

VibroRock Ltd is an established independent environmental consultancy who has been providing noise, dust, and vibration consultancy services to industry for over 30 years.

## **NOISE**

As part of the proposed planning application and EIA, potential noise impacts associated with the proposed development will be assessed with reference to local and national planning guidance for mineral sites. This Government advice is applicable to the control of noise from surface mineral workings in England and includes appropriate noise standards to assist in the assessment of noise impacts.

As part of the assessment, existing noise levels are measured at locations chosen to represent noise-sensitive premises in the vicinity of the proposed mineral extraction area. This information has been used to establish the baseline conditions against which potential noise levels from the proposed development can be compared.

Predicted noise levels from proposed operations are then calculated at nearby noise-sensitive premises. These predictions are based on detailed information regarding the proposed working of the site and have been undertaken following calculation methods that are suitable for open sites such as quarries. VibroRock use an extensive database of noise emission measurements from similar sites across the UK to undertake these calculations to ensure that they accurately represent the proposed mineral operations.

The proposed scheme is assessed against these long-standing Government noise standards and where necessary mitigation measures are introduced into the quarry development plans to ensure that there are no significant or unacceptable adverse impacts.

Planning guidance and policy places the onus on the mineral development to deliver a scheme that prevents and avoids any significant or unacceptable adverse impacts and, where necessary, mitigate and reduce to a minimum other adverse impact.

### **Noise – Potential Questions and Answers:**

#### **How has the existing acoustic environment been measured?**

*Baseline conditions have been established via the measurement of existing noise levels at various nearby residential locations. Measurements are undertaken with reference to relevant British Standards using high specification sound level meters that are regularly calibrated by the manufacturer. The Surveyors carrying out the monitoring are suitably qualified and are full members of the Institute of Acoustics.*

How have you obtained noise emission data used within the assessment?

*Vibroch have been undertaking noise impact assessments for new and extended quarries since the mid 90's and have measured noise emission levels from a wide range of site activities associated with mineral operations at similar sites across the UK. We utilise this large database of measurements to represent the specific noise generating activities that will be undertaken at the proposed development site. These noise level predictions are made in accordance with calculation methods outlined in British Standards.*

What determines a sensitive receptor?

*A noise sensitive premises is any occupied premises outside a site used as a dwelling (including gardens), place of worship, educational establishment, hospital or similar institution, or any other property likely to be adversely affected by an increase in noise level.*

How will noise be controlled on site?

*Noise will be controlled via the implementation of best practice noise control measures which will form part of normal working practice. Any soils and overburden removed to expose the underlying mineral will be stored in mounds or bunds in strategic locations which will provide both acoustic and visual screening of site activities.*

What do I do if I have a noise complaint?

*Contact details for the site will be available on the operator's website or on a notice board at the site entrance. If you have any questions or concerns regarding noise from the site, you can make direct contact or alternatively contact an Environmental Health Officer at the Local Authority who will be able to assist.*

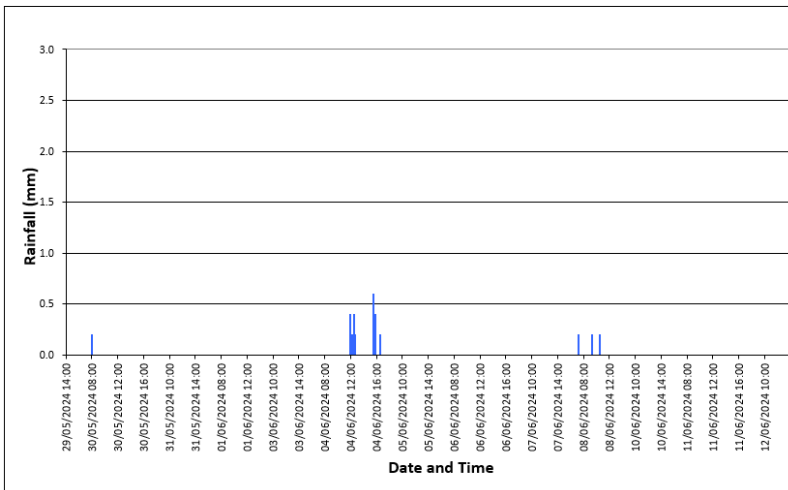
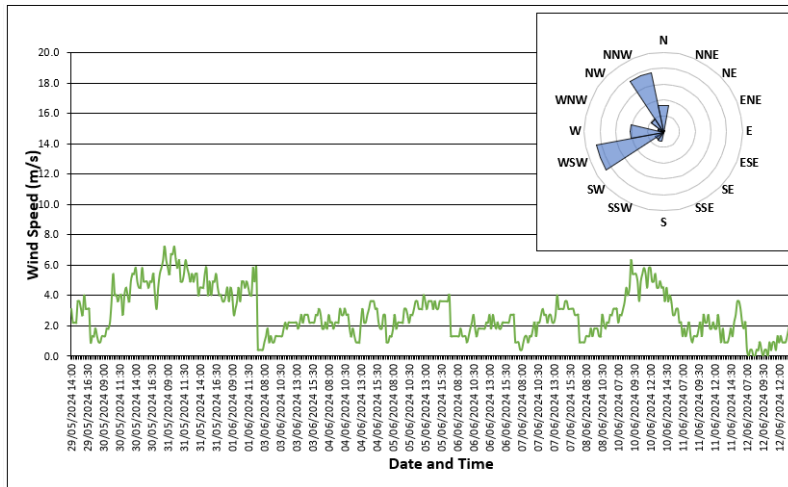
## Background Noise Levels

Measurements of the existing ambient and background sound levels in the vicinity of the site were obtained during an approximate 24-hour period from Thursday 18 to Friday 19 January 2024, and over a 2-week period from Wednesday 29 May 2024 to Wednesday 12 June 2024.

Weather conditions during the survey on 18 January 2024 were dry with average wind speeds of  $3 - 5\text{ms}^{-1}$  and predominantly from a westerly direction. Cloud cover varied between 0 and 1 oktas, relative humidity was in the region of 75 – 86% and temperatures ranging around  $3^{\circ}\text{C}$ .

Weather conditions during the survey on 19 January 2024 were dry and settled with average wind speeds of  $3 - 5\text{ms}^{-1}$  and predominantly from a west-south-west direction. Cloud cover varied between 0 and 1 oktas, relative humidity was in the region of 81 – 93% and temperatures ranging around  $3^{\circ}\text{C}$ .

Weather conditions during the survey from Wednesday 29 May 2024 to Wednesday 12 June 2024 were measured using a portable Davis Vantage Vue Precision Weather Station located at the playing fields off Pinfold Lane, Methley. The data obtained is shown overleaf. Conditions were mostly dry and settled with some occasional rainfall. Average wind speeds were around  $2\text{ms}^{-1}$  and predominantly from the west-south-west. Relative humidity varied between 44 – 89% and temperatures ranged from  $9 - 20^{\circ}\text{C}$ .



The acoustic environment in the vicinity of the site predominantly comprises noise from road traffic using the distant M62 and Barnsdale Road, and local roads such as Pinfold Lane, Lower Mickletown, Boat Lane and Green Lane. Other notable sound sources included occasional agricultural activity and business activity from a garage based on Lower Mickletown. Dog walkers, cyclists and birdsong also contributed to the acoustic environment.

<b>Assessment Location</b>	<b>Background Noise Level <math>L_{A90,1h}</math> dB</b>
Pinfold Lane	43
Foxholes Place	39
Lower Mickletown (West)	39
Lower Mickletown (Central)	41
Lower Mickletown (East)	41
Willow Grove Farm	44
Dunford House	44

## Noise Assessment and PPG Minerals

Summaries of the predicted worst-case noise levels associated with the proposed scheme are shown in the tables below, together with a comparative assessment against relevant guidance.

### Short-term Operations (such as soil stripping)

PPG permits a temporary daytime noise limit of 70 dB(A) LAeq, 1h (free field) for periods of up to 8 weeks in a year to facilitate short-term activities which include essential site preparation, restoration, soil-stripping, the construction and removal of baffle mounds, soil storage mounds and spoil heaps, construction of new permanent landforms and aspects of site road construction and maintenance.

Location	Predicted Worst Case Site Noise Level dB LAeq,1h (free-field)	Criterion dB LAeq,1h (free-field)
Pinfold Lane	54	70
Foxholes Place	52	70
Lower Mickletown (West)	56	70
Lower Mickletown (Central)	63	70
Lower Mickletown (East)	66	70
Willow Grove Farm	49	70
Dunford House	48	70

The tables above demonstrate that potential noise levels from short-term activities are expected to remain within the recommended temporary daytime limit of 70 dB.

Normal Operations

Subject to a maximum daytime limit of 55 dB  $L_{Aeq, 1h}$  (free field) for normal operations, PPG permits a noise limit at noise-sensitive property that does not exceed the background level by more than 10 dB(A).

Location	Predicted Worst Case Site Noise Level dB $L_{Aeq, 1h}$	Background Noise Level $L_{A90, 1h}$	Difference between Site Noise and Background Level	Difference between Site Noise and 55 dB(A) Limit
Pinfold Lane	45	43	+2	-10
Foxholes Place	43	39	+4	-12
Lower Mickletown (West)	46	39	+7	-9
Lower Mickletown (Central)	49	41	+8	-6
Lower Mickletown (East)	50	41	+9	-5
Willow Grove Farm	41	44	-3	-14
Dunford House	42	44	-2	-13

The result of the assessment demonstrates that potential noise levels from normal operations associated proposed development are not expected to exceed the limits outlined within PPG-Minerals.

## RECOMMENDATIONS

### Noise Limits

PPG recommends that Mineral Planning Authorities should aim to establish a noise limit, through a planning condition, at the noise-sensitive property that does not exceed the background noise level ( $L_{A90,1h}$ ) by more than 10 dB(A) during normal working hours (07:00-19:00) subject to a maximum of 55 dB(A)  $L_{Aeq,1h}$  (free-field).

Location	Site Noise Limit dB $L_{Aeq,1h}$ (free-field)
Pinfold Lane	53
Foxholes Place	49
Lower Mickletown (West)	49
Lower Mickletown (Central)	51
Lower Mickletown (East)	51
Willow Grove Farm	54
Dunford House	54

It is recommended that daytime noise levels during essential short-term operations should not exceed 70 dB  $L_{Aeq, 1h}$  (free field) at noise-sensitive properties and be limited to a period not exceeding 8 weeks at any one property.

### Compliance Monitoring

Should the Mineral Planning Authority be minded approving the development and secure noise limits via a condition, it is recommended that compliance with the stipulated levels should be monitored on a routine basis throughout the life of the scheme.

It is recommended that any monitoring conducted for the purposes of assessing compliance with noise control targets should be conducted in accordance with an appropriate noise monitoring scheme that has been submitted to and approved in writing by the Mineral Planning Authority.

### Mitigation and Control Measures

- The stated operating hours of the site should be strictly adhered to. Any site working hour restrictions should be effectively communicated to all site staff and subcontractors;
- Audible reversing warning systems on mobile plant and vehicles should be of a type which, whilst ensuring that they give proper warning, have a minimum noise impact on persons outside sites;



- All machinery should be regularly maintained and where appropriate fitted with exhaust silencers. Any defective items should not be used. Regular inspections of plant should be undertaken to identify any faults or wear and tear that may be resulting in excessive noise;
- The drop heights of materials should be minimised where possible;
- Plant and vehicles should be started up sequentially rather than all together. Any period of idling required to warm up mobile plant at the start of the working day should be undertaken in locations away from residential premises;
- Unnecessary horn usage, sharp braking and revving of engines should be avoided;
- Equipment should be switched off or throttled down to a minimum when not required. Any covers, panels or enclosure doors to engines should be kept closed when the equipment is in use;
- Plant from which the noise generated is known to be particularly directional should, wherever practicable, be orientated so that the noise is directed away from noise-sensitive areas;
- The site access road and internal haul routes should be kept clear and well maintained. Steep gradients should be avoided where possible;
- Operatives should be trained to employ appropriate techniques to keep site noise to a minimum and should be effectively supervised to ensure that best working practice in respect of noise reduction is followed.