STACEY
PROCESSING LTD

ENVIRONMENTAL PERMIT APPLICATION
NOISE MANAGEMENT PLAN

RYDER POINT WORKS
WIRKSWORTH
MATLOCK
DERBYSHIRE
DE4 4HE

Document Reference: SPL1000/12_1.R0
September 2025

SiriUS Environmental

Project Quality Assurance
Information Sheet

NOISE MANAGEMENT PLAN
RYDER POINT WORKS, WIRKSWORTH, MATLOCK, DERBYSHIRE, DE4 4HE

Report Status : Final

Report Reference : SPL1000/12_1.R0

Report Date : September 2025

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Revision	Date	Amendment Details	Author	Reviewer
0	September 2025	First Issue	W.Rees	D.Thomas

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NOISE MANAGEMENT PLAN

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1.0 INTRODUCTION

1.1 Scope & Background

1.1.1 Sirius Environmental Limited (Sirius) has been commissioned by Stacey Processing Ltd. to prepare a Noise Management Plan to support an Environmental Permit Application to support the operation waste management activities at Ryder Point Works, Wirksworth, Matlock, Derbyshire, DE4 4HE.

1.1.2 At the request of the Environment Agency, a BS4142:2014+A1 2019 Noise impact Assessment (NIA) was undertaken between 13th and 19th August 2025 (see **Appendix NMP1**) which assessed the cumulative impact from the permitted activities that will also be carried out at the site. Subject to the implementation of acoustic attenuation measures, the assessment concluded that the proposed development would have a low impact to nearby noise sensitive receptors.

1.1.3 This Noise Management Plan has been prepared in accordance with guidance on best practices and specific regulations (where applicable) contained in:

- Environmental Permitting (England and Wales) Regulations 2016.
- Environmental Permitting Core Guidance (DEFRA, Updated April 2020).
- Environment Agency Guidance Non-hazardous and inert waste: appropriate measures for permitted facilities (updated 8 December 2022);
- Environment Agency Guidance for 'Noise and vibration management: environmental permits' (updated 31 January 2022).

1.1.1 This NMP will outline the measures that will be implemented to limit any unacceptable noise emissions emitted from the permitted site activities. The NMP is a live document and as such will be subject to regular review and revision. In all circumstances, revisions will be submitted to the Environment Agency (EA) for review and approval.

1.1.2 The objectives of this NMP are as follows:

- Employ appropriate methods, including monitoring and contingencies, to control and minimise noise and vibration;
- Prevent unacceptable noise emissions at all times; and
- Reduce the risk of noise emissions during abnormal conditions by anticipating them and planning accordingly.

1.2 Site Setting

Site Description

1.2.1 The proposed site to which the application will relate is an existing industrial site located at Ryder Point Works, Wirksworth, Matlock, Derbyshire, DE4 4HE. The National Grid Reference (NGR) for the site is SK 26045 54785. The site location has been depicted in **Drawing No. SPL1000/08/01**.

1.2.2 The site area was originally constructed as part of the working area for the adjacent limestone quarry between 1955 and 1971. The Ryder Point Works estate is also occupied by other mineral activities and a Local Authority road salt storage depot.

1.2.3 The site itself currently comprises seven buildings. The associated external areas comprise the lined surface water pond, staff car parking and Heavy Goods Vehicle (HGV) parking areas, equipment storage areas, staff welfare facilities, storage areas for the sorted wastes awaiting transfer and storage areas for the processed glass. Entrance and egress to and from the site for heavy good vehicles is via a junction off Hopton Via Gellia that also provides access to the adjacent quarry. Hopton junctions with Manystones Lane to the southeast of the site. The site entrances are gated and will be locked outside of operational hours.

1.2.4 The proposed permitted boundary area is depicted in **Drawing No.: SPL1000/08/02**. The site is bounded to the north by an industrial venture, beyond which lies agricultural land. Hopton Via Gellia road lies along the eastern boundary, beyond which lies agricultural land and a former quarry and mines approximately 900m distant. The southern boundary is defined by the embankment of the former Hopton Wood Branch of the London, Midland and Scottish Railway which is now a public walking route, beyond which lies agricultural land and Denewood Farm and Enniscloud Meadow Farm. The land to the west of the proposed permitted site is occupied by waste processing centre operated by Linston Limited, beyond which lies Ryder Point Quarry operated by Longcliffe Limited. Carsington Windfarm spans both the quarry and the agricultural land west of the quarry.

1.2.5 The town of Wirksworth is located approximately 2.7km to the east-southeast of the site, the village of Brassington lies 2.9km to the west of the site, and the hamlet of Carsington and Hopton lies 1.6km to the south. Matlock is located 6.5 km to the northeast and the junction of Hopton Via Gellia and Manystones Lane is 130m from the site entrance. The A5012 is ~ 1.7km north of the site. The site lies within an area subject to extensive limestone quarrying, together with agricultural land.

1.2.6 The closest residential properties to the permitted site are Arm Lees Farm ~400m to the North, Denewood Farm c.530m to the east and Eniscloud Meadow Farm c. 500m to the west. The Ryder Point Barn holiday let is located ~290m to the north of the site boundary. The remainder of the surrounding area is occupied predominantly by agricultural land.

1.2.7 The local topography is relatively hilly landscape with steep upland valleys.

1.2.8 The site does not lie within 2km of an Area of Outstanding Natural Beauty (AONB), Local Nature Reserve (LNR), National Nature Reserve (NNR), Ramsar site or Special Protected Area (SPA).

1.2.9 The site lies entirely within a Source Protection Zone I (Inner Protection Zone) (SPZ). The Peak District Dales Special Area of Conservation (SAC) is located ~930m north of the site at it nearest point. Gellia Woodlands Site of Special Scientific Interest (SSSI) is located ~675m to the northeast of the site at ifs nearest point.

1.2.10 The site lies within 250m of the River Trent (Source To Confluence With Derwent) NVZ. These are defined as areas designated as being at risk from agricultural nitrate pollution. The designations are made in accordance with the Nitrate Pollution Prevention Regulations 2015.

1.2.11 Three Local Wildlife Sites border the site. The Ryder Point Slurry Pond to the northwest. The High Peak trail to the south, and the Hopton tunnel Cutting HPT to the southeast across the road. The Ryder Point Slurry Pond is home to Protected species screened for Environmental Permits.

1.2.12 There are two ancient woodlands situated within 2km of the site. These include Stone Dene Ancient and Semi-Natural Woodland c. 650m south of the site, and Ball Eye Wood Plantation on Ancient Woodland c.900m north of the site.

1.2.13 Deciduous woodland is also present within 2km in all directions, the closest of which immediately adjacent to the site along the northern and south-eastern boundaries. Deciduous woodland is a protected priority habitat.

1.3 Site Operations

1.3.1 Stacey Processing Ltd are applying for a bespoke Environmental Permit to operate a waste treatment facility for the recovery of glass and non-degradable construction, demolition and excavation wastes to produce secondary aggregates. The proposed Environmental Permit boundary is shown in Drawing No. SPL1000/08/02.

1.3.2 The maximum tonnage of permitted non-hazardous glass waste to be accepted and processed at the facility in any year shall not exceed 125,000 tonnes – of which 75,000 tonne will comprise waste glass with the remaining 50,000 tonnes comprising construction, demolition and excavation wastes. The maximum storage capacity of the site is 20,000 tonnes.

1.3.3 Waste will be sorted by size initially. The >8 mm fraction is concentrated then put through mechanical separation of glass from the residual waste. Colour sorting of these glass fragments is into clear or non-clear categories. The colour separated glass is kept in 3 storage hoppers awaiting transfer off site.

1.3.4 Technical competence for the site is provided via the WAMITAB Certification Scheme. A Technically Competent Manager (TCM) oversees the site. The TCM is responsible for ensuring the NMP is enforced and followed at the site.

1.3.5 The EA will be informed of any proposed changes to the technical competence arrangements.

1.3.6 An overview of how the operational techniques for the control noise emissions is presented in **Section 3**.

Operational Hours

1.3.7 Operations associated with the waste treatment facility take place between the hours of 07:00 hrs and 16:00 hrs Monday to Friday (excluding Public Holidays), and 07:00-13:00 on Saturdays. The site does not operate on Sundays or Bank Holidays.

1.3.8 The operator will not undertake any activities associated permitted activities outside of the agreed hours of operation, unless in an emergency. In such instances, the Environment Agency will be notified within 24 hours and the details/activities recorded in the site diary.

Site Management

1.3.9 There will be a trained and responsible manager, with the appropriate technical competence qualification to manage the facility. The relevant qualified person or appointed representative will be on site for an appropriate duration of time during working hours to maintain the site logbook and carry out regular daily inspections of potential unacceptable noise emissions from the site.

1.3.10 Site management will ensure that this NMP is enforced on site, and its contents are communicated to all employees, visitors and contractors working at the site as part of the induction process.

1.3.11 Should any off-site fugitive noise complaints be received, site management should investigate the cause and take corrective action where necessary. In summary, these individuals will:

- Assume responsibility for the management of the site;
- Ensure personnel and operatives are advised of their roles to minimise the generation of noise;
- Deploy suitable noise mitigation measures;
- Review the performance of the operatives and efficiency of noise reduction measures;
- Ensure that records are maintained; and
- Ensure that equipment is maintained.

1.3.12 A written programme of maintenance will be developed and implemented for all aspects of site operations. Maintenance will include:

- Routine scheduled inspections;
- Preventative maintenance activities;
- Reactive maintenance activities in the event of any plant breakdown – this will be minimised at all times.

1.3.13 A summary of noise control techniques is provided in **Section 3.0.**

1.4 Noise Sensitive Receptors

1.4.1 The town of Wirksworth is located approximately 2.7km to the east-southeast of the site, the village of Brassington lies ~2.9km to the west of the site, and the hamlet of Carsington and Hopton lies ~1.6km to the south. Matlock is located ~6.5km to the northeast and the junction of Hopton Via Gellia and Manystones Lane is ~130m from the site entrance. The A5012 is ~1.7km north of the site. The site lies within an area subject to extensive limestone quarrying, together with agricultural land.

1.4.2 A full list of potential sensitive receptors to noise and vibration within 1km of the facility are listed in **Table NMP1**. Their locations are illustrated in **Drawing No.: SPL1000/08/04.**

Table 1: Identified potential noise sensitive receptors

Receptor Name	Receptor Type	Approximate distance from the site boundary (m)	Direction from the facility
Ryder Point Barn	Commercial Property (Holiday Let)	285m	NNE
Arm Lees Farm	Residential and Commercial Property	235m	NNE
Eniscloud Meadow Farm	Residential Property / Commercial Property	500m / 400m	SW
Denewood Farm	Residential Property / Commercial Property	590m / 475m	S
Moor Farm	Commercial Property	630m	E

2.0 NOISE SOURCES AND PROCESSES

2.1 Noise Impact Assessment

2.1.1 A noise impact Assessment has been prepared and is included in **Appendix NMP1.**

2.1.2 The permitted activities will be carried out in a wider quarry and industrial complex, which itself is located in the rural setting. The industrial complex has been an established for over 20 years, located in an area with similar aggregate and material processing operations (including blasting at the quarry), close to residential properties.

2.1.3 The permitted activities will largely represent an increase in the current processing capacities of existing activities that have to date been conducted under waste exemptions. Consequently, the permitted activities will not significantly alter the local acoustic environment.

2.1.4 An assessment of the worst-case noise emissions that could be generated by the permitted activities has been carried out in accordance with the methods specified under BS4142. Initial estimates of the likely significance of the noise emissions indicates an adverse impact at Eniscloud Meadow Farm and at Ryder Point Barn, depending on the context. The assessment extended to incorporate additional attenuation measures to improve the existing baseline conditions. Further details of these and other mitigation measures are presented in **Section 3.0**.

2.1.5 The existing operations falling within the permit application will not significantly alter the existing acoustic environment, and the proposed mitigation measures will offer an improvement to existing baseline conditions. Consequently, when considering the context, the assessment demonstrates that the permitted activities will result in a low impact at nearby noise sensitive receptors.

2.2 Activities Involving Noise Emissions

2.2.1 Noise emissions associes with each permit waste operations is summarised as follows:-

<u>Glass Recovery</u>

- HGV deliveries, including discharge of materials into storage area/bays *(external - western boundary)*
- Transfer of materials to and loading of drier, optical sorting plant hopper, shot sorting/grading plant hopper and shot processing hopper by CAT966G loading shovel *(external)*
- Operation of glass drier *(external)*
- Transfer of bulk bags of materials to and loading of shot in bagging plant with CAT25 forklift truck *(external)*
- Air release from optical sorting feed hopper *(external)*
- Optical sorting process lines (conveyors and sorting plant) *(internal)*
- Shot process line *(internal)*
- Shot bagging line *(internal)*
- Loading and dispatch of process glass and shot by HGV (external)

Secondary Aggregate Production

- HGV deliveries, including discharge of materials into storage area/bays *(external – northeastern area)*
- Transfer of materials to and loading of crushers, screener and wash plant hoppers by CAT965H loading shovel *(external)*
- Operation of screeners (external)
- Operation of mobile crushers (external
- Operation of wash plant (external)
- Transfer of process materials from screeners, crushers and wash plant to stocking areas (external)
- Loading and dispatch recycled aggregate by HGV (external)

2.3 Maintenance Activities Involving Noise Sources

2.3.1 Operational interaction between noise sources and maintenance activities could include the following:

- Cleaning of storage areas – this includes the internal and external processing/offloading areas or storage areas.
- Building fabric and vehicle maintenance – this could include maintenance on building access and egress points, vehicles, plant and personnel doors which results in breakout for noise emissions which are not normally present.
- Maintenance of plant and equipment

2.4 Accidents / Incidents Involving Noise Sources

2.4.1 Accidents and their consequences have been considered for a range of potential risks from the overall operation in the Environmental and Accident Risk Assessment (*Doc. Ref.: SPL1000/07).*

2.4.2 Notwithstanding the existing information, with regards to accident / incident events involving sources of noise, these could be related to:

- High Pressure Releases;
- Vehicle/Plant Malfunctions;
- Vehicle Collisions.

2.4.3 All vehicles delivering waste to the site will be inspected upon arrival and machinery will be subject to daily inspection. Additionally, daily visual road inspections will be carried out to identify any pothole formations or risks to vehicle movement into, around or out of the site.

2.5 Location of Potentially Noisy Activities

2.5.1 The site undertakes several activities with the potential to create noise; however, it should be noted that the site has been established well over 20 years, in an area with extensive historical industrial and material processing operations.

2.5.2 During this period, no noise complaints have been received by Stacey Processing Ltd.

2.5.3 The site is also located in a primarily agricultural area where other potentially noisy permitted industrial activities occur. This includes a quarry where blasting occurs, and an asphalt and concrete plant.

2.5.4 As the permit application is for existing operations, there will be no worsening of the acoustic environment, and any proposed mitigation steps will be an improvement relative to the contemporary baseline.

2.5.5 The most significant contributions to noise emissions were onsite activities including aggregate washing, granite crushing and glass shot processing.

2.5.6 The sound generated by HGVs onsite was determined to be similar to that of local roads and indistinguishable day-to-day.

3.0 NOISE CONTROL MEASURES

3.1 Process Controls

3.1.1 The following mitigation controls proposed aim to limit the potential for noise generation by activities carried out on site. The reduction in noise generation potential will be achieved through the implementation of appropriate measures and Standard Operating Procedures to overall minimise the number of noise emission sources.

Waste Treatment and Handling

3.1.2 The following procedures will seek to limit the noise emissions generated from waste handling activities, specifically impact noise. These procedures will apply to all waste handling activities and include:

- Drop heights of material will be minimised when loading and unloading wastes;
- The number of start-ups will be kept to a minimum;
- No plant/equipment will be left to idle; and
- Plant including the loading shovel to be operated and maintained in accordance with manufacturer recommendations.

Vehicle Movements (associated with the permitted waste activities)

3.1.3 Noise associated with the movement of HGVs and mobile plant will mitigated by implementing the following procedures:

- Vehicle movements will only occur during the site's permitted operational hours;
- A site wide speed limit of 5mph will be adhered to;
- Internal roads and surfaces will be maintained and kept free of ruts and potholes to minimise body slap;
- Vehicles will not unnecessarily idle or "rev" engines;
- Vehicle engines will be turned off when not in use;
- Vehicles will not be run on site with engine covers open;
- Vehicles will not play loud noise from radios/sound systems in the cabs;
- Vehicles will not unnecessarily sound horns while on site;
- A route around the site will be maintained to avoid the need for reversing wherever possible; and
- All HGVs and site-based plant/vehicles will be fitted with white-noise (broadband) reversing alarms.
- Vehicles will be inspected daily to identify any defects that may cause elevated noise.

3.2 Physical Controls

Buildings

3.2.1 Where possible, activities are carried out within buildings, which will provide some attenuation and prevent direct emissions of sound. This includes the vehicle workshop and glass colour processing.

3.2.2 The 20mm and fine granite hopper currently sits within a building frame with no external cladding. The operator proposes to add acoustic cladding to the screening deck and solid cladding around the crusher. These will provide as

significant improvement in acoustic absorption, and, in combination with the northern bund, provide a significant interruption to noise emissions to the receptor in the Northeast.

Acoustic Screening/Barriers

3.2.3 Activities which are carried out in open areas and have a significant contribution to noise will have additional mitigation applied as per the recommendation of the assessment (**Appendix NMP1**).

3.2.4 In addition to the classing proposed on the crusher, a 4m acoustic barrier on the northern edges of the fans installed. Further barriers, including two of 4m height, will be installed to the north and south of the glass shot processing area, which will provide 10dB of noise suppression for the fans to any receptors located in these directions. A final 4m barrier is proposed which encloses the aggregate washing hopper.

3.2.5 An acoustic bund will be formed and maintained along the northern boundary using aggregate available onsite, to a level of at least 296mAOD.

3.3 Management Controls

Site Maintenance

3.3.1 The following procedures will be employed on site to reduce the potential for unacceptable noise emissions:-

- Daily vehicle route checks carried out by site management (or nominated personnel) to identify any indication of potholes or cracks developing within the yard surface; and
- Monthly inspection of acoustic attenuation surfaces for any damage/holes. Inspections will also be made immediately following a storm event involving winds in excess of 45mph;

3.3.2 Any defects to the site infrastructure will be noted during these daily inspections, where they will then be logged and reported to the maintenance team so repairs can be scheduled.

Engagement with Neighbours

3.3.3 Site management will liaise with neighbouring residential properties annually to determine if the Site is resulting in any level of annoyance. Appropriate contact information (e.g. telephone number and e-mail) will also be displayed at the site.

3.3.4 The site will be a reliable source of information to the community and readily available to answer any questions of queries. Active participation in the community will ensure that communication channels such as emails and phone calls are welcomed, and an appropriate response is formed by site management.

3.3.5 The Site will also operate a comprehensive complaint reporting and resolution procedure which can be utilised by members of the public and neighbours. This process is presented in **Section 5.0**.

Plant and Equipment

3.3.6 Site infrastructure and plant will be inspected daily for damage and wear by nominated site personnel as part of daily operation and management

inspections. Any defects noted during these daily inspections will be logged and reported to the maintenance team, so repairs can be scheduled.

3.3.7 Records of inspections will be maintained in a site log. All plant items and equipment will be serviced and maintained according to manufacturer's schedules and recommendations to minimise the risk of breakdown.

3.3.8 Trained maintenance staff will carry out plant repairs quickly where required. Mobile plant repairs will be undertaken as soon as practicable.

Responsible Reporting

3.3.9 As part of the operator's overall management system, reporting of relevant issues will be undertaken in accordance with the conditions of the Environmental Permit. The operator will be tasked with ensuring a level of 'self-policing' and will therefore be responsible to ensure that any matters that warrant it are brought to the Environment Agency's attention within the required timescales.

3.4 Noise Control During Abnormal Events and Maintenance Periods

Abnormal Operational Situations

3.4.1 The following scenarios have been identified for site that could affect noise control:

- Accidents involving vehicle collisions, high pressure releases and vehicle/plant malfunctions.
- Adverse weather conditions that may exacerbate noise emissions and/or cause damage to acoustic fencing.

3.4.2 The control measures to be employed during abnormal operational situations are as follows:

- All plant items and equipment will be serviced and maintained according to manufacturer's schedules and recommendations to minimise the risk of breakdown.
- Trained maintenance staff will carry out plant repairs quickly where required. Mobile plant repairs will be undertaken as soon as practicable, dependant on the availability of spares.
- Meteorological conditions such as wind direction and wind speed will be monitored daily by nominated personnel.

Maintenance Periods

3.4.3 All planned or emergency maintenance of plant or equipment will be carried within the maintenance and repairs workshop located on-site which will provide some containment of noise emissions.

3.4.4 To reduce the likelihood of equipment breakdowns and mitigate the potential impact the following control measures will be in place:

- A preventative maintenance schedule will be employed to reduce the risk of plant breakdown.
- All maintenance undertaken will be in accordance with plant equipment manufactures recommendations; and
- A list of suppliers or contractors for critical equipment and/or standby equipment will be maintained.

3.4.5 Approved contractors can be called to the site within 24 hours in the event of any breakdown of critical plant.

4.0 NOSIE MONITORING AND RECORDING

4.1 General

4.1.1 Noise monitoring will be undertaken in response to receipt of a noise complaint at the site to determine if site operations are potentially the source of any noise that is impacting adjoining receptors. This noise monitoring will consist of the Site Manager (or nominated deputy) recording any elevated/unusual noise emissions, specifically any originating from site activities. Due to the nature of the site, any inspection noise monitoring will be principally employed within the curtilage of the site.

4.1.2 Additional monitoring beyond the site boundary will be completed in response to the identification of potential significant emissions of noise within the site or the receipt of complaints. All noise monitoring will be carried out in cognisance of the prevailing weather conditions.

4.1.3 To ensure staff competency, all personnel involved with noise monitoring will attend a training session in order to provide knowledge and skills to undertake qualitative noise monitoring. Records of completion will be kept within staff training records and in the site office. Staff will be retrained every two years to ensure that a high technical competency is maintained.

4.1.4 Further details of the proposed noise monitoring to be undertaken are provided within the following paragraphs.

4.2 Noise Monitoring

4.2.1 It is important to ensure that any noises which may be attributable to the site are the ones being monitored for.

4.2.2 Site management or nominated deputy will carry out daily noise inspection monitoring to identify any significant noise emissions from associated operations and plant/equipment.

4.2.3 The nominated person to undertake the noise monitoring will monitor the noise levels at within the southern section of the eastern service yard for a period five minutes. During this time a qualitative assessment of noise present will be undertaken using the intensity scale and noise characterisation descriptors presented in **Table 2** and **Table 3** below.

Table 2: Noise Intensity Scale

Intensity Scale	Observations
0	No detectable noise
1	Very faint noise (only just detectable)
2	Faint noise (barely audible above background activities)
3	Distinct noise (audible above background activities)
4	Strong noise (easily audible above background activities)
5	Very strong noise (bearable, but distracting)
6	Extremely strong noise (not bearable)

Table 3: Noise Character Descriptors

Descriptors	
Constant	Tonal
Intermittent	Low frequency
High frequency	Distinctive
Impulsive	-

4.2.4 Noise monitoring will be recorded on the 'Noise Monitoring Reporting Form'– a copy of which is included in **Appendix NMP2.**

4.2.5 Following commencement of permitted waste activities at the site, typical noise levels associated with these activities will be established for future reference. If significant noise levels are identified on site to be attributed to permitted wastes operations, a review of noise emissions will be extended beyond that boundary to determine the extent of any impact and in consideration of the presence of sensitive receptors.

4.2.6 Site management will ensure that noise monitoring is completed following receipt of a noise complaint and that both operational areas and the site perimeter are inspected. This approach will enable the identification of any sources of noise and establish whether any noises are attributable to permitted site operations are discernible from beyond the site perimeter.

4.2.7 All site personnel will be responsible for reporting any abnormal noise emissions from site activities, as soon as reasonably practicable to site management.

4.2.8 The main diary will be used to record the status of the operation and its emissions in relation to noise. This will act as a site wide document confirmation that noise monitoring has been undertaken and to summarise the conclusion of that exercise. Meteorological conditions will also be recorded alongside noise monitoring.

5.0 COMPLAINTS HANDLING

5.1 Complaints Process

5.1.1 Any complaints received at the site or via the Regulatory bodies (including the Environment Agency and Local Authority) will be recorded and will instigate further noise monitoring at the location of the complaint as well as onsite to determine the location of the noise source. Where possible, as much information and detail about the complaint will be recorded, whether this be from the relevant authority or complaint direct to the site. This information will assist in the investigation and determining the noise source.

5.2 Means of Contact

5.2.1 The site will be readily contactable to outside organisations and to members of the public. The site signage board (placed in a visible location) will contain the necessary details for both site management and the Environment Agency, including contact details and the site permit number.

5.2.2 Contact details will also be made available through the local community liaison groups.

5.2.3 As part of the site operation and development, a community engagement plan will be developed if found to be necessary, the purpose of which would be to identify all sensitive receptors and formulate a communications plan. The community engagement plan will detail the complaints management and reporting procedures, this will include, but will not be limited to:

- Information provided to the local neighbours (via the Environment Agency) regarding the point and method of contact for the site in the event unacceptable noise levels have been detected or they want to discuss any activities etc at the site;
- Advice provided to the neighbours that any complaints / concerns will be addressed immediately following identification / notification and contingency action implemented; and
- The neighbours will be informed of any corrective action, and a follow up call will be carried out if necessary.

5.2.4 Any complaints received directly to the site will be notified to the Regulator as soon as possible.

5.2.5 Therefore, should an off-site issue arise, the complainant has a means of getting in touch with the operator. Stacey Processing Ltd will complete a form with the following information:

- The complainant's name and contact information;
- The date and time of the complaint;
- The complainant's description of the noise;
- The results of the latest noise monitoring;
- The operating conditions at the time of the complaint; and
- Any other relevant information.

5.3 Complaint Recording

5.3.1 Should a complaint be received, the following information will be gathered and recorded:

- Complaint details (including the address of the complainant where possible) and the location where the noise is perceived;
- Weather conditions including atmospheric pressure, wind speed and wind direction;
- Results of the latest noise monitoring carried out by the site personnel;
- Operational status of the site (noting any abnormal conditions that may have caused the complaint); and
- Details of the proposed corrective action if required.
- Subsequent follow up to the complaint detailing whether the corrective action, if required, was successful. If not, a new strategy will be implemented until the issue is resolved.

5.3.2 Records of complaints received will be kept on such that they can be accessed for inspection and reviewed by both internal and external personnel.

5.4 Complaint Screening

5.4.1 As part of each noise complaint received, these will be objectively assessed against the wider environment to ensure that the source of the emission is traced back to the correct source. As discussed earlier in this NMP, it is essential that the source is correctly identified in order that mitigating measures can be applied effectively and correctly. The complaint will also be assessed against previous records to place the nature of the complaint into context.

5.5 Complaint Investigation

5.5.1 In the event that noise is found to be causing a problem at the site, as determined and confirmed by investigation into off site complaints or during routine monitoring, measures will be taken to determine the source, and the following courses of action shall be taken:

- Additional noise monitoring as detailed above to identify the potential cause of the noise;
- Examination of the operational activities at the site at the time of the noise complaint or noise identification;
- Examination of the meteorological conditions at the time of the complaint or noise identification;
- Examination of the process conditions via the plant operational records / telemetry.
- A review of the operational procedure and process controls and the instigation of any control measures immediately following identification of the problem; and
- Further noise monitoring will be carried out to ensure the issue has been addressed and to monitor the effectiveness of any control measures undertaken.

6.0 ACTIONS, CONTINGENCIES & RESPONSIBILITIES DURING PROBLEM EVENTS

6.1 Default Procedures

6.1.1 In the event that an emission of noise is identified during the normal course of operations, or in response to off-site complaints, the default procedure will be to investigate the emission in line with **Section 5.5** above which is an appropriate response to both off site complaints as well as on site investigations following on from routine inspections.

6.1.2 It is the responsibility of the site management team to ensure procedures as set out in the NMP are put into action.

6.2 Emergency Procedure

6.2.1 Monitoring for elevated noise levels will be undertaken during a time in which extreme release of noise is experienced e.g. elevated activity levels. Should elevated noise levels be recorded operations which may lead to increased noise release will be temporarily stopped until the cause is identified, and appropriate corrective measures are taken.

6.3 Event Reporting

6.3.1 In the event of any significant environmental emergency / incident, a representative of Stacey Processing Ltd. will notify the Environment Agency by telephone immediately, but first having due regard for the incident at hand and any remediation actions required to ensure the safety of site personnel and the immediate environment.

6.3.2 Details of any environmental incident will be confirmed to the Environment Agency in writing by the next working day after identification of the incident. This confirmation will include the time and duration of the incident, the receiving environmental medium or media where there have been any emissions as a result of the incident, an initial estimate of the quantity and composition of any emission, the measures taken to prevent or minimise any further emission and a preliminary assessment of the cause of the incident.

6.3.3 Any incident notified to the Environment Agency will be investigated, and a report of the investigation sent to the EA. The report will detail (as a minimum):-

- the circumstances of the incident;
- an assessment of any harm to the environment; and
- the steps taken to bring the incident to an end.

6.4 Problem Resolution

6.4.1 Once the identified problem has been rectified, a report will be prepared assessing the nature of the incident, the actions taken to resolve the issue, and what changes could be made to the operational practises that would ensure, wherever possible, that the issues had less of a chance of arising again in the future.

6.4.2 This NMP and the noise related assessments of risks presented in the Environmental and Accidents Risk Assessments (*Doc. Ref.:SPL1000/07*) will also be reviewed if management practices require updating.

6.4.3 This information will be provided to the Environment Agency in accordance with the Event Report procedures discussed in **Section 6.3** above. Any improvements or amendments to operational practices will be discussed with the EA prior to their implementation.

7.0 REPORT CLOSURE

7.1.1 This NMP outlines the overall approach taken by a site operator to ensure that noise emissions are minimised, measured, remediated as necessary.

7.1.2 Given the application of appropriate documented management techniques at the site, the potential for noise emissions of this nature will be strictly limited, therefore the risk to the nearest residential receptors is considered to be low. Further, by implementing best practice measures to control and mitigate the generation and propagation of noise, it is considered that emissions from the site can be adequately controlled.

7.1.3 This document will be subject to on-going review and revision where necessary. This review will be undertaken in response to events which may occur on site, and also to ensure that it accords with the latest regulations and associated guidance documents. The review of the NMP for the site will occur at least once per annum.

7.1.4 All revisions to the document will be recorded and details of said revisions will be described as part of the required record relating to document review.

7.1.5 It is considered that this document complies with the Environment Agency's guidance on noise management.

APPENDIX NMP1
Noise Impact Assessment

ARDENT
CONSULTING ENGINEERS
AN EMPLOYEE OWNED COMPANY

Stacey Processing Limited

Ryder Point Works, Wirksworth, DE4 4HE

Acoustic Assessment

REPORT REF. 2506130-ACE-XX-XX-RP-X-0601

September 2025

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Document Control Sheet

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
-	DRAFT	JR	AS	DRAFT	28/08/25
-	FINAL	JR	JR	AS	02/09/25

Distribution

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1. INTRODUCTION

1.1. Ardent Consulting Engineers have been instructed by Sirius Environmental to undertake an Acoustic Assessment to support an Environmental Permit Application at Ryder Point Works, Wirksworth.

1.2. Stacey Processing are applying for an Environmental Permit to operate a non-hazardous waste treatment facility at an existing industrial site near Wirksworth, Derbyshire. The site will accept glass waste and construction, demolition and excavation wastes. Treatment of the waste at the site will consist of sorting, separation, screening, washing, grinding, crushing and blending of waste for recovery.

1.3. It is understood that the proposed hours of operation will be 07:00 – 16:00 Monday to Friday and 07:00 – 13:00 on Saturdays, with no scheduled work taking place on Sundays or bank holidays.

1.4. The assessment is in accordance with BS4142:2014+A1 2019 *'Methods for rating and assessing industrial and commercial sound'* and provides details of the site surveys and subsequent qualitative and quantitative analysis. This is in line with Environment Agency (EA) guidance for Noise Impact Assessments (NIA).

Site Location

1.5. The site is situated in a rural setting in close proximity to Longcliffe Ryder Point Quarry and an industrial complex. The wider surrounding area comprises agricultural land with scattered residential dwellings. The town of Wirksworth is situated approximately 2.5km east-southeast of the facility.

1.6. The facility will comprise of a weighbridge, surface water lagoon, roadways, stockpile areas, washing plant, glass processing buildings, storage buildings, and welfare facilities.

1.7. The surrounding area and approximate site boundary (in red) are shown in Figure 1-1.

Figure 1-1: Approximate Site Boundary and Surrounding Area

1.8. The acoustic environment in the area would be considered agricultural and industrial in nature particularly during day hours. Most noticeable contributions to the acoustic environment during the survey were related to site activity, and operations Longcliffe Ryder Point Quarry. Adjacent to the site there is also a slag processing facility, which contributed to the baseline sound levels.

Site Proposals

1.9. The facility as a whole will accept up to 125,000 tonnes of waste per annum, of which 75,000 tonnes will comprise glass waste streams with up to 50,000 tonnes of non-degradable, non-hazardous construction, demolition and excavation wastes. The maximum storage capacity of the site will be 20,000 tonnes.

1.10. Waste glass will be initially dried through an electrically driven drying plant with a gas oil fuelled burner before being sorted into fractions that are larger or smaller than 8mm.

1.11. The <8mm glass fractions are subsequently transferred to an onsite grinding/crushing process plant to manufacture various grades of shot-blast for onward sale as a product, having met "end of waste" requirements.

1.12. The >8mm fractions will be subjected to a sequence of gravity sorters/screeners to separate the glass from other residual fractions. The separated >8mm glass fractions are subsequently conveyed to one of two optical colour sorting lines, where green and clear glass is sorted from brown glass. The sorted glass is subsequently stored in silos/hoppers pending off-site transfer for reprocessing.

1.13. A site plan of the development is presented in Figure 1-2 overleaf.

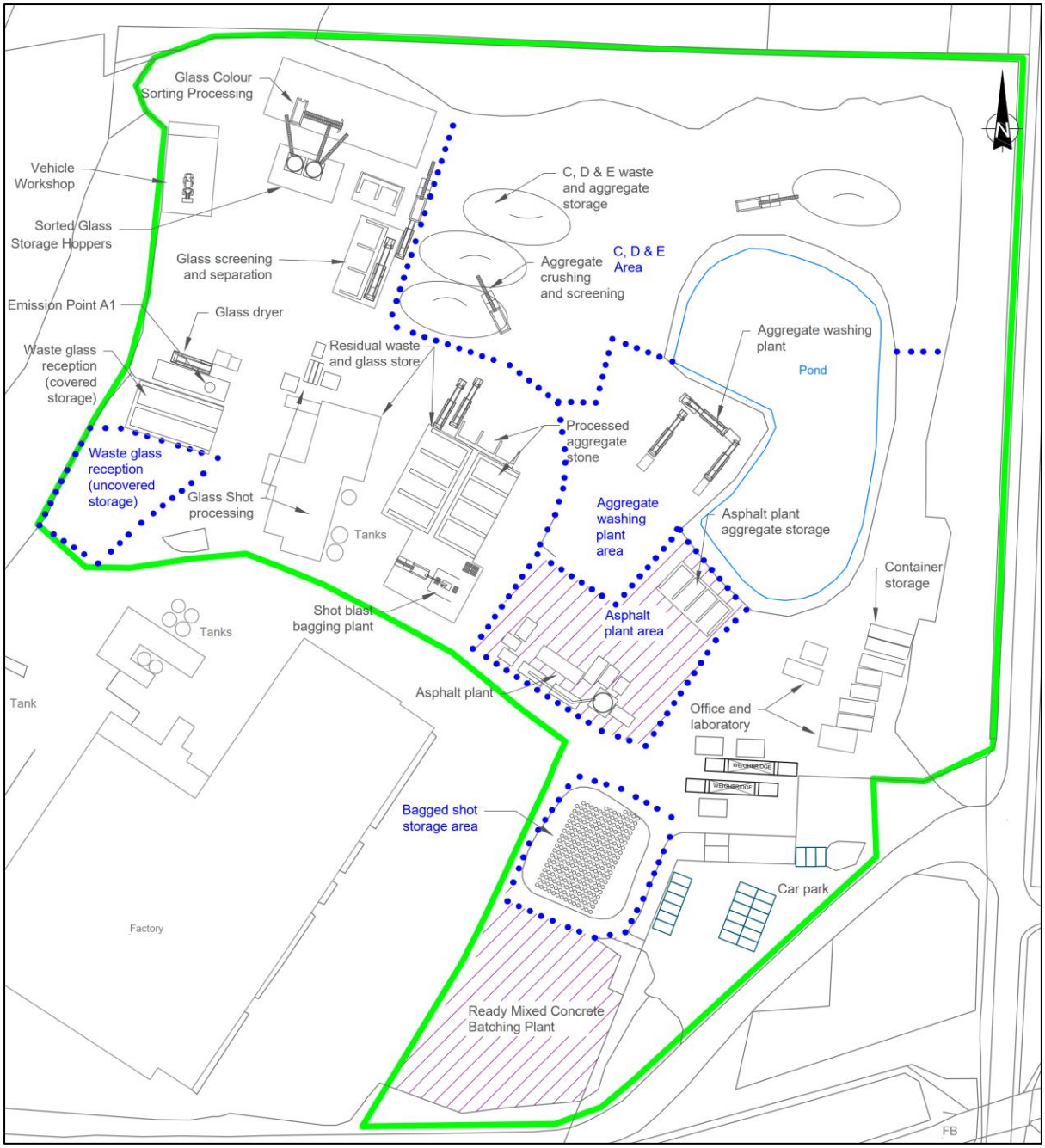


Figure 1-1: Site Plan

Suitably Qualified Acoustician

1.14. The author and surveyor of this assessment, Joseph Rutt, is a Member of the Institute of Acoustics (MIOA) and holds a relevant Bachelors degree in Audio Engineering. Joseph has over 4 years' experience in the acoustics industry.

1.15. The second surveyor of this assessment, Lee Dursley, is a Member of the Institute of Acoustics (MIOA) and holds a BSc (Hons) in Engineering Physics and a post graduate diploma in Acoustic and Noise Control. Lee has over 20 years' experience in the acoustics industry.

1.16. The approver of this assessment, Ashley Shepherd, is a Member of the Institute of Acoustics (MIOA) and holds a Bachelors degree in Music Technology: Acoustics and Psychoacoustics. Ashley has over 10 years' experience in the acoustics industry.

2. ENVIRONMENTAL NOISE SURVEY

2.1. An unattended environmental noise survey was undertaken at the site between 13th August and 19th August 2025, the measurement position is shown in Figure 3-1.

2.2. The measurement positions were selected in order to obtain representative sound levels at the closest noise sensitive receptors, to the south and north of the site.

2.3. Targeted source measurements of site operations were carried out on 13th August 2025.

2.4. The acoustic environment was influenced by various commercial and industrial sources located in the vicinity of the site. This included HGV's serving both Longcliffe Ryder Point Quarry and the site, and some industrial activities were audible at MP2. The location of the noise meters were positioned to minimise the influence of activity from the site and Ryder Point Quarry, whilst representing the closest noise sensitive receptors.

Figure 2-1: Measurement Position and Approximate Site Boundary

2.5. A description of the measurement position is as follows:

- **MP1** – The meter was positioned at a height of 2m to a fencepost at the rear of the farmhouse at Eniscloud Meadow Farm. To avoid influence from Manystone Lane and due to livestock this was positioned at the rear of the farmhouse.
- **MP2**– The meter was positioned at a height of 2m secured to a fencepost at the rear of the farmhouse at Armlees Farm. The microphone was approximately 5m above the road surface to avoid influence from traffic on Hopton Via Gellia, this was positioned at the rear of the farmhouse.

Figure 2-2: Measurement Position 1 Photograph

Figure 2-3: Measurement Position 2 Photograph

2.6. The equipment used for the survey was as follows:

- Cirrus Optimus 171 Sound Level Meter (serial number: G080759)
- Cirrus Optimus 171 Sound Level Meter (serial number: G300509-V)
- Cirrus CR:515 Class One Calibrator (serial number: 87615)

2.7. All equipment used has been professionally calibrated. Field calibration of the sound level meters (and complete measurement signal chain) was undertaken before and after measurement to ensure minimal drift of the calibration signal.

2.8. Pre-calibration for the attended survey was at 93.7 dB with a -0.33 dB offset, with post calibration offset of -0.26 dB. Pre-calibration for the unattended survey was at 93.7 dB for MP1 with a pre-calibration -0.07 dB offset, with post calibration offset of -0.22 dB. Pre-calibration for MP2 with a pre-calibration -0.41 dB offset, with post calibration offset of -0.57 dB. Calibration certificates are provided in Appendix C.

2.9. Weather conditions were suitable for the duration of the attended source noise survey and a summary is provided in Table 2-1 below.

Date	Position	Wind Direction	Wind Speed (m/s)	Temperature (°C)	Cloud Cover (%)	Conditions
13/07/25 (Morning)	Source Measurements	North-west	1-2	23	10	Dry, Sunny
13/07/25 (Afternoon)	MP 1/2 (Setup)	West	1-2	28	10	Dry, Sunny
08/07/25	MP 1/2 (Collection)	North-west	2-3	17	100	Dry, Overcast (light rain on previous night)

Table 2-1: Weather conditions

2.10. A summary of the measurements taken at the site are summarised in Table 2-2. Time histories of measured noise levels are shown in Appendix A.

2.11. During the night period for Wednesday 13th and Thursday 14th August, it was noted that there were elevated sound levels at MP1 likely due to activity at the farm. These two nights have been removed from the data set to avoid elevating the measured sound levels at this position.

Monitoring Position	Ambient Sound Level, dB $L_{Aeq, T}$ Range (Average)		Background Sound Level, dB L_{A90} Range (Representative)	
	Day	Night	Day	Night
MP1	27-60 **(46)**	24-48 **(37)**	22-50 **(34)**	22-40 **(32)**
MP2	28-57 **(47)**	24-51 **(41)**	22-47 **(37)**	21-44 **(29)**

Table 2-2: Summary of Measured Noise Levels

2.12. Data collected on the Sunday and outside of operational hours on the Friday and Saturday have been used to inform the background levels, to avoid influence from site operations. No operations at night will occur, therefore the focus of the assessment is between 07:00 – 16:00 to represent operational hours during the day.

2.13. Histograms for MP1 and MP2 are shown in Figures 2-3 and 2-4.

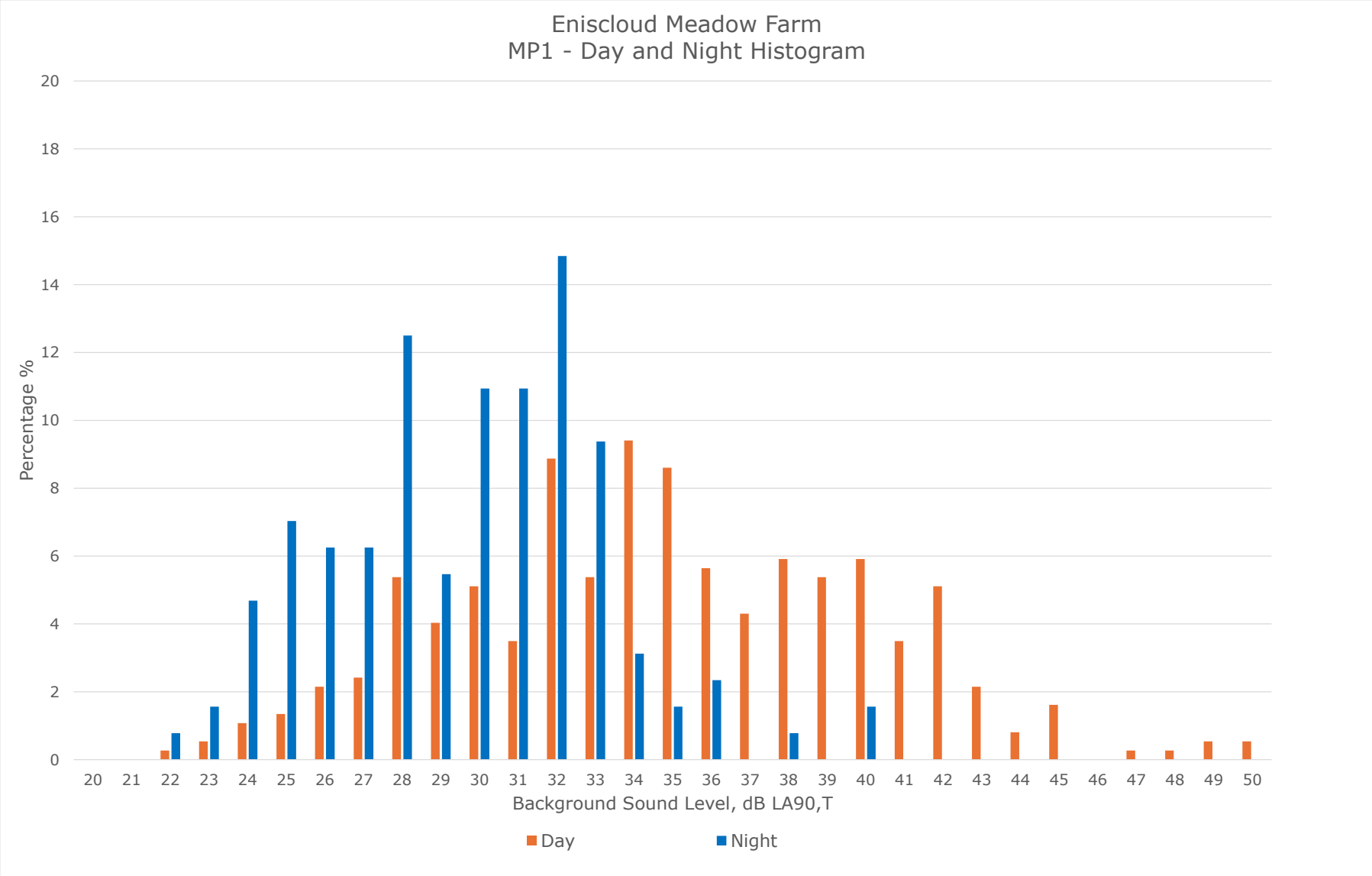


Figure 2-3: Day and Night Histogram MP1

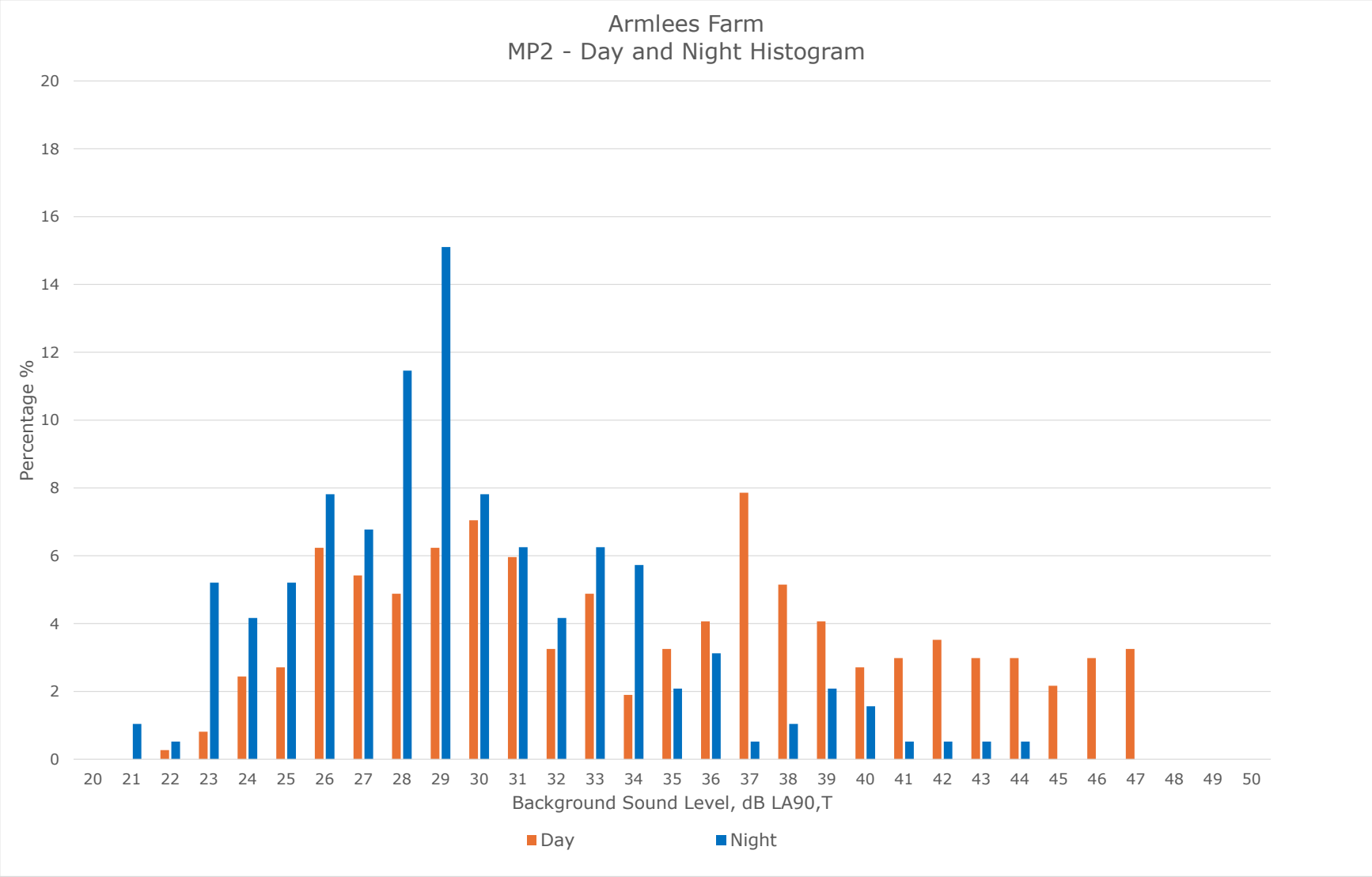


Figure 2-4: Day and Night Histogram for MP2

2.14. Taking all of the above factors into account and the context of the acoustic environment, at MP1, a representative background sound level of **34 dB L_{A90}** will be used for the day. At MP2, a representative background sound level of **37 dB L_{A90}** will be used.

2.15. Time histories and a histogram presenting the representative background sound levels in absence of site operations is shown in Appendix A.

3. ASSESSMENT (WITHOUT MITIGATION)

3.1. Three-dimensional noise modelling has been undertaken to inform the assessment. The main parameters that have been used within the model are included in Table 3-1 below for reference.

Parameter	Source	Details
Horizontal distances	Ordnance Survey	OS OpenMap (SK)
Ground levels	DEFRA	LiDAR topographical survey data – 1m DTM
Building heights	On-site observations	8m height for two storey residential properties, on-site heights from site visit
Receptor positions	On-site observations	1 m from façade, height of 1.5 m to represent ground floor receptors in the day
Order of Reflections	Environmental Agency	2. order of reflections has been used
Ground Absorption	On-site Observations	GA value of 0.8 has been used for surrounding green areas. GA value of 0.05 has been used for the concrete ground of the site.
Proposed Plans	Sirius Environmental	Drawing Title: Site Operational Plan Drawing Number: SPL1000/08/03 Dated: 21/02/2024

Table 3-1: Noise Model Configuration

3.2. Targeted measurements of site operations which fall within the permit application were undertaken on 13th September to inform the assessment. A summary of the single octave source measurements are presented in Appendix C.

3.3. Discussions with the site staff has confirmed that some operations are infrequent and so where appropriate, corrections have been applied to account for the percentage on time for a number of operations, as set out in Appendix C.

3.4. The sound generated by movement of HGVs on site will be similar to that on the local roads and adjacent quarry and will not be readily distinguishable against these activities in the day.

3.5. Taking the nature of the activities into account and considering the context of the assessment, acoustic feature correction of 6 dB has been applied to account for impulsive events associated with the 20mm granite crusher and loading of materials using the Cat 935 loading shovels.

3.6. Where the specific level from sources are predicted to be significantly below the residual or similar to background sound level, no acoustic feature correction has been applied.

3.7. Table 3-2 and 3-3 below shows a summary of the assessment results and initial estimate of likely significance at Eniscloud Meadow Farm and Ryder Point Barn respectively.

Eniscloud Meadow Farm	BS 4142 Assessment
Residual Level, dB $L_{Aeq,T}$	46
Specific Level, dB $L_{Aeq,T}$	38
Acoustic Feature Correction, dB	6
Rating Level, dB $L_{Ar,Tr}$	44
Background sound level, dB $L_{A90,T}$	34
Excess over background, dB	10
Initial Assessment	Significant Adverse Impact

Table 3-2: BS4142 Initial Estimate at Eniscloud Meadow Farm (Without Mitigation)

Ryder Point Barn	BS 4142 Assessment
Residual Level, dB $L_{Aeq,T}$	47
Specific Level, dB $L_{Aeq,T}$	54
Acoustic Feature Correction, dB	6
Rating Level, dB $L_{Ar,Tr}$	60
Background sound level, dB $L_{A90,T}$	37
Excess over background, dB	23
Initial Assessment	Significant Adverse Impact

Table 3-3: BS4142 Initial Estimate at Ryder Point Barn (Without Mitigation)

3.8. The initial estimate of likely significance indicates a significant adverse impact at both receptor locations, therefore, additional mitigation has been included in Section 4.

4. ASSESSMENT (WITH MITIGATION)

4.1. To control noise from the site, mitigation measures have been recommended, which include:

1. Formation and maintenance of an acoustic bund with aggregate available on the site along the northern boundary of the site, to maintain a level of at least 296m AOD.
2. 4.0m acoustic barrier or extension of building cladding to the south of the shot glass processing hopper in the south.
3. 4.0m acoustic barrier or extension of building cladding to the north of the central shot glass processing Hopper in the south.
4. 4.0m acoustic barrier around the fine granite hopper and 20mm granite hopper.
5. Solid cladding around the fine crusher gantry and 20mm granite crusher gantry.
6. 4.0m acoustic barrier around the washing hopper.
7. Building extension or cladding around the screening deck (processed aggregate stone).
8. Attenuation or acoustic enclosure to chieve 10 dB to each of the external shot glass processing fans.
9. Recommendation made to switch to broadband reversing alarms from single tone.
10. Maintenance of site surfaces avoiding uneven, bumpy ground for transport of goods.
11. Daily inspections of equipment on site to identify any defects that may cause elevated noise levels.

4.2. A plan showing the location for the physical mitigation is shown in Figure 4-1.

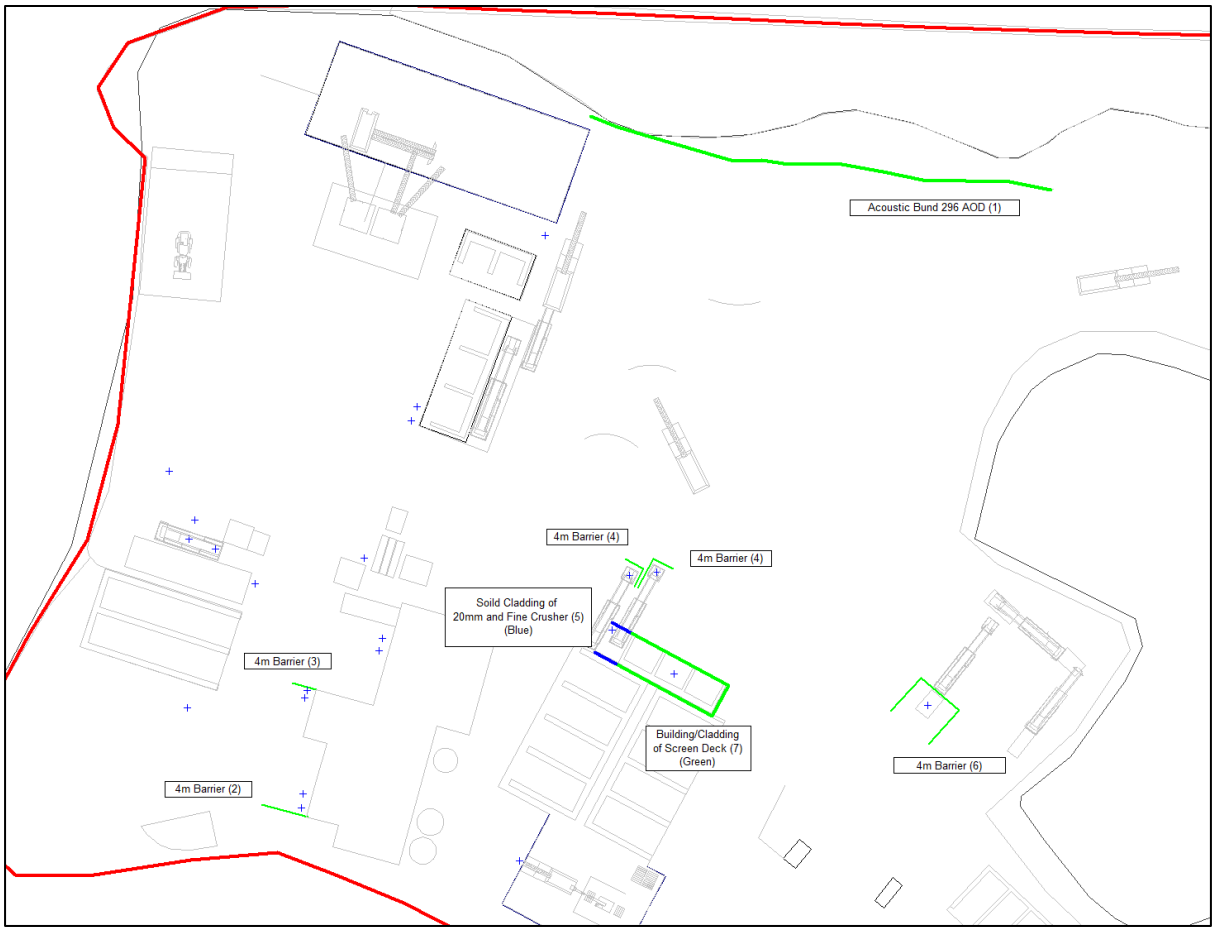


Figure 4-1: Proposed Mitigation

4.3. Implementing the above measures will minimise noise from operations at the at closest noise sensitive receptors. Table 4-1 and 4-2 present the results of the assessment, including the proposed mitigation measures.

4.4. An acoustic feature correction of 6 dB has been applied to account for impulsive events associated with the 20mm granite crusher and loading of materials using the Cat 935 loading shovels.

4.5. Again, where the specific level from sources are predicted to be significantly below the residual or similar to background sound level, no acoustic feature correction has been applied.

Eniscloud Meadow Farm	BS 4142 Assessment
Residual Level, dB $L_{Aeq,T}$	46
Specific Level, dB $L_{Aeq,T}$	34
Acoustic Feature Correction, dB	6
Rating Level, dB $L_{Ar,Tr}$	40
Background sound level, dB $L_{A90,T}$	34
Excess over background, dB	6
Initial Assessment	Adverse Impact

Table 4-1: BS4142 Initial Estimate at Eniscloud Meadow Farm (With Mitigation)

Ryder Point Barn	BS 4142 Assessment
Residual Level, dB $L_{Aeq,T}$	47
Specific Level, dB $L_{Aeq,T}$	40
Acoustic Feature Correction, dB	6
Rating Level, dB $L_{Ar,Tr}$	48
Background sound level, dB $L_{A90,T}$	37
Excess over background, dB	9
Initial Assessment	Adverse Impact

Table 4-2: BS4142 Initial Estimate at Ryder Point Barn (With Mitigation)

4.6. The initial estimate of likely significance indicates an adverse impact at Eniscloud Meadow Farm and at Ryder Point Barn, depending on the context.

4.7. It should be noted that the guidance presented within BS4142 promotes a flexible assessment methodology that can be modified depending on the context in which a sound source occurs.

4.8. The monitored levels chosen to inform the background levels consider the quieter periods on Sunday and outside of operational hours on the Friday and Saturday, to avoid influence from existing site operations and the adjacent quarry. Background sound levels will be higher during typical site operating periods, therefore the assessment presents a worst case approach.

4.9. The specific sound level (in absence of any acoustic feature corrections) will be below the measured residual sound level across the baseline survey period.

4.10. The site is an established business which has been operational for over 20 years, located in an area with similar aggregate and material processing operations (including blasting at the quarry), close to residential properties. It is understood that there have been no complaints received associated with noise at the site throughout this time.

4.11. Ryder Point Barn, which is subject to the higher predicted noise levels than Eniscloud Meadow Farm, is a holiday rental and is unlikely to be occupied for the majority of the time. Additionally, the industrial building and yard and any associated activities from these areas, located between Ryder Point Barn and the site, have the same owners.

4.12. The existing operations falling within the permit application will not change the existing acoustic environment, and the proposed mitigation measures will offer an improvement to existing baseline conditions.

4.13. Any substantial changes to the proposed site operations would be subject to planning approval and so further assessment would be required.

4.14. Considering all of the above context and with the application of the Noise Management Plan and incorporated mitigation measures, it is considered that the proposed operations would represent a low impact in accordance with BS4142.

5. UNCERTAINTY

Measurement Uncertainty

5.1. The impact of industrial or commercial sound will vary as the level and character of both the source and residual sound changes. This means that the assessment of its impact will be a general indication and that its significance will change continuously. It is generally not appropriate to consider a theoretical scenario comparing the highest possible rating level against the lowest possible background sound level. Instead, representative rating and background sound levels should be compared, considering the level, character and context of the specific sound and residual acoustic environment.

5.2. Any measurement includes an element of uncertainty in the measured value, the magnitude and significance of which usually depends upon many factors. The most obvious factor for measurements undertaken for this assessment is due to instrumentation, but this is minimised by a range of controls set out in Craven & Kerry's 'A Good Practice Guide on the Sources and Magnitude of Uncertainty Arising in the Practical Measurement of Environmental Noise' (as referenced in BS4142: 2014) including:

- Use of Type or Class 1 sound level analysers
- Bi-annual calibration of sound level analysers and annual calibration of calibrators (relevant calibration certificates are provided in appendix C)
- Periodic cross-calibration with other calibrated analysers and monitoring of system's calibration characteristics.
- On site calibration checks before and after measurements are taken.
- Avoidance and control of interference due to electromagnetic sources, weather or other factors.

5.3. These measures ensure that the uncertainty due to the measurement system is relatively small in comparison with factors that affect the overall uncertainty incorporated in this assessment. These include:

- Variations in the level and character of residual and associated background sound at the measurement and noise sensitive receptor locations.
- Variations in the level and character of the specific sound.

- The magnitude of any acoustic feature correction that should be applied and under which conditions e.g. full load or partial load operation or different plant characteristics.

Background and Residual Sound Level Uncertainty

5.4. Where the residual sound level is relatively steady measuring for a short time can provide as good an indication of the representative level prevailing at that time under those specific as a longer duration measurement. As the variability of the residual sound level increases the range of residual and background sound levels also increases and the uncertainty in these levels similarly increases. The variability and uncertainty in the residual and background sound levels will tend to be greater under different weather conditions than at different times of the day or night under similar weather conditions.

Source Level Uncertainty

5.5. BS4142 considers the average sound level that the plant may produce over a 15 minute period during the night and 1 hour during the day. The characteristics of the sound may differ during these times as a result of which the acoustic feature correction(s) may be different.

5.6. Whilst measurements were completed under conditions to try isolate noise so that only the measured source would influence the reading, the location of the site in an existing commercial trading park meant that some measurements feature inclusions from neighbouring sites. This would result in some uncertainty on the data used within the calculations, however as these levels would be higher than those from the individual source the assessment and subsequent calculations are considered appropriate.

5.7. To reduce further uncertainty, other on site operations were halted around the source measurement locations.

Rating Level Uncertainty

5.8. The acoustic feature corrections include penalties for sound that is tonal, impulsive, intermittent, or has other characteristics that will tend to attract a listener's attention. The significance of these characteristics should be assessed by

comparison of the specific and residual sound at the noise sensitive receptor locations, not closer to the source.

5.9. There may be uncertainty whether a specific sound may have tonal or impulsive content that is just or clearly perceptible; or is clearly or highly perceptible. This justification has been provided within the section 3 and 4.

6. CONCLUSIONS

6.1. Ardent Consulting Engineers have been instructed by Sirius Environmental to undertake an Acoustic Assessment to support an Environmental Permit Application at Ryder Point Works, Wirksworth.

6.2. An attended noise survey has been undertaken to obtain source measurements of operations at the site.

6.3. An unattended environmental noise survey was undertaken at the site between 13th August and 19th August 2025 at two locations representative of the closest noise sensitive receptors to the site.

6.4. Including the proposed mitigation, the initial estimate of likely significance indicates an adverse impact at Eniscloud Meadow Farm and at Ryder Point Barn, depending on the context.

6.5. This has been substantially reduced through application of the proposed mitigation measures. Whilst an initial adverse impact is predicted, the context in which the sound occurs is crucial to the determined impact as described in BS 4142.

6.6. The site is an established business which has been operational for over 20 years, located in an area with similar aggregate and material processing operations (including blasting at the quarry), close to residential properties.

6.7. It is understood that there have been no complaints received associated with noise at the site throughout this time.

6.8. The existing operations falling within the permit application will not change the existing acoustic environment, and the proposed mitigation measures will offer an improvement to existing baseline conditions.

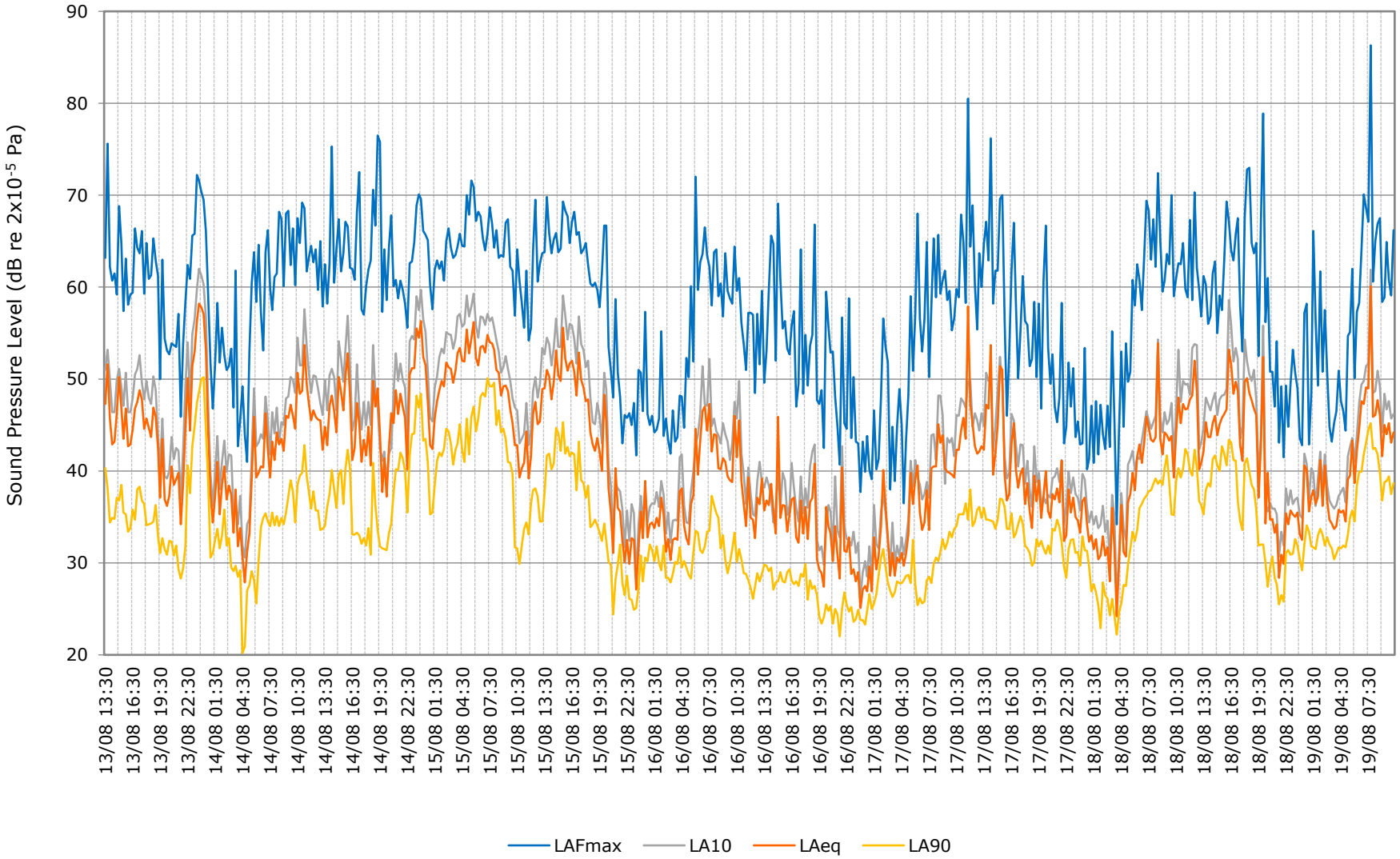
6.9. When considering the context, this assessment demonstrates that the operations falling under the permit application will result in a low impact at nearby noise sensitive receptors.

6.10. Subject to the recommendations included in this report and accompanying noise management plan, there will be no adverse effects on nearby noise sensitive receptors, and it is it considered that the site is suitable for permit acquisition.

APPENDIX A

Position 1 - Eniscloud Meadow Farm

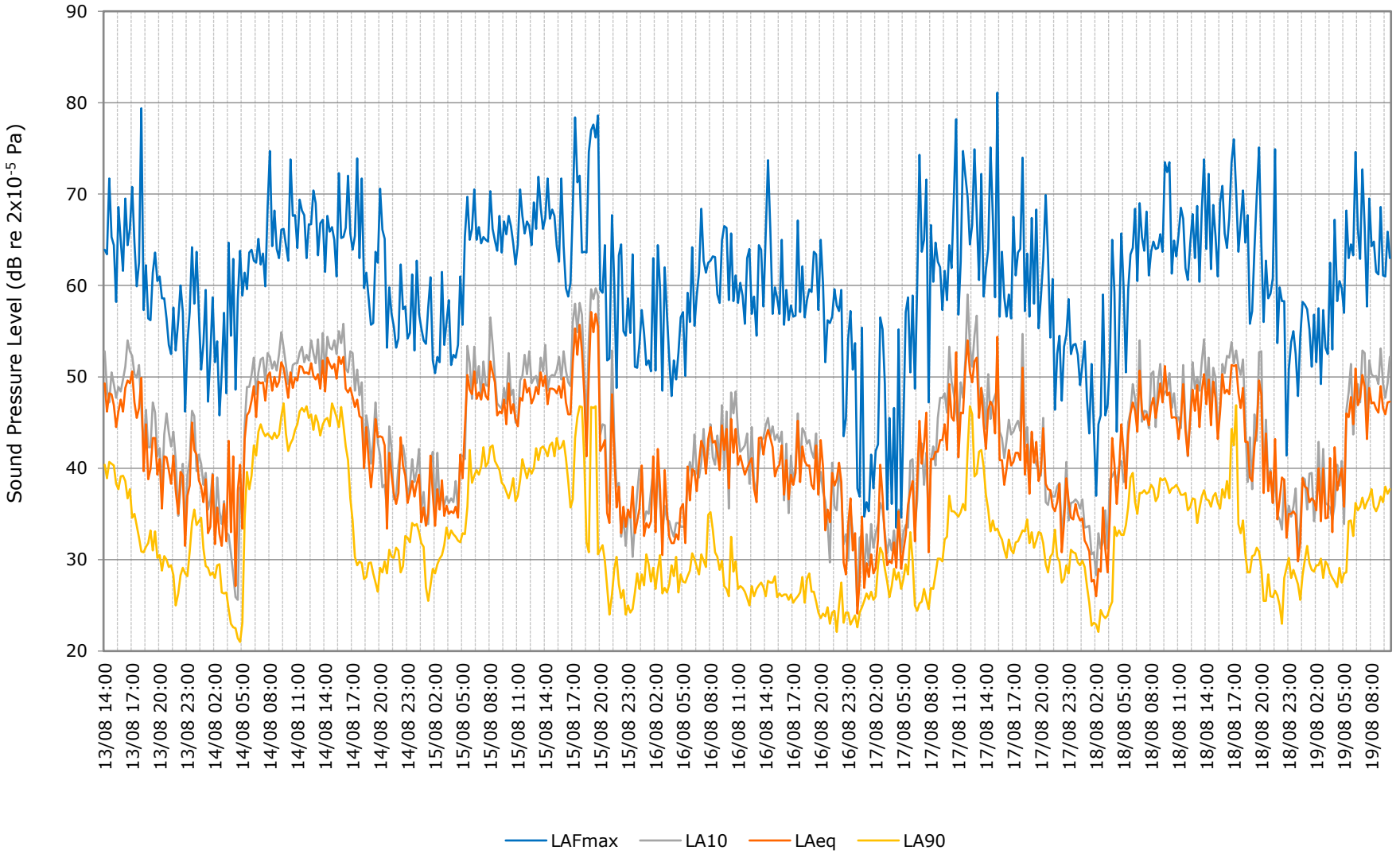
Environmental Noise Time History
13th to 18th August 2025



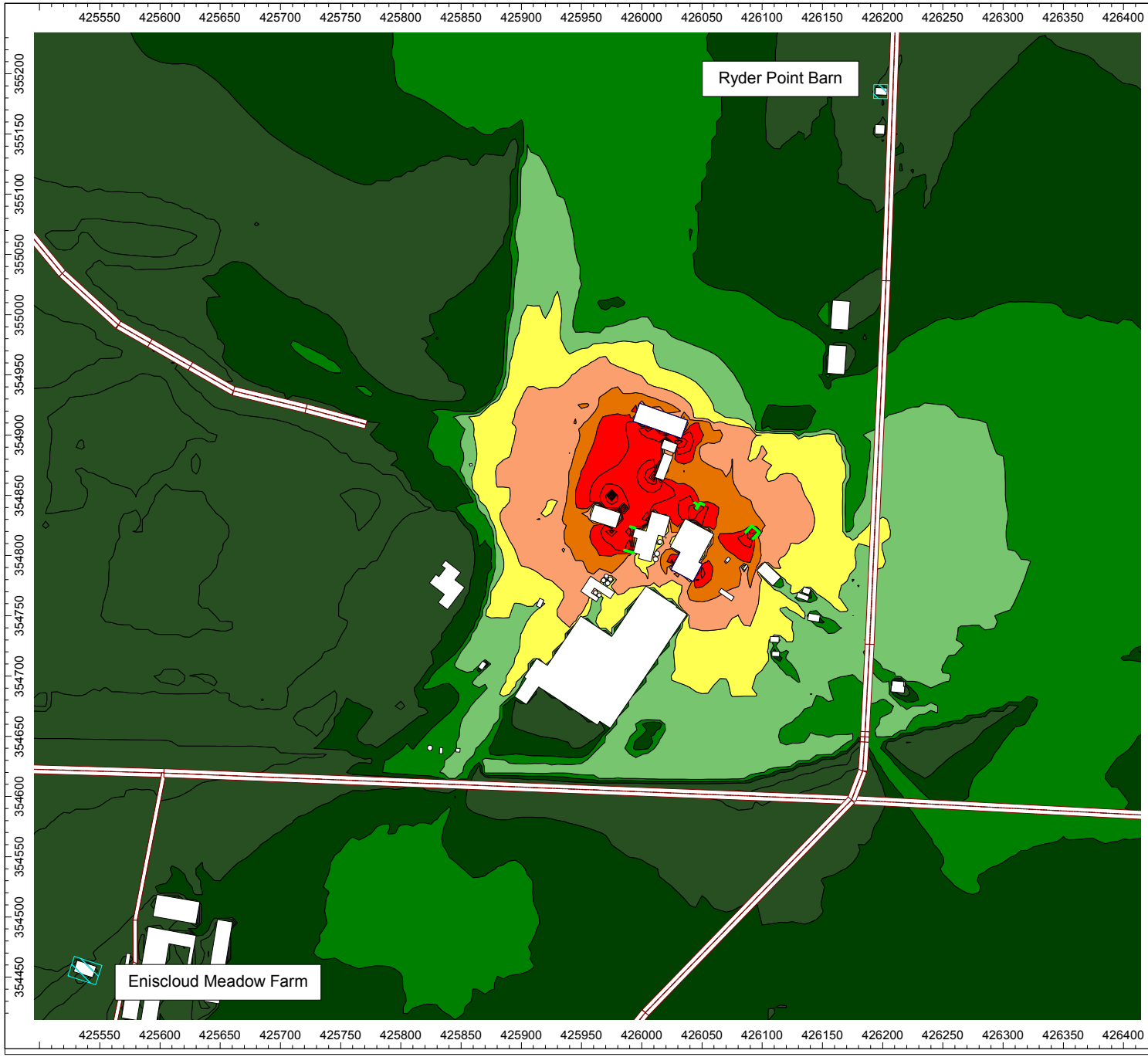
Position 2 - Armlees Farm

Environmental Noise Time History

13th to 18th August 2025



APPENDIX B



Client:
Sirius Environmental Ltd

Project:
Stacey Processing,
Ryder Point Works

Date:
27/08/25

Scenario:
Day dB LAeq, 1hour
1.5m Grid Height

- < 40 dB
- 40 - 45 dB
- 45 - 50 dB
- 50 - 55 dB
- 55 - 60 dB
- 60 - 65 dB
- 65 - 70 dB
- > 70 dB

Red Line Boundary

4m Acoustic Barriers

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APPENDIX C

Measurement	MeasurementDistance (m)	31.5Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz	LAeq	% ontime	% on timeCorrection / dB	Resultant LAeq	Description
1	10	80	77	75	75	70	66	63	59	52	43	73	20	-7	66	Loading bagging plant with FLT Cat 25 from bulk bag
2	10	86	87	80	80	80	77	72	68	63	57	81	20	-7	74	Loading south glass shot processing hopper with loading shovel Cat 966G
3	10	84	84	80	80	80	74	69	63	62	62	80	20	-7	73	Loading middle glass shot processing hopper with loading shovel Cat 966G
4	10	82	85	81	80	79	74	68	62	58	52	79	20	-7	72	Loading north glass shot processing hopper with loading shovel Cat 966G
5	10	88	87	79	76	74	73	73	74	75	70	81	20	-7	74	Loading optical sorting hopper with loading shovel Cat 966G
6	10	81	79	88	75	76	78	84	87	88	83	92	10	-10	82	Air release on optical sorting feed hopper
7	Internal Rev	85	83	80	79	75	76	75	79	78	69	84	100		84	Inside optical sorting shed. Reverberant level at 4 positions west to east
8		84	87	83	79	77	79	79	84	82	76	88			88	
9		87	90	82	81	76	77	76	79	77	69	84			84	
10		91	87	92	83	79	77	77	80	78	71	86			86	
11	10	79	79	76	72	69	68	69	71	68	58	76	100		76	Ceramic etc. screen dropping reject material into hopper
12	10	73	74	67	63	58	53	52	52	47	33	61	100		61	10m from gable end of optical sorting shed
13	10	79	79	76	72	69	68	69	71	68	58	76	100		76	10m in front of roller shutter door
14	10	82	89	83	80	79	76	72	68	67	61	81	20	-7	74	Loading fine granite into crusher hopper with Cat 935H loading shovel
15	10	82	78	78	73	73	70	67	65	61	56	75	50	-3	72	Fine granite crusher
16	10	85	85	75	71	70	71	72	70	69	58	78	20	-7	71	Loading 20mm granite into crusher hopper with Cat 935H loading shovel
17	10	81	79	79	74	83	81	76	68	63	56	85	50	-3	82	20mm granite crusher
18	10	80	78	80	78	76	73	72	70	67	61	79	100		79	10m from side of screen deck
19	10	80	81	81	77	75	74	72	70	67	62	79	100		79	10m from side of screen deck
20	10	79	79	81	77	75	72	70	68	66	63	78	100		78	10m from side of screen deck
21	10	77	78	81	72	69	66	64	60	57	52	73	100		73	10m from end of screen plant
22	10	87	84	80	79	80	76	72	67	63	55	81	100		81	Glass shot processing, fan RH end of the plant
23	10	82	80	78	79	79	73	69	62	54	46	79	100		79	Glass shot processing central position, fan to remoive lighter material in mix
24	10	83	83	77	71	69	65	62	61	58	51	72	20	-7	65	Loading material into drying plant Cat 966H
25	10	84	82	80	75	74	71	68	68	66	62	77	100		77	To the side of the drier drum
26	10	82	79	77	73	70	64	64	61	57	48	72	100		72	10m from burner fan and duct left position
27	10	79	77	78	74	70	64	59	56	53	45	71	100		71	10m from burner fan and duct right position
28	1	89	85	88	83	84	80	77	76	73	70	86	100		86	Sweep approx 1m from and around stack fan
29	10	86	84	84	82	81	78	81	76	74	68	86	10	-10	76	Central position to capture air release towards top of filters. Check plans
30	10	76	75	76	66	66	65	66	65	62	62	72	15	-8	64	Tipping load of material from a bulk HGV
31	10	75	72	69	61	63	60	56	51	49	42	65	15	-8	57	Tipping load of material from a bulk HGV
32	10	81	79	80	77	79	73	68	63	59	52	79	100		79	Glass shot processing LH end position, fan to remoive lighter material in mix
33	10	78	78	79	73	78	72	70	66	61	52	78	100		78	Glass shot processing LH end position, fan to remoive lighter material in mix
34	Internal Rev	75	73	70	70	69	74	77	78	74	65	83			83	Inside bagging plant shed RH side rev level
35		72	71	70	71	70	77	79	80	78	69	85	100		85	Inside bagging plant shed LH side rev level
37	5	73	75	68	67	65	64	67	68	63	53	73	100		73	5m from open roller shutter door
38	10	71	74	70	66	63	61	63	63	59	47	69	100		69	10m from open roller shutter door
39	10	77	79	76	72	69	67	66	60	55	49	73	10	-10	63	Tipping 20mm limestone for Asphalt plant
40	10	85	87	81	81	84	79	76	72	68	60	85	20	-7	78	McClosky screen Loading with Cat 966G loading shovel
41	10	76	78	80	75	72	69	67	67	63	53	76	100		76	McClosky screen10m from oversize screened material pile
42	10	81	81	81	78	76	73	69	65	59	50	78	100		78	McClosky screen10m from <100mm screened material pile

APPENDIX D

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **17 April 2025** CERTIFICATE NUMBER **238635**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Approved signatory
T.Goodrich
Electronically signed:

T. A. Goodrich.

Outdoor Kit Calibration Information

Instrument information

Manufacturer:	Cirrus Research plc
Model:	CK:685
Preamp Model	MK:172
Microphone Serial Number	2099
Primary Calibration Certificate Number	238632

Summary

Date of calibration: 17 April 2025

The calibration was performed respecting the requirements of ISO/IEC 17025:2017.
This information is in addition to the primary calibration certificate for the sound level meter. The calibration certificate number is shown above and should be used in conjunction with this additional information.

The sound level meter detailed above has been calibrated to the published test and calibration data as detailed in the instrument handbook, using the techniques recommended in the standards to which the instrument has been designed.

All calibration procedures were carried out by substituting the microphone capsule with a suitable electrical signal, apart from the final acoustic calibration.

The microphone capsule was calibrated using an electrostatic calibration system to produce the frequency response and a reference acoustic source for the final sensitivity testing.

In addition to the calibration of the complete sound level meter in its standard configuration, (instrument, MV:200 series preamplifier and microphone capsule), the sound level meter and microphone capsule were tested with the MK:172 preamplifier in place of the MV:200 series.

The sound level meter, G300509-V , has been tested with Outdoor Microphone/Preamplifier Type MK:172 Serial Number 2099 and conforms to the requirements of the standards stated in the instrument user manual.

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **17 April 2025** CERTIFICATE NUMBER **238632**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Approved signatory
T.Goodrich
Electronically signed:

T. A. Goodrich.

Sound Level Meter : IEC 61672-3:2013

Instrument information

Manufacturer:	Cirrus Research plc	Notes:
Model:	CR:171C	
Serial number:	G300509-V	
Class:	1	
Firmware version:	5.9.3442	

Test summary

Date of calibration: 17 April 2025

The calibration was performed respecting the requirements of ISO/IEC 17025:2017.
Periodic tests were performed in accordance with procedures from IEC 61672-3:2013.

The sound level meter submitted for testing successfully completed the class 1 periodic tests of IEC 61672-3:2013, for the environmental conditions under which the tests were performed.

However, no general statement or conclusion can be made about conformance of the sound level meter to the full specifications of IEC 61672-1:2013 because (a) evidence was not publicly available, from an independent testing organisation responsible for pattern approvals, to determine that the model of sound level meter fully conformed to the class 1 specifications in IEC 61672-1:2013 or correction data for acoustical test of frequency weighting were not provided in the Instruction Manual and (b) because the periodic tests of IEC 61672-3:2013 cover only a limited subset of the specifications in IEC 61672-1:2013.

Notes

CERTIFICATE OF CALIBRATION

Environmental conditions

The following conditions were recorded at the time of the test:

Before	Pressure:	100.48 kPa	Temperature:	22.8 °C	Humidity:	45.8 %
After	Pressure:	100.49 kPa	Temperature:	22.9 °C	Humidity:	45.1 %

Test equipment

Equipment	Manufacturer	Model	Serial number
Signal Generator	SIGLENT	SDG1032X	SDG1XDDC7R0315
Attenuator	Cirrus Research	ZE:952	96920
Environmental Monitor	Comet	T7510	16966334

Additional instrument information

Instruction manual:

Reference level range: Single range

Pattern approval: No

Source of pattern approval: -

Preamplifier

Model: MV:200F

Serial number: 8907F

Microphone

Model: MK:224

Serial number: 211542D

Test results summary

Test	Result
Toneburst response	Complies
Electrical noise-floor	Complies
Linearity	Complies
Electrical Frequency weightings	Complies
Frequency and time weightings at 1 kHz	Complies
C-weighted peak	Complies
Overload indication	Complies
High level stability	Complies
Long-term stability	Complies
Acoustic Frequency weightings	Complies

Acoustic Calibrator

Manufacturer: Bruel and Kjaer

Model: 4231

Serial number: 2594797

Note: This sound calibrator is not of a model that is specified in the instruction manual.

Calibration

Calibration check frequency: 1000 Hz

Calibrator's certificate ref: 222958

Level before adjustment: 93.70 dB(A)

Level after adjustment: 93.70 dB(A)

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **17 April 2025** CERTIFICATE NUMBER **238631**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Approved signatory
T.Goodrich
Electronically signed:

T. A. Goodrich.

Octave-band filter : IEC 61260:1995

Instrument information

Manufacturer:	Cirrus Research plc	Notes:
Model:	CR:171C	
Serial number:	G300509-V	
Class:	1	
Firmware version:	5.9.3442	

Test summary

Date of calibration: 17 April 2025

The calibration was performed respecting the requirements of ISO/IEC 17025:2017.
Periodic tests were performed in accordance with procedures from IEC 61260:1995.

The filter submitted for testing successfully completed the Relative Attenuation test of IEC 61260 for the environmental conditions under which the test was performed.

Notes

CERTIFICATE OF CALIBRATION

Environmental conditions

The following conditions were recorded at the time of the test:

Before	Pressure:	100.48 kPa	Temperature:	22.8 °C	Humidity:	45.8 %
After	Pressure:	100.49 kPa	Temperature:	22.9 °C	Humidity:	45.1 %

Test equipment

Equipment	Manufacturer	Model	Serial number
Signal Generator	SIGLENT	SDG1032X	SDG1XDDC7R0315
Attenuator	Cirrus Research	ZE:952	96920
Environmental Monitor	Comet	T7510	16966334

Filters information

Filter class: 1

Filter base: 2

Reference attenuation: 0.0 dB

Additional instrument information

Instruction manual:

Pattern approval: No

Source of pattern approval: -

Reference level range: Single range

Laboratory uncertainties

Requirement	Value (dB)
Relative Attenuation High	0.41
Relative Attenuation Mid	0.18
Relative Attenuation Low	0.12

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **17 April 2025** CERTIFICATE NUMBER **238633**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Approved signatory
T.Goodrich
Electronically signed:

T. A. Goodrich.

Third-octave-band filter : IEC 61260:1995

Instrument information

Manufacturer:	Cirrus Research plc	Notes:
Model:	CR:171C	
Serial number:	G300509-V	
Class:	1	
Firmware version:	5.9.3442	

Test summary

Date of calibration: 17 April 2025

The calibration was performed respecting the requirements of ISO/IEC 17025:2017.
Periodic tests were performed in accordance with procedures from IEC 61260:1995.

The filter submitted for testing successfully completed the Relative Attenuation test of IEC 61260 for the environmental conditions under which the test was performed.

Notes

CERTIFICATE OF CALIBRATION

Environmental conditions

The following conditions were recorded at the time of the test:

Before	Pressure:	100.48 kPa	Temperature:	22.8 °C	Humidity: 45.8 %
After	Pressure:	100.49 kPa	Temperature:	22.9 °C	Humidity: 45.1 %

Test equipment

Equipment	Manufacturer	Model	Serial number
Signal Generator	SIGLENT	SDG1032X	SDG1XDDC7R0315
Attenuator	Cirrus Research	ZE:952	96920
Environmental Monitor	Comet	T7510	16966334

Filters information

Filter class: 1

Filter base: 2

Reference attenuation: 0.0 dB

Additional instrument information

Instruction manual:

Pattern approval: No

Source of pattern approval: -

Reference level range: Single range

Laboratory uncertainties

Requirement	Value (dB)
Relative Attenuation High	0.41
Relative Attenuation Mid	0.18
Relative Attenuation Low	0.12

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **08 April 2025** CERTIFICATE NUMBER **238630**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Test engineer:
D.Swalwell
Electronically signed:

Microphone

Microphone capsule

Manufacturer: Cirrus Research plc

Model: MK:224

Serial Number: 211542D

Calibration procedure

Date of calibration: 08 April 2025

Open circuit: 41.7 mV/Pa

Sensitivity at 1 kHz: -27.6 dB rel 1 V/Pa

The microphone capsule detailed above has been calibrated to the published data as described in the operating manual of the associated sound level meter (where applicable).

The frequency response was measured using an electrostatic actuator in accordance with BS EN 61094-6:2005 with the free-field response derived via standard correction data traceable to a National Measurement Institute.

The absolute sensitivity at 1 kHz was measured using an acoustic calibrator conforming to IEC 60942:2003 Class 1.

Environmental conditions

Pressure: 102.10 kPa

Temperature: 21.0 °C

Humidity: 34.0 %

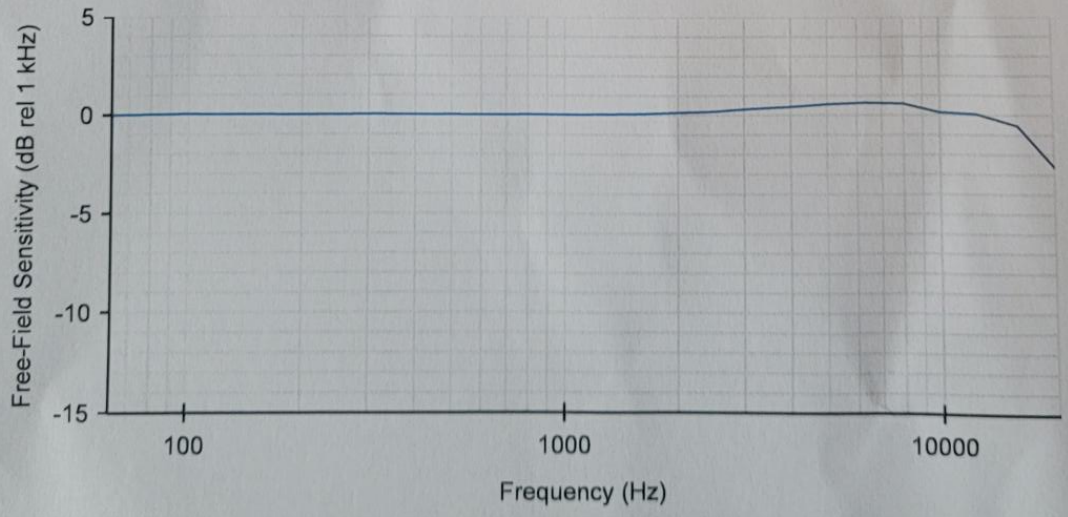
CERTIFICATE OF CALIBRATION

Certificate Number: **238630**

Free-Field Frequency Response : Tabular

Frequency (Hz)	Free-Field Sensitivity (dB rel 1 kHz)	Actuator Response (dB)
63	**-0.02**	**-0.20**
80	-0.01	-0.08
100	0.00	-0.03
125	**-0.00**	**0.00**
160	-0.01	0.02
200	-0.03	0.02
250	**-0.03**	**0.02**
315	0.01	0.03
400	-0.01	0.03
500	**-0.00**	**0.03**
630	-0.00	0.03
800	-0.00	0.02
1 000	**0.00**	**0.01**
1 250	0.01	-0.01
1 600	0.06	-0.04
2 000	**0.12**	**-0.07**
2 500	0.18	-0.13
3 150	0.30	-0.24
4 000	**0.41**	**-0.46**
5 000	0.54	-0.79
6 300	0.62	-1.42
8 000	**0.57**	**-2.56**
10 000	0.13	-4.47
12 500	0.04	-6.45
16 000	**-0.55**	**-8.48**
20 000	-2.65	-11.74

Free-Field Frequency Response : Graphical



CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **17 April 2025** CERTIFICATE NUMBER **238637**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Approved signatory
M.Berry
Electronically signed:

M.BERRY

Sound Calibrator : IEC 60942:2003

Instrument information

Manufacturer: Cirrus Research plc

Model: CR:515

Serial number: 87615

Class: 1

Notes:

Test summary

Date of calibration: 17 April 2025

The sound calibrator detailed above has been calibrated to the published data as described in the operating manual and in the half-inch configuration. The procedures and techniques used are as described in IEC60942_2003 Annex B – Periodic Tests and three determinations of the sound pressure level, frequency and total distortion were made.

The sound pressure level was measured using a WS2F condenser microphone type MK:224 manufactured by Cirrus Research plc.

The results have been corrected to the reference pressure of 101.33 kPa using the manufacturer's data.

As public evidence was available, from a testing organisation responsible for approving the results of pattern evaluation tests, to demonstrate that the model of sound calibrator fully conformed to the requirements for pattern evaluation described in Annex A of IEC 60942:2003, the sound calibrator tested is considered to conform to all the Class 1 requirements of IEC 60942:2003.

The manufacturer's product information indicates that this model of sound calibrator has been formally pattern approved to IEC60942_2003 Annex A to Class 1. This has been confirmed by Laboratoire National d'Essais (LNE), PhysikalischTechnische Bundesanstalt (PTB) and APPLUS (APPLUS).

Notes:

CERTIFICATE OF CALIBRATION

Certificate Number: **238637**

Environmental conditions

The following conditions were recorded at the time of the test:

Pressure: 100.40 kPa
Temperature: 22.0 °C
Humidity: 35.2 %

Test equipment

Equipment	Manufacturer	Model	Serial number
Distortion Meter	Keithley	2015	1053426
Environmental Monitor	Comet	T7510	21962628

Results

	Expected	Sample 1	Sample 2	Sample 3	Average	Deviation	Tolerance	Uncertainty
Level (dB)	94.00	94.03	94.00	93.99	**94.01**	0.01	±0.40	0.11 dB
Distortion (%)	< 3.00	0.35	0.55	0.40	**0.43**	0.43	+3.00	0.13 %
Frequency (Hz)	1000.0	1000.3	1000.3	1000.5	**1000.3**	0.3	±10.0	0.1 Hz

The measured quantities or deviations (as applicable), extended by the expanded combined uncertainty of measurement, must not exceed the corresponding tolerance.

End of results

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **09 April 2025** CERTIFICATE NUMBER **237782**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Approved signatory
T.Goodrich
Electronically signed:

T. A. Goodrich.

Sound Calibrator : IEC 60942:2003

Instrument information

Manufacturer: Cirrus Research plc

Model: CR:515

Serial number: 85061

Class: 1

Notes:

Test summary

Date of calibration: 09 April 2025

The sound calibrator detailed above has been calibrated to the published data as described in the operating manual and in the half-inch configuration. The procedures and techniques used are as described in IEC60942_2003 Annex B – Periodic Tests and three determinations of the sound pressure level, frequency and total distortion were made.

The sound pressure level was measured using a WS2F condenser microphone type MK:224 manufactured by Cirrus Research plc.

The results have been corrected to the reference pressure of 101.33 kPa using the manufacturer's data.

As public evidence was available, from a testing organisation responsible for approving the results of pattern evaluation tests, to demonstrate that the model of sound calibrator fully conformed to the requirements for pattern evaluation described in Annex A of IEC 60942:2003, the sound calibrator tested is considered to conform to all the Class 1 requirements of IEC 60942:2003.

The manufacturer's product information indicates that this model of sound calibrator has been formally pattern approved to IEC60942_2003 Annex A to Class 1. This has been confirmed by Laboratoire National d'Essais (LNE), PhysikalischTechnische Bundesanstalt (PTB) and APPLUS (APPLUS).

Notes:

CERTIFICATE OF CALIBRATION

Environmental conditions

The following conditions were recorded at the time of the test:

Pressure: 102.41 kPa
Temperature: 21.8 °C
Humidity: 43.5 %

Test equipment

Equipment	Manufacturer	Model	Serial number
Distortion Meter	Keithley	2015	1053426
Environmental Monitor	Comet	T7510	21962628

Results

	Expected	Sample 1	Sample 2	Sample 3	Average	Deviation	Tolerance	Uncertainty
Level (dB)	94.00	93.98	93.98	93.94	**93.97**	-0.03	±0.40	0.11 dB
Distortion (%)	< 3.00	0.29	0.29	0.30	**0.29**	0.29	+3.00	0.13 %
Frequency (Hz)	1000.0	1000.2	1000.3	1000.3	**1000.3**	0.3	±10.0	0.1 Hz

The measured quantities or deviations (as applicable), extended by the expanded combined uncertainty of measurement, must not exceed the corresponding tolerance.

End of results

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **04 April 2025** CERTIFICATE NUMBER **237783**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Test engineer:
S.Hall
Electronically signed:

Microphone

Microphone capsule

Manufacturer: Cirrus Research plc

Model: MK:224

Serial Number: 220145B

Calibration procedure

Date of calibration: 04 April 2025

Open circuit: 41.8 mV/Pa

Sensitivity at 1 kHz: -27.6 dB rel 1 V/Pa

The microphone capsule detailed above has been calibrated to the published data as described in the operating manual of the associated sound level meter (where applicable).

The frequency response was measured using an electrostatic actuator in accordance with BS EN 61094-6:2005 with the free-field response derived via standard correction data traceable to a National Measurement Institute.

The absolute sensitivity at 1 kHz was measured using an acoustic calibrator conforming to IEC 60942:2003 Class 1.

Environmental conditions

Pressure: 101.73 kPa

Temperature: 21.7 °C

Humidity: 40.2 %

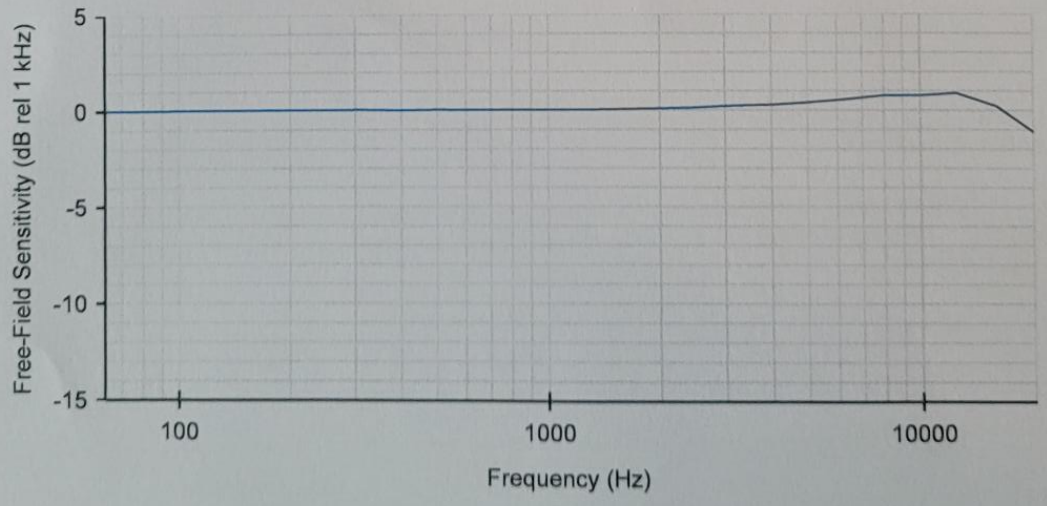
CERTIFICATE OF CALIBRATION

Certificate Number: **237783**

Free-Field Frequency Response : Tabular

Frequency (Hz)	Free-Field Sensitivity (dB rel 1 kHz)	Actuator Response (dB)
63	**-0.00**	**-0.21**
80	-0.01	-0.10
100	0.01	-0.05
125	**0.00**	**-0.01**
160	0.01	0.01
200	0.00	0.02
250	**-0.00**	**0.02**
315	0.02	0.02
400	-0.01	0.01
500	**0.01**	**0.02**
630	0.00	0.01
800	0.00	-0.01
1 000	**0.00**	**-0.02**
1 250	0.01	-0.04
1 600	0.03	-0.09
2 000	**0.07**	**-0.15**
2 500	0.11	-0.23
3 150	0.20	-0.38
4 000	**0.26**	**-0.64**
5 000	0.38	-0.98
6 300	0.55	-1.52
8 000	**0.74**	**-2.42**
10 000	0.74	-3.88
12 500	0.86	-5.66
16 000	**0.19**	**-7.77**
20 000	-1.14	-10.26

Free-Field Frequency Response : Graphical



CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **09 April 2025** CERTIFICATE NUMBER **237787**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Approved signatory
T.Goodrich
Electronically signed:

T. A. Goodrich.

Outdoor Kit Calibration Information

Instrument information

Manufacturer:	Cirrus Research plc
Model:	CK:675
Preamp Model	MK:172
Microphone Serial Number	2047
Primary Calibration Certificate Number	237786

Summary

Date of calibration: 09 April 2025

The calibration was performed respecting the requirements of ISO/IEC 17025:2017.
This information is in addition to the primary calibration certificate for the sound level meter. The calibration certificate number is shown above and should be used in conjunction with this additional information.

The sound level meter detailed above has been calibrated to the published test and calibration data as detailed in the instrument handbook, using the techniques recommended in the standards to which the instrument has been designed.

All calibration procedures were carried out by substituting the microphone capsule with a suitable electrical signal, apart from the final acoustic calibration.

The microphone capsule was calibrated using an electrostatic calibration system to produce the frequency response and a reference acoustic source for the final sensitivity testing.

In addition to the calibration of the complete sound level meter in its standard configuration, (instrument, MV:200 series preamplifier and microphone capsule), the sound level meter and microphone capsule were tested with the MK:172 preamplifier in place of the MV:200 series.

The sound level meter, G080759 , has been tested with Outdoor Microphone/Preamplifier Type MK:172 Serial Number 2047 and conforms to the requirements of the standards stated in the instrument user manual.

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **09 April 2025** CERTIFICATE NUMBER **237784**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Approved signatory
T.Goodrich
Electronically signed:

T. A. Goodrich.

Third-octave-band filter : IEC 61260:1995

Instrument information

Manufacturer:	Cirrus Research plc	Notes:
Model:	CR:171C	
Serial number:	G080759	
Class:	1	
Firmware version:	3.3.3386	

Test summary

Date of calibration: 09 April 2025

The calibration was performed respecting the requirements of ISO/IEC 17025:2017.
Periodic tests were performed in accordance with procedures from IEC 61260:1995.

The filter submitted for testing successfully completed the Relative Attenuation test of IEC 61260 for the environmental conditions under which the test was performed.

Notes

CERTIFICATE OF CALIBRATION

Environmental conditions

The following conditions were recorded at the time of the test:

Before	Pressure:	102.44 kPa	Temperature:	22.4 °C	Humidity: 43.8 %
After	Pressure:	102.47 kPa	Temperature:	22.7 °C	Humidity: 44.8 %

Test equipment

Equipment	Manufacturer	Model	Serial number
Signal Generator	SIGLENT	SDG1032X	SDG1XDDC7R0315
Attenuator	Cirrus Research	ZE:952	96920
Environmental Monitor	Comet	T7510	16966334

Filters information

Filter class: 1

Filter base: 2

Reference attenuation: 0.0 dB

Additional instrument information

Instruction manual:

Pattern approval: No

Source of pattern approval: -

Reference level range: Single range

Laboratory uncertainties

Requirement	Value (dB)
Relative Attenuation High	0.41
Relative Attenuation Mid	0.18
Relative Attenuation Low	0.12

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **09 April 2025** CERTIFICATE NUMBER **237785**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Approved signatory
T.Goodrich
Electronically signed:

T. A. Goodrich.

Octave-band filter : IEC 61260:1995

Instrument information

Manufacturer:	Cirrus Research plc	Notes:
Model:	CR:171C	
Serial number:	G080759	
Class:	1	
Firmware version:	3.3.3386	

Test summary

Date of calibration: 09 April 2025

The calibration was performed respecting the requirements of ISO/IEC 17025:2017.
Periodic tests were performed in accordance with procedures from IEC 61260:1995.

The filter submitted for testing successfully completed the Relative Attenuation test of IEC 61260 for the environmental conditions under which the test was performed.

Notes

CERTIFICATE OF CALIBRATION

Environmental conditions

The following conditions were recorded at the time of the test:

Before	Pressure:	102.44 kPa	Temperature:	22.4 °C	Humidity:	43.8 %
After	Pressure:	102.47 kPa	Temperature:	22.7 °C	Humidity:	44.8 %

Test equipment

Equipment	Manufacturer	Model	Serial number
Signal Generator	SIGLENT	SDG1032X	SDG1XDDC7R0315
Attenuator	Cirrus Research	ZE:952	96920
Environmental Monitor	Comet	T7510	16966334

Filters information

Filter class: 1

Filter base: 2

Reference attenuation: 0.0 dB

Additional instrument information

Instruction manual:

Pattern approval: No

Source of pattern approval: -

Reference level range: Single range

Laboratory uncertainties

Requirement	Value (dB)
Relative Attenuation High	0.41
Relative Attenuation Mid	0.18
Relative Attenuation Low	0.12

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **09 April 2025** CERTIFICATE NUMBER **237786**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Approved signatory
T.Goodrich
Electronically signed:

T. A. Goodrich.

Sound Level Meter : IEC 61672-3:2013

Instrument information

Manufacturer:	Cirrus Research plc	Notes:
Model:	CR:171C	
Serial number:	G080759	
Class:	1	
Firmware version:	3.3.3386	

Test summary

Date of calibration: 09 April 2025

The calibration was performed respecting the requirements of ISO/IEC 17025:2017.
Periodic tests were performed in accordance with procedures from IEC 61672-3:2013.

The sound level meter submitted for testing successfully completed the class 1 periodic tests of IEC 61672-3:2013, for the environmental conditions under which the tests were performed.

However, no general statement or conclusion can be made about conformance of the sound level meter to the full specifications of IEC 61672-1:2013 because (a) evidence was not publicly available, from an independent testing organisation responsible for pattern approvals, to determine that the model of sound level meter fully conformed to the class 1 specifications in IEC 61672-1:2013 or correction data for acoustical test of frequency weighting were not provided in the Instruction Manual and (b) because the periodic tests of IEC 61672-3:2013 cover only a limited subset of the specifications in IEC 61672-1:2013.

Notes

CERTIFICATE OF CALIBRATION

Environmental conditions

The following conditions were recorded at the time of the test:

Before	Pressure:	102.44 kPa	Temperature:	22.4 °C	Humidity:	43.8 %
After	Pressure:	102.47 kPa	Temperature:	22.7 °C	Humidity:	44.8 %

Test equipment

Equipment	Manufacturer	Model	Serial number
Signal Generator	SIGLENT	SDG1032X	SDG1XDDC7R0315
Attenuator	Cirrus Research	ZE:952	96920
Environmental Monitor	Comet	T7510	16966334

Additional instrument information

Instruction manual:

Reference level range: Single range

Pattern approval: No

Source of pattern approval: -

Preamplifier

Model: MV:200F

Serial number: 2937F

Microphone

Model: MK:224

Serial number: 220145B

Test results summary

Test	Result
Toneburst response	Complies
Electrical noise-floor	Complies
Linearity	Complies
Electrical Frequency weightings	Complies
Frequency and time weightings at 1 kHz	Complies
C-weighted peak	Complies
Overload indication	Complies
High level stability	Complies
Long-term stability	Complies
Acoustic Frequency weightings	Complies

Acoustic Calibrator

Manufacturer: Bruel and Kjaer

Model: 4231

Serial number: 2594797

Note: This sound calibrator is not of a model that is specified in the instruction manual.

Calibration

Calibration check frequency: 1000 Hz

Calibrator's certificate ref: 222958

Level before adjustment: 93.70 dB(A)

Level after adjustment: 93.70 dB(A)

APPENDIX E

ACOUSTIC TERMINOLOGY

The effects of noise on human beings may be expressed in terms of physiological damage and annoyance. It is, however, only the annoyance impacts that need to be considered in detail when addressing environmental noise impacts. Annoyance also includes the immediate effects of activity interference, for example sleep disturbance and speech interference.

The practice has become to measure sound levels in decibels (dB). The decibel scale is logarithmic rather than linear and it is useful to bear in mind that a noise level change of 3dB would be equivalent to doubling the energy level (for example doubling the volume of traffic) and that an increase of 10 dB is perceived, subjectively, as a doubling of loudness. The human ear responds differently to sounds of different frequency. The ear perceives high frequency sound of a given sound pressure level more loudly than a low frequency sound at the same level. The A-weighted sound level, dB(A), takes this response into consideration and is commonly used for measurement of environmental noise in UK. It thus indicates the subjective human response to sound.

Environmental noise levels vary continuously from second to second, it is clearly impractical to specify the sound level continuously and thus time averaging is required. In practice human response has been related to various units which include allowance for the fluctuating nature of sound with time. For the purpose of this report these include:

$L_{Aeq,T}$: the equivalent A-weighted continuous sound level.

This unit relates to the equivalent level of continuous sound for a specific time period T, for example 16 hours for daytime noise. It contains all the sound energy of the varying sound levels over the same time period and expresses it as a continuous sound level over that period.

$L_{A10,T}$: the A-weighted level of sound exceeded for 10% of the time period T.

This unit is used for traffic noise measurement and is the preferred unit for prediction of traffic noise in the publication, 'Calculation of Road Traffic Noise'.

$L_{A90,T}$: the A-weighted level of sound exceeded for 90% of the time period T.

This unit is commonly used to represent the background noise and is used in assessing the effects of industrial noise in UK.

L_{Amax} : the maximum A-weighted level of sound over a period of measurement.

$L_{Ar,T}$: the rating level.

The specific Noise plus any adjustments for the characteristic features of the noise. Used for comparison between background levels with the noise source off.

SEL : the Sound Exposure Level.

Sound exposure level abbreviated as SEL and LAE, is the total noise energy produced from a single noise event condensed into a 1 second time period.

R_w : weighted sound reduction index.

A laboratory-measured value as defined in ISO717 Part 1.

D_{nTw} :

The equivalent of Rw, but measured onsite as oppose to in a laboratory

Annex A

RELEVANT POLICY & GUIDANCE

National Planning Policy Framework (NPPF) – December 2024

Under the NPPF: paragraph 198 of Section 15, with regard to environmental noise; Planning policies and decisions should aim to: -

- mitigate and reduce to a minimum, potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;
- identify and protect areas of tranquillity which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.

Noise Policy Statement for England (NPSE)

To avoid and mitigate adverse noise effects on health arising from and impacting on new development, the NPPF makes reference to NPSE. The NPSE was published in March 2010 and covers all forms of noise, other than occupational noise. For the purposes of this report, "Neighbourhood Noise" is most relevant as NPSE defined at paragraph 2.5:

"*neighbourhood noise which includes noise arising from within the community such as industrial and entertainment premises, trade and business premises, construction sites and noise in the street.* "

NPSE introduces three concepts to the assessment of noise in the UK:

- NOEL – No Observed Effect Level – This is the level below which no effect can be detected and below which there is no detectable effect on health and quality of life due to noise.
- LOAEL – Lowest Observable Adverse Effect Level – This is the level above which adverse effects on health and quality of life can be detected.
- SOAEL – Significant Observed Adverse Effect Level – This is the level above which significant adverse effects on health and quality of life occur.

NPSE does not numerically define levels for the NOEL, LOAEL or SOAEL rather it makes it clear that the noise level is likely to vary depending upon the noise source, the receptor and the time of day/day of the week, etc.

National Planning Practice Guidance (2019)

The purpose of the guidance is to complement the NPPF and provide advice on how to deliver its policies.

The guidance includes a table (as shown in Table 1) that summarises "the noise exposure hierarchy, based on the likely average response" and which offers "examples of outcomes" relevant to the NOEL, LOAEL and SOAEL effect levels described in the NPSE.

Response	Examples of outcomes	Increasing effect level	Action
No Observed Effect Level			
Not present	No Effect	No Observed Effect	No specific measures required
No Observed Adverse Effect Level			
Present and not intrusive	Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area but no such that there is a change in the quality of life.	No Observed Adverse Effect Level	No specific measures required
Lowest Observed Adverse Effect Level			
Present and intrusive	Noise can be heard and causes small changes in behaviour, attitude or other physiological response, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a small actual or perceived change in the quality of life.	Observed Adverse Effect Level	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level			
Present and Disruptive	The noise causes a material change in behaviour, attitude or other physiological response, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant Observed Adverse Effect Level	Avoid
Present and very disruptive	Extensive and regular changes in behaviour, attitude or other physiological response and/or an inability to mitigate effect of noise leading to psychological stress, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory.	Unacceptable Adverse Effect	Prevent

Table 1: Noise Exposure Hierarchy, Based on the Likely Average Response.

Control of Pollution Act 1974

The local authority has powers under the Control of Pollution Act 1974 to control noise from construction sites. Section 60 of the Act allows a local authority to serve a notice of its requirements for the control of site noise. This notice may include specification of plant that is or is not to be used, hours during which the construction works can be carried out and levels of noise emission. Section 61 of the Act allows a contractor or developer to take the initiative and agree with the local authority the methods of construction, steps to minimise noise and hours of work.

The Environmental Protection Act 1990

Local authorities have a duty to deal with statutory nuisances under the Environmental Protection Act 1990. For noise to amount to a statutory nuisance, it must be "prejudicial to health or a nuisance" as outlined in Section 79 of the Act. Any proposed development should not result in a statutory nuisance being declared.

Should the Local Authority declare a development to cause a statutory nuisance, an abatement notice can be served to the developer who has up to 21 days to appeal to Magistrates' Court, as detailed in Section 80 of the Act.

World Health Organisation

The WHO document Guidance on Community Noise specifies additional information for noise affecting noise sensitive receptors and forms the basis of many noise limitations and design ranges for internal and external ambient noise levels. It defines noise as 'a class of sounds that are considered unwanted' (by the listener), 'that adversely affects, or may affect the physiological and psychological wellbeing of people.' Much of the research around this study is based on transportation noise.

Further guidance on the recommended levels is given in the World Health Organisation (WHO) Guidelines for Community Noise. In this document it is stated that:

"*To protect the majority of people from being seriously annoyed during the daytime, the outdoor sound level from steady, continuous noise should not exceed 55 dB* L_{Aeq} *on balconies, terraces and in outdoor living areas. To protect*

the majority of people from being moderately annoyed during the daytime, the outdoor sound level should not exceed 50 dB L_{Aeq}."

WHO also states the following paragraph with regard to the effects of LAmax events in a night-time period:

"For a good sleep, it is believed that indoor sound pressure levels should not exceed approximately 45dB L_{Amax} more than 10-15 times per night (Vallet & Vernet 1991)."

WHO guidance 'Night Noise Guidelines for Europe' is concerned with the longer-term average noise levels that are covered by the EU Directive on Environmental Noise, although this does appear to suggest external maximum noise levels of around 57dBA outside bedrooms during the night to achieve internal maximum levels of 42dBA.

BS4142:2014 Methods for rating industrial and commercial sound

BS4142:2014 uses a comparison between the rating and background sound levels to establish an initial estimate of the likely significance of impact. The standard notes:

a) *Typically, the greater this difference, the greater the magnitude of the impact.*

b) *A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context.*

c) *A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context.*

d) *The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.*

The context of the assessment must then be considered, which can significantly alter the outcome of the assessment. Factors that might alter the outcome of the assessment include the absolute level of sound compared to the residual sound level, the character of the sound compared to the residual, the sensitivity of the receptor etc.

Environment Agency

The Environment Agency provides guidance for producing noise impact assessment and noise management plans for operators applying for environmental permits. It provides 4 main sections which must be included, these have been summarised below:

1. Desktop risk assessment
2. Off-site monitoring survey
3. Source assessment
4. BAT or appropriate measures justification

Detailed explanations of the sections are included in the document, with emphasis on contextual based considerations, uncertainty and appropriate use of methodologies such as BS ISO 12913-1.

An extract regarding the purpose of the document has been included below:

"The Environment Agency, Scottish Environment Protection Agency (SEPA), Natural Resources Wales and Northern Ireland Environment Agency have produced this guidance to help holders and potential holders of permits apply for, vary, and comply with their permits.

This guidance covers:

- *how the environment agencies will assess noise from certain industrial processes*
- *what the law says you must do to manage noise and vibration*
- *advice on how to manage noise – in particular, how to carry out a noise impact assessment and what operators should include in a noise management plan"*

APPENDIX NMP2
Noise Monitoring Reporting Form

Noise Measurement Reporting Form – Sheet 1 – Sound Monitoring Data Summary

Site Name:		Weather		Date	

Monitoring Location	Start Time	Finish Time	Noise Intensity	Noise Description	Description of activities at monitoring location	Additional Comments (e.g. Wind Speed/Direction)
1						
2						
3						
4						
5						

Monitoring Completed by		Signed		Date	

Approved by		Signed		Date	

Noise Measurement Reporting Form – Sheet 1 – Sound Monitoring Data Summary

Noise Intensity Scale:

Intensity Scale	Description	Intensity Scale	Description
0	No detectable noise	4	Strong noise (easily audible above background activities)
1	Very faint noise (only just detectable)	5	Very strong noise (bearable, but distracting)
2	Faint noise (barely audible above background activities)	6	Extremely strong noise (not bearable)
3	Distinct noise (audible above background activities)	-	-

Noise Characterisation Descriptors:

Descriptor	
Constant	Impulsive
Intermittent	Tonal
High frequency	Low frequency
Metal on metal	Distinctive

Wind Speed Descriptors:

Descriptor
Light
Steady
Strong
Gusting