

**APPEAL BY BAXTER CONSTRUCTION LTD AGAINST
A REFUSAL OF PLANNING PERMISSION
BY LANCASHIRE COUNTY COUNCIL
FOR MINERAL EXTRACTION AND RESTORATION
ON LAND AT MYTAX FARM OFF BOURBLES LANE IN PREESALL,
LANCASHIRE**

PINS APPEAL REF: 6002168

**REBUTTAL PROOF OF EVIDENCE OF
DR ROBERT STOREY
ON NOISE
ON BEHALF OF
BAXTER CONSTRUCTION LTD
AS THE APPELLANT**

Date 31 March 2026

Author Dr Robert Storey

1. Introduction

Reason for Rebuttal

- 1.1. I prepared a proof of evidence on noise dated 16 March 2026 and an associated Summary of the same date.
- 1.2. A proof of evidence on noise dated 20 March 2026 prepared by Mr Gray on behalf of Lancashire County Council (LCC) has been submitted to the Planning Inspectorate for the inquiry.
- 1.3. The proof of evidence on noise for LCC raises six points on noise from examination of the ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05), both prepared by Vibrock Limited.
- 1.4. The proof of evidence on noise for LCC sets out the six points in turn, but the points raised by Mr Dylan are:
 - contradictory to other documents provided by LCC and their consultants including the Statement of Common Ground on noise, or,
 - are contrary to the guidance quoted in their proof, or
 - ignore any documents/work prepared by me that had been provided to LCC prior to exchange of evidence, or,
 - are flawed.
- 1.5. The proof of evidence on noise for LCC does not state what should be done as a result of Mr Gray's analysis of the noise assessment reports (CD1.21) and (CD3.05), for example further mitigation measures or the imposition of conditions on noise.
- 1.6. This rebuttal evidence provides data, analysis, examples and explanation relevant to the proposed development with regard to noise in order to address all six points raised by Mr Gray.

Format of Rebuttal

- 1.7. The six points raised by Mr Gray in his proof on behalf of LCC are reproduced and addressed in turn.

- 1.8. I have used the paragraph numbers from the LCC proof of evidence on noise as headings, when addressing points raised by Mr Gray.
- 1.9. Where necessary, I have referred to documents not contained within the CD list at the exchange of proofs of evidence and these have been assigned CD references.

Statement of Truth

- 1.10. The evidence which I have prepared and provide for the appeal in this rebuttal evidence is true and has been prepared and is given in accordance with the guidance of my professional institution and I confirm that the opinions expressed are my true and professional opinions.

2. Points Raised in LCC Proof

Item One: Baseline Conditions

- 2.1. The inclusion of “baseline conditions” and the resultant criticism of the data used is disappointing and unreasonable in that this was not a matter that was considered to be in dispute.
- 2.2. Following the initial planning application in 2023 which included the ES Appendix 9 - Noise Assessment (CD1.21), a Regulation 25 request dated 27 March 2024 was sent by LCC which requested additional baseline noise data among other items. Vibrock produced an updated noise assessment report prepared by Vibrock Limited dated 19 August 2024 Ref. R24.12202/1/AP (using an updated baseline noise survey in June 2024).
- 2.3. Following this updated assessment (with the additional baseline data), the response from Atkins (on behalf on LCC) stated in a Technical Note dated 10 January 2025 Ref. 5218724 (CD4.02):

“The previous review identified five items where further information from the applicant would be beneficial. Additional baseline monitoring has been undertaken and further assessment information has been provided. These resolve the majority of the items raised in the initial review. The assessment shows that short-term noise levels are within the 70dB(A) criteria. Noise levels from normal operations are within the 55dB(A) criteria, but are more than 10dB(A) above baseline noise levels in some circumstances. Noise mitigation is included to deal with the majority of impacts.

If noise is a particular concern for this development, there may be benefits in the applicant providing details about the noise attenuation of the proposed bunds, the potential for cumulative effects, and any other proposed noise management controls.

The applicant has not assessed road traffic noise from the development on receptors near the B5270 Lancaster Road, but the available data indicates this is unlikely to be a concern.”

- 2.4. It should also be noted that the Statement of Common Ground on noise dated 06 March 2026 states in the “Areas of Agreement”:

*“Despite minor discrepancies in the timings of the baseline noise monitoring (some measurements being shorter than 15-minutes duration), **the background noise levels are considered to be representative of the area**” [emphasis added]*

- 2.5. It is therefore considered that the raising of this point at this stage of proceedings is contrary to all the information previously provided by LCC and agreed.
- 2.6. The LCC proof raises that some measurements are not fully 15 minutes in duration and this could be relevant if the aim of the baseline survey was to establish ambient rather than background noise levels and there were not sufficient other samples at the same location that exhibit similar background noise levels.
- 2.7. The statement that the recorded time between the measurements at Ourome is less than 15 minutes on two occasions is correct.
- 2.8. It should also be noted that the statement regarding the actions taken between measurements ignores the fact that during an environmental noise survey, one would not normally calibrate the equipment between each measurement, rather calibrating before the start, after completion and at some points in the middle depending on the duration of the survey.
- 2.9. The statement:

“Representative background noise levels derived by arithmetical averaging of short-term L_{A90} values, without consideration of how background sound levels may vary over time, and therefore whether the values are representative”

is not valid and is inconsistent with the previous comments by LCC and their consultants following the Regulation 25 response and in the Statement of Common Ground on Noise.

- 2.10. The arithmetic averaging of background noise levels is common practice and on a previous noise assessment for a sand and gravel quarry, I was provided with the following advice from Atkins (then their noise consultant) in an email from Gloucestershire County Council dated 16 August 2013:

“When combining short-term measurement values $L_{Aeq,T}$ values should be averaged logarithmically and statistical values including LA_{10} and LA_{90} should be arithmetically averaged.”

2.11. The example used by Mr Gray in his footnote:

“the individual weekday 15-minute background (LA90,15min) measurements at Crossing Cottage are: 37.8, 37.6, 37.6, 38.7, and 39.8 dB. The arithmetic average of these is 38.3 dB, which is rounded to 38 dB”

does not give any weight to the point being raised and appears to demonstrate the opposite.

2.12. The following table presents a summary of the background noise data and variation including standard deviations and ranges to demonstrate that the point raised with regard to variation is largely irrelevant.

Location	Measured LA90 Levels dB(A)	Average			Range	Standard Deviation
		Mean	Mode	Median		
Crossing Cottage	37.8, 37.6, 37.6, 38.7, 39.8, 36.6, 38.0	38	38	38	38 to 40	1.00
Bourbles Farm	39.2, 41.3, 38.7, 40.1, 42.0, 39.5, 37.5	40	39/40	40	38 to 42	1.53
Ourome	36.4, 36.8, 38.8, 38.5, 35.7, 37.7, 36.9	37	36/37/39	37	36 to 39	1.13
Woodlands/Red Lea	40.0, 39.5, 40.5, 40.5, 41.8, 38.4, 39.9	40	40	40	38 to 42	1.04
Little Tongues Lane	41.9, 41.4, 43.6, 42.0	42	42	42	41to 44	0.95
The Beeches	41.8, 42.6, 43.4, 42.8, 44.9, 43.1, 42.7	43	43	43	42 to 45	0.96
Lyndale Farm	48.1, 46.8, 47.3, 47.8, 46.7, 46.2, 45.2	47	47	47	45 to 48	0.99
Mytax/New England Cottage	42.5, 42.7, 44.1, 42.3, 44.4, 42.1, 42.4	43	42	43	42 to 44	0.93

2.13. The data analysis above and the relatively low level of variation in the measured background noise levels also indicates that the presented average levels are a fair representation of the background noise levels at the nearest dwellings to the site.

- 2.14. It is also noted that the average background noise levels in 2024 are no more than 1dB(A) different from the average background noise levels from 2021 and therefore this is a further indication that the background noise levels used are representative of typical levels in the locality.
- 2.15. It is my opinion that the data acquired provides a good representation of the background noise levels at the nearest noise sensitive receptors to the proposed Site over a range of days, times and conditions. This would also appear to have been the view of LCC and their consultants until the provision of their proof on noise.
- 2.16. The LCC proof then states:
- “The measurements were conducted during the middle of the day (between 07:54 and 17:30), but did not take account of the early evening period or morning period of the working hours (noted as 07:00 to 19:00 in Section 6.1.1 of the Vibrock report [CS3.05]) when background sound levels would be expected to be lower”*
- 2.17. This point is irrelevant as the prevailing background noise is due to road traffic noise and the periods referenced are commonly accepted as the busiest in terms of road traffic flows (this is backed up by the LCC provided road traffic flows for the A588) and therefore the last part of the statement is clearly incorrect.
- 2.18. It is also noteworthy that the planning conditions proposed by LCC seek to amend the start time on site to 07:30 and should this be the case the earlier period is not relevant at all. Note also that operations on mineral sites such as processing and extraction would not normally start until around 07:30 after safety checks and staff arrivals. Operations on most mineral sites do not continue until the permitted end time, particularly as this would involve operations after sunset for a substantial part of the year.
- 2.19. Indeed, on a previous noise assessment for a sand and gravel quarry, I was provided with the following advice from Atkins (then their noise consultant) in an email from Gloucestershire County Council dated 16 August 2013:

“Concurrent short-term measurement samples should be collected at the remaining locations. Samples at the short-term locations should total one hour between 10:00 and 15:00 hours, ideally as two 30min measurements, one in the morning and one in the afternoon, on a weekday.

Results from short-term measurements should be compared to the long term measurement location to calculate differences and these can be used to estimate the long-term noise profile at each location.

When combining short-term measurement values LAeq,T values should be averaged logarithmically and statistical values including LA10 and LA90 should be arithmetically averaged. A maximum should be taken of the LAmax values for a given time period. Ideally both LAmax,fast and LAmax,slow would be monitored but if equipment doesn't permit LAmax,fast would suffice“

- 2.20. The response from Mr Gray is therefore not consistent with the advice provided by Atkins in the past with regard to baseline environmental noise measurements.
- 2.21. In general terms, the background noise levels over the course of the baseline noise surveys undertaken by Vibrock are consistent and were accepted as representative by LCC and their consultants until the final deadline for proofs and therefore no additional surveys were undertaken.

Item Two: Plant Noise data

- 2.22. Mr Gray's point relating to the plant noise data used has three aspects to it that will be addressed in turn.
- 2.23. Firstly,

“Source sound power levels that are generally lower than BS 5228-1 [CD12.06] reference values, in some cases by up to 8 dB”

is not incorrect but the following points are to be noted.

- 2.24. The data in BS5228-1 Annex C as referenced by Mr Gray are based on DEFRA data from 2005 and are generally acknowledged as being out of date.
- 2.25. Paragraph C.2 of BS5228-1 Annex C states:

“The lists of site equipment and activities given in Tables C.1 to C.12 do not cover the complete range of equipment used or all the activities undertaken during the various stages of site work. Users of this part of

BS 5228 need to be aware of the processes involved in the development of a site and of the equipment that can be used. When necessary, the tables can be extended to include additional information concerning site equipment and activities, and their sound levels, for future reference. Values of the sound power levels for a particular type and size of machine and the equivalent continuous sound pressure levels for the site activities given in Tables C.1 to C.12 will apply in the majority of cases, but can be lower or higher due to the make and maintenance of the machines, their operation and the procedures adopted when work is carried out.”

- 2.26. Similar, and in some cases markedly lower, sound power levels to those used by Vibrock in their calculations can be provided either based on measurements of specific plant items undertaken by WBM of normal operations or manufacturers' datasheets. The one exception being the water bowser which was included with a sound power level far higher than one might expect, but travelling at too great a speed to be of practical use although, it should be noted that, adjustment of the sound power level and the speed give the same end result.
- 2.27. With regard to the particular items of plant highlighted in Appendix 3 of the LCC proof, there are some flaws and missing information.
- 2.28. The dump truck movements referencing C.10.18 for dump truck movements is firstly only one of a number of entries in the standard that range from 104 to 120 dB L_{WA} depending on the size (the upper range being the larger dump trucks on hard rock quarries) and these are based on the L_{Amax} noise level (i.e. a peak sound pressure level) from a passing vehicle rather than an L_{Aeq} level for the movement and therefore the comparison in the table is not a like for like comparison.
- 2.29. The next plant item highlighted is the processing plant (BS5228-1 ref C.10.14). The sound power level for a processing plant depends on the type and model and age of the plant to be used. There have been substantial improvements in noise mitigation on processing plants in the last 21 years since the DEFRA data was measured and most plants can be operated fairly quietly if maintained regularly. It is also relevant that the plant site would not be the main noise source at the majority of the locations during the periods of mineral extraction due to the distances involved.
- 2.30. The above point is relevant, but to a lesser extent for the mobile crusher (BS5228-1 ref C.1.14) as the noise from its operation would be mainly controlled by the material involved. I would accept either sound power level (Vibrock or BS5228-1) in reviewing an assessment.

- 2.31. Wheeled loading shovels (BS5228-1 ref C.10.5) are also provided with a range in the standard. As with the progression of dump trucks, manufacturers' data can demonstrate badged sound power levels in keeping with the Vibrock data, for example, Volvo L45H, L50H and L60H wheeled loaders range from 102 to 104 dB L_{WA} depending on the model used. I would normally use 102 to 106 dB L_{WA} for a wheeled loader. The specification for the larger Volvo L120H (which is commonly used on large sand and gravel sites) lists the external sound power level at 106 dB L_{WA} . A sound power level of 108 dB L_{WA} would be a large wheeled loader. Extracts from the specification sheets are provided in Appendix A to this document.
- 2.32. Dewatering pumps (BS5228-1 ref C.11.3) are one of the quieter elements on a site and used to manage lagoons or dewater extraction areas. The pumps are actually underwater and are therefore not audible. The pump would, however, need to be powered and a diesel generator is usually used (unless mains power can be supplied). An enclosed and mitigated diesel generator/water pump combination can be expected to be around 83 dB L_{WA} and specification sheets for this sort of pump have been provided to me by operators looking to purchase such a system. These specifications are shown in Appendix A to this document.
- 2.33. The above point is potentially also relevant when considering the diesel generator (BS5228-1 ref C.4.65). The sound power level used by Vibrock is appropriate for a modern diesel generator and this can be demonstrated.
- 2.34. As with the dump trucks, there is a range of values in BS5228-1 Annex C for the road lorries and they are based on the L_{Amax} levels from a drive by and are therefore not based on an L_{Aeq} level as the Vibrock data is. Sound power levels for HGVs were limited by European Directive in 2009 and measurements of a substantial number of HGV movements on mineral / aggregate sites undertaken by WBM indicate that a typical sound power level of 98 dB L_{WA} would be more accurate and this can be demonstrated with extensive data measured of HGV movements from an aggregate site by WBM in November 2021. A summary of the data is shown in Appendix B to this document.
- 2.35. The final highlighted plant item is another wheeled loader as addressed in paragraph 2.31 of this rebuttal.
- 2.36. It is again disappointing and unreasonable that the sound power levels are now challenged whereas they were previously accepted by LCC and their noise

consultants in their initial review of the ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05), both prepared by Vibrock, as was stated in Atkins' Technical Note dated 10 January 2025 Ref. 5218724 (CD4.02). I would add that I am surprised that the author appears to be unfamiliar with actual real world noise measurements from plant operated at mineral workings.

2.37. Whilst in the Statement of Common Ground on noise it stated:

“While agreeing that the adopted methodology for assessment of noise impacts is suitable (as presented within the updated Noise Assessment, Vibrock 2024), the Council do not agree with the Appellant findings regarding the predicted noise levels at some locations”,

this was understood to refer to potential disagreements between the bund heights/lengths and distances used by Vibrock rather than the sound power levels.

2.38. It is acknowledged that there was some discussion of the sound power levels and on-times on the telephone with Mr Gray but both Mr Gray and I had duplicated the Vibrock calculations to our best ability and were getting similar results at the closest dwellings, with my suggested changes to the mitigation and checks addressing those potential issues.

2.39. The second element raised related to:

“Lack of supporting information or references for the claimed site-specific plant measurements”.

Whilst I cannot comment on the data Vibrock used for their source I can state that the sound power levels used by them are in the range of those considered to be relevant and appropriate for similar sites as demonstrated in the data supplied above.

2.40. The final point with regard to the calculations is

“Reliance on generic assumptions for plant ‘on-times’ and screening effectiveness, with limited site-specific justification”.

The “on times” would normally be based on normal operating procedures and as mineral sites are not a continuous operation (apart from the processing plant and similar plant items), a number of assumptions need to be made to represent a realistic ‘worst case scenario’.

- 2.41. For this reason, I would tend to include most plant as operating for a full hour (i.e. 100% on time based on the normal assessment period) as that could conceivably happen. However, certain elements such as loading dump trucks (the example raised by Mr Gray) would not be continuous as it takes a short time to load a dump truck and there would be time needed for moving the dump trucks as well as the fact that unless there are substantial number of dump trucks on the site and/or the hauling distance is very short, there will rarely be a continuous arrival of dump trucks over the course of an hour. As such, in my judgment, a 75% on time is probably an overestimate, but does exclude the much quieter idling time.
- 2.42. Activities such as tipping would have a significantly lower on time as it may only take place for a few minutes in total over an hour.
- 2.43. The only plant item that, in my view, is underrepresented in the Vibrock calculations is the mobile crusher which should be included as operating for 100% of an hour as it is unlikely a crusher would operate for less than an hour at a time. However, increasing this on time to 100% (from 50%) results in an increase of 3 dB(A) in the noise levels from the crusher, but in the context of the overall site noise levels and the distances involved, this has little or no impact in the calculated site noise levels at the receptors.
- 2.44. Overall and with regard to Mr Gray's expressed concerns, the sound power levels can be readily justified and are based on the number of 'worst case' assumptions already necessary to be made. It is therefore not considered that there is an actual or significant risk of under-prediction in the Vibrock assessments or in my subsequent calculations/recommendations.

Item Three: Assessment of Noise Impacts During Normal Conditions

- 2.45. This item relates to Mr Gray's concerns relating to the calculated site noise levels from normal day to day operations presented in Vibrock's ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05).
- 2.46. In the telephone discussions I had with Mr Gray on 05 March 2026, this was discussed and it appeared that our own respective calculations were in agreement with regard to the site noise levels at the nearest receptors, particularly Woodlands and Red Lea. I informed Mr Gray of the proposed changes to the bunding and mitigation that were proposed in my Technical Note detailing my calculations and recommendations that had been provided to LCC on 24 February 2026 (CD12.23).

- 2.47. It is therefore disappointing and confusing that my work appears to have been completely ignored in the proof and that the changes to the bunding have not been acknowledged.
- 2.48. The proposed revisions to the scheme and cross sections were provided to LCC before their proof was prepared.
- 2.49. Thus the issues have been addressed in the documents provided by me and the Appellant that address the point and mitigating site noise to achieve no more than 10 dB(A) above the representative background noise levels.
- 2.50. Mr Gray states:

“it has not been fully demonstrated that all reasonable measures have been considered to reduce noise levels to below 50 dB $L_{Aeq,1h}$ ”.

- 2.51. This point does not consider the work on the project since I was instructed and this is fully addressed in my Technical Note detailing my calculations and recommendations that had been provided to LCC on 24 February 2026 (CD12.23) and in my Proof of Evidence dated 16 March 2026.
- 2.52. Mr Gray then goes on to reference ambient noise levels and the potential effect. This is not considered in Planning Practice Guidance – Minerals (CD12.04), with the emphasis being on background noise levels in relation to limits. Some of the differences in the way mineral sites are assessed are based on the need for minerals and the fact that sites have to be where there are suitable deposits. This is to allow for extraction whilst trying to minimise the noise impact.
- 2.53. Mr Gray then references Design Manual for Roads and Bridges LA 111 (CD12.17) and states that that classifies:

“.. short-term noise increases of 5 dB or greater as a Major magnitude of impact, and such changes are widely recognised in environmental acoustics as clearly perceptible and materially altering residential amenity”.

- 2.54. Whilst it is acknowledged that a change of 5dB would generally be perceptible, the reference used relates to construction noise and is not the guidance relating to mineral sites that was correctly stated in the Statement of Case provided by LCC (i.e. Planning Practice Guidance – Minerals (CD12.04)).

2.55. Mr Gray then refers to the on times used and shut down periods. This is again irrelevant and misleading as stated earlier as there is no proposed shut down period, there is a representative on time for normal operations of certain plant items that would not operate for 100% of the time due to operational methods.

2.56. The next statement relates to the site noise limits that has been addressed earlier in this rebuttal and in my Technical Note detailing my calculations and recommendations that had been provided to LCC on 24 February 2026 (CD12.23) and in my Proof of Evidence dated 16 March 2026.

2.57. The summary that

“... the predicted exceedances of background sound levels, the scale of increase in ambient noise, the absence of demonstrably effective mitigation, and the intermittency and impulsivity of noise from works activities, indicate that the proposals would give rise to adverse, and in places significant adverse, effects on residential amenity, contrary to the requirements of the NPPF, NPSE, PPG Noise, PPG Minerals, and Policy DM2 of the Joint Lancashire Minerals and Waste Local Plan”

blatantly ignores the documents provided to LCC since my instruction including my Proof of Evidence dated 16 March 2026 that address all those points by means of amended bunding and mitigation. Should those documents be considered, it is not clear how these points would not be agreed.

Item Four: Assessment of Noise Impacts During Short-Term and Temporal Works

2.58. The LCC proof states:

“Figure 3 of the Vibrock Report shows mineral extraction activities proposed beneath the footprint of the screening bund adjacent to Woodlands. Planning Practice Guidance limits the use of the 70 dB L_{Aeq,1h} short-term criterion to essential site preparation, restoration and construction of baffle mounds. It does not extend to routine mineral extraction. On this basis alone, application of the 70 dB L_{Aeq,1h} criterion to these activities is inappropriate”

2.59. The LCC Proof does not refer to the fact that this point was acknowledged in our telephone discussion on 05 March 2026 and is addressed in my further work and the amendments to the scheme that were provided to LCC prior to the submission of their proof on 20 March 2026.

2.60. As such, this point has also been addressed and the inclusion of this point misleads and ignores the input I have made since my instruction that looks to consider the extraction of mineral below the bund footprints as being a routine operation and subject to a suggested site noise limit of background plus 10 dB(A). Consideration of the submitted documents and my proof addresses this point.

2.61. Mr Gray then goes on to state:

“I have undertaken calculations (provided in Appendix 4) for the worst-case receptors based on the information provided in Appellants noise assessment. The results show that the predicted noise levels at Woodlands and Bourbles Farm during short-term works are likely to be underestimated, with results indicating a 2 dB increase at Woodlands compared to the Appellants results. This would lead to a potential exceedance of the 70 dB LAeq,1h limit at Woodlands. This discrepancy arises principally from the use of receptor distances that appear inconsistent with the site layout.”

2.62. This is another point was also discussed on 05 March 2026 and was acknowledged as my calculations indicated the same exceedance. What is not referred to is my suggestion on the telephone call that temporary barriers would address this issue and that suggestion was proposed in the amended scheme provided to LCC prior to 20 March 2026 when the LCC proof was finalised. It is also expanded upon in my Proof of Evidence dated 16 March 2026.

2.63. As such, if all the submitted documents are considered by LCC and their noise consultant, there appears not reason why this point has not also been addressed.

2.64. The statement:

“such works would also be intermittent due to required on-times, and impulsive”

is flawed as it has already been established that the plant would be operating as normally and would not be ‘intermittent’ in the way stated. There is also unlikely to be impulsive noise from these works and working methods can ensure this.

2.65. As for routine operations, these points are addressed in the further documents that were provided to LCC prior to their Proof dated 20 March 2026.

Item Five: Sensitivity of Receptors

2.66. This item relates that Woodlands is not considered appropriately.

- 2.67. Woodlands is a residential property and is considered to be of 'high' sensitivity in the Vibrock assessments.
- 2.68. The issue seems to be that the external amenity space is between the house and the proposed site operations.
- 2.69. Planning Practice Guidance – Minerals (CD12.04) considers external noise levels and also the calculation location would be a free field location outside the dwelling, there is not a significant distance between the southern boundary of the garden and the calculation location.
- 2.70. Moving to the boundary (note that this is closer to the road) results in a minimal (less than 1 dB(A) increase in site noise levels and being closer to the 'shadow' of the proposed bund, there is the potential for greater attenuation of site noise levels behind the bund (i.e. at the nearest point of the work).
- 2.71. Mr Gray then references BS8233 with regard to external amenity levels. The use of BS 8233: 2014 "*Guidance on sound insulation and noise reduction for buildings*" in this context is inappropriate as Planning Practice Guidance – Minerals (CD12.04) is the guidance relevant to mineral sites.
- 2.72. In any case, it should be noted that in my calculations for the site following the proposed amendments to the scheme that were provided to LCC prior to the submission of their Proof on 20 March 2026, 50 dB $L_{Aeq, 1 \text{ hour}}$ (i.e. background plus 10dB(A)) is achieved at the dwelling at Woodlands due to routine site operations and at most the nearest point of the garden to the site would be subject to no more than 51 dB $L_{Aeq, 1 \text{ hour}}$.) It should also be noted that these calculated levels are based on a 'worst case scenario' that in all likelihood will not occur in practice.
- 2.73. The statement in the LCC Proof:

"This would also not mitigate noise from the east of the bund at the property itself as there would be a direct line of sight to the works from the house, leading to loss of amenity"

appears to relate to my conversation with Mr Gray on 05 March when I drew his attention to the fact that I was requiring that the plans be amended to extend this bund to the east to close the line of sight. This has been altered in the amended scheme the plans of which were provided to LCC before their Proof was issued on 20 March 2026.

2.74. The closing statement on this point:

“It is my opinion that these factors would lead to a loss of amenity at Woodlands. This may include having to keep windows closed, not being able to use rooms as intended (e.g. daytime resting or activities requiring quiet, such as reading), not wanting to spend time in the garden, having to turn up the volume on televisions and radios, or using headphones”

wholly ignores the amendments to the scheme and the documents submitted to LCC prior to the production of the LCC Proof on 20 March 2026.

2.75. It also draws conclusions based on no evidence in so much that internal noise levels are not considered in Planning Practice Guidance – Minerals (CD12.04) as the external levels consider the inside of the dwellings to some extent.

2.76. If one assumes a worst case of around 10 dB(A) attenuation through an open window, internal daytime noise levels in Woodlands would be no more than 40 dB $L_{Aeq, 1 \text{ hour}}$ when considering the ‘worst case scenario’.

2.77. BS8233 (previously referenced by Mr Gray) refers to “indoor ambient noise levels for dwellings” with resting in living rooms as being 35 dB $L_{Aeq, 16 \text{ hour}}$ for daytime (07:00 to 23:00 hours). Note that this is a 16 hour L_{Aeq} level and as the site would not operate for that whole 16 hour period, even if there were periods of 40 dB $L_{Aeq, 1 \text{ hour}}$, the 16 hour level would be significantly lower.

2.78. The reference to:

“not being able to use rooms as intended (e.g. daytime resting or activities requiring quiet, such as reading), not wanting to spend time in the garden, having to turn up the volume on televisions and radios, or using headphones”

relates more to Statutory Nuisance and is not specifically relevant to this development. However, based on normal external and ambient noise levels and the calculated site noise levels (based on the ‘worst case scenario’ that may never actually happen), I consider that this is clearly not the case once the additional documentation provided to LCC prior to their Proof being submitted on 20 March 2026 has been properly considered.

2.79. As such, if LCC and their noise consultant consider all the information provided, this point should also be addressed.

Item Six: Mitigation and Noise Management

2.80. The final point again reiterates the earlier points regarding the mitigation, calculations and sound power levels that have been addressed if LCC and their noise consultant consider all the documents and amended plans that were provided to them prior to submission of their Proof on 20 March 2026 (including my Proof of Evidence dated 16 March 2026) and have been addressed earlier in this rebuttal.

2.81. The point goes on to bring up the following:

“No detailed noise compliance monitoring methodology is provided; and

The Noise Management Plan is not defined with sufficient precision to ensure enforceability.”

2.82. Both these aspects would not necessarily be included in an assessment and the Appellant has pushed for a draft planning condition that requires a Noise Management Plan that would fully address both these points.

2.83. I have drafted a ‘skeleton’ Noise Management Plan for the site that includes a noise monitoring scheme, best practice requirements and a complaints procedure. This is only in basic form awaiting the planning conditions which it will reference.

2.84. The proof then mentions the extent of the bunding to the south of Woodlands referred to and addressed in paragraph 2.72 of this rebuttal.

2.85. The proof goes on to state:

“There are also gaps in the proposed bunds northeast of Mytax and New England Cottage that would allow line of sight to the works and provide no mitigation”.

As with the bund for Woodlands, I brought this to Mr Gray’s attention during our telephone conversation on 05 March 2026 when I stated that these gaps will be closed. I recall that he actually stated that he had not noticed that matter before I had mentioned it.

2.86. Mr Gray then goes on to mention areas where bunding is not present, although the calculations (both mine and Vibrock’s and presumably Mr Gray’s) do not indicate any need for that bunding. In my view the focus should be on providing the bunding that is necessary for the protection of the amenity of the residents where it is required.

2.87. The mention that there is no consideration of stand-off distances should also consider as relevant that isolation of the mineral due to stand off distances would sterilise a valuable mineral resource. A stand-off distance is a means to achieve, by distance from a noise source, appropriate noise levels to protect amenity. If, as in the present case, it can be demonstrated that appropriate levels of amenity can be achieved without such I see no reason to insist on the provision of stand-off distances.

2.88. The final summary for this point is:

“the mitigation strategy as presented does not demonstrate that all reasonably practicable measures have been considered or adopted to minimise noise impacts, particularly at receptors where predicted noise levels exceed background levels by more than 10 dB.” And

“Given this, as noted above in Items Three and Four, this serves to artificially and unjustifiably inflate the proposed noise limit at several nearby properties”

2.89. Again, this statement is misleading and completely ignores the documents provided to LCC following my appointment and the revised scheme plans that were all provided to LCC prior to the submission of the LCC Proof on 20 March 2026 (as well as my Proof of Evidence dated 16 March 2026).

2.90. Should LCC and their noise consultant consider all the available documentation, there would appear to be no reason that this point cannot be agreed upon as well.

3. Concluding Comments

3.1. A proof of evidence on noise dated 20 March prepared by Mr Gray on behalf of Lancashire County Council (LCC) has been submitted to the Planning Inspectorate for the inquiry.

3.2. The proof of evidence on noise for LCC raises six points on noise from examination of the ES Appendix 9 - Noise Assessment (CD1.21) and the Section 4 - Updated Noise Assessment (CD3.05), both prepared by Vibrock Limited.

3.3. This rebuttal has been necessitated because the LCC Proof has chosen to ignore the information provided to them. The proof of evidence on noise for LCC sets out the six points in turn, but the points raised by Mr Dylan are either contradictory to other documents provided by LCC and their consultants including the Statement of Common Ground on noise, are contrary to the guidance quoted in their proof, ignore

any documents/work prepared by me that were previously provided to LCC or are fundamentally flawed.

- 3.4. Furthermore, the proof of evidence on noise for LCC does not state what should be done as a result of Mr Gray's analysis of the noise assessment reports (CD1.21) and (CD3.05), for example further mitigation measures or the imposition of conditions on noise.
- 3.5. This rebuttal evidence provides data, analysis, examples and explanation relevant to the proposed development with regard to noise in order to address all six points raised by Mr Gray.
- 3.6. Two of the points raised by Mr Gray in the Proof are in contradiction to both the Atkins Technical Note dated 10 January 2025 Ref. 5218724 (CD4.02) provided in response to the Section 4 - Updated Noise Assessment (CD3.05) prepared by Vibrock and the signed Statement of Common Ground on Noise.
- 3.7. Apart from flawed comments and false comparisons, it is concluded that should LCC and their noise consultant consider all the documentation and plans that had been provided to them before their Proof was prepared on 20 March 2026 (including the amendments to the scheme and my Proof of Evidence dated 16 March 2026), it is considered that their six remaining objections are readily capable of being resolved.

Appendix A - Excerpts from Specification Sheets

Volvo Wheeled Loader

Volvo L45H:

Sound Level		
Sound pressure level in cab according to ISO 6396		
L_{pA}	dB	70
L_{pA} (as option)	dB	68
External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC		
L_{WA}	dB	102

Volvo L50H:

Sound Level		
Sound pressure level in cab according to ISO 6396		
L_{pA}	dB	70
L_{pA} (as option)	dB	68
External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC		
L_{WA}	dB	102

Volvo L60H:

Sound Level		
Sound level in cab according to ISO 6396		
- L_{pA}	dB	68
External sound level (ISO 6395 and EU Noise Directive 2000/14/EC) - L_{WA}		
	dB	104

Volvo L120H:

Sound Level		
Sound level in cab according to ISO 6396		
- L_{pA}	dB	68
External sound level (ISO 6395 and EU Noise Directive 2000/14/EC) - L_{WA}		
	dB	106

Appendix A (continued)

Dewatering Pump/Diesel Generator Specification (Level 1 Enclosure)

Sound Pressure Levels (dBA) for Level 1 Enclosure

Generator Set Model	50 Hz						60 Hz						
	15 m (50 ft)		7 m (23 ft)		1 m (3 ft)		15 m (50 ft)		7 m (23 ft)		1 m (3 ft)		
	75% Load	100% Load	75% Load	100% Load	75% Load	100% Load	75% Load	100% Load	75% Load	100% Load	75% Load	100% Load	
Single Phase													
P7.5-1S	Prime/Standby	65/65	66/67	71/71	72/73	82/82	84/85	N/A	N/A	N/A	N/A	N/A	N/A
P7.5-4S	Prime/Standby	65/65	66/67	71/71	72/73	82/82	84/85	68/68	69/70	74/74	75/76	85/85	87/87
P11-6S	Prime/Standby	65/65	67/68	71/71	73/74	83/83	84/85	70/70	71/72	76/76	77/78	86/87	88/88
P14-6S	Prime/Standby	64/64	65/66	70/70	71/72	80/81	82/83	67/67	68/69	73/73	74/75	84/84	85/86
P16.5-1S	Prime/Standby	65/65	67/68	71/71	73/74	81/82	83/85	N/A	N/A	N/A	N/A	N/A	N/A
P16.5-6S	Prime/Standby	65/65	67/68	71/71	73/74	81/82	83/85	68/68	69/70	74/74	75/76	84/85	86/87
Three Phase													
P9.5-1	Prime/Standby	65/65	66/67	71/71	72/73	82/82	84/85	N/A	N/A	N/A	N/A	N/A	N/A
P9.5-4	Prime/Standby	65/65	66/67	71/71	72/73	82/82	84/85	68/68	69/70	74/74	75/76	85/85	87/87
P13.5-6	Prime/Standby	65/65	67/67	71/71	73/73	83/83	84/84	70/70	71/72	76/76	77/78	86/87	88/88
P16-1	Prime/Standby	66/66	68/69	72/72	74/75	83/84	85/86	N/A	N/A	N/A	N/A	N/A	N/A
P18-6	Prime/Standby	64/64	66/66	70/70	72/72	80/81	82/83	67/68	68/69	73/74	74/75	84/84	85/86
P22-1	Prime/Standby	65/66	67/68	71/72	73/74	82/82	84/85	N/A	N/A	N/A	N/A	N/A	N/A
P22-6	Prime/Standby	65/66	67/68	71/72	73/74	82/82	84/85	68/68	69/70	74/74	75/76	84/85	86/87

Levels in accordance with European Noise Directive (2000/14/EC).

Appendix A (continued)

Dewatering Pump/Diesel Generator Specification (Level 2 Enclosure)

Sound Pressure Levels (dBA) for Level 2 Enclosure

Generator Set Model		50 Hz						60 Hz					
		15 m (50 ft)		7 m (23 ft)		1 m (3 ft)		15 m (50 ft)		7 m (23 ft)		1 m (3 ft)	
		75% Load	100% Load	75% Load	100% Load	75% Load	100% Load	75% Load	100% Load	75% Load	100% Load	75% Load	100% Load
Single Phase													
P7.5-15	Prime/Standby	54/54	55/56	60/60	61/62	70/70	71/72	N/A	N/A	N/A	N/A	N/A	N/A
P7.5-45	Prime/Standby	54/54	55/56	60/60	61/62	70/70	71/72	57/57	58/58	63/63	64/64	71/72	73/74
P11-65	Prime/Standby	54/55	56/56	60/61	62/62	71/71	72/72	58/58	59/59	64/64	65/65	72/73	73/74
P14-65	Prime/Standby	57/57	58/58	63/63	64/64	74/74	74/75	60/60	61/61	66/66	67/67	76/76	76/76
P16.5-15	Prime/Standby	57/58	59/60	63/64	65/66	74/74	75/76	N/A	N/A	N/A	N/A	N/A	N/A
P16.5-65	Prime/Standby	57/58	59/60	63/64	65/66	74/74	75/76	60/61	61/61	66/67	67/67	76/76	76/76
Three Phase													
P9.5-1	Prime/Standby	54/55	55/56	60/61	61/62	70/70	71/72	N/A	N/A	N/A	N/A	N/A	N/A
P9.5-4	Prime/Standby	54/55	55/56	60/61	61/62	70/70	71/72	57/57	58/58	63/63	64/64	71/72	73/74
P13.5-6	Prime/Standby	54/55	56/56	60/61	62/62	71/71	72/72	58/58	59/59	64/64	65/65	72/73	73/74
P16-1	Prime/Standby	55/56	57/58	61/62	63/64	71/71	72/73	N/A	N/A	N/A	N/A	N/A	N/A
P18-6	Prime/Standby	57/57	58/59	63/63	64/65	74/74	74/75	60/60	61/61	66/66	67/67	76/76	76/76
P22-1	Prime/Standby	58/58	60/61	64/64	66/67	74/74	75/76	N/A	N/A	N/A	N/A	N/A	N/A
P22-6	Prime/Standby	58/58	60/61	64/64	66/67	74/74	75/76	60/61	61/61	66/67	67/67	76/76	76/76

Levels in accordance with European Noise Directive (2000/14/EC).

Appendix A (continued)

Dewatering Pump/Diesel Generator Specification (Level 3 Enclosure)

Generator Set Model		Sound Pressure Levels (dBA) for Level 3 Enclosure											
		50 Hz						60 Hz					
		15 m (50 ft)		7 m (23 ft)		1 m (3 ft)		15 m (50 ft)		7 m (23 ft)		1 m (3 ft)	
		75% Load	100% Load	75% Load	100% Load	75% Load	100% Load	75% Load	100% Load	75% Load	100% Load	75% Load	100% Load
Single Phase													
P7.5-1S	Prime/Standby	51/51	51/52	57/57	57/58	69/69	70/70	-	-	-	-	-	-
P7.5-4S	Prime/Standby	51/51	51/52	57/57	57/58	69/69	70/70	52/52	53/53	58/58	59/59	69/69	71/72
P11-6S	Prime/Standby	52/52	52/53	58/58	58/59	69/70	70/70	53/53	54/54	59/59	60/60	70/70	71/71
P14-6S	Prime/Standby	53/53	54/54	59/59	60/60	71/71	72/72	54/54	55/55	60/60	61/61	70/71	72/72
P16.5-1S	Prime/Standby	53/54	54/55	59/60	60/61	71/72	73/73	-	-	-	-	-	-
P16.5-6S	Prime/Standby	53/54	54/55	59/60	60/61	71/72	73/73	54/54	55/56	60/60	61/62	71/71	73/74
Three Phase													
P9.5-1	Prime/Standby	51/51	51/52	57/57	57/58	69/69	70/70	-	-	-	-	-	-
P9.5-4	Prime/Standby	51/51	51/52	57/57	57/58	69/69	70/70	52/52	53/53	58/58	59/59	69/69	71/72
P13.5-6	Prime/Standby	52/52	52/53	58/58	58/59	69/70	70/70	53/53	54/54	59/59	60/60	70/70	71/71
P16-1	Prime/Standby	52/52	53/53	58/58	59/59	70/70	71/71	-	-	-	-	-	-
P18-6	Prime/Standby	53/53	54/54	59/59	60/60	71/71	72/73	54/54	55/55	60/60	61/61	71/71	72/73
P22-1	Prime/Standby	54/54	55/55	60/60	61/61	72/72	73/74	-	-	-	-	-	-
P22-6	Prime/Standby	54/54	55/55	60/60	61/61	72/72	73/74	54/55	55/56	60/61	61/62	71/72	73/74

Levels in accordance with European Noise Directive (2000/14/EC).

Appendix B – WBM Noise Data for HGV movements

HGV noise data determined from measurements obtained by WBM of passing HGV movements, survey date November 2021 (estimated speed 15-30 mph). All values in dB.

	L _{Amax}	SEL	LWA	vehicle	type	
	76	81	99	HGV	artic	
	77	83	98	HGV	empty	
	75	79	97	HGV	loaded	
	74	80	98	HGV	Rigid empty	
	73	77	94	HGV		
	83	82	102	HGV		
	80	81	99	HGV		
	77	79	96	HGV		
	75	78	95	HGV		
	78	81	98	HGV		
	69	78	94	HGV		
	75	79	95	HGV		
	84	82	100	HGV		
	75	81	100	HGV		
	73	78	96	HGV		
	76	84	100	HGV		
	75	80	98	HGV		
	L_{Amax}	SEL	LWA			
min	69	77	94			
ave	76	81	98			
max	84	84	102			