

ASX ANNOUNCEMENT

INTERNATIONAL COAL PREPARATION CONGRESS

Athena Resources Limited (ASX:AHN) advises as follows:

In October 2023, Athena will be represented at the XX International Coal Preparation Congress (ICPC) will be held on the Gold Coast, Australia.

Athena attended the previous Congress held in New Delhi in 2019.

This conference is run by ICPC in conjunction with the Australian Coal Preparation Society (ACPS)

The conference is expected to bring together up to 500 mining professionals and leading experts to connect, learn, share and collaborate on key operations, including emerging issues and their best solutions.

The Athena representative at the ICPC will be Mr Greg Irvine-Brown, formerly Managing Director of Mineral Innovations P/L.

Greg has been a Committee Member of ACPS for 9 years between 2003 and 2011 and has Chaired the Sydney and Canberra congresses of ACPS.

Greg and Mineral Innovations previously advised Mt Moss Mining and Monto Minerals on a range of topics primarily concerned with Iron Ore from the Mt Moss and Goondicum magnetite deposits.

His tasks in this role included design, procurement of relevant plant, build supervision of 3 processing plants and finally production and marketing of Coal Wash Magnetite into the Bowen Basin Coal industry and into export markets.

Athena has developed a premium grade magnetite Dense Media Separation product suited to coal washing and is focusing market research towards key existing markets where we believe there is a strong and growing demand for magnetite DMS over the next decade.

About Athena Resources: AHN is an Australian ASX listed explorer and developer of highgrade iron ore assets in Western Australia. The Company is focused on its Byro Project, strategically located in the Mid-West region 410km from the Port of Geraldton. The Byro Iron Ore Project has potential to mine and supply premium grade, low impurity magnetite (>70% Iron Content) for the production of Dense Media Separation material, Green Steel and other Industrial Mineral applications. The Byro Project also contains exciting base metal potential.

Directors: Ed Edwards, Peter Newcomb, Hau Wan Wai, Terry Weston, Jeff Swingler • **Company Secretary:** Peter Newcomb • **Athena Resources Limited** ACN 113 758 900

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Objectives of our attendance at the conference include:

- Meet current suppliers of coal wash material (CWM) to the NSW and Qld and get a better understanding of the demand now and in the future of the various grades in Australia.
- Meet current users of CWM in NSW and Qld to better understand the supply chain demands.
- Meet international potential consumers (in particular the Indian Market) and gain an understanding of the logistics and product requirements.
- To reacquaint Greg and ourselves with the major suppliers of CWM production facilities to gain an up-to-date budget of what it would cost to build a new plant and the energy required to run such a facility.
- Gain an insight into mid term expected selling prices into these markets.

This announcement is Authorised by the Board

Ed Edwards
Managing Director
4 October 2023

The primary goal of coal washing is to reduce the ash content and improve the overall quality of the coal, making it more efficient and environmentally friendly when used as a fuel source. The process of Dense Medium Separation (DMS) in which a dense medium, typically a suspension of finely ground magnetite or ferrosilicon in water, is used to separate coal from impurities based on their density differences. The dense medium causes heavier impurities to sink while allowing lighter coal to float.

Previous announcements regarding DMS :

28 January 2020

[Byro Magnetite for Dense Media Separation](#)

31 January 2020

[Byro Magnetite DMS Marketing](#)

BYRO MAGNETITE FEED STOCK

for

DMS and COAL WASHERIES

Athena has custom manufactured a magnetite product for use in coal washeries crafted for the India coal washeries.

Primary Concentrate

Fe%	SiO ₂ %	Al ₂ O ₃ %	P%	S%	Density
70.7	1.2	0.32	0.003	0.014	4.8

- The concentrate grade is 70%Fe with exceptionally low impurities.
- Suited for direct supply to the coal wash industry
- The Athena - India coal wash specification is

95% passing 54 microns and – 10 microns less than 15 – 20%.

- Athena coal wash magnetite can be custom split and sized to meet European, American UK and China requirements
- The fine end of the product (-10µm), is specified as less than 15 – 20% passing -10µm, to reduce/avoid losses
- Exceptionally Low Impurities.
- Magnetic Coercive Force, H is 45 Oersteds
- Saturation Moment, JS = 86.5 emu per gram
- Low Residual Magnetism