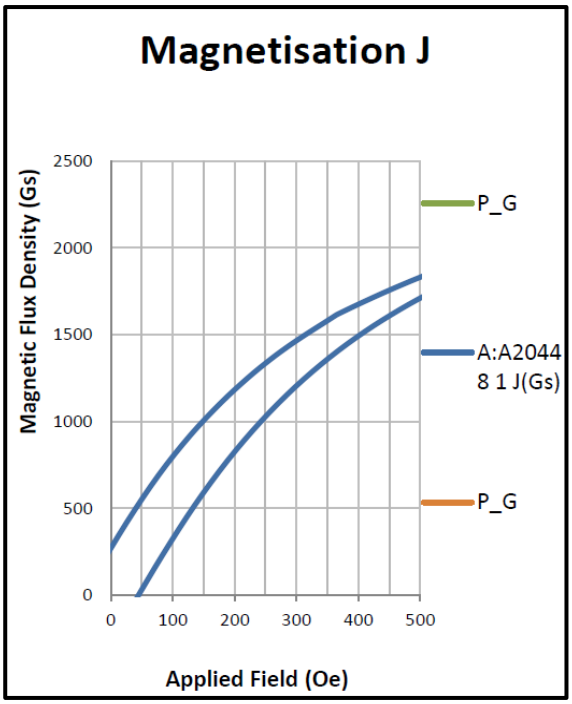


Permiability at 400	
Batch-No	ATHENA A2044
H(Oe)	410.7
J(Gs)	1517.3
B(Gs)	1928.4
PERM	4.0112004

Permiability at 800	
Batch-No	ATHENA A2044
H(Oe)	797.1
J(Gs)	2142.9
B(Gs)	2940.3
PERM	3.3362188

Ease to Magnetise Data from Athena Magnetite

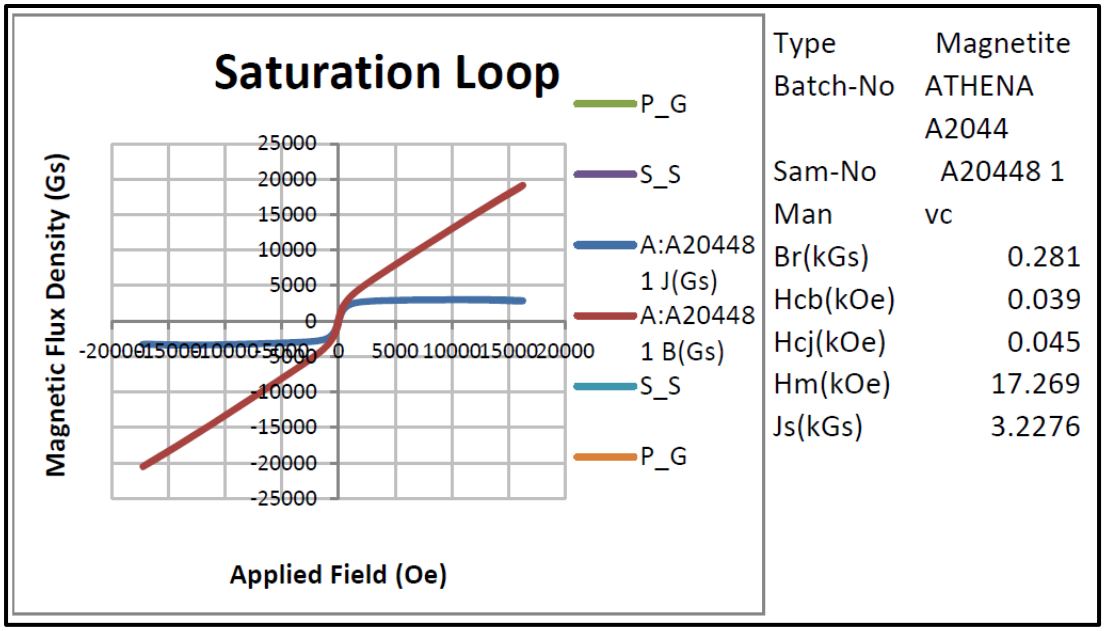




Remnant Magnetisatiion Data from Athena Magnetite

5. Saturation Moment. (Result)

This is the state reached when an increase in applied external magnetic field H cannot increase the magnetization.



Saturation Loop Data from Athena Magnetite

The Saturation moment has been recalculated from the saturation loop data to an electromagnetic unit per gram (emu/g). This unit is commonly used in the DMS industry.

86.5 emu/g (1 emu = 1 erg G−1)

The test work confirms the Byro industrial magnetite has suitable magnetic characteristics for retrieval and reuse in multiple processing applications such as

- Dense media separation processes (DMS),
- High pressure abrasive applications.
- Water treatment and filtration.
- Catalyst in ammonia synthesis
- Catalyst Gas to Liquid conversion, (GTL)
- Athena Resources has confirmed it can produce a range of magnetite products suitable for global consumption in coal washeries to remove impurities from coal through Dense Media Separation (DMS).

DMS PRODUCT DEVELOPMENT

Objective

Test work has been completed in collaboration with ALS Laboratories in Perth. The objective was to produce competitive magnetite products from The Byro Industrial Magnetite Project, suitable for supply as dense media for national and international coal washeries. The benchmark standard requirement is set out by the international coal DMS specification seen below in Table 1.

Table 1. International Specification for DMS for coal washeries. (Osbourne 1988)

Country	Moisture (%)	Size Micron(µm)	Magnetic Content
China	<10	<5%, +45 (325mesh)	<85
US	<10	<5%, +45	<95
South Africa	<10	<5%, +45 <30%, -10	<95
United Kingdom	<10	<5%, +45 <30%, -10	<95
Australia	<10	<5%, +45 <30%, -10	<95
India	<10	<5%, +54 <15%, -10	<95

Procedure

1. A 35kg composite sample of ore was selected on the basis of magnetic susceptibility from the Fe1 Mining Lease M09/166. The composite was assayed to ensure it was representative of the resource. The composite was then ground to a P80-75µm and analysed for grind liberation and Particle Size Distribution, (PSD).
2. Low Intensity Magnetic Separation (LIMS) was then applied to the P80-75µm concentrate sample and assayed.
3. The concentrate was then screened to size specifications suited to a variety of products. This report includes only the fractions considered for DMS for coal washeries.

Outcomes

1. Head assays

Head assays results for Fe were 2.6%Fe higher at 37.6% compared to the 35%Fe Inferred Resource Estimate (DTR) for the FE1 ore body. The slightly higher Fe grade is interpreted as a function of less internal dilution from the sample intervals selected for the composite and is considered as inconsequential. The head assay confirmed long established evidence of low impurities.

Table 2. Head assays for feed composite

Athena Resources A20448 Head Assay										
Sample ID	Fe (%)	SiO2 (%)	Al2O3 (%)	P (%)	S (%)	Mn (%)	CaO (%)	MgO (%)	TiO2 (%)	LOI (%)
Head Assay	37.6	41.1	1.18	0.038	0.141	0.11	1.86	2.41	0.09	-1.22
Sample ID	K2O (%)	Na2O (%)	Cr2O3 (%)	Co (%)	Ni (%)	Cu (%)	Zn (%)	As (%)	Pb (%)	
Head Assay	0.067	0.194	0.007	0.002	0.002	0.003	0.004	0.001	0.004	

Grinding and PSD results. The target grind size of P80-75 µm was achieved. From particle size distribution analysis, it is calculated that over 70% of the P80-75 µm concentrate was within the coal wash DMS product size range of P100 -63 µm.

Table 3. Particle Size Distribution, (PSD).

A20448 **ATHENA RESOURCES** **GRIND LIBERATION ON HEAD SAMPLE (P80-75µm)**				
Operation	**Size (mm)**	**Weight (g)**	**Weight (%)**	**Weight % <**
Screening	250	0.6	0.1	99.9
	212	0.2	0.0	99.9
	180	0.4	0.0	99.9
	150	1.3	0.1	99.8
	106	14.9	1.5	98.3
	90	42.7	4.3	94.0
	75	137.3	13.7	80.3
	63	83.8	8.4	71.9
	-63	718.9	71.9	
Initial		1000.0	100.0	
Calculated P80: 74.6µm				

2. Low Intensity Magnetic Separation (LIMS)

The ground feed product was then concentrated using LIMs with the product being subjected to low intensity magnetic separation LIMS of 3 passes on head sample @ 900G and assayed for the full iron suite. Key elements of the primary concentrate are shown in Table 4

Table 4. LIMS Assay Results

LOW INTENSITY MAGNETIC SEPARTION (LIMS) 3 PASSES ON HEAD SAMPLE @ 900G (GROUND P80 -75µm)													
			Fe		SiO_2		Al_2O_3		P		S		LOI-1000
LIMS @ 900G	FRACTION WEIGHT (kg)	Wt. DISTn. (%)	Fe Grade (%)	Fe DISTn. (%)	SiO_2 Grade (%)	SiO_2 DISTn. (%)	Al_2O_3 Grade (%)	Al_2O_3 DISTn. (%)	P Grade (%)	P DISTn. (%)	S Grade (%)	S DISTn. (%)	LOI-1000 Grade (%)
Mag	9.7	48.8	70.1	91.8	1.78	2.1	0.32	12.9	0.002	2.7	0.056	18.9	-3.52
N.Mag	10.2	51.2	6.0	8.2	79.40	97.9	2.05	87.1	0.069	97.3	0.229	81.1	0.40
Calc' HEAD	19.9	100.0	37.3	100.0	41.53	100.0	1.21	100.0	0.036	100.0	0.145	100.0	-1.51
HEAD ASSAY			37.6		41.10		1.18		0.038		0.141		-1.22

The primary concentrate Fe grade assayed 70.1%Fe with Fe distribution of 91.8%, silica below 2% and all remaining elements below 0.5%

3. Screening and Size Coal Wash Specifications.
The concentrate was then screened to size specifications suited for DMS for coal washeries. The size fractions produced for coal washeries was

- 95% passing -54µm and – 10µm less than 15 %, 70% Fe with ultra-low impurities
- 95% passing -45µm <30% -10 µm, 70% Fe with ultra-low impurities.

Table 5. Screened Fraction Assay

COAL WASH ON MAG SAMPLE (AS LIMS 3 PASSES @ 900G)													
			Fe		SiO_2		Al_2O_3		P		S		LOI-1000
Screen Size (µm)	FRACTION WEIGHT (g)	Wt. DISTn. (%)	Fe Grade (%)	Fe DISTn. (%)	SiO_2 Grade (%)	SiO_2 DISTn. (%)	Al_2O_3 Grade (%)	Al_2O_3 DISTn. (%)	P Grade (%)	P DISTn. (%)	S Grade (%)	S DISTn. (%)	LOI-1000 Grade (%)
+53	3281.9	41.2	69.5	40.7	2.37	53.1	0.35	39.5	0.004	41.2	0.036	27.6	-3.27
+32	1910.4	24.0	71.2	24.3	1.76	23.0	0.37	24.3	0.004	24.0	0.053	23.7	-3.32
-32	2779.2	34.9	70.6	35.0	1.26	23.9	0.38	36.3	0.004	34.9	0.075	48.7	-4.01
Calc'd HEAD	7971.6	100.0	70.3	100.0	1.84	100.0	0.37	100.0	0.004	100.0	0.054	100.0	-3.54
MAG ASSAY			70.1		1.78		0.32		0.002		0.056		-3.52

The products produced are of higher quality with respect to the international standards as set out in Table 1 based on concentrate grade, low impurities and control on grain size distribution. The fine fraction of the sample (-10µm) was specified as less than 15 – 20% passing 10µm to avoid losses on recovery of the dense media product. The coarse fraction product with 95% passing -54µm is suited to Indian coal washeries. The size fraction 95% passing -45µm can be produced for coal washeries in China, South Africa, Indonesia, United Kingdom, US and Australia.

MARKETING

The Byro magnetite primary concentrate can be used as a dense medium in coal washing preparation.

International Coal Preparation Congress (ICPC)

The ICPC is a body which has representatives from 15 countries and is a non-government organization, in their respective country and deal with the issues relating to coal preparation.

Representatives of Athena Resources also attended the ICPC Congress in New Delhi, hosted by the Coal Preparation Society of India, (CPSI).

CPSI is a Member of the ICPC, ASSOCHAM and also an Associate Member of the PHD Chamber of Commerce and Industry. The CPSI is associated with and supported by major industry bodies like Federation of Indian Mineral Industries (FIMI), Sponge Iron Manufacturers Association (SIMA), Association of Power Producers (APP), ASSOCHAM of India, World Coal Association (WCA), IEA Clean Coal Centre (UK).

CPSI's efforts are directed towards cleaning of coal and introduction of clean coal technologies so that India can meet its emissions reduction target committed at Paris Climate Treaty.

The CPSI conference was attended by the Indian Ministries of Coal, Power, New and Renewable Energy, Environment, Forest & Climate Change, Steel and Mining, Science & Technology, Earth Sciences and Economic Diplomacy & States Division, External Affairs.

Industry groups included The Monnet Group, Jindal Steel, Bharat Coking Coal India (BCCL), The Singareni Collieries Company Ltd (SCCL) and major power producer National Thermal Power Corporation, (NTPC).

Over 100 presentations from highly regarded industry professionals and universities from around the world including the CSIRO and The Australian Coal Preparation Society (ACPS) were delivered at the conference. Key points delivered from the congress regarding coal washing in India by 2030 are summarised below.

Current Indian thermal coal production is reported by CPSI at 600Mtpa. Thermal coal demand in India is also estimated by the CPSI to be 1150–1750 Mtpa by 2030. New legislation requires 100% to be washed. Currently only 20% of Indian coal is washed, magnetite consumption is forecast to increase as coal production increases and coal preparation moves towards 100% washed.

Development of the coal washing industry in India will be undertaken by a variety of new and existing technologies. These include dry beneficiation, coal gasification, coal blending and changing import volumes. For this reason, it is difficult to accurately forecast the exact usage

of magnetite or the split between these technologies. However, magnetite in dense media cyclone (DMC) will continue to be the most cost-effective and successful method for washing Indian coal. Within India there is a paucity of indigenous magnetite for not only supply and demand but also quality.

Magnetite consumption figures were quoted in India washeries ranging from 0**.5Kg** to **1.5Kg** per tonne of washed coal. The volume of magnetite used varies dependent on coal quality and efficiency of the washeries. Current average consumption of magnetite in Indian washeries is **1.25Kg /t** of washed coal.

Through technology developed in China and Australia, it is hoped to reduce magnetite consumption in Indian washeries to below **1Kg/t.**
Estimated magnetite consumption in Indian is based on information supplied by the CPSI for DMS and DMC washeries is in the order of **150,000tpa to 200,000tpa** for **122Mtpa** of washed coal. (20% of 600Mtpa)

Current thermal coal production (600Mtpa if 100% washed using DMC-magnetite processes) would require **750,000tpa** magnetite.

The Indian government and Coal India expect the coal industry to develop new washeries and upgrade existing washeries to meet regulatory demands and cope with increasing supply demand.

Forecast thermal coal requirement by 2030 is **1150–1750 Mtpa**, **100% washed** if using DMC-magnetite processes, would require an estimated **2.2 Mtpa.** This is a burgeoning market that is currently under supplied with quality magnetite product.

The ICPC Conference clearly forecast the opportunity for change in coal washing practices in India. This was underpinned by many Government and NGO coal and power producers at the conference. Development in India is underway and hoped to be completed in three years, suited to the timing of development of the Byro Industrial Minerals Project at FE1.

The congress concluded there is a large market opening in India, for a potential requirement in excess of **1Mtpa** high-quality magnetite for DMS and DMC if washeries upgrade is successful. Athena is continuing discussions with organisations and traders globally around growing magnetite demands. The purpose of the discussions to potentially supply the Byro magnetite DMS product into world markets and assisting with the Indian shortfall.

Reasonable efforts have been taken to include reliable data and information. Athena Resources does not assume responsibility for the validity of all the information contained in this report. Investors are cautioned about making investment decision based on current discussions stated in this report and information from the CPSI Congress.

The above section 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.

Magnetite Market and development

Athena has developed a premium grade magnetite Dense Media Separation (DMS), product, (announced on ASX platform 18 January 2020), suited to coal washing and is focusing market search towards key existing markets where we believe there is a strong and growing demand for magnetite DMS over the next decade.

Athena Resources has identified potential international markets to supply Byro magnetite DMS product from the Byro Industrial Magnetite Project including China, South East Asia and India, South Africa and Australia. The Company engaged in discussions with the International Coal Preparation Congress (ICPC) towards making connections with potential consumers for the Byro dense media product for coal washeries.

Magnetite supply to clean coal producers is highly competitive and price sensitive. The competitive benefits of the Byro DMS are quality, grade and use of streamlined existing processing technologies. This is underpinned by the nature of the Byro primary ore allowing economical operation within a price sensitive market.

Athena identified a number of DMS consumers in India, Indonesia, US and China attending the CPSI Conference and through meetings generated interest for the Byro DMS product.

Coal washeries performance criteria is dependent on multiple variables. The most important is the quality of the coal and consistency of coal feed quality entering a plant. Indian wash plants are aging and built based on a coal reserve which was of higher quality to the remaining high ash reserve. New washeries are required and are being built. The poor-quality coal in India requires a high-quality magnetite to ensure precise separation. The Byro DMS product is currently being tested and evaluated for customer's specific requirements.

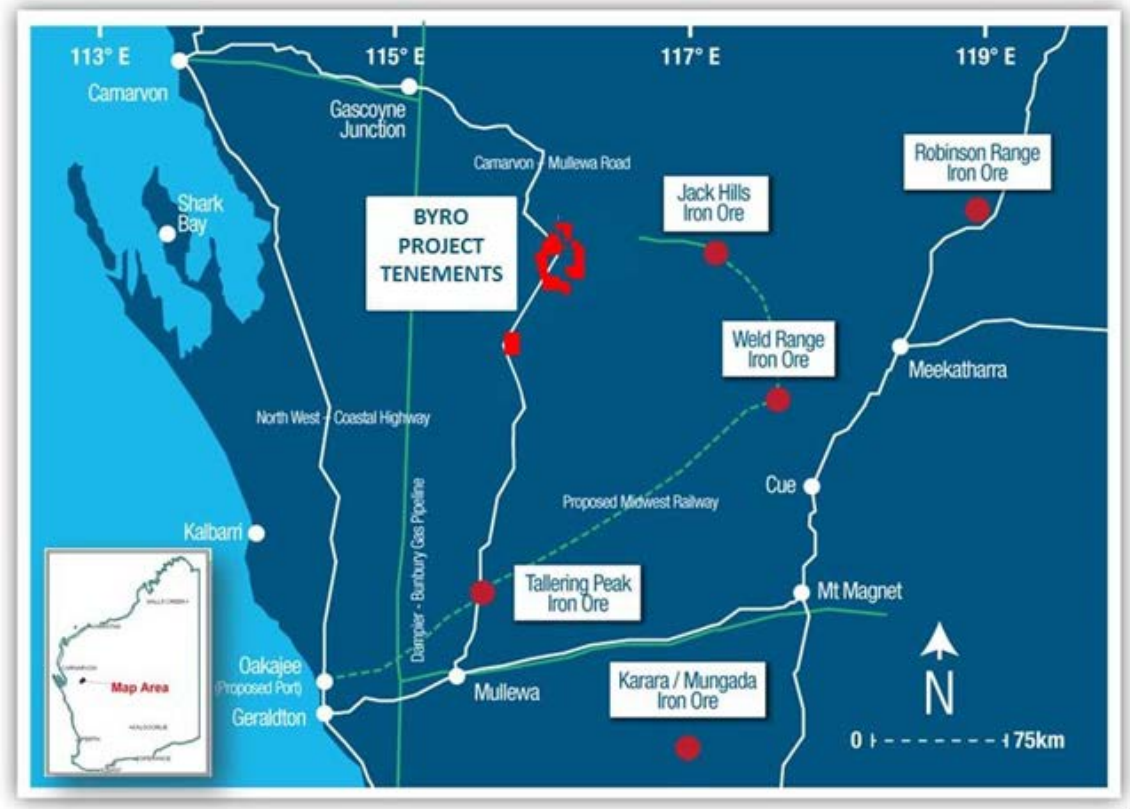
Following consumer interest, Athena delivered coal wash DMS samples to consumers in India, China, Indonesia and Thailand. Consumers in these countries have agreed the Byro DMS product is of standalone quality. The coal washing and DMS markets are highly competitive and politically sensitive. For this reason, the potential consumers we are in contact with require us to maintain confidentiality throughout the evaluation process.

Athena Resources is optimistic about discussions with consumers providing indications that following successful tests, development of pre-sale agreements may be possible. At this stage Athena has not entered into any memorandums or agreements and there is no assurance it will do so or what form an agreement might take.

ABOUT ATHENA RESOURCES LIMITED

Athena Resources Limited (ASX:AHN), which is based in Perth was listed on the ASX in 2006 and currently has 301 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. The Figure below, shows the current tenement holdings.

Regional Project Location



Edmond Edwards Executive Director of Athena has authorised release of this Quarterly Activities Report to the ASX.

Yours faithfully

Ed Edwards
Executive Director
ATHENA RESOURCES LIMITED
31 January 2019

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	• *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.*	• This Report refers to magnetic susceptibility readings taken from RC drill hole AHRC0008 and AHRC0043. The measurement tool used for Magnetic susceptibility was a hand held KT-10 with serial number # 8791
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• Magnetic susceptibility readings were taken to determine appropriate samples with the average reading noted from scanning mode
	• *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 was used to obtain 1 m samples
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)
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• Samples recovered from cyclone splitter using 1m intervals and 2 to 4m

Criteria	JORC Code explanation	Commentary
	• *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.*	composites • Collection of RC Chips from sieved sample • No bias was observed between recovery and sample quality or loss or gain
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.*	• Drill chips have been geologically logged as well as recording major geotechnical features observable in chip over the full depth of the holes.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	• RC Drilling
	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	• Samples were dry rotary split
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• Industry standard sampling preparation procedures were used
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• Industry standard sampling preparation procedures were used
	• *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.*	• Industry standard sampling procedures were used • No field duplicate/second-half sampling
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Average sample size from splitter was 5kg
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*	The measurement tool used was a handheld KT-10 with serial number # 8791 using units of 10*-3 Standard SI units • Industry standard procedures were used in obtaining the magnetic characteristics using a Gauss meter by external laboratory International Magnetic Solutions Limited in NSW, Australia.

Criteria	JORC Code explanation	Commentary
	adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	
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.*	• No adjustments have been made to readings • Assays have been verified using standard QA QC methods
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.*	• Hand held GPS
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.*	• Collar and end of hole surveys were taken and combined with collar location at surface
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.*	• This report refers to magnetic characteristic of a composite sample prepared to P80 75 micron grind.
	• *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.*	• No sampling bias was introduced by drilling orientation
Sample security	• *The measures taken to ensure sample security.*	• Sample security was maintained during all stages of preparation
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Sample security was maintained during all stages of preparation

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.*	• Tenement referred to in this report M09/166 is 100% Athena owned and operated within native title claim WAD 6033/98, made on behalf of the Wajarri Yamatji People.
	• *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 tenements are in good standing and no known impediments exist. • See tenement listing attached.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Historic exploration within the 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 Electrolic Zinc Co (1969) exploring for chromatite 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 (2003-2008) 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).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Upper amphibolite to granulite metamorphic facies with mafic to ultramafic intrusive. Granite and migmatite are common

Criteria	JORC Code explanation	Commentary
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.*	• AHRC0008, 431052mE, 7110035mN. End of hole 159m RL 350m Ore Zone 82m @32.43% Fe from 68m • AHRC0043, 431049mE, 7110652mN. End of hole 156m RL 348m Ore Zone 18m @32.34% Fe from 94 and 16m @ 24.79%Fe from 130
	• *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.*	• min max, ave, techniques were used, using magnetic susceptibility data to blend sample representative of the average statistical magnetic susceptibility of the ore.
	• *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.*	• aggregation has been used and is restricted to sample intervals which do not overlap assayed composite boundaries
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No metal equivalent are referred to in this report
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	The results do not relate to intercept width
	• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported*	The results do not relate to intercept width

Criteria	JORC Code explanation	Commentary
	• . • *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').*	• All reference to widths are down hole length, true width is not calculated. The results do not relate to intercept width
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.*	• Refer to Figures 1, 2, 3, 4 and 5 in the body of the 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.*	• This report contains all meaningful drilling results for this report
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.*	• This report contains all meaningful drilling results for this report
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	• Drilling programs have been planned and approvals have been granted. The registration ID of the granted PoW's is E09/1507 **ID 36922**
	• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• The planned drilling information 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

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.

Reasonable efforts have been taken to include reliable data and information. Athena Resources does not assume responsibility for the validity of all the information contained in this announcement. Investors are cautioned about making investment decision based on information reported from the CPSI Congress.
Athena has not entered into any memorandums or agreements with DMS consumers and there is no assurance it will do so or what form an agreement might take. Investors are cautioned about making investment decision based on current discussions.

Drilling to date supports aspects of the estimates in this report which were published earlier this year. The quantity and grade reported is conceptual in nature. There has been insufficient exploration to define a mineral resource. Further exploration is warranted to improve understanding and reduce uncertainty about this body.

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 Statement and Disclosure

The information included in the announcement was compiled by Mr Liam Kelly, an employee of Athena Resources Limited. Mr Kelly is a Member of the Australasian Institute of Mining and Metallurgy, and has sufficient relevant experience in the styles of mineralisation and deposit styles under consideration to qualify as a Competent Person as defined in "The Australasian Code for Reporting of Exploration

Results, Mineral Resources and Ore Reserves (JORC Code 2012 Edition)". Mr Kelly consents to the inclusion of the information in the announcement in the context and format in which it appears and that the historical information was compliant with the relevant JORC Code, 2004 Edition, and new information announced in this report is compliant with the JORC Code 2012 Edition.

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