

29th January 2025

Technical Note

Minffordd Quarry Processing Site – Noise Assessment – Further Information

1. INTRODCUTION

Bureau Veritas was requested by Rebecca Lodge, Environmental Permitting Manager of Breedon Group to provide the further information for the Noise Assessment of Minffordd Quarry Processing Site conducted by Bureau Veritas (ref. UK.20761598/MQ/00, date: March 2024) (“the Noise Assessment”).

The information requested is as below:

1. A statement of competency for all persons contributing to the assessment in line with the requirements of BS4142 Clause 12 and NRW guidance [Noise and vibration management: environmental permits - GOV.UK](#) and [Method implementation document \(MID\) for BS 4142 - GOV.UK](#).
2. The background data used in the NIA is from 2018 / 2019. Information on the measurement of this data has not been provided including information on the equipment used, field calibration tests and weather conditions. We need to either provide the report relating to the collection of the background data or amend the NIA to provide information on the equipment used, field calibration tests, and weather conditions at the time of measurement.
3. CadnA has been used to model the specific sound, however modelling files have not been provided. Additionally, NRW require all relevant numerical data to be provided alongside modelling as specified in their guidance. This has not been provided. Please can you provide the modelling files in CadnA format and relevant numerical data as required by our guidance [Noise impact assessments involving calculations or modelling - GOV.UK](#).

This document should be read in conjunction with the Noise Assessment of Minffordd Quarry Processing Site (ref. UK.20761598/MQ/00, date: March 2024).

2. COMPETENCY

The noise assessment was conducted by Dr. Yiyang Hao and approved by Richard Cope. Yiyang and Richard are both Members of Institute of Acoustics UK. The IOA Certificate and Education Certificate are provided in Appendix A.

Yiyang is a Principal Acoustic Consultant with 15 years’ research and practical experience in acoustics. Yiyang has been working on the projects on environmental noise assessment of big infrastructure and transport, and other projects on residential development, industrial and commercial sites, road schemes, substations and renewable energy. She holds the the IoA Certificate of Competence in Environmental Noise Measurements

Education and Professional Qualifications:

- 2015, PhD - Architectural Acoustics, University of Sheffield
- 2009, MArch - Sustainable Architecture, University of Sheffield
- 2008, BEng – Architecture, Beijing Jiaotong University
- 2016, Member of the Institute of Acoustics (MIOA)

- 2016, Certificate of Competence in Environmental Noise Measurement (Institute of Acoustics), University of Liverpool.

Ric is a Technical Director with over 27 years of experience in environmental consultancy, including the last 23 years specialising in the field of environmental acoustics. He has undertaken many assessments of the impact of industry and transportation on local environments. His work experience has included the monitoring and modelling of noise, design of mitigation measures and consultancy advice on a wide range of noise issues. He holds the Institute of Acoustics (IoA) diploma in Acoustics and Noise Control as well as the IoA Certificate of Competence in Environmental Noise Measurements, and has been a Corporate Member of the Institute of Acoustics (MIOA) for >15 years. Ric has provided expert witness evidence to Public Inquiry and Appeal Hearings, as well as the Issue Specific Hearings relating to several Nationally Significant Infrastructure Projects.

Education and Professional Qualifications:

- 2005, Diploma - Acoustics and Noise Control (Institute of Acoustics), Salford University
- 1998, BSc(Hons) Environmental Analysis, University of Huddersfield
- 2010, CadnaA Noise Modelling Advanced/Expert (DataKustik / Campbell Associates)
- 2006, Member of the Institute of Acoustics (MIOA)
- 2002, Certificate of Competence in Environmental Noise Measurement (Institute of Acoustics), University of Liverpool.

2. MEASUREMENT INFORMATION

To establish the ambient and background sound levels at the nearest receptors, a review of the baseline noise level measurements undertaken between December 2018 and February 2019 was carried out (ref. Visual Impact Provision (VIP) Snowdonia Project, Environmental Appraisal Volume 1 – Noise and Vibration). Note that this work was not conducted by Bureau Veritas.

The noise measurement information is shown in Appendix-14.A Baseline Noise Data of the Environmental Appraisal Volume 2.

In the Appendix, the Grid References of the monitoring locations, Noise Monitoring Equipment and full monitoring data are included. The information of the noise monitoring equipment is shown in Appendix B of this document.

No information of field calibration tests or weather conditions are available in the Appendix-14.A Baseline Noise Data.

3. MODELLING

The modelling files will be provided separately. The following is the information required by the guidance *Noise impact assessments involving calculations or modelling*. Although some of the information has been provided in the Noise Assessment, this document will abstract some information requested in the guidance.

General information

Site Location and layout: Breedon Minffordd Quarry & Asphalt Plant, Penrhyndeudraeth LL48 6HP. The site location and layout maps have been provided in Appendices Two and Three of the Noise Assessment. The site location map shows the site and surrounding area including receptors and the site plan includes the site boundary.

The proposed activities and sources of noise are stated in Section 3 Details of Development of the Noise Assessment.

The local receptors have been identified in Section 2 Site location of the Noise Assessment. The reasons for selection is that they are the nearest noise sensitive receptors to the proposed noise sources.

Noise Data

There are no noise emitting buildings for this proposed development. The grid references of the plants are shown in Table 1 below:

Table 1. Model setting of the plant noise				
Plants		X (Easting), Y (Northing)	Noise Source Height (m)	Directivity
Loading shovel		259187.09, 339038.71	1	None
Excavator		259189.26, 339031.14	1	None
Processing Plant	Power unit	259188.11, 339032.01	1	None
	Front loader	259188.50, 339031.80	1	None
	Distribution conveyor centre	259184.33, 339033.70		None
Road Sweeper		259194.37, 339038.15	1	None

The operation times and sound power levels are provided in Table 6.1 of the Noise Assessment.

The site traffic is the HGV movement. The HGV movements start from 259558, 338915 and end at 259178, 339036. The HGV speed is 10mph. Its sound power level and movement numbers are shown in Table 6.1 of the Noise Assessment.

There are two site buildings. The corner grid references are 259591, 338932, and 259533, 338929.

There are no site acoustic barriers. No noise attenuation relies on building or barriers.

For the receptors, the grid references and the specific noise levels have been provided in Table 6.2 of the Noise Assessment. The identification of the NSRs are shown Section 2 of the Noise Assessment. NSRs are all residential dwellings and their sensitivity is high. NSR1 and NSR2 have two stories. NSR3 and NSR4 have one story. The BS4142 background LA90, rating levels at the receptors and other BS4142 related information are provided in Table 6.3 of the Noise Assessment.

The CadnaA file (Minffordd Quarry) is attached with this document for the request.

APPENDIX A IOA Certificate



Certificate of Membership

This is to certify that

Yiying Hao

has been elected as a

Member

of the
Institute of Acoustics

*Given under the seal of the Institute
in accordance with the
Articles of Association and By-Laws*

President



Institute Secretary



Valid Until

28-02-2025

Membership Number

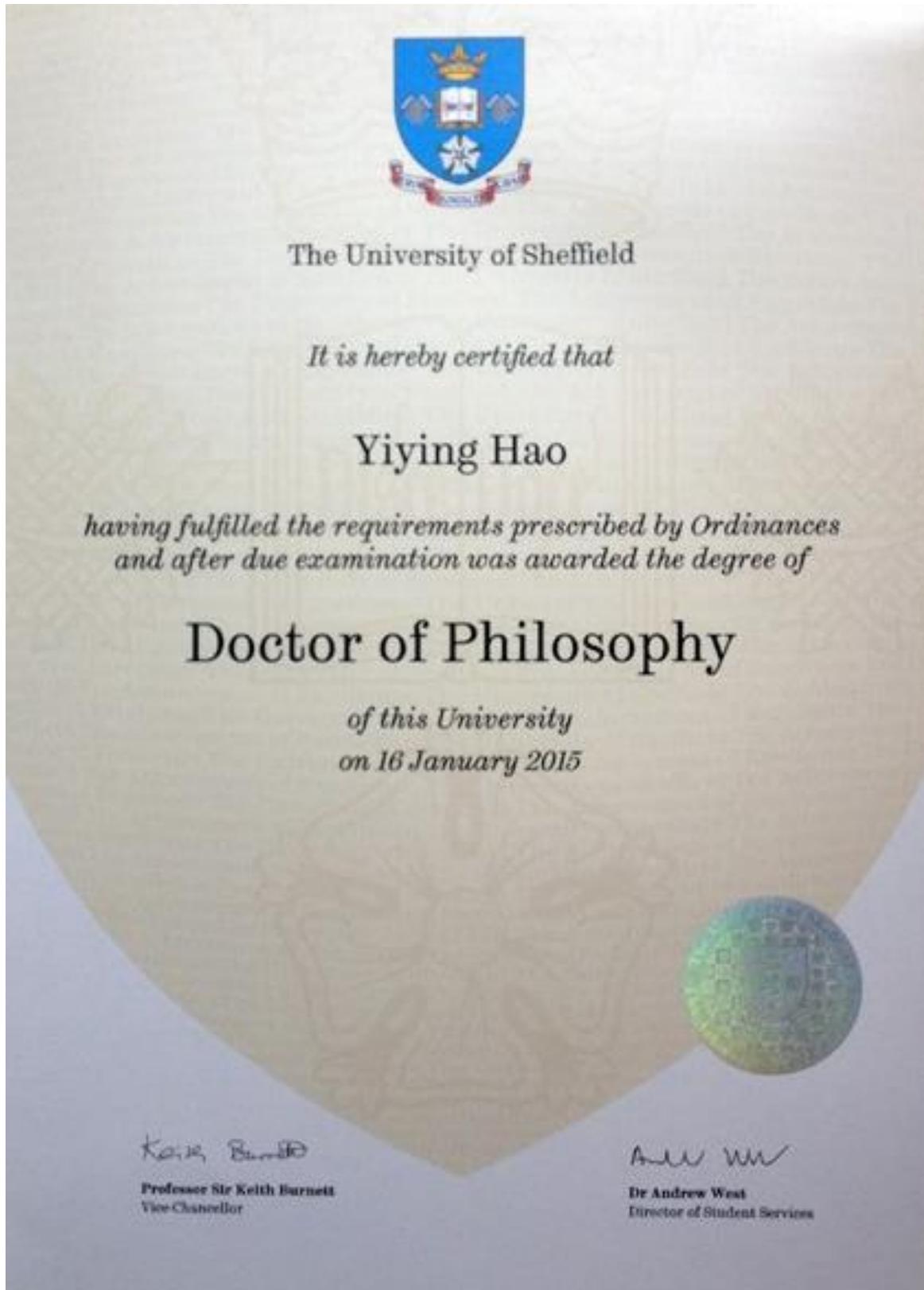
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The certificate remains the property of the Institute and shall be returned to the Institute on demand.
Membership of the Institute is subject to annual renewal

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APPENDIX B Noise Monitoring Equipment

Equipment	Manufacturer	Type	Serial Number
Sound level meter	RION	NL52	010324490
Sound level meter	01dB	CUBE	11165
Sound level meter	01dB	CUBE	10692
Sound level meter	01dB	CUBE	10414
Sound level meter	01dB	CUBE	10694
Sound level meter	01dB	CUBE	10668
Sound level meter	01dB	CUBE	10695
Sound level meter	01dB	Fusion	11037
Sound level meter	01dB	Fusion	11403
Sound level meter	01dB	Fusion	11039
Sound level meter	01dB	Fusion	11036
Calibrator	RION	NC-74	34936366