SPIRE ENVIRONMENTAL
NOISE, VIBRATION AND AIR QUALITY CONSULTANTS

Ward Recycling

Metal Recycling Operations

Cold Stores Road, Cardiff Docks, CF10 4LL

R26.1980-2-AG

Noise Impact Assessment

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Oberoi Business Hub
19 St. Christopher`s Way, Pride Park, Derby, DE24 8JY
T: 01332 238162

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Notice

EXECUTIVE SUMMARY

Spire Environmental Consultants Limited have been appointed by Ward Recycling Limited to undertake an environmental noise assessment for the operation of mobile and static plant associated with metal recycling operations at the Cardiff docks site.

A background sound level survey was undertaken in February 2026 at HMS Cambria. The survey, and subsequent assessment work, have been undertaken in accordance with current standards and guidance.

This is an update of the R25.1980-1-AG report, taking into account the comments made by Natural Resources Wales.

At HMS Cambria, worst case closest approach daytime metal recycling operations are below the Adverse Impact level in accordance with the BS 4142:2014 + A1 2019 standard.

Night-time ship loading operations at the Low Impact level at HMS Cambria when assessed in accordance with the BS 4142:2014 + A1 2019 standard.

The noise impact on users of the Severn Estuary SSSI and SAC is above the BS 8233:2014 guidance values for outdoor garden and amenity spaces. However, this is on the boundary of this area. The users of this area are transient, and can therefore move to other areas away from the site.

The noise impact of the site on users of the Severn Estuary SPA, Ramsar, Cardiff Bay Wetlands and Hamadryad Park are below the noise limit for external garden and amenity space in accordance with BS 8233:2014.

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1. INTRODUCTION

Appointment & Background

1.1 Spire Environmental Consultants Limited have been appointed by Ward Recycling to undertake an environmental noise assessment to support a permit application for the continued operation of metal recycling operations at the Cardiff docks site.

1.2 Environmental noise monitoring was conducted at HMS Cambria which has been identified by Natural Resource Wales as the closest residential receptor to the site. The background survey was conducted between 3 and 10 February 2026.

1.3 This report is necessarily technical in nature, so to assist the reader, a glossary of acoustic terminology can be found in **Appendix 1**.

Site setting

1.4 The proposals are for the continued operation of an existing metal recycling plant. This is shown in Figure 1 (below).

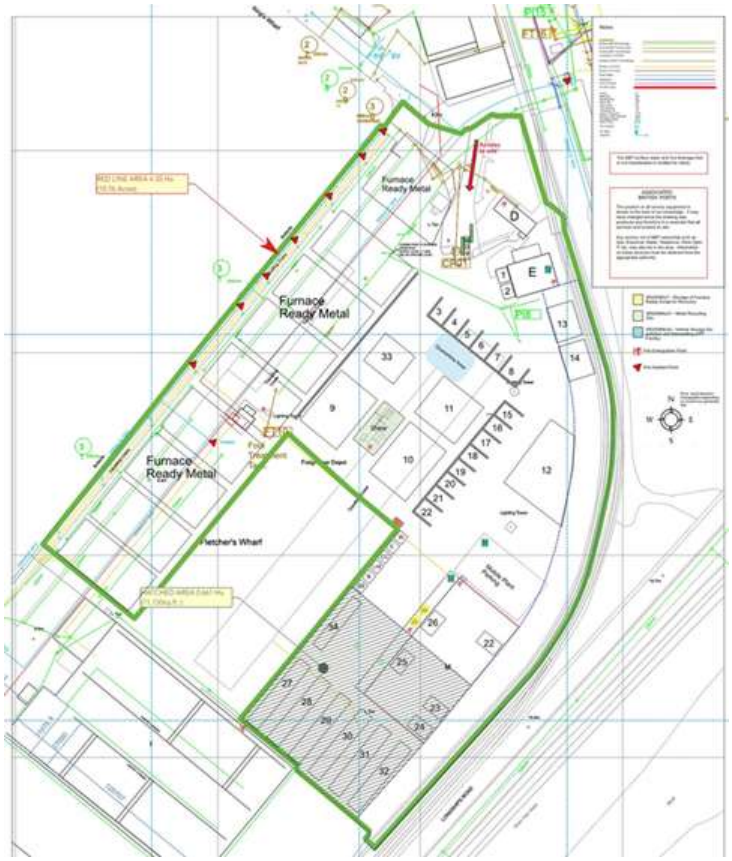

Figure 1 – Cardiff Docks site plan

2. BS 4142:2014 + A1:2019 Methods for Rating and Assessing Industrial and Commercial Sound

2.1 BS 4142 provides methodology for rating and assessing sound associated with both industrial and commercial premises. The purpose of the standard is outlined in the opening section where it states that the method is appropriate for the consideration of:

- Sound from industrial and manufacturing processes;
- Sound from fixed installations which comprise mechanical and electrical plant and equipment;
- Sound from the loading and unloading of goods and materials at industrial and/or commercial premises; and
- Sound from mobile plant and vehicles that is an intrinsic part of the overall sound emanating from premises or processes, such as that from forklift trucks, or that from train movements on or around an industrial and/or commercial site.

2.2 The standard is based around the premise that the significance of the noise impact of an industrial/commercial facility can be derived from the numerical subtraction of the background sound level (not necessarily the lowest background level measured, but the typical background of the receptor) from the measured/calculated rating level of the specific sound level under consideration. This comparison will enable the impact of the specific sound level to be concluded based upon the premise that typically "the greater this difference, the greater the magnitude of the impact". The difference is then considered as follows:

- A difference of around +10 dB or more is likely to be an indication of a **significant adverse impact**, depending on the context.
- A difference of around +5dB is likely to be an indication of an **adverse impact**, depending on the context.
- 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.

2.3 BS 4142 further states that "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.

2.4 The standard further qualifies the assessment protocol by outlining conditions to the comparative assessment and stating that "not all adverse impacts will lead to complaints and not every compliant is proof of an adverse impact". This therefore implies that all sites should be assessed on their own merits and specifics.

2.5 The standard quantifies the typical reference periods to be used in the assessment of noise, namely:

- Typical daytime 07:00 – 23:00 1-hr assessment period
- Typical night-time 23:00 – 07:00 15-min assessment period

2.6 The standard also outlines methods for defining appropriate "character corrections" Within the rating levels to account for tonal and impulsive qualities along with other sound characteristics and/or intermittency. These are:

a. The Subjective Method

b. The Objective Method

c. The Reference Method

2.7 It is noted in the standard that were multiple features are present, the corrections should be added in a linear fashion to the specific level.

Level of perceptibility	Tonal correction dB	Impulsivity correction dB	Correction for other sound characteristics dB	Intermittency correction dB
No perceptibility	+0	+0	Where neither tonal nor impulsive but clearly identifiable +3	If intermittency is readily identifiable +3
Just perceptible	+2	+3		
Clearly perceptible	+4	+6		
Highly perceptible	+6	+9		

Table 1: BS 4142 character corrections

3. BS 8233:2014 Guidance on Sound Insulation and Noise Reduction for Buildings

3.1 With respect to external amenity space such as gardens and patios it is stated that it is desirable that the noise level does not exceed 50 dB $L_{Aeq,T}$, with an upper guideline value of 55 dB L which would be acceptable in noisier environments. It is then confirmed that higher external noise criteria may be appropriate under certain circumstances such as within city centres urban areas, and locations adjoining the strategic transportation network, where it may be necessary to compromise between elevated noise levels and other factors such as convenience of living, and efficient use of land resource.

4. BASELINE NOISE SURVEY

Baseline Survey Methodology

4.1 A Background noise survey was conducted in a free-field location at HMS Cambria in the direction of the Ward Recycling site. The survey position is shown in Figure 2 (below).

Figure 2: Noise Monitoring Location

4.2 The noise measurements were undertaken using a Cirrus 1710 Type 1 sound level meter (serial number G301768). The sound level meter was calibrated with a Cirrus CR 515 calibrator (serial number 64316) at the start and end of the survey period. The calibration certificates are detailed in Appendix 5 & 6.

4.3 The sound level meter was calibrated at 94 dB (1 Khz). The calibration drift remained at -0.26 dB prior to and at the end of the survey. The sound level measurements were obtained in free-field conditions with the sound level meter tripod at a height of 1.2m above the ground.

Measurement Equipment

4.4 The noise survey was undertaken using a Class 1 sound level meter. A calibration check was undertaken prior to and upon completion of the surveys. No calibration drift was found to have occurred. All laboratory calibration (biennial for the sound level meter and annual for the calibrator) was up to date at the time.

Weather conditions

4.5 The weather conditions shown in Table 2 (below), show the temperature, wind speed, direction, and precipitation during the survey period (03 – 10 February 2026) obtained from the Ward Recycling site at Cargo Road, Cardiff Docks.

4.6 The weather conditions where wind speeds do not exceed 5 m/s will be used in this assessment.

Date	Temperature °C	Wind speed (m/s)	Wind direction	Precipitation (mm)
Tuesday 03 February 2026	5.0 – 6.3	6.1 – 9.8	Variable	0.8 – 1.9
Wednesday 04 February 2026	2.7 – 10.0	3.3 – 6.3	Variable	0 – 1.2
Thursday 05 February 2026	6.9 – 8.2	0.9 – 8.2	Variable	0 – 7.8
Friday 06 February 2026	7.7 – 9.7	0 – 3.0	Variable	0 – 4.8
Saturday 07 February 2026	7.2 – 9.4	0.6 – 5.8	Variable	0 – 34.8
Sunday 08 February 2026	7.3 – 9.3	0 – 1.5	Variable	0 – 4.8
Monday 09 February 2026	7.2 – 10.5	0 – 7.2	Variable	0 – 1.2
Tuesday 10 February 2026	7.0 – 8.3	0.4 – 5.4	Variable	0 – 5.6

Table 2 – Weather conditions during the survey periods

Measurement Results

4.7 A summary of the measured hourly noise levels during the site operational periods is presented in Table 3. The full results are shown in **Appendix 2.**

Operating hours

4.8 The daytime site operating hours are Monday to Friday 07:00 – 17:00 hours and Saturday 07:00 – 12:00 hours, with no operations on Sundays and Bank Holidays.

4.9 The only operations outside these hours are ship loading operations, which are proposed to take place 24 hours a day 7-days a week.

HMS Cambria

4.10 Environmental noise monitoring at HMS Cambria was conducted in a free-field location on the eastern boundary facing towards the Ward Recycling site, for a continuous period between 17:00 hours on Tuesday 03 February and 07:00 hours on Tuesday 10 February 2026.

Daytime period

4.11 A summary of the survey results obtained during the daytime period are shown in Table 3 (below). These results only include the daytime site operational periods when the wind speeds did not exceed 5 m/s. The daytime background sound level ($L_{A90,1h}$) hours distribution is shown in Figure 3 (below).

Survey Period	dB $L_{Aeq,1h}$	dB $L_{A90,1h}$
Wednesday 04 February 2026	54.4 – 57.9	49.7 – 51.2
Thursday 05 February 2026	53.0 – 62.2	46.3 – 55.0
Friday 06 February 2026	51.5 – 60.5	47.1 – 52.2
Monday 09 February 2026	53.8 –56.1	48.8 – 51.5

Table 3 – Summary of daytime measured sound pressure levels (operational periods only)

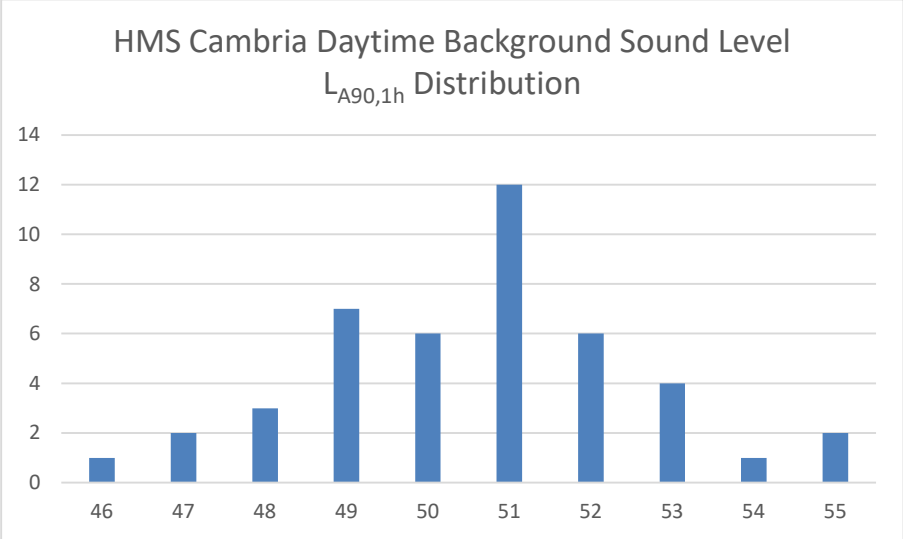

Figure 3 – HMS Cambria daytime measured sound pressure level graph (operational periods only)

4.12 During the site operational periods, the ambient noise levels were between 51.5 and 62.2 $L_{Aeq,1h}$. The corresponding background noise level was between 46.3 and 55.0 $L_{A90,1h}$. The noise climate was influenced by industrial noise sources including metal clanging and banging of HGVs passing on the metal bridge on Compass Road (south of HMS Cambria). Fan noise, HGV movements, road traffic noise and reversing alarms.

4.13 Figure 3 (above) shows the background sound level distribution. Recorded background sound levels were between 46 and 53 $L_{A90,1h}$. The most frequently recorded background sound level was 51 $L_{A90,1h}$. This will be used in this assessment as it is the most representative.

Night time period

4.14 A summary of the survey results obtained during the night-time period are shown in Table 4 (below). These results only include the night-time period when the wind speeds did not exceed 5 m/s. The night-time background sound level ($L_{A90,15min}$) distribution is shown in Figure 4 (below).

Survey Period	dB $L_{Aeq,15m}$	dB $L_{A90,15m}$
Tuesday 03 – Wednesday 04 February 2026	52.7 – 55.2	48.3 – 50.2
Wednesday 04 – Thursday 05 February 2026	53.8 – 64.3	47.9 – 54.2
Thursday 05 – Friday 06 February 2026	50.4 – 59.6	43.8 – 50.7
Friday 06 – Saturday 07 February 2026	45.3 – 58.6	42.7 – 52.1
Saturday 07 – Sunday 08 February 2026	43.6 – 59.5	38.4 – 46.9
Sunday 08 – Monday 09 February 2026	43.2 – 60.3	39.0 – 50.1
Monday 09 – Tuesday 10 February 2026	45.0 – 55.4	41.3 – 50.3

Table 4 – Summary of night-time measured sound pressure levels

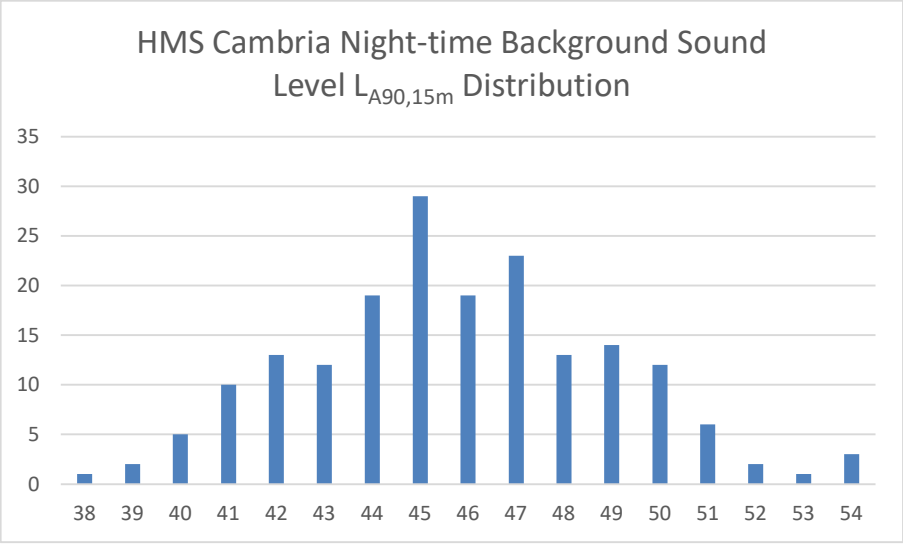

Figure 4 – HMS Cambria night-time measured sound pressure level graph

4.15 During the night-time period, the ambient noise levels were between 43.2 and 64.3 $L_{Aeq,15min}$. The corresponding background noise level was between 38.4 and 54.2 $L_{A90,15m}$. The noise climate was influenced by industrial noise sources including metal clanging and banging of HGVs passing on the metal bridge on Compass Road (south of HMS Cambria). Fan noise, HGV movements, road traffic noise and reversing alarms.

4.16 Figure 4 (above) shows the background sound level distribution. The most frequently recorded background sound level was 45 $L_{A90,15min}$. The lowest recorded background sound level was 38 $L_{A90,15min}$. Recorded background sound levels were between 38 and 54 $L_{A90,1h}$. The most representative background sound level of 45 $L_{A90,15min}$ will be used in this assessment.

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5. NOISE ASSESSMENT

Introduction

5.1 This assessment has considered the mobile and static plant associated with the operation of a metal recycling facility at Cardiff Docks.

5.2 The noise impact of the metal recycling facility are to be assessed in accordance with BS 4142:2014 + A1 2019. The noise predictions have been conducted in accordance with ISO 9613-2:2004 using an online noise modelling tool (noisetools.net). The noise prediction input and output values are shown in Appendix 3. The noise prediction output models are shown in Appendix 8. Closest approach operations will be considered in the assessment.

Daytime Plant Complement

5.3 Table 4 (below) shows the mobile and static plant used in the daytime noise predictions. All of the noise measurements were taken from operational plant at Ward Recycling sites and are therefore representative. The operational periods have also been calculated.

Noise source	Plant used	Operational period (over 1-hour assessment period)	Measured L_{Aeq} (Calculated sound power level)
1. Scrap metal loading	Liebherr LH40	30 minutes	76.3 @ 10m (104)
2. Oversize scrap metal loading	CAT 930K loading shovel	30 minutes	81.6 @ 10m (110)
3. Shear	Le Fort Shear & Liebherr LH 40	1-hour	81.4 @ 20m (106)
4. HGV tipping metal	HGV	5 HGVs per hour, 1 min to discharge each load	86.7 @ 10m (114.7)
5. HGV loading metal	HGV, Sennebogen 830e	5 HGVs per hour, 5 min to load each HGV	84.9 @ 10m (112.9)
6. Metal screening & grading (inside building)	Static plant and Liebherr LH 26	1-hour	78.8 @ 1m from building entrance (89.8)
7. Un-loading metal from train	Liebherr LH40	1-hour	83.1 @ 10m (111)
8. ELV unloading vehicle	Fork lift truck	1 vehicle per hour (1 minute to unload)	77.8 @ 10m (105.8)
9. ELV petrol tank drill	Petrol tank drill	1 vehicle per hour (1 minute to drill)	85.2 @ 1m (96.2)
10. ELV air compressor	SIP air compressor	5-minutes	78.1 @ 1m (89.1)

Table 4 – Daytime operational plant

5.4 Noise sources 1 – 6 in Table 4 (above) were measured during each activity on the Ward Recycling Cardiff site on 3 December 2024 using a Cirrus type 1 sound level meter (G301768) mounted on a tripod at 1.2m from the ground.

5.5 Noise source 7 in Table 4 (above) was measured on the Ward Recycling Burton Railhead site on 6 July 2021 using a Cirrus type 1 sound level meter (G061742) mounted on a tripod at 1.2m from the ground.

5.6 Noise sources 8 – 9 in Table 4 (above) were measuring on the Ward Recycling Woodville site on 25 September 2020 and 23 April 2024 using a Cirrus type 1 sound level meter (G061742 & G)56773) mounted on a tripod at 1.2m from the ground.

5.7 Noise source 10 in Table 5 (below) was measured on the Ward Recycling Immingham Docks site on 22 September 2020 using a Cirrus type 1 sound level meter (G301768) mounted on a tripod at 1.2m from the ground.

5.8 The characteristics of each noise source are detailed below:

- Scrap metal loading – Metal impact (clang/bang), diesel engine, hydraulics from grab
- Oversize scrap metal loading – Metal impact (bang/thud), diesel engine
- Shear – Diesel engine, hydraulics during metal shearing, metal clang/bang as it exists shear
- HGV tipping metal – Clanging/banging, thud of metal impacts, bang of HGV door after unloading, diesel engine noise
- HGV loading metal – Clanging/banging of metal inside HGV body, hydraulics from grab, diesel engine noise
- Metal/screening and grading (inside building) – Fainty audible diesel engine noise
- Un-loading metal from train – Metal clanging/banging, hydraulics from grab, diesel engine noise
- ELV un-loading vehicle – Diesel engine noise only
- ELV petrol tank drill – High-pitched shearing noise
- ELV air compressor – Pump and air flow noise
- Loading metal onto ship – Hydraulics and diesel engine noise only as metal is loaded inside the ship

Night-time Plant Complement

5.9 Table 5 (below) shows the mobile and static plant used in the night-time noise predictions.

Noise source	Plant used	Operational period (over 15-minute assessment period)	Measured L_{Aeq} (Calculated sound power level)
Loading metal into ship	Liebherr LH40	15-minutes	77.4 @ 10m (105.4)

Table 5 – Night-time operational plant

Plant Description

5.10 All of the potential noisy activities have been included within the daytime and night-time operational plant shown in Tables 4 & 5 (above). These have included cutting/hot cutting, compaction, crushing, baling, shearing, screening/grading and HGV loading/unloading. HGV movements have been scoped out of the assessment. These will occur during the daytime period only. The site noise limit is 10 mph. The loading/unloading of HGVs has been included in the assessment, which are the dominant noise sources from the HGV activities.

5.11 Cutting and hot cutting is conducted using the Le Fort shear. Compaction, crushing, baling and shearing are also conducted using the Le Fort Shear. The screening and grading of metal is conducted inside a building. Associated mobile plant movements have been included in the predictions. These have included the Liebherr LH26/LH40, Sennebogen 830E materials handlers, CAT 930K loading shovel and a fork-lift truck.

Grid References

5.12 The grid references for the closest noise sensitive receptors and operational plant are shown in Tables 6 & 7 (below).

Ref	Noise sensitive receptors	Grid Co-ordinates		Bearing from site
		Easting	Northing	
1	HMS Cambria	440164	275506	NW
2	Severn Estuary SSSI and SAC	320191	173729	SE
4	Severn Estuary SPA and Ramsar Site	320335	173477	SE

Table 6 – Noise sensitive receptor grid references

Ref	Site activity	Grid Co-ordinates	
		Easting	Northing
1	Scrap metal loading	320178	174078
2	Oversize scrap metal loading	320128	174025
3	Shear	320196	173982
4	HGV tipping metal	320136	173979
5	HGV loading metal	320195	173936
6	Metal screening & grading (inside building)	320207	173850
7	Un-loading metal from train (daytime 1 only)	320279	173936
8	ELV unloading vehicle	320246	173908
9	ELV petrol tank drill	320246	173908
10	ELV air compressor	320246	173908
11	Loading metal into ship (daytime 2 & night-time only)	320167	174092

Table 7 – Operational plant grid references

Noise prediction summary

5.13 A summary of the predicted noise levels of each activity and the predicted noise level during combined operations is shown in Tables 8 & 9 (below). Two daytime operational scenarios have been included in the assessment. Daytime 1 (Un-loading metal from train included/loading ship with metal excluded) and Daytime 2 (Loading ship with metal included and Un-loading metal from train excluded).

Site activity	HMS Cambria Distance (m)	On time correction	Predicted noise level $L_{Aeq,1h}$
Scrap metal loading	516	-3.0	39.2
Oversize scrap metal loading	546	-3.0	44.7
Shear	610	-6.0	43.2
HGV tipping metal	592	-10.8	41.4
HGV loading metal	652	-3.9	45.6
Metal screening & grading (inside building)	737	0	23.9
Un-loading metal from train	688	0	46.9
ELV unloading vehicle	698	-17.8	23.9
ELV petrol tank drill	698	-17.8	14.3
ELV air compressor	698	-10.8	14.3
Combined operations			**52.0**

Table 8 – HMS Cambria daytime noise prediction summary 1

Site activity	HMS Cambria Distance (m)	On time correction	Predicted noise level $L_{Aeq,1h}$
Scrap metal loading	516	-3.0	39.2
Oversize scrap metal loading	546	-3.0	44.7
Shear	610	-6.0	43.2
HGV tipping metal	592	-10.8	41.5
HGV loading metal	652	-3.9	45.6
Metal screening & grading (inside building)	737	0	23.9
Loading ship with metal	498	0	44.3
ELV unloading vehicle	698	-17.8	23.9
ELV petrol tank drill	698	-17.8	13.9
ELV air compressor	698	-10.8	14.0
Combined operations			**51.4**

Table 9 – HMS Cambria daytime noise prediction summary 2

Site activity	HMS Cambria Distance (m)	On time correction	Predicted noise level $L_{Aeq,15m}$
Loading ship with metal	498	0	44.3

Table 10 – Night-time noise prediction summary

Noise predictions

5.14 The noise predictions have been conducted in accordance with ISO 9613-2:2004 using an online noise modelling tool (noisetools.net). The noise prediction input and output values are shown in Appendix 3. Closest approach operations have been considered in the assessment.

5.15 The noise predictions have not included any screening or topographical inputs. The site is topographically flat and the only building on site is the metal screening and grading building which to the south-west of the site. All the predictions were free-field. The source and receiver heights are shown in Appendix 3. Some of the predictions have been amended to take into account the on-times of each activity. These are shown in Tables 4 & 5.

Daytime BS 4142 Assessment

5.16 The BS 4142 assessment has considered the combined operation of the metal recycling activities shown in Tables 8 and 9 (above). This represents a worst case scenario as it is unlikely that all of the noise sources will be operating at the same time. The daytime BS 4142 assessment at HMS Cambria is shown in Table 11 (below).

5.17 A character correction has not been applied due to the existing noise climate at HMS Cambria. At this location, the noise climate is influenced by industrial noise sources including metal clanging and banging of HGVs passing on the metal bridge on Compass Road (south of HMS Cambria). This bridge is located approximately 80 metres south of HMS Cambria at closest approach. Other audible noise sources included fan noise, HGV movements, road traffic noise and reversing alarms. The noise sources from the Ward Recycling site will not be out of character for the area, therefore a noise rating penalty has not been applied.

Description	Daytime 1	Daytime 2
Specific noise level	52 $L_{Aeq,1h}$	51 $L_{Aeq,1h}$
Acoustic correction	0	0
Rating Level	52	51
Background sound level	51 $L_{A90,1h}$	51 $L_{A90,1h}$
Excess over background	+ 1	0
BS 4142 impact	**Below Adverse**	**Below Adverse**

Table 11 Daytime BS 4142 assessment

5.18 During worst case combined metal recycling operations, the Rating Levels are 52 $L_{Aeq,1h}$ for daytime scenario 1 and 51 $L_{Aeq,1h}$ for daytime scenario 2 at HMS Cambria. These are 1 above the background sound level and equal to the background sound level, and are below the Adverse impact level.

Night-time BS 4142 Assessment

5.19 The BS 4142 assessment has considered ship unloading operations only during the night-time period. The night-time BS 4142 assessment at HMS Cambria is shown in Table 12 (below

Description	Night-time
Specific noise level	44 $L_{Aeq,15m}$
Acoustic correction	0
Rating Level	44
Background sound level	45 $L_{A90,15m}$
Excess over background	-1
BS 4142 impact	**Low Impact**

Table 12 Night-time BS 4142 assessment

5.20 During night-time operations, the Rating Level is 44 $L_{Aeq,15m}$ at HMS Cambria. This is 1 dB below the background sound level. It is below the Low Impact level.

Severn Estuary SSSI & SAC Daytime Noise Assessment

5.21 The noise impact of the Severn Estuary SSSI & SAC during the daytime period has been considered in the noise assessment. There is no specific noise guidance, however , outdoor noise limits of 50 and 55 dB(A) are specified in BS 8233:2014. As these limits are usually applied to outside spaces at residential properties, the higher limit will be applied as users of the Severn Estuary SSSI & SAC are transient users. The daytime 1 and 2 scenarios are shown in Tables 13 & 14 (below).

Site activity	Severn Estuary SSSI Distance (m)	On time correction	Predicted noise level $L_{Aeq,1h}$
Scrap metal loading	349	-3.0	42.7
Oversize scrap metal loading	303	-3.0	49.7
Shear	253	-6.0	45.1
HGV tipping metal	256	-10.8	49.1
HGV loading metal	207	-3.9	55.9
Metal screening & grading (inside building)	122	0	39.8
Un-loading metal from train	225	0	56.6
ELV unloading vehicle	187	-17.8	35.5
ELV petrol tank drill	187	-17.8	43.7
ELV air compressor	187	-10.8	37.0
Combined operations			**60.5**

Table 13 – Severn Estuary SSSI & SAC daytime noise prediction summary 1

Site activity	Severn Estuary SSSI Distance (m)	On time correction	Predicted noise level $L_{Aeq,1h}$
Scrap metal loading	349	-3.0	42.7
Oversize scrap metal loading	303	-3.0	49.7
Shear	253	-6.0	45.1
HGV tipping metal	256	-10.8	49.1
HGV loading metal	207	-3.9	55.9
Metal screening & grading (inside building)	122	0	39.8
Loading ship with metal	364	0	47.0
ELV unloading vehicle	187	-17.8	35.5
ELV petrol tank drill	187	-17.8	43.7
ELV air compressor	187	-10.8	37.0
Combined operations			**58.5**

Table 14 – Severn Estuary SSSI & SAC daytime noise prediction summary 2

5.22 The predicted daytime 1 and daytime 2 noise levels on the Severn Estuary SSSI & SAC are 60.5 and 58.5dB(A). These are above the limit of 55 dB(A) for outside spaces in BS 8233:2014.

Severn Estuary SPA & Ramsar Daytime Noise Assessment

5.23 The noise impact on the Severn Estuary SPA & Ramsar site during the daytime period has been considered in the noise assessment. There is no specific noise guidance, however outdoor noise limits of 50 and 55 dB(A) are specified in BS 8233:2014. As these limits are usually applied to outside spaces at residential properties, the higher limit will be applied as users of the Severn Estuary SPA & Ramsar are transient users. The daytime 1 and 2 scenarios are shown in Tables 15 & 16 (below).

Site activity	Severn Estuary SPA & Ramsar Distance (m)	On time correction	Predicted noise level $L_{Aeq,1h}$
Scrap metal loading	621	-3.0	37.8
Oversize scrap metal loading	586	-3.0	44.3
Shear	524	-6.0	38.8
HGV tipping metal	540	-10.8	42.5
HGV loading metal	480	-3.9	48.7
Metal screening & grading (inside building)	394	0	29.0
Un-loading metal from train	462	0	50.8
ELV unloading vehicle	440	-17.8	46.2
ELV petrol tank drill	440	-17.8	36.6
ELV air compressor	440	-10.8	29.7
Combined operations			**54.8**

Table 15 – Severn Estuary SPA & Ramsar daytime noise prediction summary 1

Site activity	Severn Estuary SPA & Ramsar Distance (m)	On time correction	Predicted noise level $L_{Aeq,1h}$
Scrap metal loading	621	-3.0	37.8
Oversize scrap metal loading	586	-3.0	44.3
Shear	524	-6.0	38.8
HGV tipping metal	540	-10.8	42.5
HGV loading metal	480	-3.9	48.7
Metal screening & grading (inside building)	394	0	29.0
Loading ship with metal	638	0	42.1
ELV unloading vehicle	440	-17.8	46.2
ELV petrol tank drill	440	-17.8	36.6
ELV air compressor	440	-10.8	29.7
Combined operations			**52.9**

Table 16 – Severn Estuary SPA & Ramsar daytime noise prediction summary 2

5.24 The predicted daytime 1 and daytime 2 noise levels on the Severn Estuary SPA & Ramsar are 54.8 and 52.9 dB(A). These are below the limit of 55 dB(A) for outside spaces in BS 8233:2014.

Cardiff Bay Wetlands and Hamadryad Park Daytime Noise Assessment

5.25 The noise impact on the Cardiff Bay Wetlands and Hamadryad Park during the daytime period has been considered in the noise assessment. There is no specific noise guidance, however outdoor noise limits of 50 and 55 dB(A) are specified in BS 8233:2014. As these limits are usually applied to outside spaces at residential properties, the higher limit will be applied as users of the Cardiff Bay Wetlands and Hamadryad Park are transient users. The daytime 1 and 2 scenarios are shown in Tables 17 & 18 (below).

Site activity	Cardiff Bay Wetlands & Hamadryad Park Distance (m)	On time correction	Predicted noise level $L_{Aeq,1h}$
Scrap metal loading	1622	-3.0	27.7
Oversize scrap metal loading	1551	-3.0	34.3
Shear	1553	-6.0	27.4
HGV tipping metal	1517	-10.8	31.7
HGV loading metal	1515	-3.9	36.8
Metal screening & grading (inside building)	1454	0	17.4
Un-loading metal from train	1566	0	38.3
ELV unloading vehicle	1523	-17.8	15.7
ELV petrol tank drill	1523	-17.8	6.1
ELV air compressor	1523	-10.8	6.0
Combined operations			**42.3**

Table 17 – Cardiff Bay Wetlands and Hamadryad Park daytime noise prediction summary 1

Flora and Fauna Assessment

5.26 The Ward Recycling site is operating on a self-contained site, surrounded by other industrial receptors, therefore there will be no impact on the surrounding flora.

5.27 The fauna impact is related to the potential disturbance of animal life surrounding the site. In this case, this will be the potential disturbance to birds. There are no specific noise limits for bird disturbance. The Ward Recycling site is part of the Cardiff Docks area, therefore its potential impact should be considered in relation to the existing noise impact of other industrial receptors in this area. Therefore, the overall impact of the site on the overall noise levels experienced by the birds in this area will be minimal.

Site activity	Cardiff Bay Wetlands & Hamadryad Park Distance (m)	On time correction	Predicted noise level $L_{Aeq,1h}$
Scrap metal loading	1622	-3.0	27.7
Oversize scrap metal loading	1551	-3.0	34.3
Shear	1553	-6.0	27.4
HGV tipping metal	1517	-10.8	31.7
HGV loading metal	1515	-3.9	36.8
Metal screening & grading (inside building)	1454	0	17.4
Loading ship with metal	1628	0	32.2
ELV unloading vehicle	1523	-17.8	15.7
ELV petrol tank drill	1523	-17.8	6.1
ELV air compressor	1523	-10.8	6.0
Combined operations			**40.7**

Table 18 – Cardiff Bay Wetlands and Hamadryad Park daytime noise prediction summary 2

5.26 The predicted daytime 1 and daytime 2 noise levels on the Cardiff Bay Wetlands and Hamadryad Park are 42.3 and 40.7 dB(A). These are below the limit of 55 dB(A) for outside spaces in BS 8233:2014.

6. MEASUREMENT UNCERTAINTY

6.1 The potential uncertainties of this assessment are outlined below.

Background Noise Assessment

6.2 Background noise monitoring was conducted for a continuous 7-day period at the closest residential receptor, HMS Cambria.

6.3 There was precipitation during each day of the survey period. Although this may result in an increase in measured background sound level, it is typical of the weather in the UK.

6.4 In accordance with BS 4142:2014 + A1 2019, typical rather than the lowest background sound levels recorded at each receptor have been used in the assessment.

Specific Noise Levels

6.5 All of the mobile and static plant levels used in the assessment were from measurements taken on existing Ward Recycling sites. They are therefore representative of the plant which is to be used on the Cardiff Docks site.

Noise Predictions

6.6 The noise levels were predicted in accordance with ISO 9613-2:2024. The uncertainty within this prediction method is +/- 3 dB.

7. CONCLUSIONS

7.1 A BS 4142 assessment has been conducted on the mobile and static plant associated with metal recycling operations on the Cardiff Docks site.

7.2 The noise predictions have considered the combined operation of all of the operational plant to the closest residential receptor (HMS Cambria) and are therefore representative of a worst case scenario.

7.3 The Rating Level in the BS 4142 assessment at HMS Cambria is at the Below Adverse Impact Level during the daytime period.

7.4 The Rating Level during the night-time loading of ships is at the low impact level at HMS Cambria.

7.5 The noise assessment has considered the closest site boundary to the Severn Estuary SSSI & SAC is above the noise limit for external garden and amenity space in accordance with BS 8233:2014. However, this is on the boundary of this area. The users of this area are transient, and can therefore move to other areas away from the site.

7.6 The noise impact of the site on users of the Severn Estuary SPA, Ramsar Cardiff Bay Wetlands and Hamadryad Park are below the noise limit for external garden and amenity space in accordance with BS 8233:2014.

APPENDICES

APPENDIX 1: Glossary of Terms

Noise

Noise is defined as unwanted sound. Human ears can respond to sound in the frequency range 20 Hz (deep bass) to 20,000 Hz (high treble) and over the audible range of 0 dB (the threshold of perception) to 140 dB (the threshold of pain). The ear does not respond equally to different frequencies of the same magnitude but is more responsive to mid-frequencies than to lower or higher frequencies. To quantify noise in a manner that approximates the response of the human ear, a weighting mechanism is used. This reduces the importance of lower and higher frequencies, in a similar manner to the human ear.

Furthermore, the perception of noise may be determined by several other factors, which may not necessarily be acoustic. In general, the impact of noise depends upon its level, the margin by which it exceeds the background level, its character and its variation over a given period. In some cases, the time of day and other acoustic features such as tonality or impulsiveness may be important, as may the disposition of the affected individual. Any assessment of noise should give due consideration to all these factors when assessing the significance of a noise source.

The most widely used weighting mechanism that best corresponds to the response of the human ear is the 'A'-weighting scale. This is widely used for environmental noise measurement, and the levels are denoted as dB(A) or L_{Aeq}, L_{A90} etc., according to the parameter being measured.

The decibel scale is logarithmic rather than linear, and hence a 3 dB increase in sound level represents a doubling of the sound energy present. Judgement of sound is subjective, but as a general guide a 10 dB(A) increase can be taken to represent a doubling of loudness, whilst an increase in the order of 3 dB(A) is generally regarded as the minimum difference needed to perceive a change under normal listening conditions.

Acoustic Terminology

Term	Description
dB (decibel)	The scale on which sound pressure level is expressed. Sound pressure level is defined as 20 times the logarithm of the ratio between the root-mean-square pressure of the sound field and a reference pressure (2x10-5Pa).
dB(A)	A-weighted decibel. This is a measure of the overall level of sound across the audible spectrum with a frequency weighting (i.e., 'A' - weighting) to compensate for the varying sensitivity of the human ear to sound at different frequencies.
$L_{Aeq,T}$	L_{Aeq} is defined as the notional steady sound level which, over a stated. period (T) would contain the same amount of acoustical energy. as the A - weighted fluctuating sound measured over that period.
L_{Amax}	L_{Amax} is the maximum A - weighted sound pressure level recorded over the period stated. L_{Amax} is sometimes used in assessing environmental noise. where occasional loud noises occur, which may have little effect on the overall L_{eq} noise level but will still affect the noise environment. Unless described otherwise, it is measured using the 'fast' sound level meter. response.
L_{10} and L_{90}	If a non-steady noise is to be described, it is necessary to know both its level. and the degree of fluctuation. The Ln indices are used for this purpose, and the term refers to the level exceeded for n% of the time. Hence L_{10} is the level exceeded for 10% of the time, and the L_{90} is the level exceeded for 90% of the time.
Free-field Level	A sound field determined at a point away from reflective surfaces other. than the ground with no significant contributions due to sound from other reflective surfaces. Generally, as measured outside and away from buildings.
Façade Level	A sound field determined at 1m in front of a large sound. reflecting object such as a building façade.

APPENDIX 2: HMS Cambria Noise Survey Results

Table A2.1: HMS Cambria Tuesday 03/02/2026 Daytime period

Start time & date	Period (T)	dB $L_{Aeq,T}$	dB L_{AFmax}	dB $L_{A10,T}$	dB $L_{A90,T}$
Daytime					
03/02/2026 17:00:00	1-hour	53.2	68.5	55.9	48.7
03/02/2026 18:00:00	1-hour	52.3	73.2	54.3	47.6
03/02/2026 19:00:00	1-hour	52.9	72.4	55.1	46.9
03/02/2026 20:00:00	1-hour	50.5	70.6	52.9	45.6
03/02/2026 21:00:00	1-hour	50.7	72.7	53.1	45.0
03/02/2026 22:00:00	1-hour	48.4	66.3	50.5	44.4
Over survey period		**51.6**	***73.2**	**53.6**	**46.4**

*Maximum over survey period

Table A2.2: 19 HMS Cambria Tuesday 03/02/2026 – Wednesday 04/02/2026 Night-time period

Start time & date	Period (T)	dB $L_{Aeq,T}$	dB L_{AFmax}	dB $L_{A10,T}$	dB $L_{A90,T}$
Daytime					
03/02/2026 23:00:00	15-minute	50.9	67.6	53.9	44.3
03/02/2026 23:15:00	15-minute	49.3	60.3	52.1	44.4
03/02/2026 23:30:00	15-minute	47.2	61.3	49.4	42.9
03/02/2026 23:45:00	15-minute	48.1	62.6	50.1	43.8
04/02/2026 00:00:00	15-minute	49.2	71.7	50.7	43.1
04/02/2026 00:15:00	15-minute	48.1	63.1	52.0	42.5
04/02/2026 00:30:00	15-minute	45.5	58.6	48.0	42.1
04/02/2026 00:45:00	15-minute	45.3	57.7	47.1	42.3
04/02/2026 01:00:00	15-minute	45.8	57.0	48.1	42.3
04/02/2026 01:15:00	15-minute	46.4	57.2	48.9	42.4
04/02/2026 01:30:00	15-minute	47.2	64.1	48.9	42.7
04/02/2026 01:45:00	15-minute	46.8	57.0	49.7	43.0
04/02/2026 02:00:00	15-minute	47.9	61.8	50.0	43.6
04/02/2026 02:15:00	15-minute	46.8	59.4	49.2	43.1
04/02/2026 02:30:00	15-minute	46.6	60.0	48.7	42.6
04/02/2026 02:45:00	15-minute	46.5	58.7	48.8	42.7
04/02/2026 03:00:00	15-minute	46.6	59.6	49.2	42.9
04/02/2026 03:15:00	15-minute	47.5	60.8	49.7	43.3
04/02/2026 03:30:00	15-minute	46.9	59.1	49.4	42.6
04/02/2026 03:45:00	15-minute	47.0	61.5	48.8	43.3
04/02/2026 04:00:00	15-minute	48.3	67.9	49.6	43.9
04/02/2026 04:15:00	15-minute	48.7	62.2	51.1	44.4
04/02/2026 04:30:00	15-minute	48.1	59.8	50.6	44.1
04/02/2026 04:45:00	15-minute	50.1	62.4	53.3	44.6
04/02/2026 05:00:00	15-minute	48.1	58.6	50.2	44.5
04/02/2026 05:15:00	15-minute	47.8	58.5	49.9	44.8
04/02/2026 05:30:00	15-minute	50.6	63.9	52.5	46.1
04/02/2026 05:45:00	15-minute	52.5	65.7	55.0	47.8
04/02/2026 06:00:00	15-minute	54.8	64.8	58.1	49.2
04/02/2026 06:15:00	15-minute	52.7	60.3	55.6	48.3
04/02/2026 06:30:00	15-minute	54.5	64.9	57.3	49.8
04/02/2026 06:45:00	15-minute	55.2	64.7	58.1	50.2
Over survey period		**49.7**	***71.7**	**51.1**	**44.3**

*Maximum over survey period

Table A2.3: 19 HMS Cambria Wednesday 04/02/2026 Daytime period

Start time & date	Period (T)	dB $L_{Aeq,T}$	dB L_{AFmax}	dB $L_{A10,T}$	dB $L_{A90,T}$
Daytime					
04/02/2026 07:00:00	1-hour	55.5	71.7	58.2	51.2
04/02/2026 08:00:00	1-hour	55.5	70.2	58.2	51.0
04/02/2026 09:00:00	1-hour	55.7	71.0	58.3	51.2
04/02/2022 10:00:00	1-hour	55.9	75.0	58.6	50.6
04/02/2026 11:00:00	1-hour	57.9	79.3	60.0	51.1
04/02/2026 12:00:00	1-hour	55.8	72.1	58.4	51.0
04/02/2026 13:00:00	1-hour	57.0	83.4	56.8	49.0
04/02/2026 14:00:00	1-hour	54.5	75.0	57.0	49.6
04/02/2026 15:00:00	1-hour	55.2	71.8	57.7	50.7
04/02/2026 16:00:00	1-hour	54.4	74.5	57.0	49.7
04/02/2026 17:00:00	1-hour	55.3	71.3	57.7	50.9
04/02/2026 18:00:00	1-hour	54.8	75.9	57.1	49.9
04/02/2026 19:00:00	1-hour	55.3	74.4	57.5	49.7
04/02/2026 20:00:00	1-hour	55.6	74.8	58.2	49.2
04/02/2026 21:00:00	1-hour	56.2	74.7	58.9	49.1
04/02/2026 22:00:00	1-hour	57.9	77.7	60.8	50.0
Over survey period		**55.9**	***83.4**	**58.2**	**50.2**

*Maximum over survey period

Table A2.4: HMS Cambria Wednesday 04/02/2026 – Thursday 05/02/2026 Night-time period

Start time & date	Period (T)	dB $L_{Aeq,T}$	dB L_{AFmax}	dB $L_{A10,T}$	dB $L_{A90,T}$
Daytime					
04/02/2026 23:00:00	15-minute	56.0	70.0	58.9	49.0
04/02/2026 23:15:00	15-minute	55.9	69.8	58.8	48.6
04/02/2026 23:30:00	15-minute	57.5	73.1	60.6	49.4
04/02/2026 23:45:00	15-minute	57.4	69.5	60.7	49.5
05/02/2026 00:00:00	15-minute	56.8	69.1	60.2	49.6
05/02/2026 00:15:00	15-minute	55.8	70.4	58.7	49.3
05/02/2026 00:30:00	15-minute	56.3	69.4	58.9	48.8
05/02/2026 00:45:00	15-minute	57.9	71.2	61.0	50.5
05/02/2026 01:00:00	15-minute	56.5	72.1	59.0	49.7
05/02/2026 01:15:00	15-minute	55.4	71.2	58.1	48.4
05/02/2026 01:30:00	15-minute	55.1	68.7	57.7	48.3
05/02/2026 01:45:00	15-minute	54.6	69.4	57.6	47.9
05/02/2026 02:00:00	15-minute	57.0	71.0	60.6	48.4
05/02/2026 02:15:00	15-minute	55.6	68.2	58.5	49.0
05/02/2026 02:30:00	15-minute	64.3	92.7	58.2	49.5
05/02/2026 02:45:00	15-minute	53.8	65.8	56.8	48.5
05/02/2026 03:00:00	15-minute	55.3	69.6	57.9	49.5
05/02/2026 03:15:00	15-minute	55.6	70.5	58.3	49.2
05/02/2026 03:30:00	15-minute	55.7	69.6	57.9	49.2
05/02/2026 03:45:00	15-minute	55.4	69.9	57.8	48.9
05/02/2026 04:00:00	15-minute	55.2	68.8	57.7	49.5
05/02/2026 04:15:00	15-minute	55.0	69.4	57.4	49.3
05/02/2026 04:30:00	15-minute	53.7	68.7	56.3	48.4
05/02/2026 04:45:00	15-minute	56.7	72.3	59.0	50.7
05/02/2026 05:00:00	15-minute	61.3	78.8	64.1	53.1
05/02/2026 05:15:00	15-minute	60.8	76.1	64.3	51.0
05/02/2026 05:30:00	15-minute	60.5	76.2	63.5	50.8
05/02/2026 05:45:00	15-minute	61.2	75.6	64.3	53.7
05/02/2026 06:00:00	15-minute	61.4	77.2	64.9	53.0
05/02/2026 06:15:00	15-minute	63.1	81.5	65.1	54.2
05/02/2026 06:30:00	15-minute	61.3	74.9	64.4	53.5
05/02/2026 06:45:00	15-minute	60.9	74.9	63.8	53.8
Over survey period		**58.5**	***92.7**	**60.0**	**50.1**

*Maximum over survey period

Table A2.5: 19 HMS Cambria Thursday 05/02/2026 Daytime period

Start time & date	Period (T)	dB $L_{Aeq,T}$	dB L_{AFmax}	dB $L_{A10,T}$	dB $L_{A90,T}$
Daytime					
05/02/2026 07:00:00	1-hour	60.6	81.8	63.1	53.2
05/02/2026 08:00:00	1-hour	59.7	79.4	62.1	53.3
05/02/2026 09:00:00	1-hour	60.1	82.1	62.4	53.8
05/02/2022 10:00:00	1-hour	58.8	80.8	61.1	52.6
05/02/2026 11:00:00	1-hour	58.9	78.9	61.4	52.8
05/02/2026 12:00:00	1-hour	59.2	80.1	61.6	53.2
05/02/2026 13:00:00	1-hour	58.9	78.1	61.4	52.0
05/02/2026 14:00:00	1-hour	62.2	82.8	64.8	54.5
05/02/2026 15:00:00	1-hour	62.1	82.6	64.5	55.0
05/02/2026 16:00:00	1-hour	61.5	85.5	64.0	53.5
05/02/2026 17:00:00	1-hour	56.9	78.3	60.1	49.7
05/02/2026 18:00:00	1-hour	53.2	72.0	55.6	48.0
05/02/2026 19:00:00	1-hour	55.4	78.2	58.3	48.5
05/02/2026 20:00:00	1-hour	53.0	75.6	55.7	46.3
05/02/2026 21:00:00	1-hour	56.2	78.2	59.3	47.5
05/02/2026 22:00:00	1-hour	56.0	77.3	58.5	48.4
Over survey period		**59.1**	***85.5**	**60.9**	**51.4**

*Maximum over survey period

Table A2.6: 19 HMS Cambria Thursday 05/02/2025 – Friday 06/02/2025 Night-time period

Start time & date	Period (T)	dB $L_{Aeq,T}$	dB L_{AFmax}	dB $L_{A10,T}$	dB $L_{A90,T}$
Daytime					
05/02/2026 23:00:00	15-minute	58.2	72.3	61.2	48.3
05/02/2026 23:15:00	15-minute	58.7	73.8	62.1	48.8
05/02/2026 23:30:00	15-minute	58.1	71.8	60.8	48.6
05/02/2026 23:45:00	15-minute	56.9	74.9	59.4	49.0
06/02/2026 00:00:00	15-minute	57.6	75.0	59.3	48.1
06/02/2026 00:15:00	15-minute	57.5	75.2	59.7	46.9
06/02/2026 00:30:00	15-minute	55.8	73.5	58.8	46.7
06/02/2026 00:45:00	15-minute	56.4	72.2	59.9	47.4
06/02/2026 01:00:00	15-minute	56.7	73.1	59.4	48.7
06/02/2026 01:15:00	15-minute	59.6	75.4	62.6	50.5
06/02/2026 01:30:00	15-minute	56.8	75.2	59.4	48.2
06/02/2026 01:45:00	15-minute	54.0	72.5	56.7	45.5
06/02/2026 02:00:00	15-minute	54.4	71.1	56.3	45.2
06/02/2026 02:15:00	15-minute	52.8	69.5	55.5	45.1
06/02/2026 02:30:00	15-minute	51.2	69.4	53.7	44.4
06/02/2026 02:45:00	15-minute	52.9	70.4	55.0	44.5
06/02/2026 03:00:00	15-minute	50.9	70.8	53.0	43.8
06/02/2026 03:15:00	15-minute	51.2	71.5	53.3	43.8
06/02/2026 03:30:00	15-minute	53.0	72.5	55.6	43.8
06/02/2026 03:45:00	15-minute	52.4	68.4	55.1	44.3
06/02/2026 04:00:00	15-minute	53.4	69.4	55.9	45.9
06/02/2026 04:15:00	15-minute	52.0	69.2	53.7	45.5
06/02/2026 04:30:00	15-minute	52.8	66.4	55.9	46.0
06/02/2026 04:45:00	15-minute	52.6	69.7	54.1	45.5
06/02/2026 05:00:00	15-minute	50.4	63.4	52.8	45.7
06/02/2026 05:15:00	15-minute	52.1	71.9	53.1	46.0
06/02/2026 05:30:00	15-minute	53.4	72.6	55.6	47.3
06/02/2026 05:45:00	15-minute	53.7	64.4	56.7	48.3
06/02/2026 06:00:00	15-minute	54.9	67.9	58.3	48.2
06/02/2026 06:15:00	15-minute	55.9	67.7	59.5	49.3
06/02/2026 06:30:00	15-minute	55.4	64.5	58.8	50.3
06/02/2026 06:45:00	15-minute	55.8	65.2	59.1	50.7
Over survey period		**55.3**	***75.4**	**57.2**	**46.9**

*Maximum over survey period

Table A2.7: HMS Cambria Friday 06/02/2026 Daytime period

Start time & date	Period (T)	dB $L_{Aeq,T}$	dB L_{AFmax}	dB $L_{A10,T}$	dB $L_{A90,T}$
Daytime					
06/02/2026 07:00:00	1-hour	56.3	71.7	59.3	51.0
06/02/2026 08:00:00	1-hour	56.4	70.9	59.3	51.9
06/02/2026 09:00:00	1-hour	57.8	78.4	60.9	50.6
06/02/2022 10:00:00	1-hour	58.2	78.7	61.2	51.2
06/02/2026 11:00:00	1-hour	57.0	76.0	60.2	51.0
06/02/2026 12:00:00	1-hour	56.6	76.1	59.9	50.7
06/02/2026 13:00:00	1-hour	57.9	82.1	60.8	49.4
06/02/2026 14:00:00	1-hour	54.7	69.4	58.6	47.1
06/02/2026 15:00:00	1-hour	54.1	75.0	57.6	47.1
06/02/2026 16:00:00	1-hour	56.9	79.0	57.8	50.4
06/02/2026 17:00:00	1-hour	55.1	74.9	57.0	52.0
06/02/2026 18:00:00	1-hour	56.0	76.3	58.0	48.8
06/02/2026 19:00:00	1-hour	51.5	69.6	52.9	49.1
06/02/2026 20:00:00	1-hour	54.9	75.7	55.9	48.6
06/02/2026 21:00:00	1-hour	60.5	76.0	61.2	51.5
06/02/2026 22:00:00	1-hour	55.6	74.5	57.7	52.2
Over survey period		**56.7**	***82.1**	**58.6**	**50.2**

*Maximum over survey period

Table A2.8: HMS Cambria Friday 06/02/2026 – Saturday 07/02/2026 Night-time period

Start time & date	Period (T)	dB $L_{Aeq,T}$	dB L_{AFmax}	dB $L_{A10,T}$	dB $L_{A90,T}$
Daytime					
06/02/2026 23:00:00	15-minute	53.7	65.6	55.2	51.4
06/02/2026 23:15:00	15-minute	53.3	61.4	54.9	51.4
06/02/2026 23:30:00	15-minute	53.5	65.9	55.4	51.1
06/02/2026 23:45:00	15-minute	56.5	67.0	59.0	52.1
07/02/2026 00:00:00	15-minute	58.6	73.0	61.3	51.5
07/02/2026 00:15:00	15-minute	56.2	68.5	59.4	50.1
07/02/2026 00:30:00	15-minute	53.3	67.4	55.8	48.2
07/02/2026 00:45:00	15-minute	48.7	57.9	51.1	45.0
07/02/2026 01:00:00	15-minute	49.2	67.9	50.8	44.2
07/02/2026 01:15:00	15-minute	45.3	55.3	47.2	42.7
07/02/2026 01:30:00	15-minute	48.3	62.5	50.7	44.2
07/02/2026 01:45:00	15-minute	49.3	64.6	50.6	45.0
07/02/2026 02:00:00	15-minute	49.7	61.8	51.1	46.2
07/02/2026 02:15:00	15-minute	52.1	68.0	52.4	46.7
07/02/2026 02:30:00	15-minute	49.6	60.5	51.6	46.2
07/02/2026 02:45:00	15-minute	49.8	60.0	51.9	46.8
07/02/2026 03:00:00	15-minute	49.6	55.0	51.6	47.0
07/02/2026 03:15:00	15-minute	49.2	62.1	51.0	46.4
07/02/2026 03:30:00	15-minute	53.6	67.5	54.6	48.3
07/02/2026 03:45:00	15-minute	50.0	65.6	51.4	46.3
07/02/2026 04:00:00	15-minute	49.9	65.5	51.1	46.7
07/02/2026 04:15:00	15-minute	49.4	58.2	51.5	46.6
07/02/2026 04:30:00	15-minute	50.4	62.3	52.8	47.0
07/02/2026 04:45:00	15-minute	50.3	59.9	52.2	47.1
07/02/2026 05:00:00	15-minute	53.2	69.7	53.5	45.8
07/02/2026 05:15:00	15-minute	52.1	67.7	53.3	43.9
07/02/2026 05:30:00	15-minute	46.0	54.1	47.7	44.0
07/02/2026 05:45:00	15-minute	47.3	55.2	49.3	44.5
07/02/2026 06:00:00	15-minute	52.9	65.5	56.2	45.1
07/02/2026 06:15:00	15-minute	50.1	66.3	52.4	45.1
07/02/2026 06:30:00	15-minute	48.8	62.7	50.4	44.6
07/02/2026 06:45:00	15-minute	51.7	66.0	54.3	46.9
Over survey period		**52.1**	***73.0**	**52.9**	**46.1**

*Maximum over survey period

Table A2.9: HMS Cambria Saturday 07/02/2026 Daytime period

Start time & date	Period (T)	dB $L_{Aeq,T}$	dB L_{AFmax}	dB $L_{A10,T}$	dB $L_{A90,T}$
Daytime					
07/02/2026 07:00:00	1-hour	54.5	79.2	56.6	46.1
07/02/2026 08:00:00	1-hour	54.0	73.8	56.7	49.2
07/02/2026 09:00:00	1-hour	56.6	82.1	59.7	50.4
07/02/2022 10:00:00	1-hour	58.0	80.7	61.2	47.4
07/02/2026 11:00:00	1-hour	52.7	76.7	54.8	47.2
07/02/2026 12:00:00	1-hour	58.7	80.3	61.6	48.6
07/02/2026 13:00:00	1-hour	57.8	76.2	61.1	48.5
07/02/2026 14:00:00	1-hour	56.1	74.8	58.8	49.8
07/02/2026 15:00:00	1-hour	57.1	79.4	59.9	50.8
07/02/2026 16:00:00	1-hour	54.6	72.3	56.2	51.3
07/02/2026 17:00:00	1-hour	52.1	72.3	53.7	49.5
07/02/2026 18:00:00	1-hour	53.8	71.9	54.6	48.7
07/02/2026 19:00:00	1-hour	50.7	71.6	51.2	45.8
07/02/2026 20:00:00	1-hour	50.3	74.8	50.9	46.1
07/02/2026 21:00:00	1-hour	52.6	72.8	54.0	45.3
07/02/2026 22:00:00	1-hour	52.4	74.1	55.0	46.4
Over survey period		**55.2**	***82.1**	**56.6**	**48.2**

*Maximum over survey period

Table A2.10: HMS Cambria Saturday 07/02/2026 – Sunday 08/02/2026 Night-time period

Start time & date	Period (T)	dB $L_{Aeq,T}$	dB L_{AFmax}	dB $L_{A10,T}$	dB $L_{A90,T}$
Daytime					
07/02/2026 23:00:00	15-minute	51.2	64.5	53.4	46.9
07/02/2026 23:15:00	15-minute	49.6	60.6	51.7	45.8
07/02/2026 23:30:00	15-minute	50.1	65.0	52.6	44.8
07/02/2026 23:45:00	15-minute	51.1	61.8	54.6	45.1
08/02/2026 00:00:00	15-minute	50.1	73.2	51.1	45.3
08/02/2026 00:15:00	15-minute	48.2	57.3	51.7	43.1
08/02/2026 00:30:00	15-minute	47.1	63.5	48.8	42.9
08/02/2026 00:45:00	15-minute	46.2	53.4	48.4	43.2
08/02/2026 01:00:00	15-minute	45.1	54.0	47.4	42.0
08/02/2026 01:15:00	15-minute	46.0	62.2	48.7	41.9
08/02/2026 01:30:00	15-minute	45.7	58.1	47.3	42.1
08/02/2026 01:45:00	15-minute	48.9	65.0	51.1	42.5
08/02/2026 02:00:00	15-minute	52.1	74.5	48.0	41.5
08/02/2026 02:15:00	15-minute	44.0	55.1	46.3	40.6
08/02/2026 02:30:00	15-minute	47.0	62.8	49.6	41.4
08/02/2026 02:45:00	15-minute	48.7	68.9	51.7	40.9
08/02/2026 03:00:00	15-minute	47.3	57.4	51.8	41.0
08/02/2026 03:15:00	15-minute	44.1	57.4	46.4	40.2
08/02/2026 03:30:00	15-minute	46.2	57.5	49.8	40.2
08/02/2026 03:45:00	15-minute	48.3	60.8	52.0	40.6
08/02/2026 04:00:00	15-minute	51.1	66.0	54.2	43.5
08/02/2026 04:15:00	15-minute	53.5	74.4	54.1	42.4
08/02/2026 04:30:00	15-minute	44.1	55.0	46.5	40.3
08/02/2026 04:45:00	15-minute	43.6	52.5	45.7	40.3
08/02/2026 05:00:00	15-minute	59.5	74.9	61.9	41.7
08/02/2026 05:15:00	15-minute	48.1	61.8	51.4	39.8
08/02/2026 05:30:00	15-minute	45.1	61.7	47.5	39.2
08/02/2026 05:45:00	15-minute	46.4	62.6	49.2	38.4
08/02/2026 06:00:00	15-minute	52.4	69.6	55.4	42.1
08/02/2026 06:15:00	15-minute	46.8	59.4	49.2	41.4
08/02/2026 06:30:00	15-minute	46.3	60.9	47.8	40.7
08/02/2026 06:45:00	15-minute	50.2	68.8	52.0	42.7
Over survey period		**50.1**	***74.9**	**50.5**	**42.0**

*Maximum over survey period

Table A2.11: HMS Cambria Sunday 08/02/2026 Daytime period

Start time & date	Period (T)	dB $L_{Aeq,T}$	dB L_{AFmax}	dB $L_{A10,T}$	dB $L_{A90,T}$
Daytime					
08/02/2026 07:00:00	1-hour	48.0	71.4	49.9	42.3
08/02/2026 08:00:00	1-hour	50.2	75.8	52.4	42.1
08/02/2026 09:00:00	1-hour	51.9	74.1	54.9	44.5
08/02/2026 10:00:00	1-hour	50.6	71.9	53.3	43.9
08/02/2026 11:00:00	1-hour	48.7	68.7	51.4	42.7
08/02/2026 12:00:00	1-hour	48.6	71.8	51.1	41.3
08/02/2026 13:00:00	1-hour	47.6	65.3	50.9	40.4
08/02/2026 14:00:00	1-hour	46.0	65.1	47.9	41.3
08/02/2026 15:00:00	1-hour	47.0	68.8	47.7	41.5
08/02/2026 16:00:00	1-hour	45.8	75.3	46.8	41.9
08/02/2026 17:00:00	1-hour	47.7	67.2	50.7	42.6
08/02/2026 18:00:00	1-hour	46.1	65.2	48.0	42.7
08/02/2026 19:00:00	1-hour	45.6	66.4	47.2	41.5
08/02/2026 20:00:00	1-hour	55.2	75.5	56.7	42.7
08/02/2026 21:00:00	1-hour	46.9	62.2	49.5	42.6
08/02/2026 22:00:00	1-hour	47.8	64.6	49.7	45.0
Over survey period		**49.2**	***75.8**	**50.5**	**42.4**

*Maximum over survey period

Table A2.12: 19 HMS Cambria Sunday 08/02/2026 – Monday 09/02/2026 Night-time period

Start time & date	Period (T)	dB $L_{Aeq,T}$	dB L_{AFmax}	dB $L_{A10,T}$	dB $L_{A90,T}$
Daytime					
08/02/2026 23:00:00	15-minute	48.2	59.6	50.7	44.7
08/02/2026 23:15:00	15-minute	46.7	59.7	48.6	43.7
08/02/2026 23:30:00	15-minute	51.3	63.7	55.3	44.9
08/02/2026 23:45:00	15-minute	48.4	67.2	49.4	45.0
09/02/2026 00:00:00	15-minute	48.1	57.5	50.2	45.2
09/02/2026 00:15:00	15-minute	47.3	54.8	49.2	44.8
09/02/2026 00:30:00	15-minute	46.7	52.2	48.4	44.5
09/02/2026 00:45:00	15-minute	47.0	53.4	48.8	44.8
09/02/2026 01:00:00	15-minute	47.0	52.8	48.9	44.8
09/02/2026 01:15:00	15-minute	47.7	54.7	49.8	45.1
09/02/2026 01:30:00	15-minute	47.4	57.3	49.3	45.0
09/02/2026 01:45:00	15-minute	47.8	63.5	49.6	44.7
09/02/2026 02:00:00	15-minute	46.4	55.5	48.3	44.1
09/02/2026 02:15:00	15-minute	47.3	64.0	48.8	42.7
09/02/2026 02:30:00	15-minute	44.0	54.3	45.8	41.4
09/02/2026 02:45:00	15-minute	50.7	70.7	52.1	42.2
09/02/2026 03:00:00	15-minute	46.8	59.9	48.6	43.3
09/02/2026 03:15:00	15-minute	44.5	54.2	46.6	41.1
09/02/2026 03:30:00	15-minute	43.2	55.9	45.4	39.0
09/02/2026 03:45:00	15-minute	45.8	53.2	47.9	42.6
09/02/2026 04:00:00	15-minute	48.4	61.9	50.3	44.9
09/02/2026 04:15:00	15-minute	48.4	63.2	50.1	45.1
09/02/2026 04:30:00	15-minute	48.5	62.3	50.6	44.6
09/02/2026 04:45:00	15-minute	47.3	56.2	49.5	44.6
09/02/2026 05:00:00	15-minute	49.6	61.8	51.9	45.6
09/02/2026 05:15:00	15-minute	50.1	68.9	51.1	45.5
09/02/2026 05:30:00	15-minute	49.7	62.8	51.8	46.1
09/02/2026 05:45:00	15-minute	50.2	65.6	52.3	46.2
09/02/2026 06:00:00	15-minute	50.7	60.7	53.5	46.5
09/02/2026 06:15:00	15-minute	60.3	73.2	63.5	48.7
09/02/2026 06:30:00	15-minute	54.5	66.6	57.3	50.0
09/02/2026 06:45:00	15-minute	56.6	72.9	58.2	50.1
Over survey period		**50.6**	***73.2**	**50.7**	**44.7**

*Maximum over survey period

Table A2.13: HMS Cambria Monday 09/02/2026 Daytime period

Start time & date	Period (T)	dB $L_{Aeq,T}$	dB L_{AFmax}	dB $L_{A10,T}$	dB $L_{A90,T}$
Daytime					
09/02/2026 07:00:00	1-hour	55.7	72.3	58.5	50.7
09/02/2026 08:00:00	1-hour	55.8	72.4	58.6	51.1
09/02/2026 09:00:00	1-hour	55.9	73.2	58.7	51.5
09/02/2026 10:00:00	1-hour	53.8	72.0	56.5	49.4
09/02/2026 11:00:00	1-hour	55.2	74.9	57.5	51.1
09/02/2026 12:00:00	1-hour	54.2	75.4	56.6	49.7
09/02/2026 13:00:00	1-hour	54.6	72.5	57.4	50.0
09/02/2026 14:00:00	1-hour	56.1	77.2	57.9	50.8
09/02/2026 15:00:00	1-hour	55.4	75.8	58.2	50.8
09/02/2026 16:00:00	1-hour	54.0	74.2	56.9	48.8
09/02/2026 17:00:00	1-hour	52.9	68.3	55.6	47.9
09/02/2026 18:00:00	1-hour	51.9	67.9	54.6	46.5
09/02/2026 19:00:00	1-hour	53.8	76.2	56.5	47.2
09/02/2026 20:00:00	1-hour	51.2	68.5	53.5	46.3
09/02/2026 21:00:00	1-hour	52.7	73.7	55.6	46.1
09/02/2026 22:00:00	1-hour	51.1	74.2	50.6	45.0
Over survey period		**54.3**	***77.2**	**56.5**	**48.9**

*Maximum over survey period

Table A2.14: 19 HMS Cambria Monday 09/02/2026 – Tuesday 10/02/2026 Night-time period

Start time & date	Period (T)	dB $L_{Aeq,T}$	dB L_{AFmax}	dB $L_{A10,T}$	dB $L_{A90,T}$
Daytime					
09/02/2026 23:00:00	15-minute	50.1	59.7	52.2	46.8
09/02/2026 23:15:00	15-minute	48.5	62.5	49.6	45.6
09/02/2026 23:30:00	15-minute	55.4	66.8	58.7	46.8
09/02/2026 23:45:00	15-minute	49.1	56.2	51.9	45.5
10/02/2026 00:00:00	15-minute	51.7	65.5	54.5	46.7
10/02/2026 00:15:00	15-minute	46.0	53.4	48.7	42.3
10/02/2026 00:30:00	15-minute	47.7	54.4	50.4	42.6
10/02/2026 00:45:00	15-minute	48.9	61.3	52.7	42.2
10/02/2026 01:00:00	15-minute	45.0	49.4	47.0	41.8
10/02/2026 01:15:00	15-minute	49.4	64.6	52.9	41.3
10/02/2026 01:30:00	15-minute	45.6	53.8	48.2	42.3
10/02/2026 01:45:00	15-minute	45.6	53.3	47.9	42.3
10/02/2026 02:00:00	15-minute	46.8	57.6	48.6	43.6
10/02/2026 02:15:00	15-minute	45.7	58.5	47.3	43.6
10/02/2026 02:30:00	15-minute	46.9	55.1	48.8	44.3
10/02/2026 02:45:00	15-minute	47.9	53.6	49.8	45.1
10/02/2026 03:00:00	15-minute	48.7	61.0	50.8	45.4
10/02/2026 03:15:00	15-minute	48.1	59.4	51.3	43.2
10/02/2026 03:30:00	15-minute	47.6	55.4	49.6	44.4
10/02/2026 03:45:00	15-minute	47.1	52.9	49.2	44.3
10/02/2026 04:00:00	15-minute	50.5	65.3	52.3	45.5
10/02/2026 04:15:00	15-minute	50.4	57.1	52.6	47.2
10/02/2026 04:30:00	15-minute	50.5	58.5	52.7	47.2
10/02/2026 04:45:00	15-minute	50.6	60.6	53.0	46.8
10/02/2026 05:00:00	15-minute	50.8	65.7	52.7	47.2
10/02/2026 05:15:00	15-minute	48.1	58.2	51.2	43.3
10/02/2026 05:30:00	15-minute	47.3	64.5	47.4	43.6
10/02/2026 05:45:00	15-minute	49.1	69.0	51.1	44.4
10/02/2026 06:00:00	15-minute	52.5	61.8	56.2	47.0
10/02/2026 06:15:00	15-minute	52.1	65.6	54.9	47.2
10/02/2026 06:30:00	15-minute	53.6	71.1	55.6	48.2
10/02/2026 06:45:00	15-minute	55.3	65.6	57.9	50.3
Over survey period		**49.7**	***71.7**	**51.1**	**44.3**

*Maximum over survey period

Appendix 3 – Noise Model Input Values

Site activity	Source height	Receiver height (HMS Cambria)	Receiver height (C.P/SSSI)	Ground conditions	Temperature	Humidity
Scrap metal loading	5.0	3.0m	1.5m	Hard	15°C	70%
Oversize scrap metal loading	5.0	3.0m	1.5m	Hard	15°C	70%
Shear	2.0	3.0m	1.5m	Hard	15°C	70%
HGV tipping metal	1.5	3.0m	1.5m	Hard	15°C	70%
HGV loading metal	1.5	3.0m	1.5m	Hard	15°C	70%
Metal screening & grading (inside building)	12.0	3.0m	1.5m	Hard	15°C	70%
Un-loading metal from train	3.0	3.0m	1.5m	Hard	15°C	70%
ELV unloading vehicle	2.0	3.0m	1.5m	Hard	15°C	70%
ELV petrol tank drill	2.0	3.0m	1.5m	Hard	15°C	70%
ELV air compressor	1.0	3.0m	1.5m	Hard	15°C	70%
Loading ship with metal	4.0	3.0m	1.5m	Hard	15°C	70%

Appendix 4 – Weather Data

A4.1: Tuesday 03 February 2026

Time	Temperature °C	Wind speed m/s	Wind direction (°)	Rain rate (mm)
5:20 PM	6.1	**7.2**	67	1.2
5:50 PM	6.2	**8.0**	90	0.8
6:20 PM	6.1	**6.5**	90	0.8
6:50 PM	6.1	**6.2**	90	1.1
7:20 PM	6.0	**6.4**	90	1.2
7:50 PM	6.1	**6.5**	90	1.8
8:20 PM	6.1	**6.1**	90	1.2
8:50 PM	6.3	**6.7**	90	1.6
9:20 PM	6.1	**7.6**	90	1.9
9:50 PM	6.0	**8.0**	90	0.8
10:20 PM	5.4	**9.4**	90	0.9
10:50 PM	5.1	**8.9**	90	1.2
11:20 PM	5.2	**9.8**	90	1.3
11:50 PM	5.0	**8.9**	67	1.4

A4.2: Wednesday 04 February 2026

Time	Temperature °C	Wind speed m/s	Wind direction (°)	Rain rate (mm)
12:20 AM	2.7	4.5	67	1.1
12:50 AM	2.7	**5.4**	67	0.8
1:20 AM	2.7	**5.4**	67	0
1:50 AM	2.7	4.5	67	0
2:20 AM	2.7	**5.4**	67	0
2:50 AM	2.7	**6.3**	67	0
3:20 AM	3.9	**5.4**	67	0
3:50 AM	3.9	**5.4**	67	0
4:20 AM	3.9	**5.8**	67	0
4:50 AM	3.9	**5.4**	67	0
5:20 AM	3.9	4.5	75	0
5:50 AM	3.9	**5.4**	77	0
6:20 AM	3.9	4.5	80	0
6:50 AM	4.0	4.5	60	1.2
7:20 AM	3.9	4.5	67	0
7:50 AM	5.0	4.5	68	0
8:20 AM	5.0	4.0	72	0
8:50 AM	6.1	**5.4**	80	0
9:20 AM	6.1	**5.8**	75	0
9:50 AM	6.1	4.5	67	0
10:20 AM	7.2	**5.4**	90	0
10:50 AM	7.8	**5.4**	87	0
11:20 AM	7.8	4.5	85	0
11:50 AM	7.8	**5.4**	67	0
12:20 PM	8.9	**6.3**	76	0
12:50 PM	8.9	**5.4**	77	0
1:20 PM	10.0	**5.4**	78	0
1:50 PM	10.0	**5.8**	80	0
2:20 PM	10.0	**5.4**	85	0
2:50 PM	10.0	4.5	87	0
3:20 PM	10.0	**5.4**	48	0
3:50 PM	8.9	4.5	52	0
4:20 PM	8.9	4.5	45	0
4:50 PM	8.9	4.5	36	0
5:20 PM	8.4	4.5	23	0
5:50 PM	8.2	4.0	46	0
6:20 PM	7.8	**5.4**	52	0
6:50 PM	7.8	**5.8**	67	0
7:20 PM	8.3	4.5	52	0
7:50 PM	8.2	**5.4**	49	0
8:20 PM	8.0	**5.4**	48	0
8:50 PM	7.9	4.5	45	0
9:20 PM	7.9	**5.4**	46	0

A4.2 (Continued)

Time	Temperature °C	Wind speed m/s	Wind direction (°)	Rain rate (mm)
9:50 PM	7.8	**5.0**	27	0
10:20 PM	7.7	4.0	47	0
10:50 PM	7.6	3.5	53	0
11:20 PM	7.5	3.3	52	0
11:50 PM	7.5	3.5	66	0

A4.3: Thursday 05 February 2026

Time	Temperature °C	Wind speed m/s	Wind direction (°)	Rain rate (mm)
12:20 AM	7.4	4.3	49	0
12:50 AM	7.4	4.3	49	0
1:20 AM	7.4	2.9	49	0
1:50 AM	7.3	3.4	199	0
2:20 AM	7.3	3.4	199	0
2:50 AM	7.4	3.8	42	0
3:20 AM	7.5	4.1	43	0
3:50 AM	7.4	4.0	46	0
4:20 AM	7.5	**8.0**	53	1.2
4:50 AM	7.2	**7.7**	67	1.1
5:20 AM	7.3	**7.6**	58	1.0
5:50 AM	7.2	**8.2**	46	1.1
6:20 AM	7.2	4.0	24	0
6:50 AM	6.9	2.6	97	0
7:20 AM	7.0	2.4	51	0
7:50 AM	7.0	2.5	32	0
8:20 AM	6.9	2.2	26	0
8:50 AM	7.0	2.9	69	0
9:20 AM	7.2	2.9	28	1.2
9:50 AM	7.1	3.3	64	1.8
10:20 AM	7.4	2.5	26	0
10:50 AM	7.4	2.7	42	0
11:20 AM	7.6	2.5	42	0
11:50 AM	7.6	3.6	51	0
12:20 PM	8.0	3.3	43	0
12:50 PM	8.0	3.3	43	0
1:20 PM	8.0	3.3	43	0
1:50 PM	8.1	3	67	1.8
2:20 PM	8.0	2	33	9
2:50 PM	8.0	2.6	48	0
3:20 PM	8.0	4	20	1.2
3:50 PM	8.0	3	32	1.8
4:20 PM	7.9	2.6	55	6
4:50 PM	7.9	1.1	42	7.8
5:20 PM	8.2	1.4	29	1.2
5:50 PM	8.0	2.8	41	1.8
6:20 PM	7.8	1.4	34	4.2
6:50 PM	7.8	2.3	40	1.8
7:20 PM	7.8	1.5	33	3
7:50 PM	7.6	0.9	26	3
8:20 PM	7.8	1.5	32	3
8:50 PM	7.8	1.3	37	3.6
9:20 PM	7.2	4	24	0

A4.3 (Continued)

Time	Temperature °C	Wind speed m/s	Wind direction (°)	Rain rate (mm)
9:50 PM	7.7	1.9	40	4.2
10:20 PM	7.8	1.9	38	1.2
10:50 PM	7.8	2.5	40	0
11:20 PM	7.9	2.7	46	0
11:50 PM	7.9	2.9	43	1.2

A4.4: Friday 06 February 2026

Time	Temperature °C	Wind speed m/s	Wind direction (°)	Rain rate (mm)
12:20 AM	7.9	3	30	0
12:50 AM	7.8	2.5	48	1.8
1:20 AM	7.7	2.4	35	3
1:50 AM	7.8	2.4	39	0
2:20 AM	7.8	2.2	47	0
2:50 AM	7.9	1.9	34	1.2
3:20 AM	7.9	1.9	42	0
3:50 AM	7.9	2	33	0
4:20 AM	8.0	1.7	26	0
4:50 AM	8.0	1.4	44	1.8
5:20 AM	7.9	1.6	36	0
5:50 AM	7.9	1.5	42	0
6:20 AM	7.8	1.4	35	0
6:50 AM	7.8	1.6	31	0
7:20 AM	7.8	1.3	35	0
7:50 AM	7.9	1.4	30	0
8:20 AM	7.8	1.4	34	1.2
8:50 AM	7.9	1.3	33	0
9:20 AM	7.8	1.2	28	1.2
9:50 AM	7.9	0.6	35	4.8
10:20 AM	7.9	1.1	38	0
10:50 AM	7.9	1	42	3
11:20 AM	8.2	0.7	40	1.8
11:50 AM	8.5	0.9	35	0
12:20 PM	8.7	1.1	40	0
12:50 PM	9.0	0.9	34	0
1:20 PM	9.2	0.5	26	1.8
1:50 PM	9.5	0.2	21	1.8
2:20 PM	9.7	0.1	26	0
2:50 PM	9.3	0.3	24	0
3:20 PM	9.3	0.3	29	0
3:50 PM	9.1	0	27	1.8
4:20 PM	9.5	0	26	0
4:50 PM	8.6	0	27	0
5:20 PM	8.8	0	29	1.8
5:50 PM	8.6	0	29	0
6:20 PM	8.3	0	29	0
6:50 PM	8.1	0	29	0
7:20 PM	8.1	0	29	0
7:50 PM	8.1	0	29	0
8:20 PM	7.9	0	29	0
8:50 PM	7.7	0.8	130	0
9:20 PM	7.9	0.6	107	0

A4.4 Continued

Time	Temperature °C	Wind speed m/s	Wind direction (°)	Rain rate (mm)
9:50 PM	8.0	0.6	73	0
10:20 PM	7.9	0.7	76	0
10:50 PM	7.9	0.6	85	1.2
11:20 PM	7.9	0.3	126	0
11:50 PM	7.8	0.4	117	3

A4.5: Saturday 07 February 2026

Time	Temperature °C	Wind speed m/s	Wind direction (°)	Rain rate (mm)
12:20 AM	7.3	0.7	51	3
12:50 AM	7.3	0.7	42	0
1:20 AM	8.1	0.9	49	0
1:50 AM	8.2	1.1	58	0
2:20 AM	8.2	1.2	65	0
2:50 AM	8.2	1.8	55	1.2
3:20 AM	8.2	1.9	54	1.2
3:50 AM	8.2	1.9	54	1.2
4:20 AM	8.4	1	56	0
4:50 AM	8.4	1.6	52	0
5:20 AM	8.1	1.2	50	0
5:50 AM	8.1	1.6	52	0
6:20 AM	8.1	1.1	100	0
6:50 AM	8.2	1.5	33	3
7:20 AM	8.2	1.4	118	0
7:50 AM	8.3	1	52	0
8:20 AM	8.3	0.8	120	0
8:50 AM	8.3	0.8	72	0
9:20 AM	8.4	0.6	130	4.8
9:50 AM	7.3	0.7	51	3
10:20 AM	7.8	5.4	58	3.5
10:50 AM	7.8	4.5	76	1.2
11:20 AM	8.9	**5.4**	62	2.5
11:50 AM	8.9	**5.8**	56	1.6
12:20 PM	7.8	4	50	3.6
12:50 PM	7.8	**5.8**	50	4.2
1:20 PM	8.9	4	85	3.2
1:50 PM	8.9	4.5	100	3.5
2:20 PM	8.9	4.5	33	4.5
2:50 PM	7.8	5.4	118	4.8
3:20 PM	7.8	5.4	52	3.2
3:50 PM	7.8	5.4	120	1.1
4:20 PM	7.8	4.5	72	1.0
4:50 PM	7.8	3.6	130	0.8
5:20 PM	7.8	**5.4**	51	1.5
5:50 PM	9.2	2.6	216	34.8
6:20 PM	9.3	1.6	219	0
6:50 PM	9.4	0.7	212	0
7:20 PM	9.3	2.5	209	0
7:50 PM	9.4	3.4	210	0

A4.5 Continued

Time	Temperature °C	Wind speed m/s	Wind direction (°)	Rain rate (mm)
8:20 PM	7.8	1.2	76	0.8
8:50 PM	7.8	2.7	78	1.2
9:20 PM	7.8	0.9	67	0.5
9:50 PM	7.8	3.1	62	0
10:20 PM	7.8	2.7	88	0
10:50 PM	7.8	3.1	92	0.9
11:20 PM	7.8	3.6	51	1.0
11:50 PM	7.2	3.1	75	1.2

A4.6: Sunday 08 February 2026

Time	Temperature °C	Wind speed m/s	Wind direction (°)	Rain rate (mm)
12:20 AM	8.7	1.5	203	4.8
12:50 AM	8.7	0.5	192	0
1:20 AM	8.5	0	194	0
1:50 AM	8.0	0	113	0
2:20 AM	8.0	0.2	87	0
2:50 AM	7.6	0	199	0
3:20 AM	7.6	0	123	0
3:50 AM	7.6	0.1	182	0
4:20 AM	7.6	0.6	94	0
4:50 AM	7.7	0.4	202	0
5:20 AM	7.6	0.2	78	0
5:50 AM	7.4	0.6	98	0
6:20 AM	7.5	0.2	124	0
6:50 AM	7.4	0.3	116	0
7:20 AM	7.4	0	77	0
7:50 AM	7.3	0.1	137	0
8:20 AM	7.4	0	102	0
8:50 AM	7.8	0.4	58	1.8
9:20 AM	8.0	0.6	93	3
9:50 AM	8.1	0.4	118	0
10:20 AM	8.5	0.9	63	3
10:50 AM	8.5	0.6	69	3
11:20 AM	8.5	0.5	57	0
11:50 AM	8.8	0.7	50	0

A4.6 Continued

Time	Temperature °C	Wind speed m/s	Wind direction (°)	Rain rate (mm)
12:20 PM	8.9	0.7	60	0
12:50 PM	9.2	0.2	120	0
1:20 PM	9.1	0.5	81	0
1:50 PM	8.9	0.9	82	0
2:20 PM	9.0	0.8	75	0
2:50 PM	9.3	0.5	63	0
3:20 PM	8.9	0.8	83	0
3:50 PM	8.7	0.5	77	0
4:20 PM	8.7	1.2	72	0
4:50 PM	8.3	1.1	50	0
5:20 PM	8.2	1.1	67	0
5:50 PM	7.9	0.5	64	1.2
6:20 PM	8.0	0.8	62	0
6:50 PM	8.2	1.4	56	0
7:20 PM	8.0	1	78	0
7:50 PM	8.2	0.8	83	0
8:20 PM	7.9	1.2	54	0
8:50 PM	7.9	0.8	62	0
9:20 PM	8.1	0.8	69	0
9:50 PM	8.1	0.6	79	1.8
10:20 PM	8.1	1.2	54	0
10:50 PM	8.0	0.7	84	0
11:20 PM	8.2	1.7	167	0
11:50 PM	8.1	0.8	62	0

A4.7: Monday 09 February 2025

Time	Temperature °C	Wind speed m/s	Wind direction (°)	Rain rate (mm)
12:20 AM	8.1	0.4	77	0.0
12:50 AM	8.1	0.7	70	0.0
1:20 AM	8.1	0.7	84	0.0
1:50 AM	8.1	0.7	66	0.0
2:20 AM	7.9	0	87	0.0
2:50 AM	7.6	0.3	103	0.0
3:20 AM	7.4	0	104	0.0
3:50 AM	7.8	0.8	58	0.0
4:20 AM	7.7	0.8	83	0.0
4:50 AM	7.8	0.5	54	0.0
5:20 AM	7.9	1.1	61	0.0
5:50 AM	8.1	1.1	67	0.0
6:20 AM	8.1	1	62	0.0
6:50 AM	8.3	1	55	0.0
7:20 AM	8.2	0.9	64	0.0
7:50 AM	8.1	0.7	60	0.0
8:20 AM	8.6	1.5	71	0.0
8:50 AM	8.6	1.4	60	0.0
9:20 AM	8.7	1.4	54	0.0
9:50 AM	9.4	1.5	47	0.0
10:20 AM	9.7	1.8	71	0.0
10:50 AM	9.5	1.6	51	0.0
11:20 AM	9.5	1.7	61	0.0
11:50 AM	9.6	1.1	60	0.0
12:20 PM	9.9	1.3	60	0.0
12:50 PM	10.1	1.6	60	0.0
1:20 PM	10.5	2.2	45	0.0
1:50 PM	10.3	2.2	61	0.0
2:20 PM	9.9	2.1	69	0.0
2:50 PM	9.7	2.3	53	0.0
3:20 PM	9.4	2	74	0.0
3:50 PM	9.0	1.8	45	0.0
4:20 PM	9.0	1.8	45	0.0
4:50 PM	8.1	0.4	77	0.0
5:20 PM	7.2	3.6	85	0.0
5:50 PM	7.2	4.0	92	0.0
6:20 PM	7.2	**5.8**	105	0.0
6:50 PM	7.2	**5.4**	67	0.0
7:20 PM	7.2	3.6	72	0.0

A4.7 Continued

Time	Temperature °C	Wind speed m/s	Wind direction (°)	Rain rate (mm)
7:50 PM	7.2	4.5	105	0.8
8:20 PM	7.2	4.5	112	1.2
8:50 PM	7.2	**5.4**	107	0.5
9:20 PM	7.6	**5.4**	95	0.7
09:50 PM	7.6	**5.8**	82	0.2
10:20 PM	7.6	**6.3**	110	0.5
10:50 PM	7.6	**6.3**	107	0
11:20 PM	7.6	**6.3**	102	0.5
11:50 PM	7.6	**7.2**	98	0

A4.8: Tuesday 10 February 2026

Time	Temperature °C	Wind speed m/s	Wind direction (°)	Rain rate (mm)
12:20 AM	7.7	4	105	0
12:50 AM	7.6	4	112	0.8
1:20 AM	7.5	4.5	167	0
1:50 AM	8.0	5.4	175	0
2:20 AM	7.2	4.5	181	0
2:50 AM	7.7	4	152	0
3:20 AM	7.0	4.5	165	0
3:50 AM	8.2	4.5	167	0
4:20 AM	8.0	4	175	0
4:50 AM	7.6	3.1	115	0
5:20 AM	7.5	2.2	145	0
5:50 AM	8.0	2.7	179	2.1
6:20 AM	8.3	0.4	183	5.6
6:50 AM	7.9	0.9	192	2.0

APPENDIX 5: Acoustic Calibrator Calibration Certificate

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **1 December 2025** CERTIFICATE NUMBER **255350**

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

Page 1 of 2

Approved signatory
T.Goodrich
Electronically signed:

T. A. Goodrich.

Sound Calibrator : IEC 60942:2003

Instrument information

Manufacturer: Cirrus Research plc **Notes:**
Model: CR:515
Serial number: 64316
Class: 1

Test summary

Date of calibration: 1 December 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:

APPENDIX 5 (Continued)

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **17 September 2020** CERTIFICATE NUMBER **149506**

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: 55186

Class: 1

Notes:

Test summary

Date of calibration: 14 September 2020

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 IEC 60942:2003 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.

The manufacturer's product information indicates that this model of sound calibrator has been formally pattern approved to IEC 60942:2003 Annex A to Class 1. This has been confirmed with the PhysikalischTechnische Bundesanstalt (PTB).

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.

Notes:

APPENDIX 6: Sound Level Meter Calibration Certificate

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **06 January 2025** CERTIFICATE NUMBER **229608**

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

Page 1 of 2

Approved signatory
R.Woodall
Electronically signed:

R.Woodall

Octave-band filter : IEC 61260:1995

Instrument information

Manufacturer:	Cirrus Research plc	Notes:
Model:	CR:171B	
Serial number:	G056483	
Class:	1	
Firmware version:	3.3.3386	

Test summary

Date of calibration: 06 January 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

APPENDIX 6 (Continued)

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **06 January 2025** CERTIFICATE NUMBER **229608**

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

Approved signatory
R.Woodall
Electronically signed:

R. Woodall

Octave-band filter : IEC 61260:1995

Instrument information

Manufacturer:	Cirrus Research plc	Notes:
Model:	CR:171B	
Serial number:	G056483	
Class:	1	
Firmware version:	3.3.3386	

Test summary

Date of calibration: 06 January 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

APPENDIX 6 (Continued)

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **14 September 2021** CERTIFICATE NUMBER **162690**

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

Approved signatory
R.Thomas
Electronically signed:

Sound Level Meter : IEC 61672-3:2013

Instrument information

Manufacturer:	Cirrus Research plc	Notes:
Model:	CR:171B	
Serial number:	G056483	
Class:	1	
Firmware version:	3.2.3197	

Test summary

Date of calibration: 14 September 2021

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

APPENDIX 6 (Continued)

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **24 February 2020** CERTIFICATE NUMBER **139055**

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

Approved signatory
S.Doveton
Electronically signed:

Sound Level Meter : IEC 61672-3:2006

Instrument information

Manufacturer:	Cirrus Research plc	Notes:
Model:	CR:171B	
Serial number:	G061742	
Class:	1	
Firmware version:	2.4.1569	

Test summary

Date of calibration: 24 February 2020

The calibration was performed respecting the requirements of ISO/IEC 17025:2017.
Periodic tests were performed in accordance with procedures from IEC 61672-3:2006.

The sound level meter submitted for testing has successfully completed the class 1 periodic tests of IEC 61672-3:2006, for the environmental conditions under which the tests were performed. As public evidence was available, from an independent testing organisation responsible for approving the results of pattern evaluation tests performed in accordance with IEC 61672-2:2003, to demonstrate that the model of sound level meter fully conformed to the requirements in IEC 61672-1:2002, the sound level meter submitted for testing conforms to the class 1 requirements of IEC 61672-1:2002.

Notes

APPENDIX 6 (Continued)

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **14 October 2022** CERTIFICATE NUMBER **181549**

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 61672-3:2006

Instrument information

Manufacturer:	Cirrus Research plc	Notes:
Model:	CR:1710	
Serial number:	G056773	
Class:	1	
Firmware version:	2.4.1569	

Test summary

Date of calibration: 14 October 2022

The calibration was performed respecting the requirements of ISO/IEC 17025:2017.
Periodic tests were performed in accordance with procedures from IEC 61672-3:2006.

The sound level meter submitted for testing has successfully completed the class 1 periodic tests of IEC 61672-3:2006, for the environmental conditions under which the tests were performed.

As public evidence was available, from an independent testing organisation responsible for approving the results of pattern evaluation tests performed in accordance with IEC 61672-2:2003, to demonstrate that the model of sound level meter fully conformed to the requirements in IEC 61672-1:2002, the sound level meter submitted for testing conforms to the class 1 requirements of IEC 61672-1:2002.

Notes

This certificate provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory. The results within this certificate relate only to the items calibrated. The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a coverage probability of approximately 95%.

APPENDIX 7 Noise Management Plan (NMP)

7.1 Ward Recycling are responsible for controlling the noise impact of site operations, as such a Noise Management Plan (NMP) has been produced. This will be reviewed on an annual basis. The scope of the NMP is detailed below.

7.2 The operations undertaken on the Ward Recycling site include metal recycling and waste management operations. These have the potential to generate broadband noise sources such as the operation of plant and movement of machinery, along with intermittent noise sources such as metal clanging and banging.

7.3 During site operations, Best Available Techniques (BAT) will be applied at all times. The buildings, mobile and static plant will be regularly maintained and operated to ensure that any noise control measures are operating effectively.

7.4 A risk assessment has been conducted for each activity. These have included normal and abnormal operations such as weather, breakdowns and accidents. The additional control measures required are detailed below:

- Weather – Potential increase in noise level down-wind to noise sensitive receptors during metal processing activities. Metal processing activities will not take place when winds speeds are 5 m/s or above downwind of the closest noise sensitive receptors.

- Breakdown/Accident – If metal processing plant breaks down or there is an accident these operations will cease. There is no substitute plant available. Mobile plant can be substituted for alternatives with a similar noise level.

7.5 The operational process controls required to reduce noise levels from site include reducing material drop heights, reducing material stock pile heights and the regular maintenance of plant and machinery.

7.6 At the start of each working day, the Site Supervisor will walk around site to confirm site operations are being conducted in accordance with the risk assessments for each activity. Noise sources audible at the site boundary with the potential to cause complaints such as metal clanging/banging will be identified and operated using BAT.

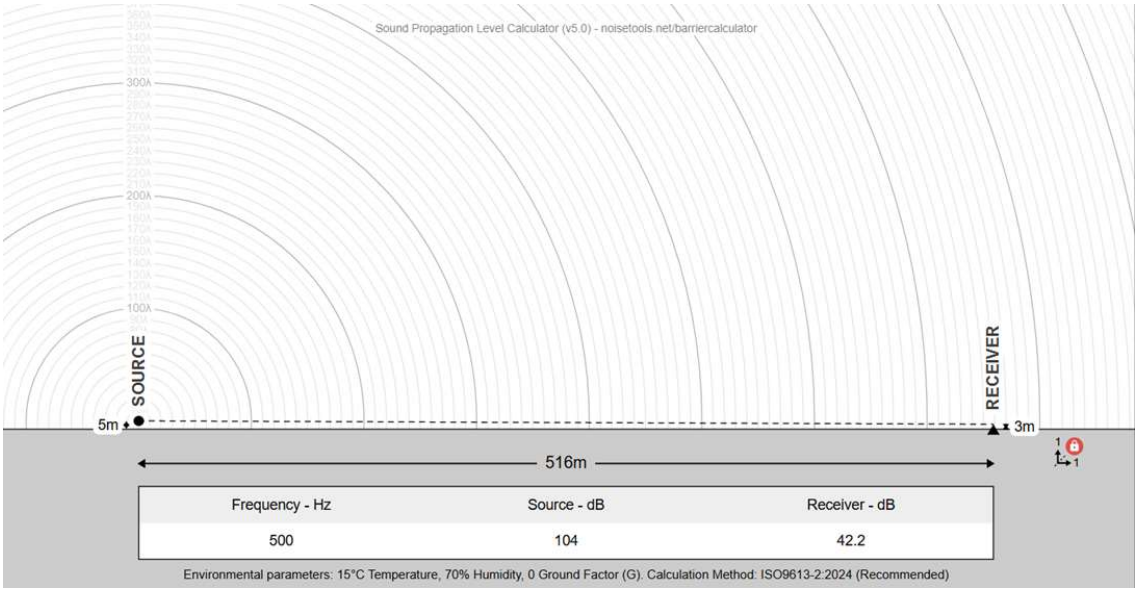
7.7 If a process or activity has been identified as producing excessive noise pollution, the operations will be stopped and the noise sources(s) identified. Once identified mitigation measures have been put in place (changing operational procedure/plant maintenance), the operational will be re-started. If this does not rectify the problem, alternative plant will be used or the operation will cease until additional control measures have been put in place.

7.8 A complaints log will be held on site at all times. If complaint(s) are received, these will be responded to within 24-hours. The noise source(s) will also be identified. Control measures will be put in place. If these are not effective, the activities will be stopped.

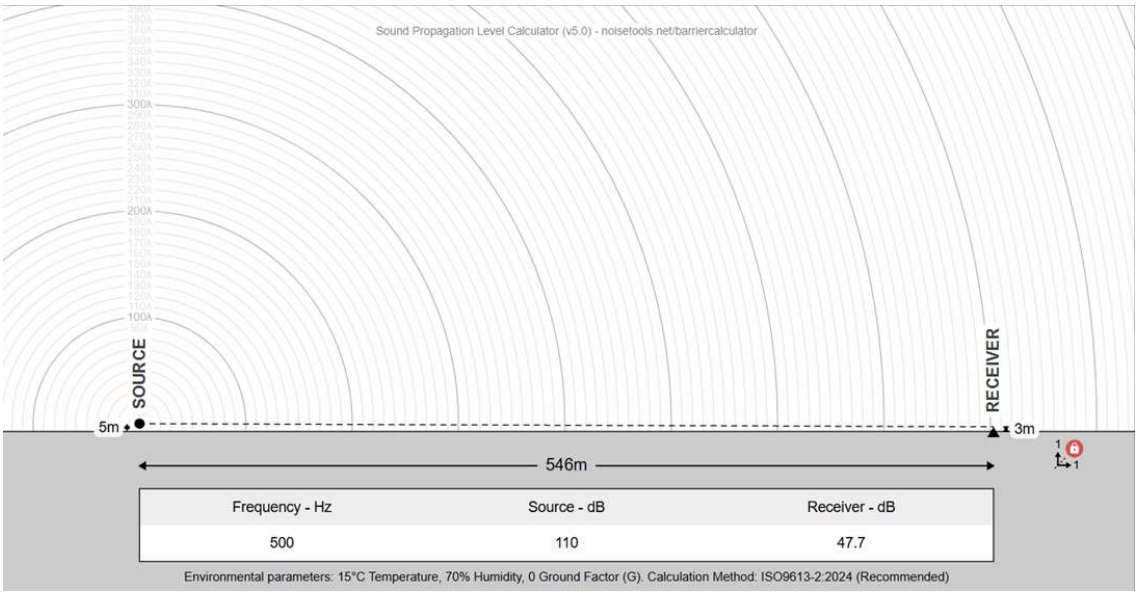
APPENDIX 8 Noise Prediction Output

APPENDIX 8.1 HMS Cambria

8.1.1 Scrap metal loading



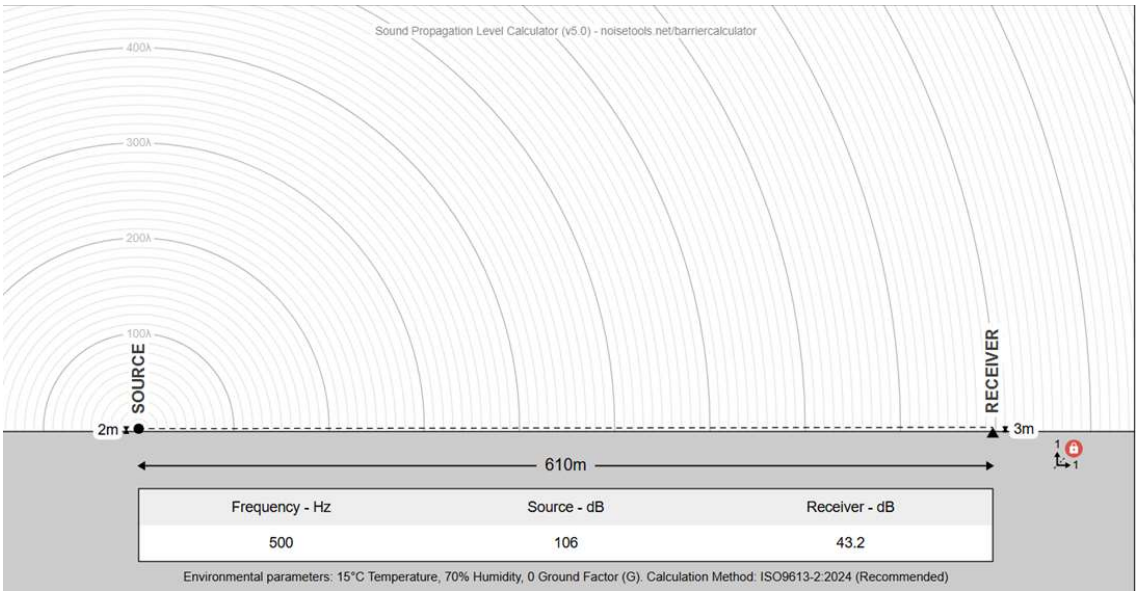
8.1.2 Oversize scrap metal loading



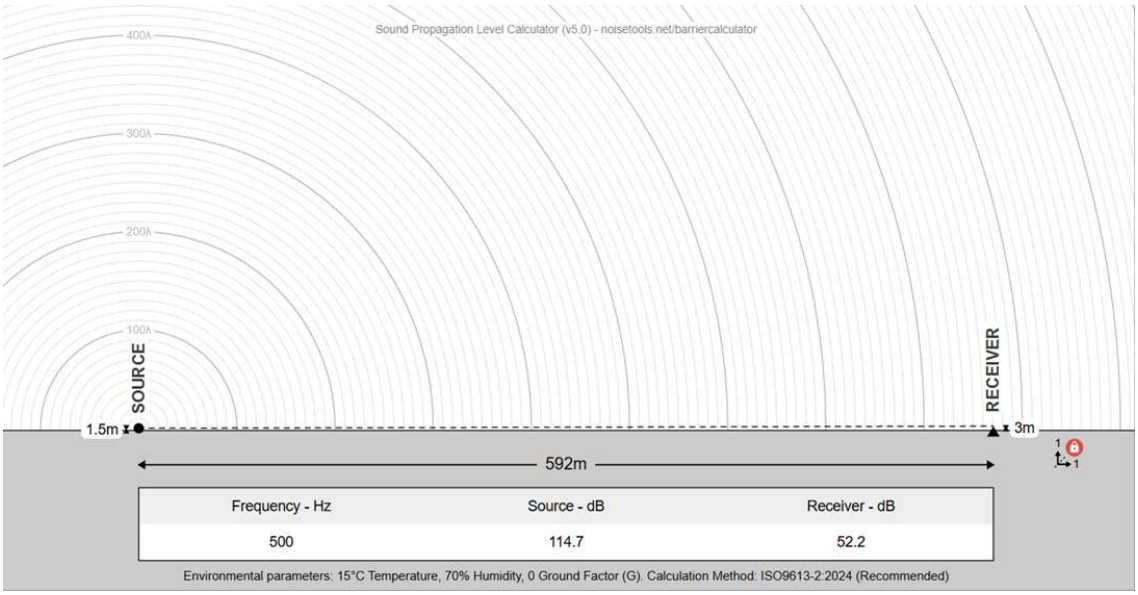
Frequency - Hz	Source - dB	Receiver - dB
500	110	47.7

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

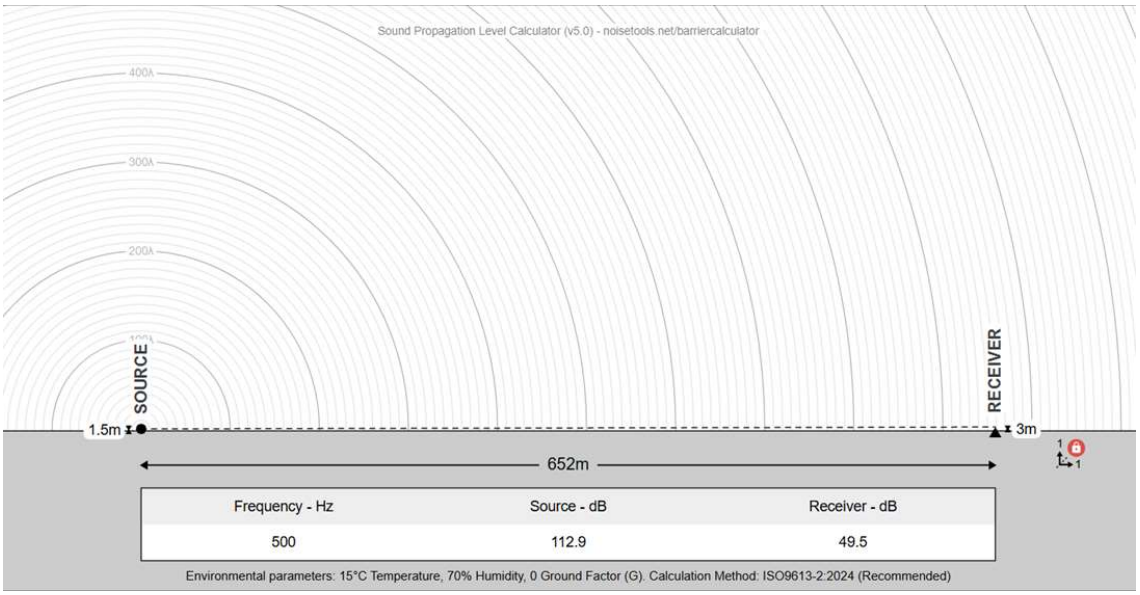
8.1.3 Shear


Sound Propagation Level Calculator (v5.0) - noisetools.net/barriercalculator
400A
300A
200A
100A
SOURCE
RECEIVER
2m
3m
610m
Frequency - Hz
Source - dB
Receiver - dB
500
106
43.2
Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

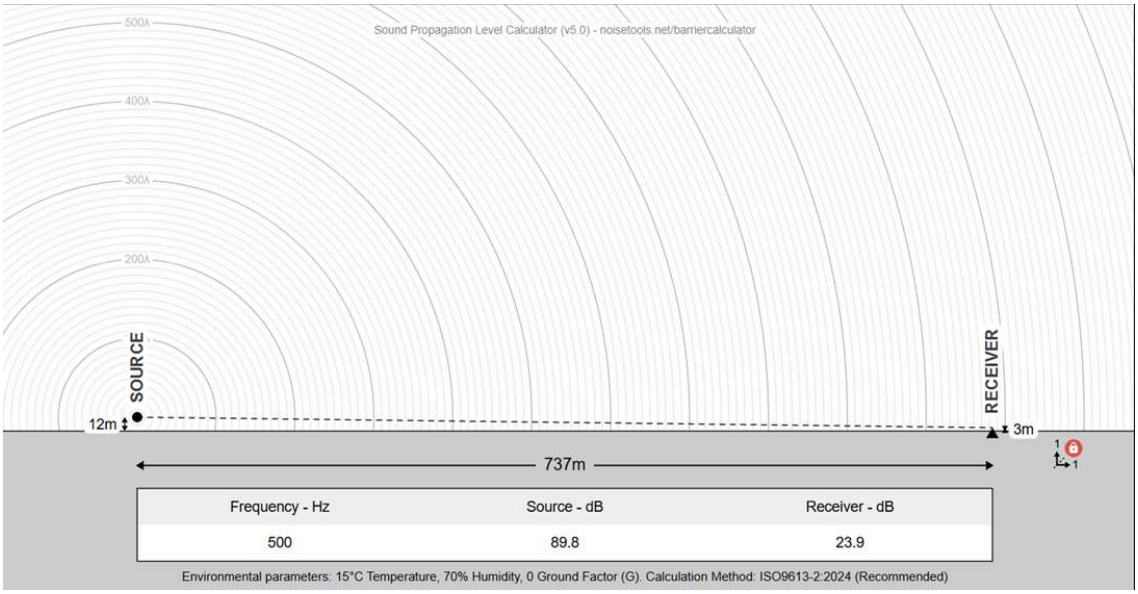
8.1.4 HGV tipping metal



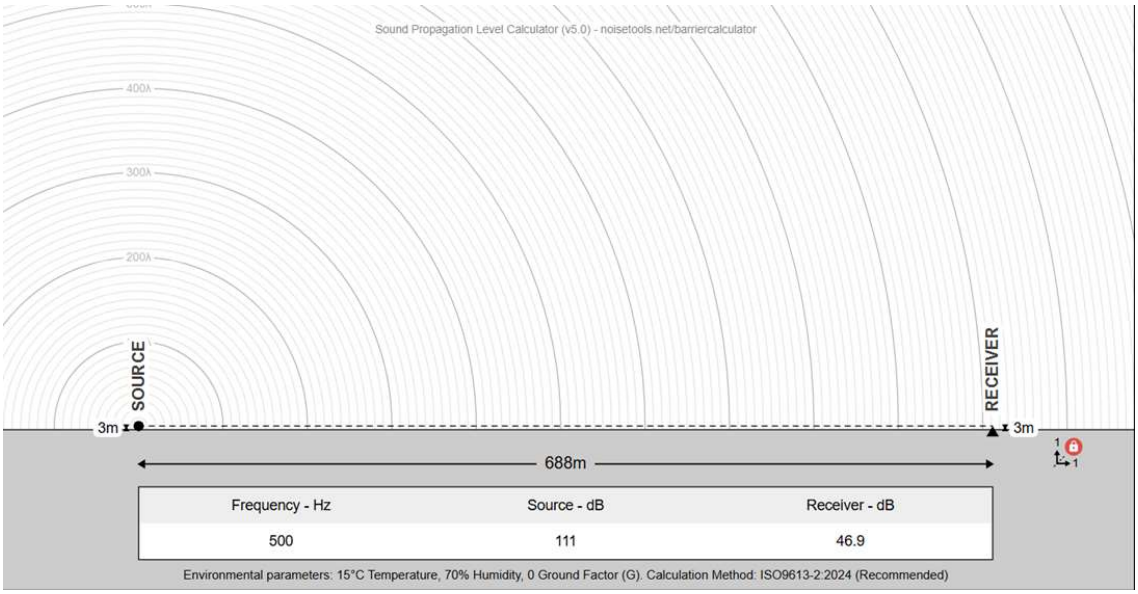
8.1.5 HGV loading metal



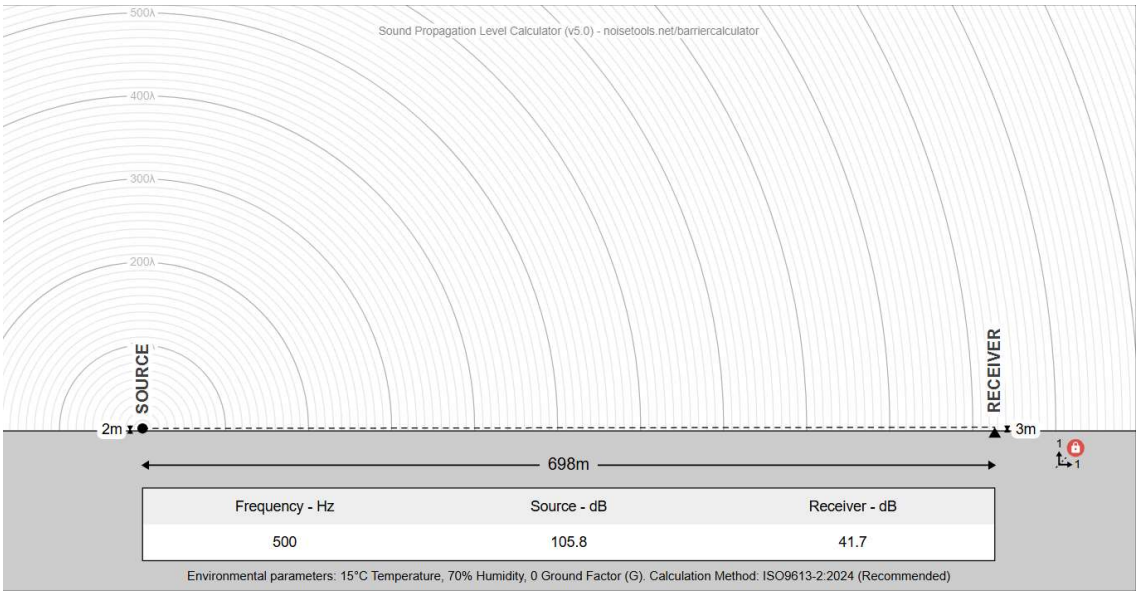
8.1.6 Metal screening & grading (inside building)



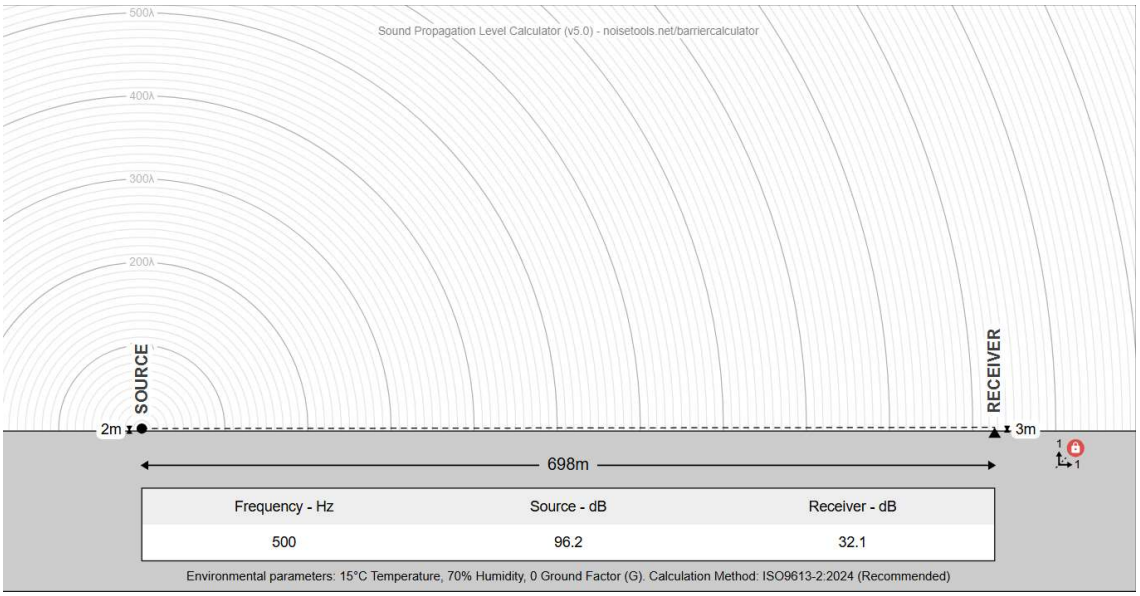
8.1.7 Unloading metal from train



8.1.8 ELV unloading vehicle



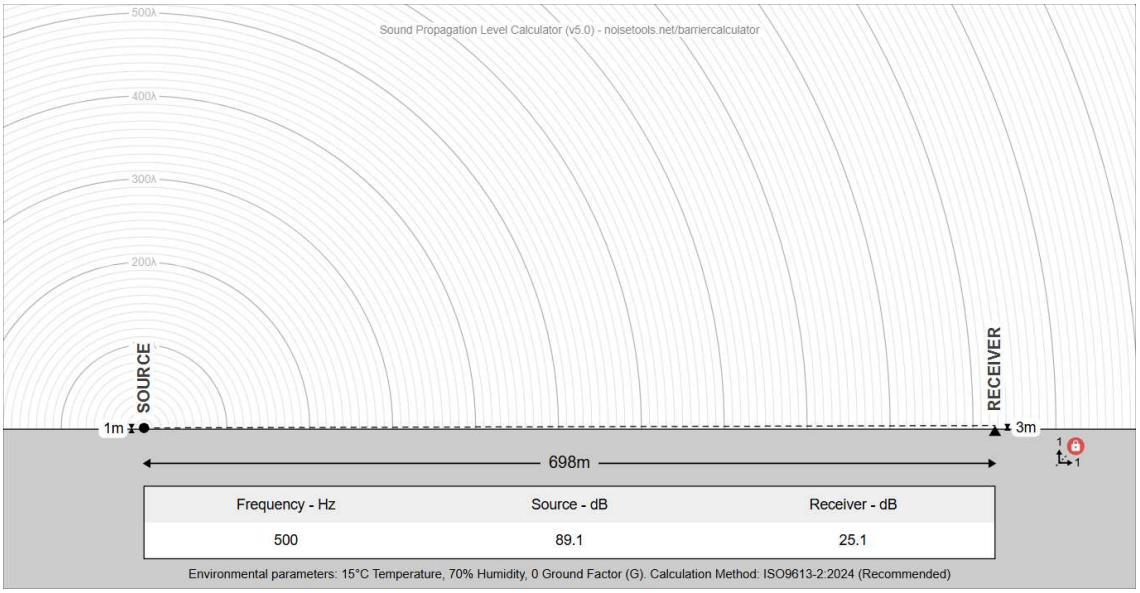
8.1.9 ELV petrol tank drill



Frequency - Hz	Source - dB	Receiver - dB
500	96.2	32.1

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

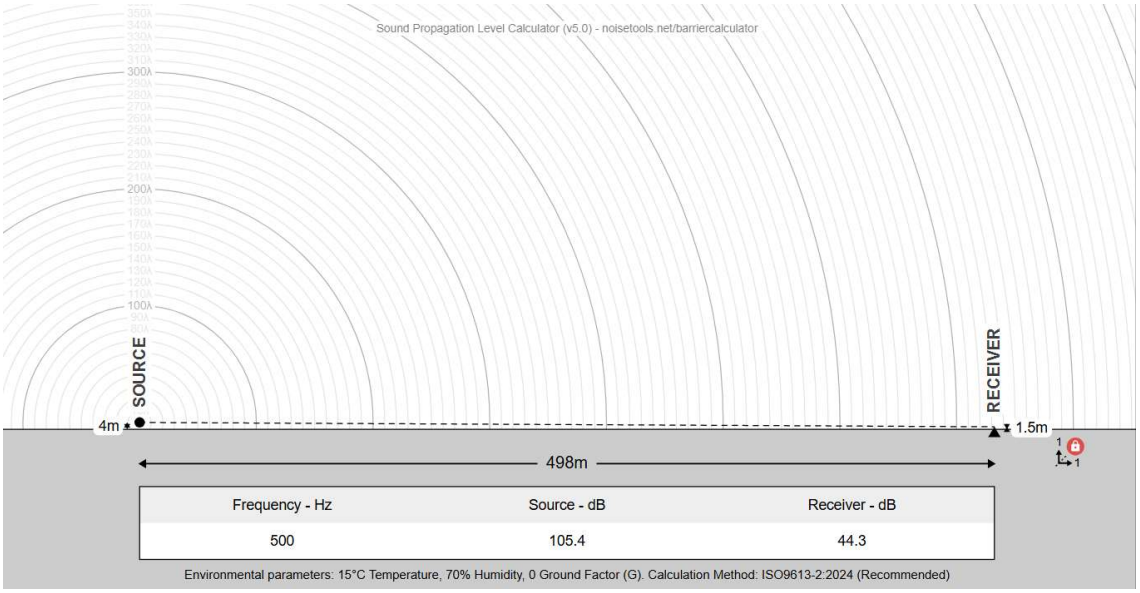
8.1.10 ELV air compressor



Frequency - Hz	Source - dB	Receiver - dB
500	89.1	25.1

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

8.1.11 Loading ship with metal

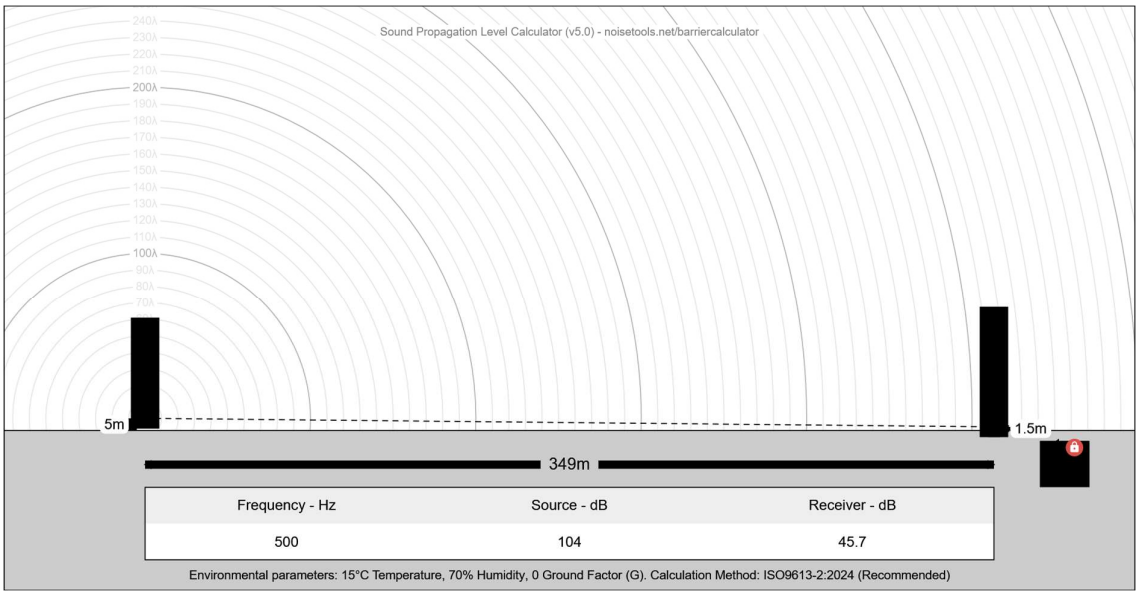


Frequency - Hz	Source - dB	Receiver - dB
500	105.4	44.3

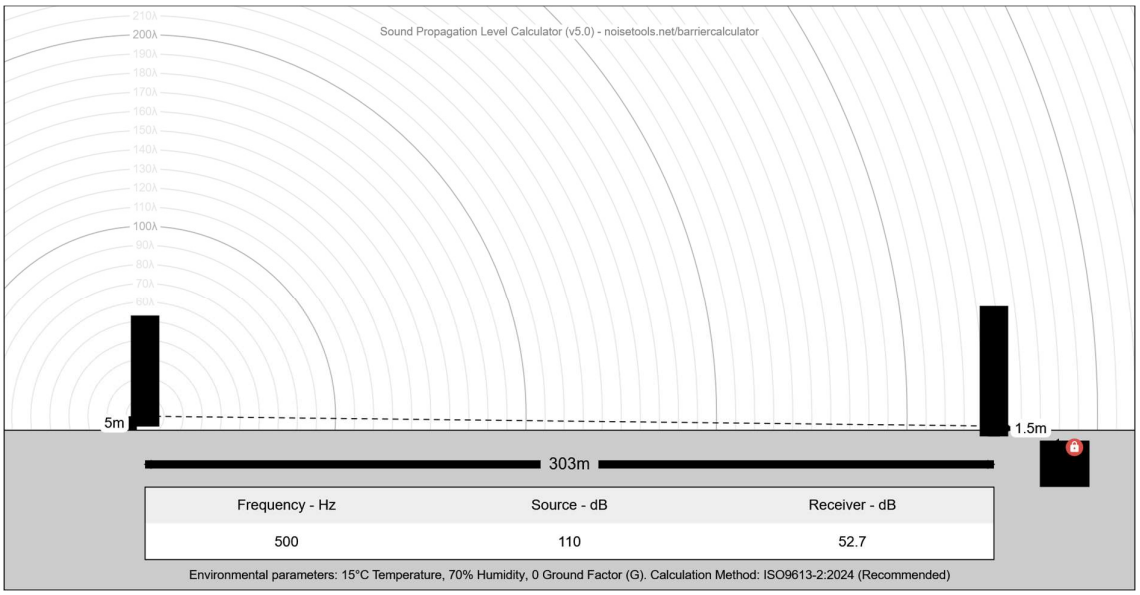
Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

APPENDIX 8.2 Severn Estuary SSSI & SAC

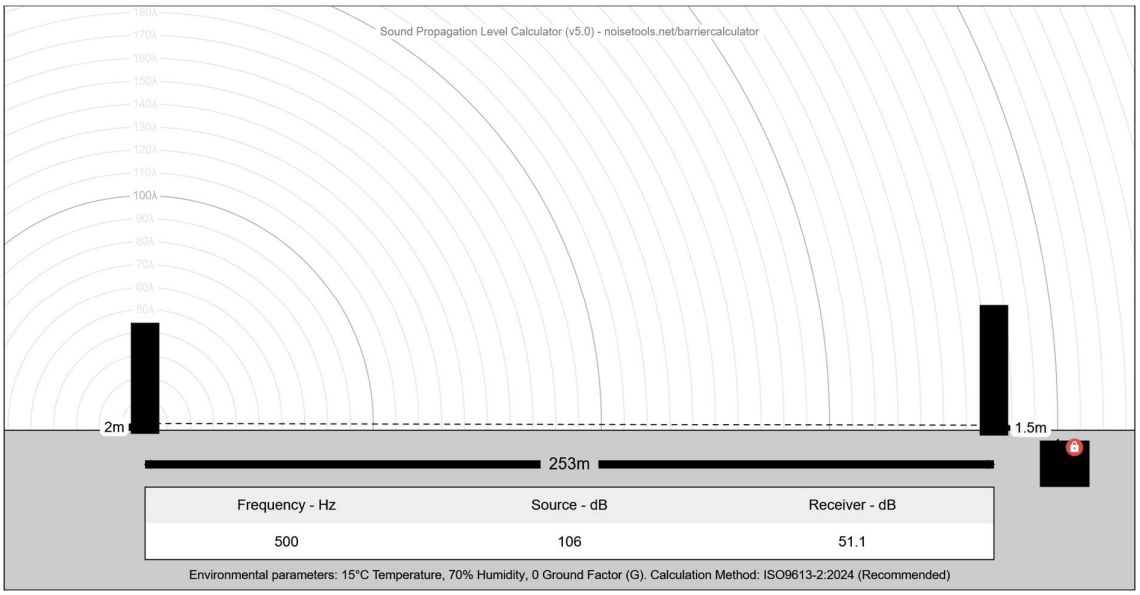
8.2.1 Scrap metal loading



8.2.2 Oversize scrap metal loading



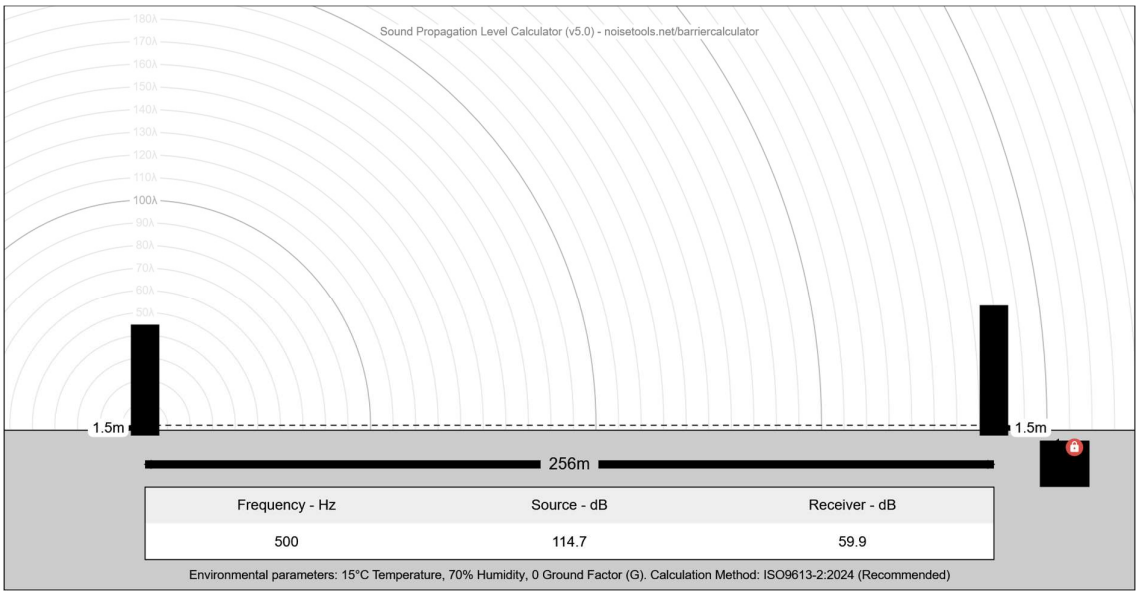
8.2.3 Shear



Frequency - Hz	Source - dB	Receiver - dB
500	106	51.1

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

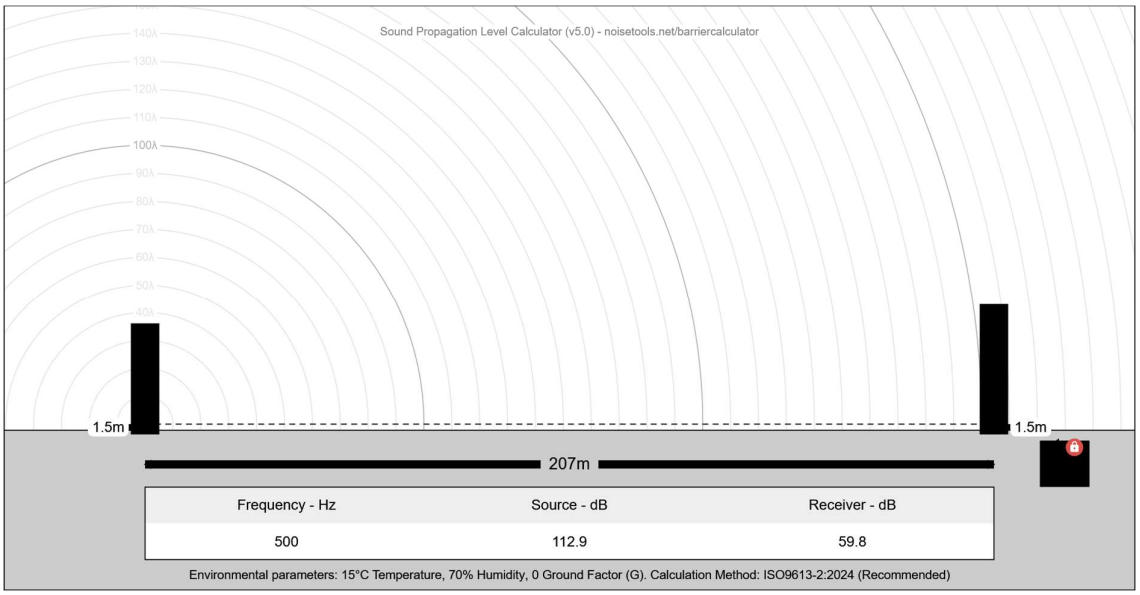
8.2.4 HGV tipping metal



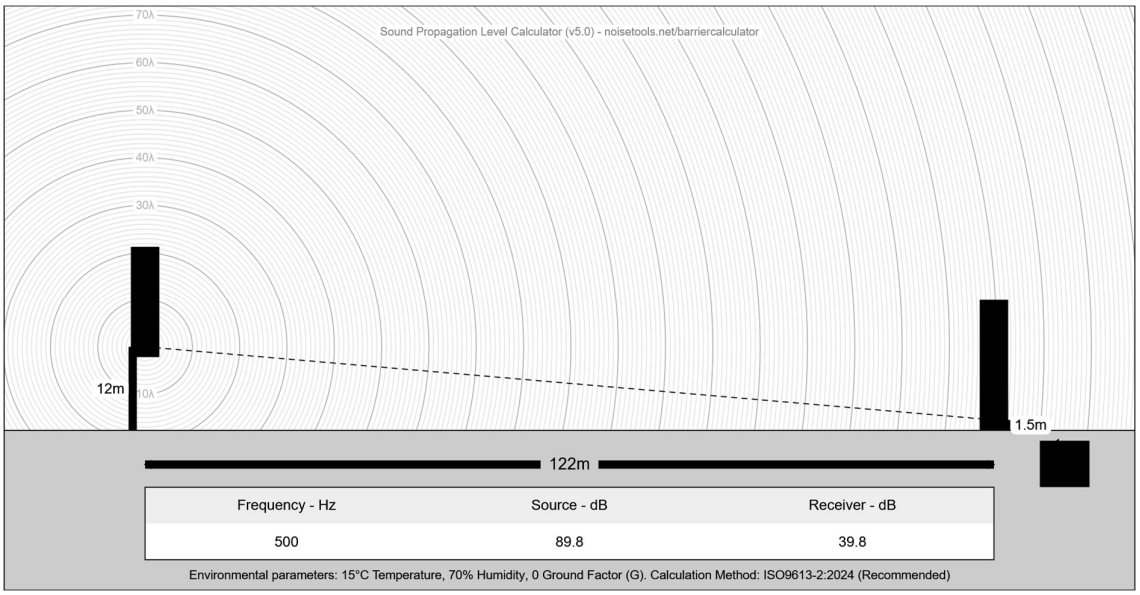
Frequency - Hz	Source - dB	Receiver - dB
500	114.7	59.9

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

8.2.5 HGV loading metal



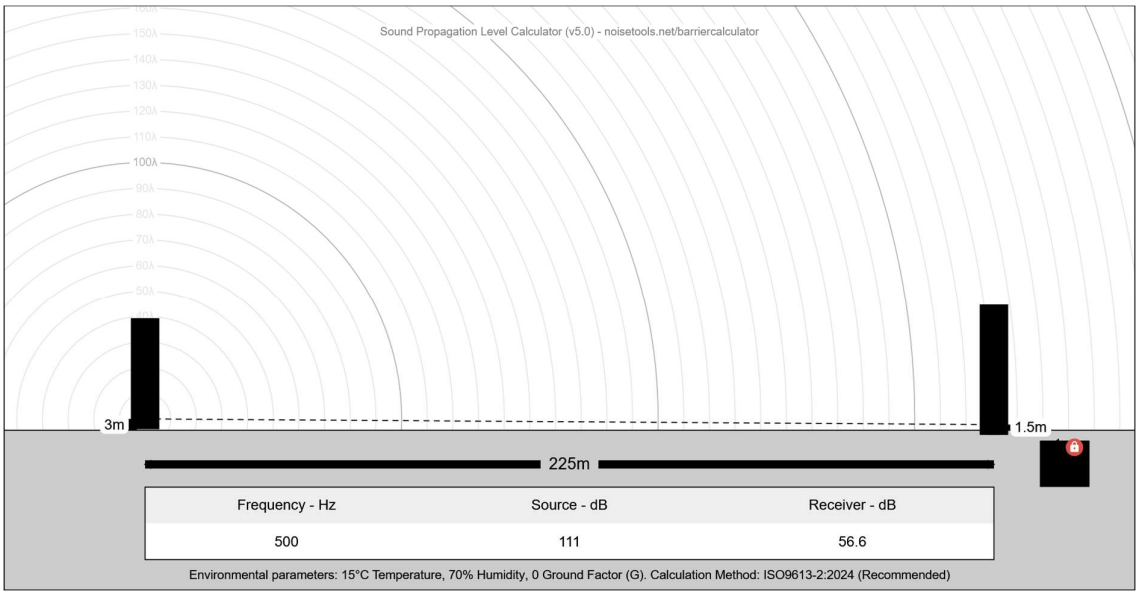
8.2.6 Metal screening & grading (inside building)



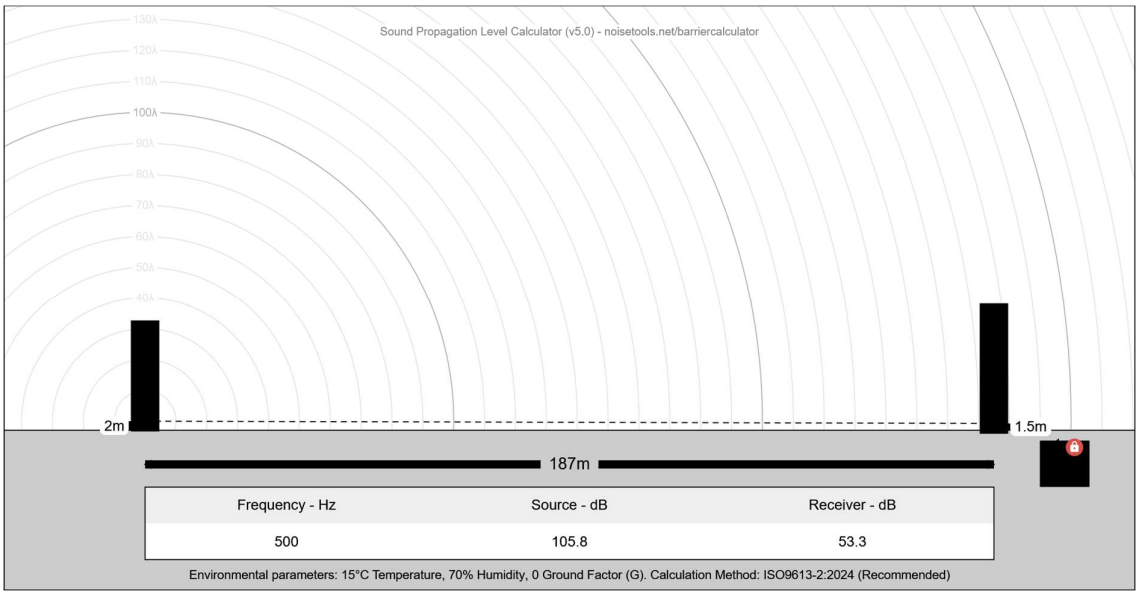
Frequency - Hz	Source - dB	Receiver - dB
500	89.8	39.8

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

8.2.7 Unloading metal from train



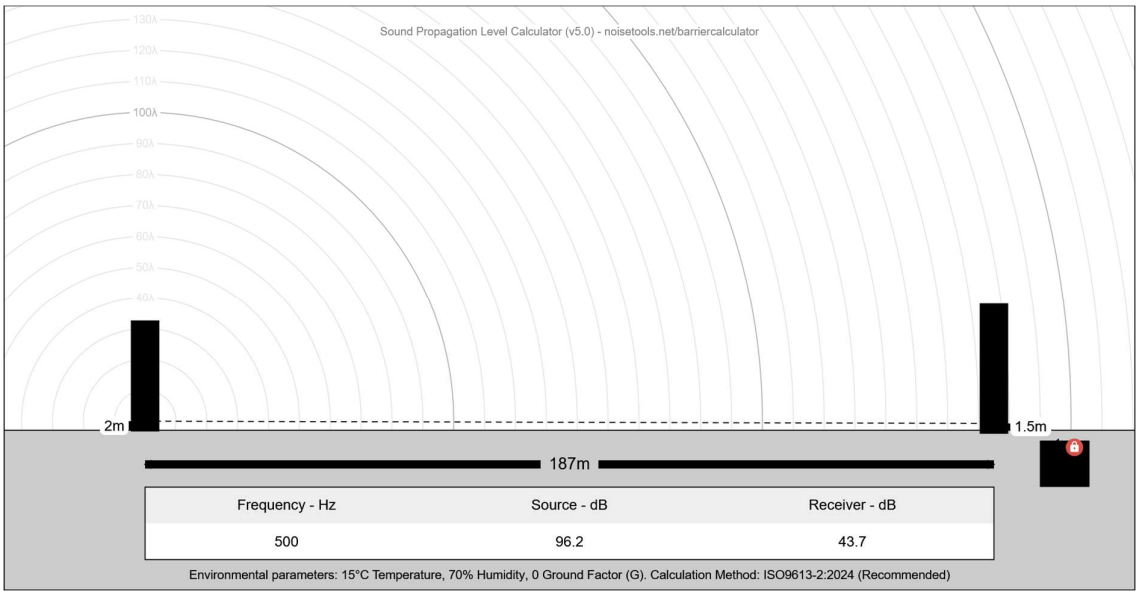
8.2.8 ELV unloading vehicle



Frequency - Hz	Source - dB	Receiver - dB
500	105.8	53.3

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

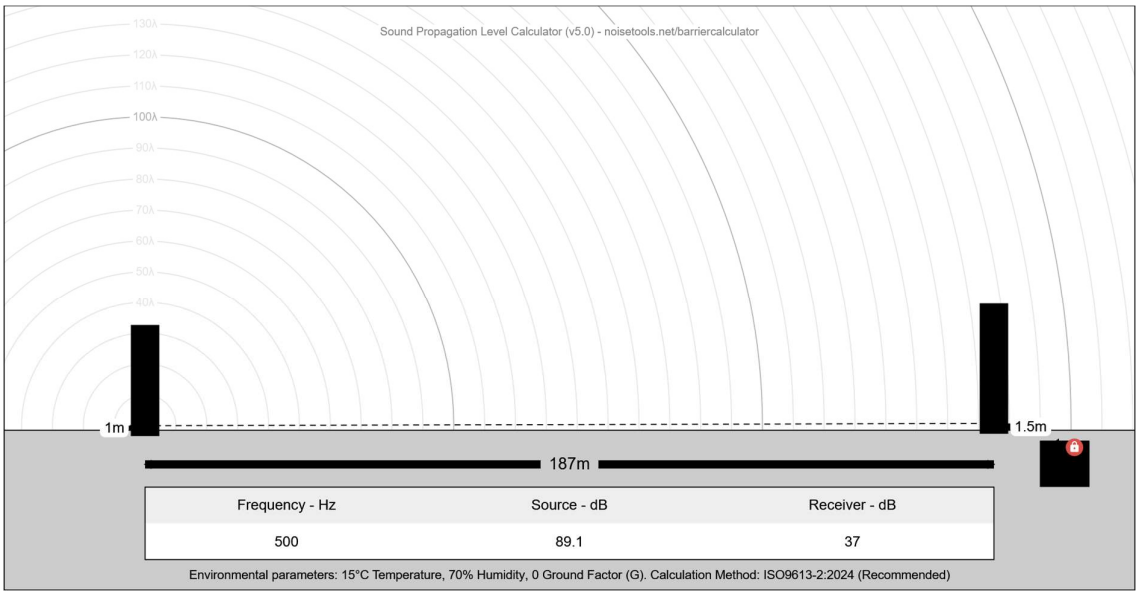
8.2.9 ELV petrol tank drill



Frequency - Hz	Source - dB	Receiver - dB
500	96.2	43.7

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

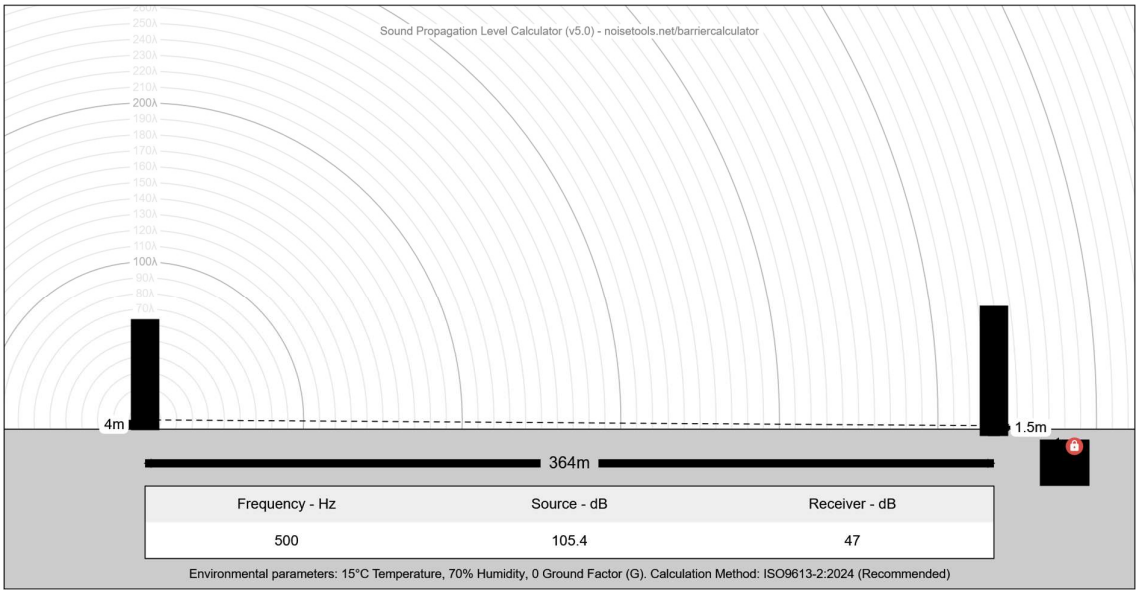
8.2.10 ELV air compressor



Frequency - Hz	Source - dB	Receiver - dB
500	89.1	37

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

8.2.11 Loading ship with metal

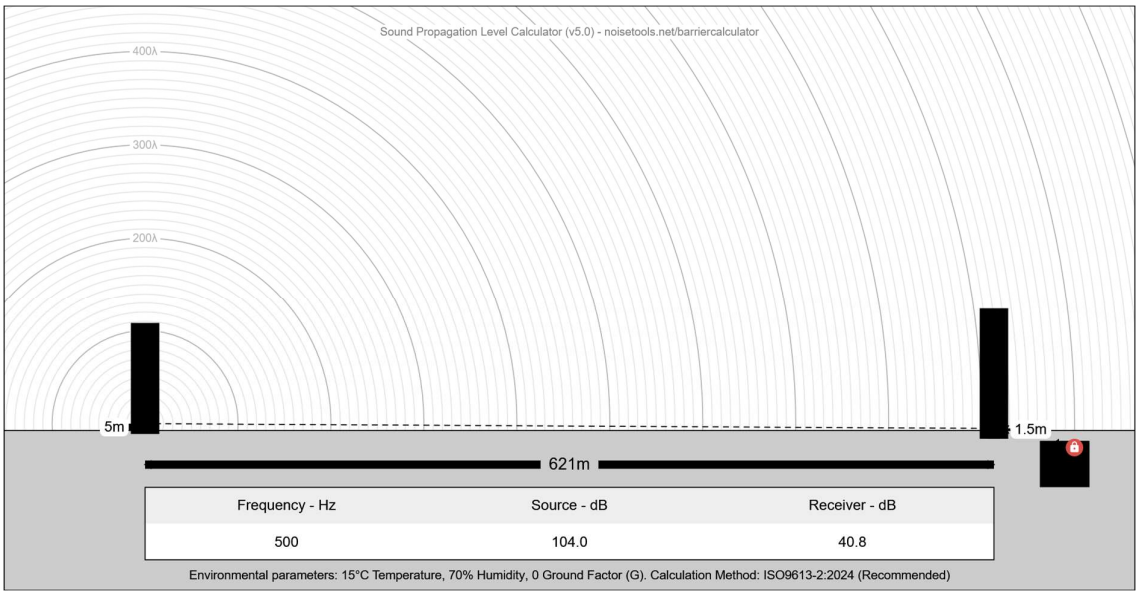


Frequency - Hz	Source - dB	Receiver - dB
500	105.4	47

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

APPENDIX 8.3 Severn Estuary SPA & Ramsar

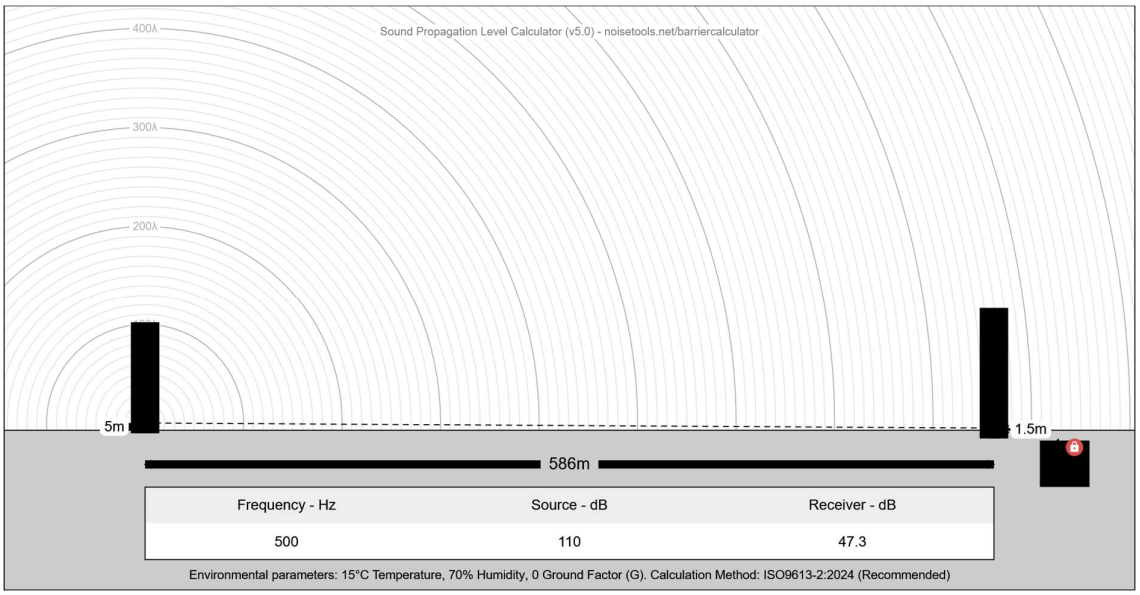
8.3.1 Scrap metal loading



Frequency - Hz	Source - dB	Receiver - dB
500	104.0	40.8

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

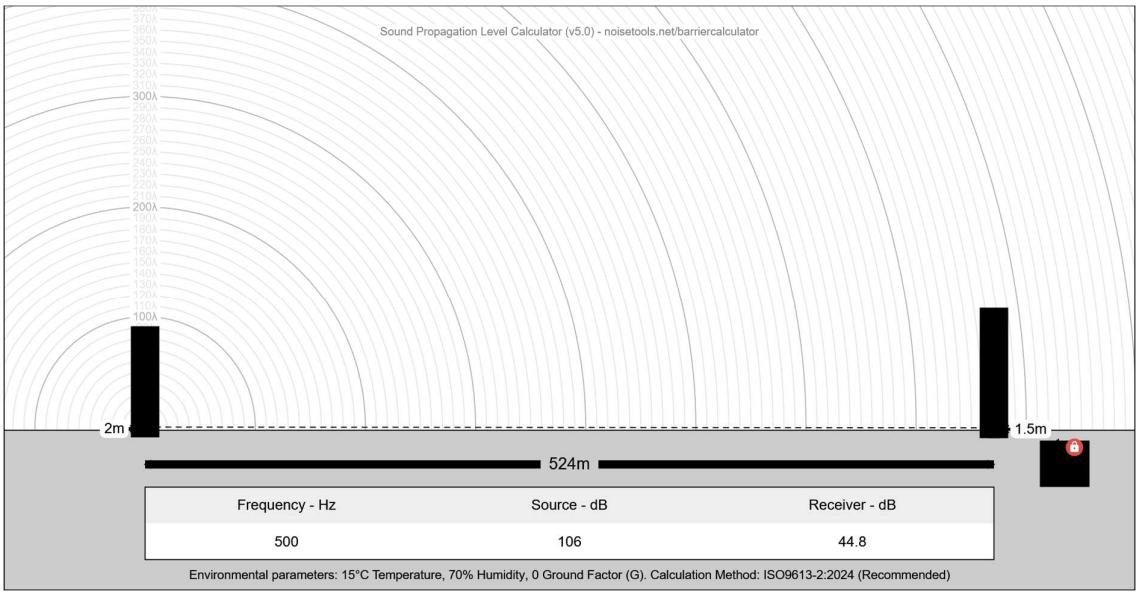
8.3.2 Oversize scrap metal loading



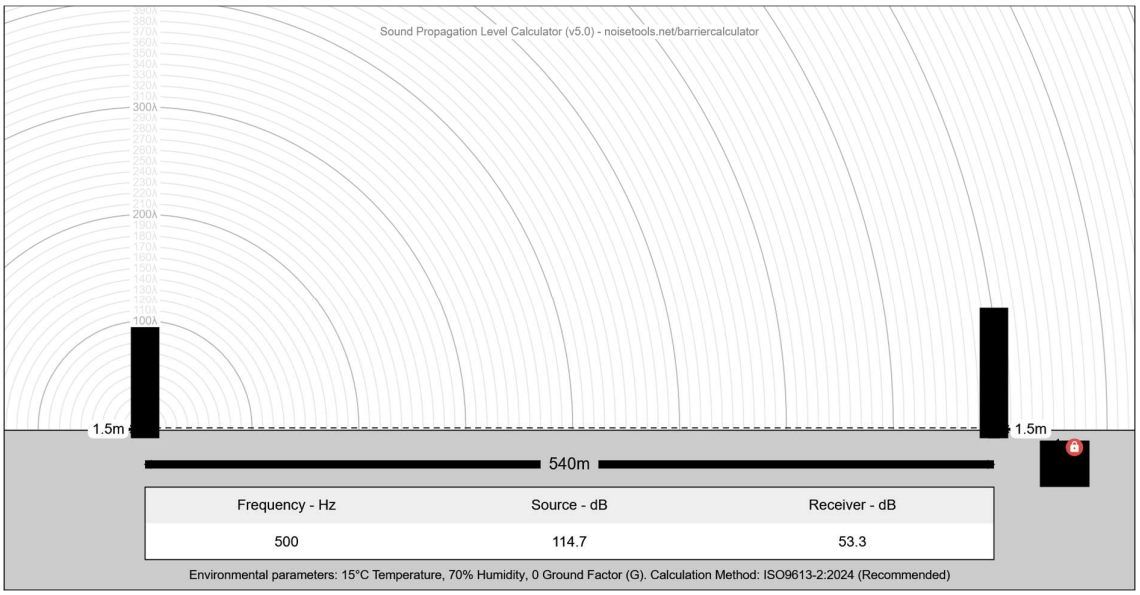
Frequency - Hz	Source - dB	Receiver - dB
500	110	47.3

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

8.3.3 Shear


Sound Propagation Level Calculator (v5.0) - noisetools.net/barriercalculator
2m
1.5m
524m
Frequency - Hz
Source - dB
Receiver - dB
500
106
44.8
Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

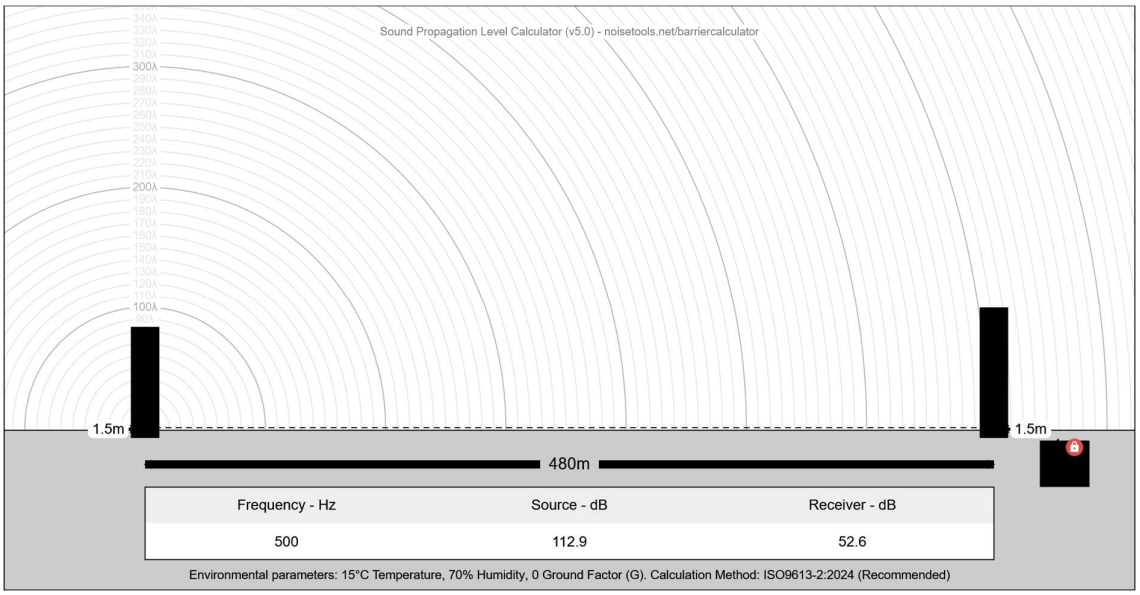
8.3.4 HGV tipping metal



Frequency - Hz	Source - dB	Receiver - dB
500	114.7	53.3

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

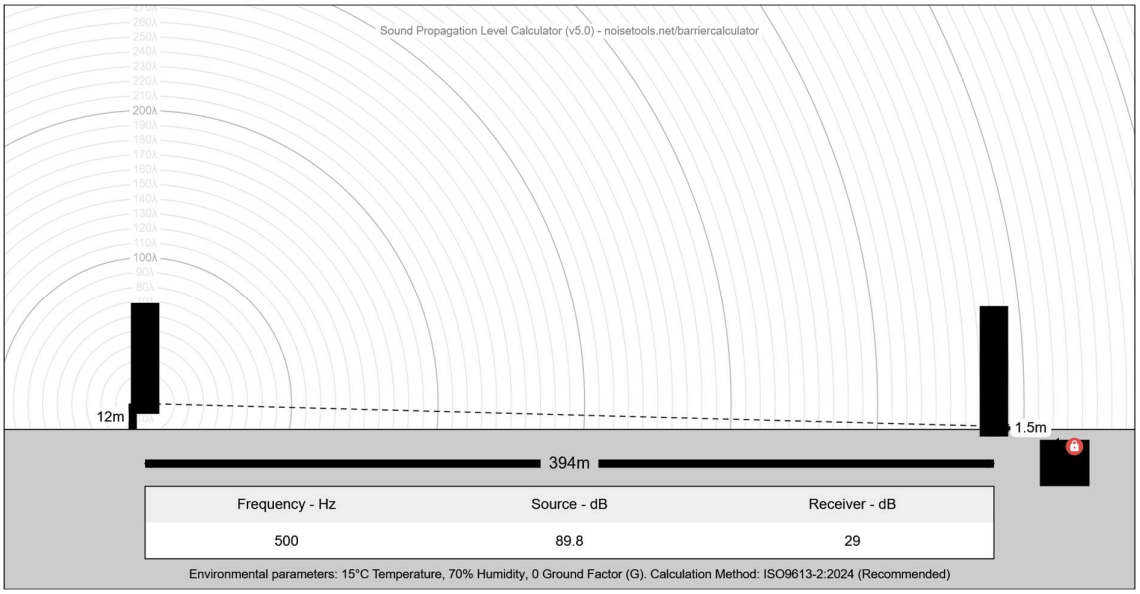
8.3.5 HGV loading metal



Frequency - Hz	Source - dB	Receiver - dB
500	112.9	52.6

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

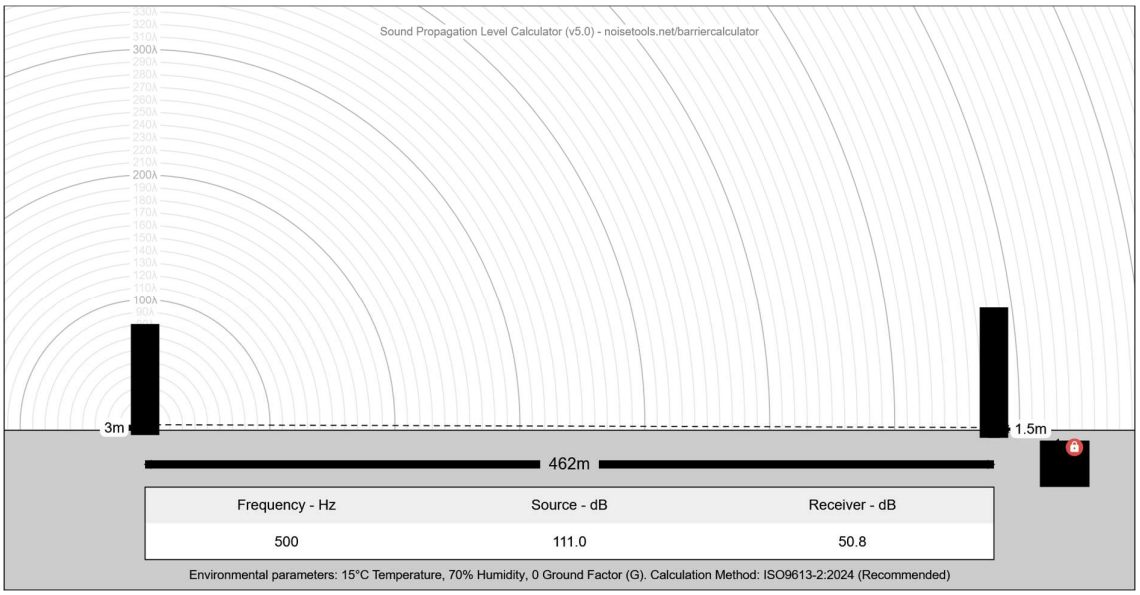
8.3.6 Metal screening & grading (inside building)



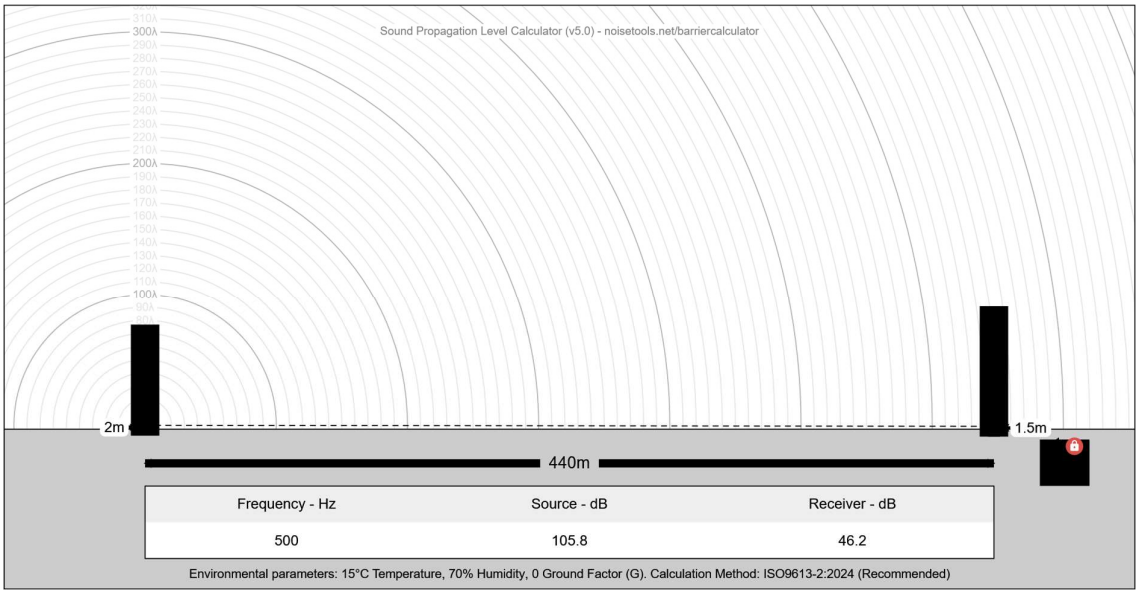
Frequency - Hz	Source - dB	Receiver - dB
500	89.8	29

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

8.3.7 Unloading metal from train



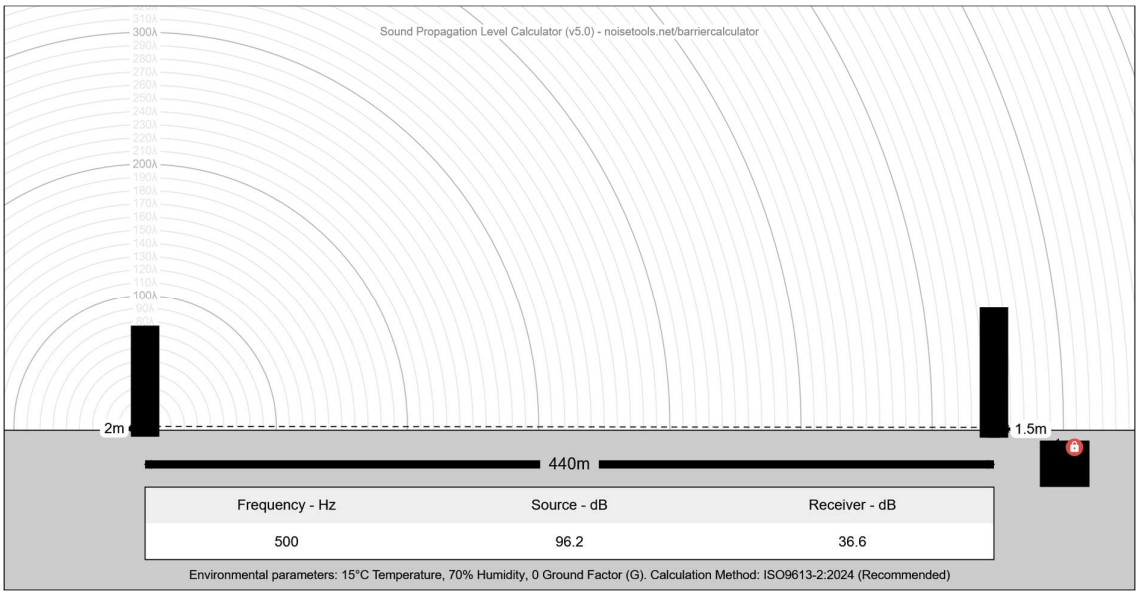
8.3.8 ELV unloading vehicle



Frequency - Hz	Source - dB	Receiver - dB
500	105.8	46.2

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

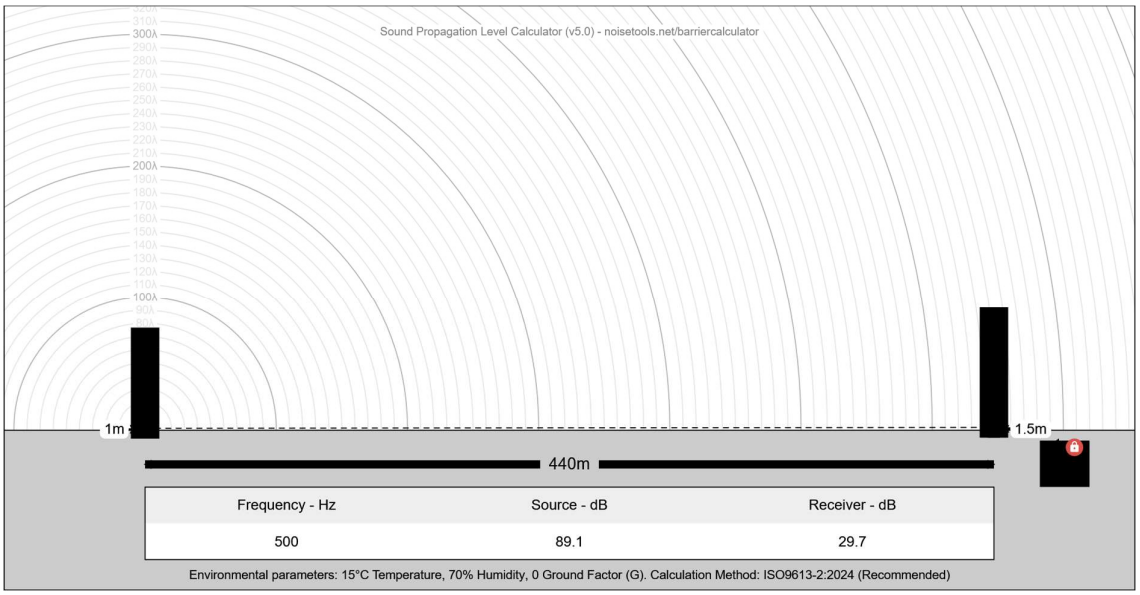
8.3.9 ELV petrol tank drill



Frequency - Hz	Source - dB	Receiver - dB
500	96.2	36.6

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

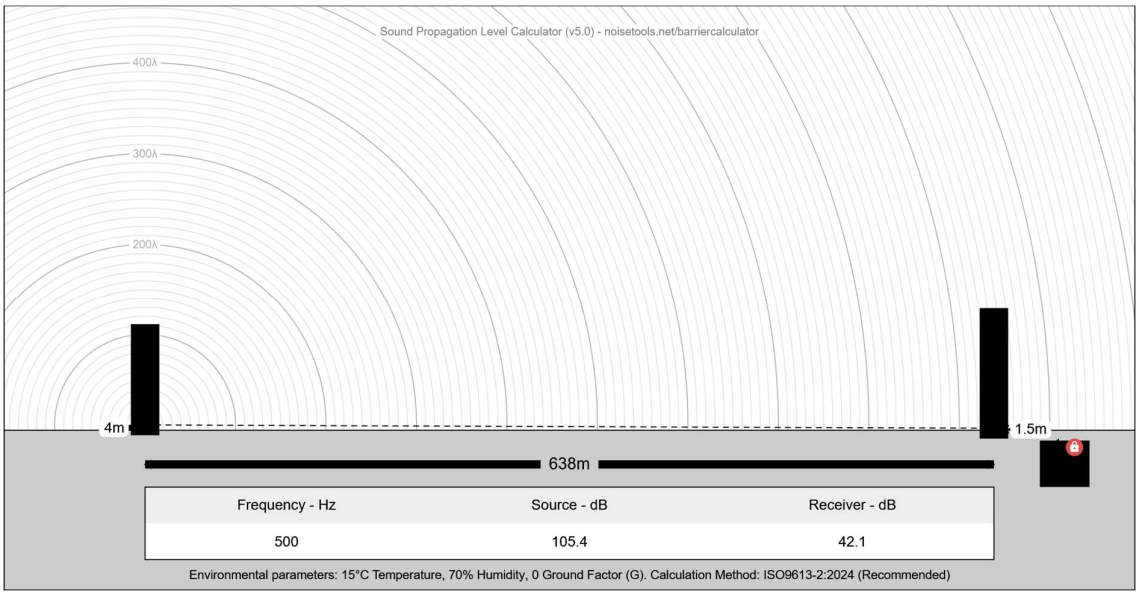
8.3.10 ELV air compressor



Frequency - Hz	Source - dB	Receiver - dB
500	89.1	29.7

Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

8.3.11 Loading ship with metal

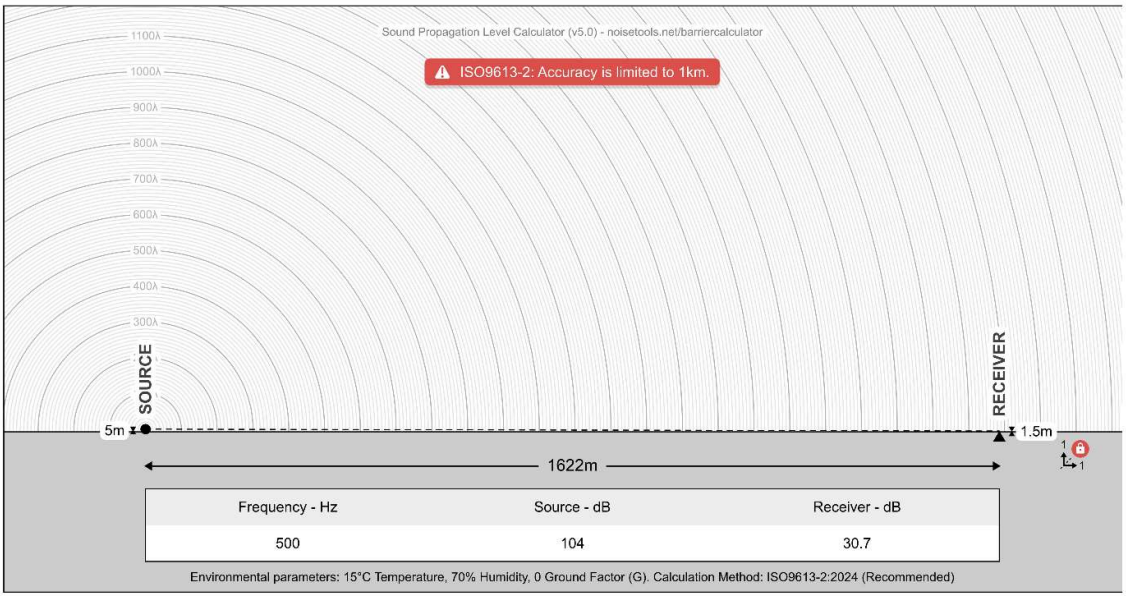


Frequency - Hz	Source - dB	Receiver - dB
500	105.4	42.1

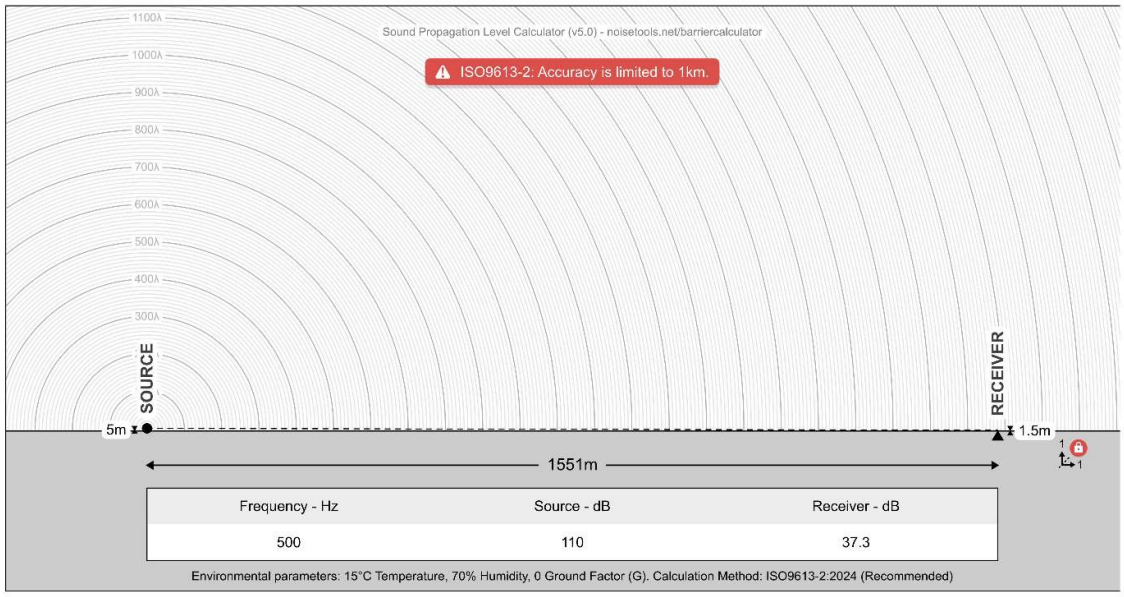
Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

APPENDIX 8.4 Cardiff Bay Wetlands and Hamadryad Park

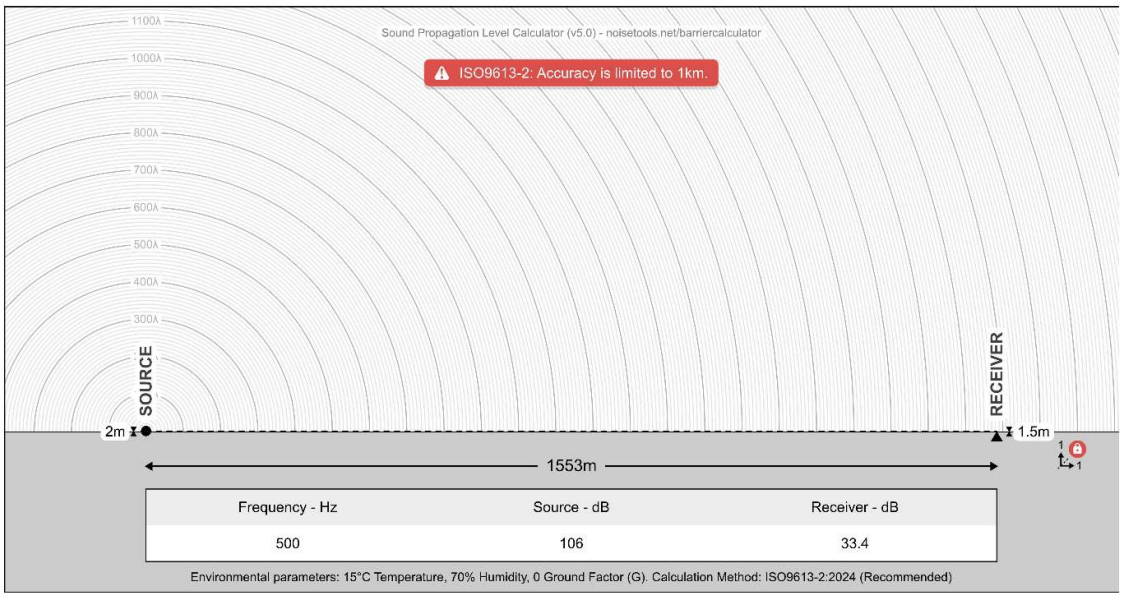
8.4.1 Scrap metal loading



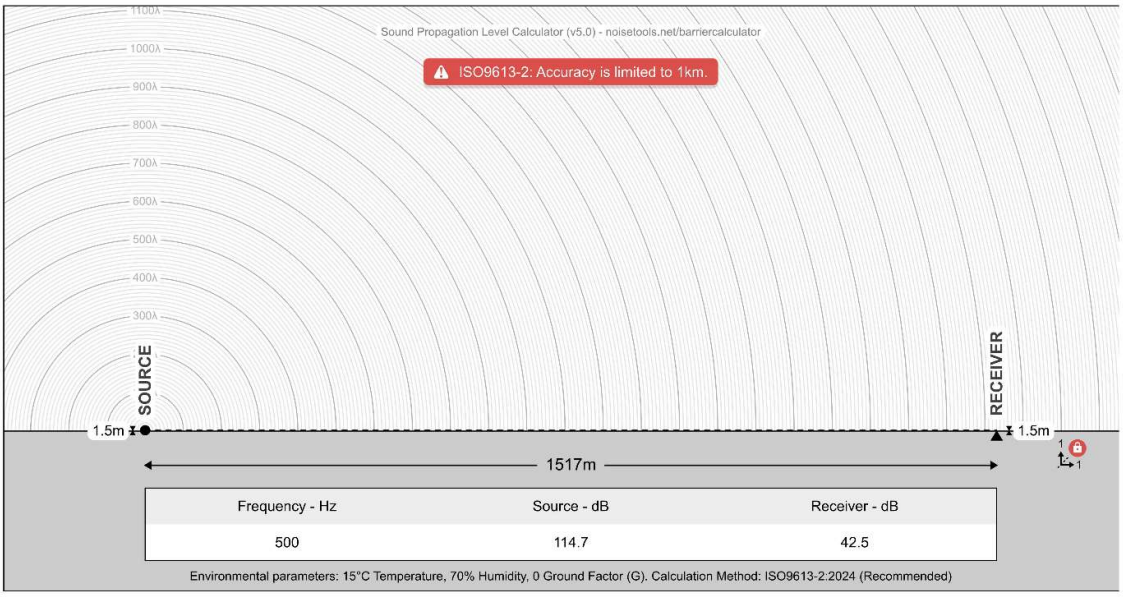
8.4.2 Oversize scrap metal loading



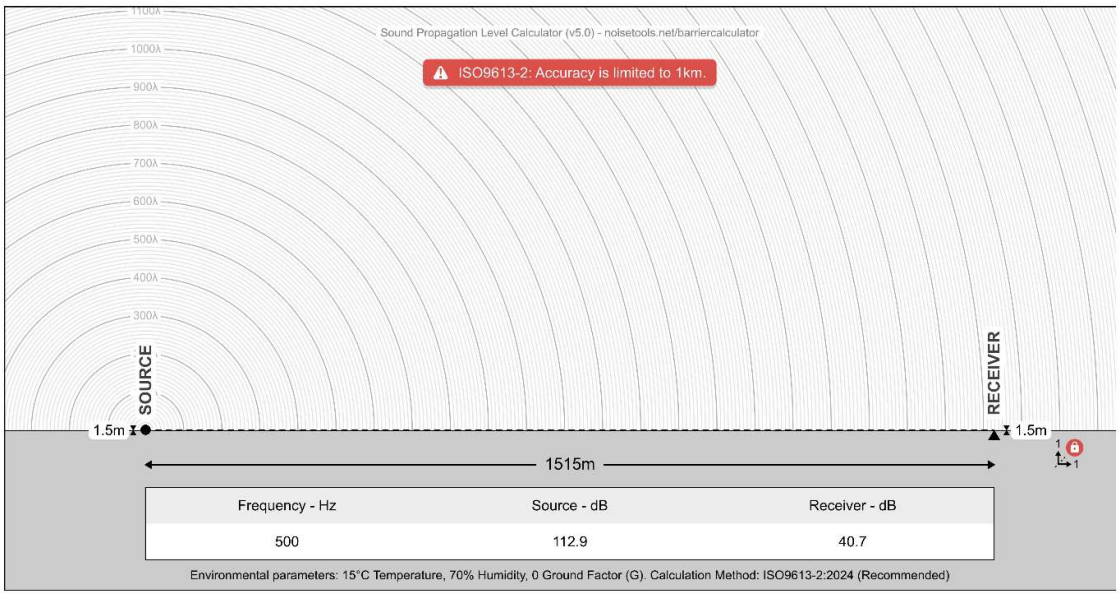
8.4.3 Shear


Sound Propagation Level Calculator (v5.0) - noisetools.net/barriercalculator
ISO9613-2: Accuracy is limited to 1km.
1100λ
1000λ
900λ
800λ
700λ
600λ
500λ
400λ
300λ
SOURCE
RECEIVER
2m
1.5m
1553m
Frequency - Hz
Source - dB
Receiver - dB
500
106
33.4
Environmental parameters: 15°C Temperature, 70% Humidity, 0 Ground Factor (G). Calculation Method: ISO9613-2:2024 (Recommended)

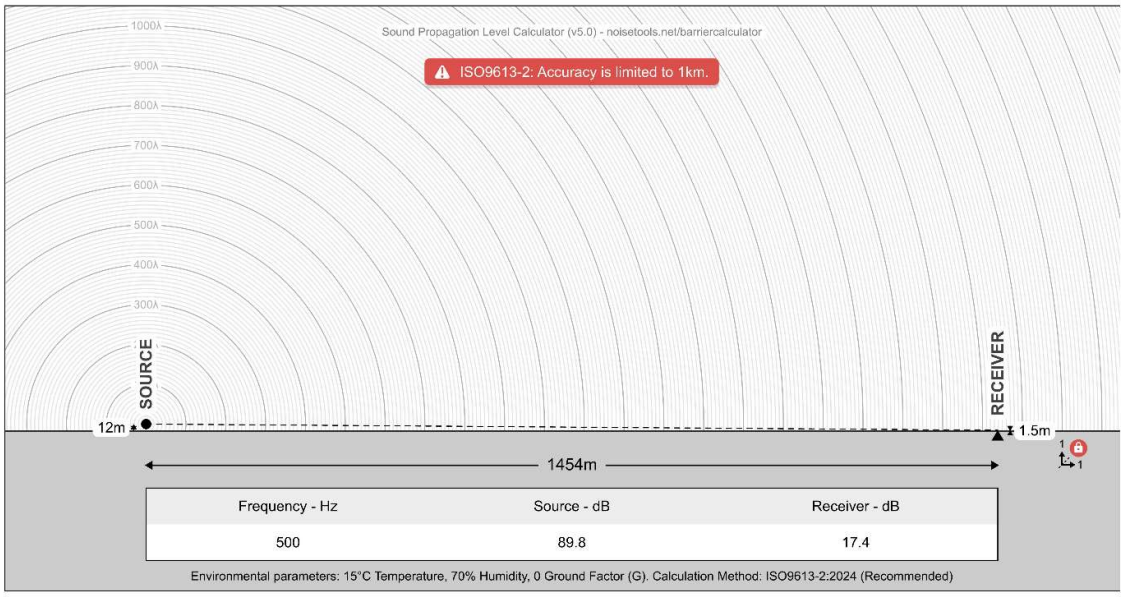
8.4.4 HGV tipping metal



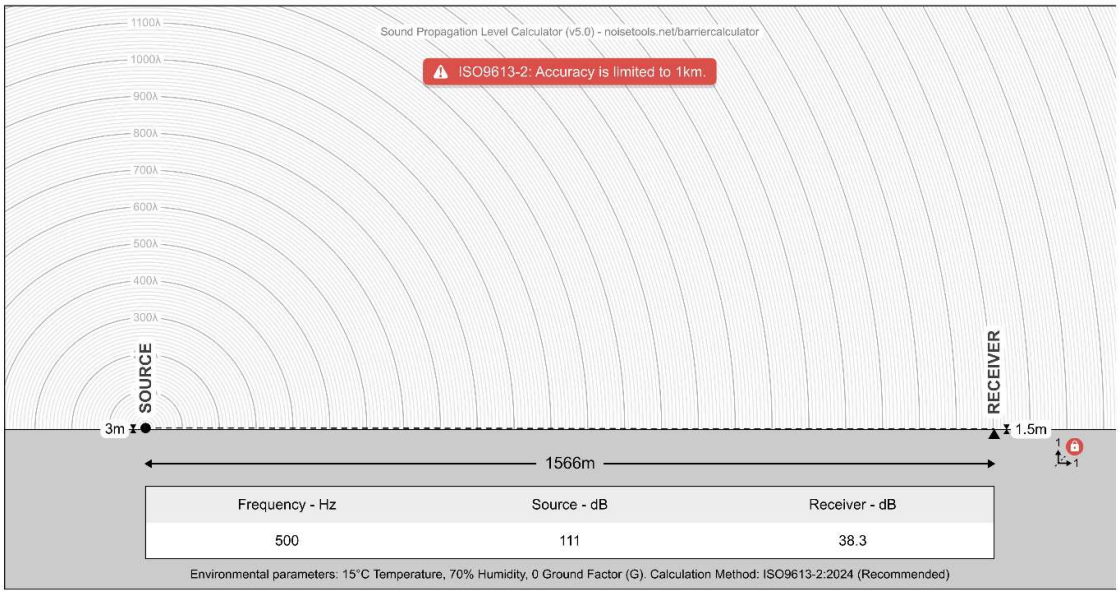
8.4.5 HGV loading metal



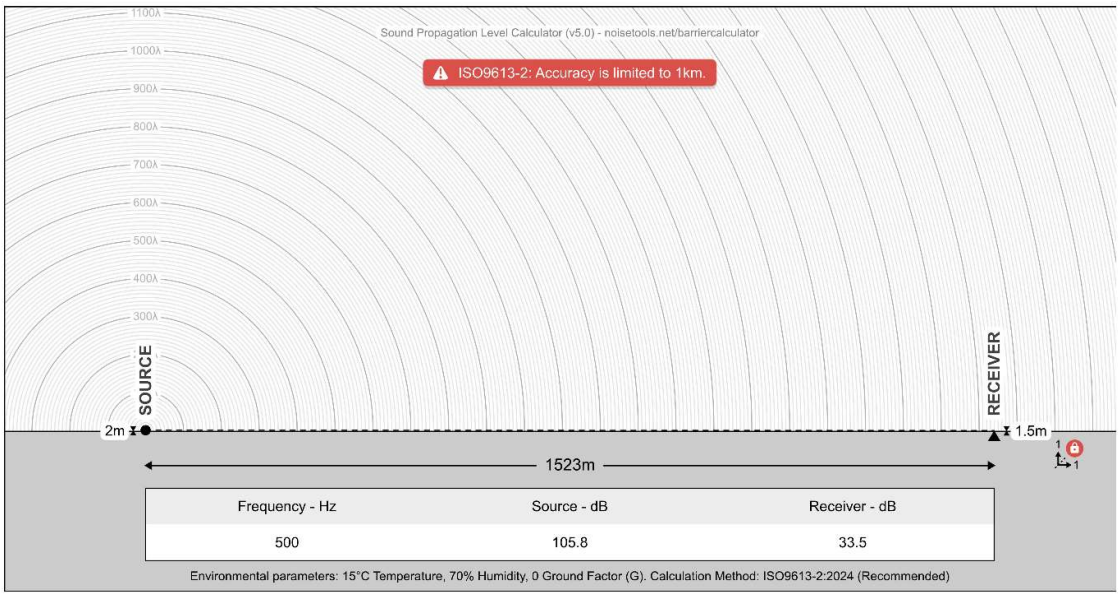
8.4.6 Metal screening & grading (inside building)



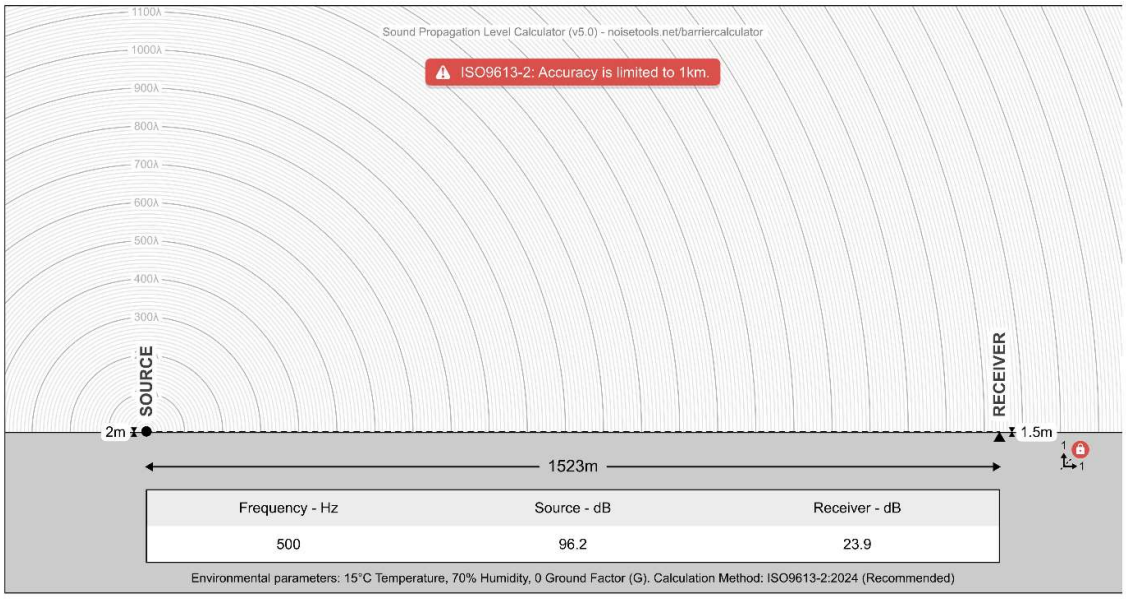
8.4.7 Unloading metal from train



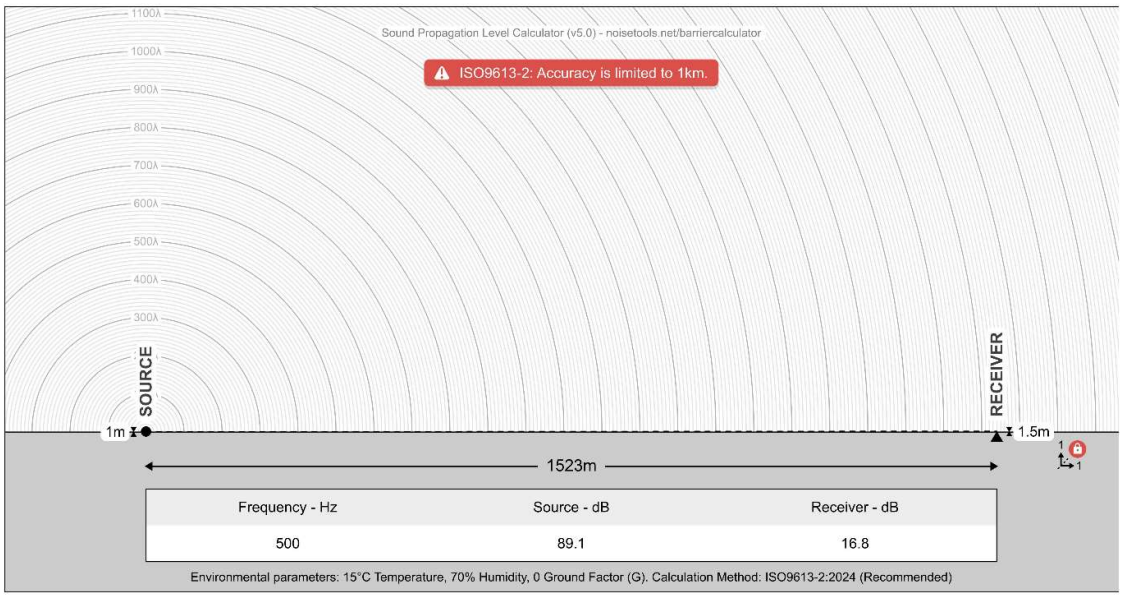
8.4.8 ELV unloading vehicle



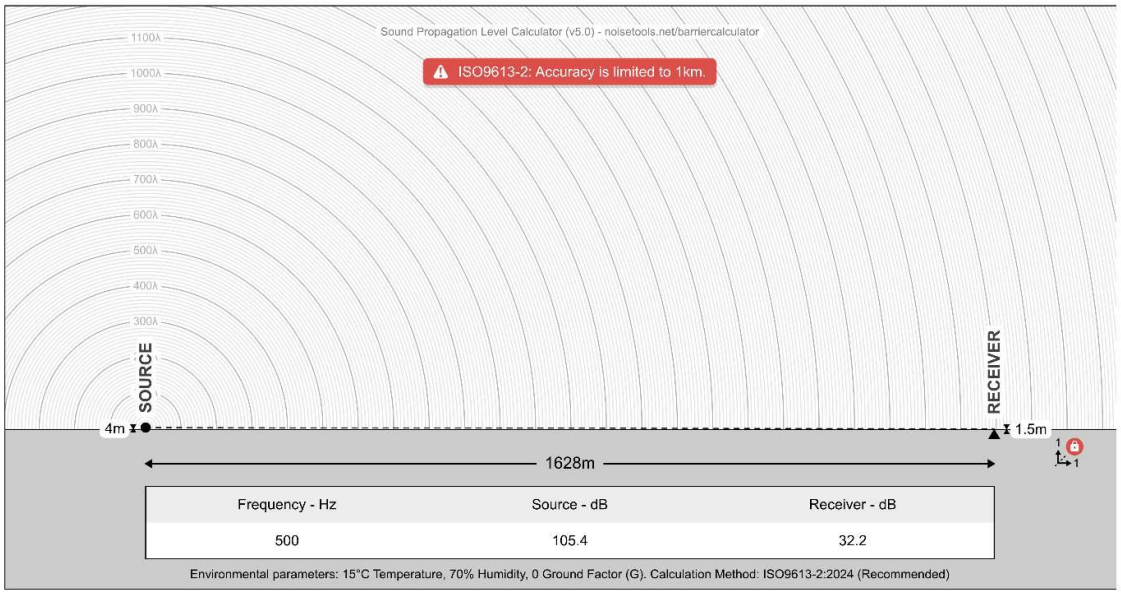
8.4.9 ELV petrol tank drill



8.4.10 ELV air compressor



8.4.11 Loading ship with metal



APPENDIX 9 Response to Natural Resources Wales Comments

We have previously raised that the NIA does not cover all sources of sound emitted from the site. The NIA has been updated to include that the sources not previously covered were included in the information provided for the Le Fort Shear. However, this is not supported in the rest of the application where the Le Fort Shear is only stated to be used for "cutting". We require further information on what model of Le Fort Shear is to be used on site, and the machinery and equipment to be used for ALL treatments proposed under this permit application. This can be done in the 6002-CAU-XX-XX-RP-V-0300.A0.C3 Supp Doc final.

1. **Action: provide the model of Le Fort Shear is to be used on site**

There are 3 shears on site. They have the same 1000t cross head and therefore generate the same noise level.

Static Lefort 1000t cross head
Mobil Lefort 1000t cross head
Static Lefort Koloss 1000t cross head

2. **Action: provide the machinery and equipment to be used for ALL treatments proposed under this permit application**

All of the operations outline in the permit have been included in the noise assessment. Not all of the operations will be conducted at the same time, so it represents a worst case.

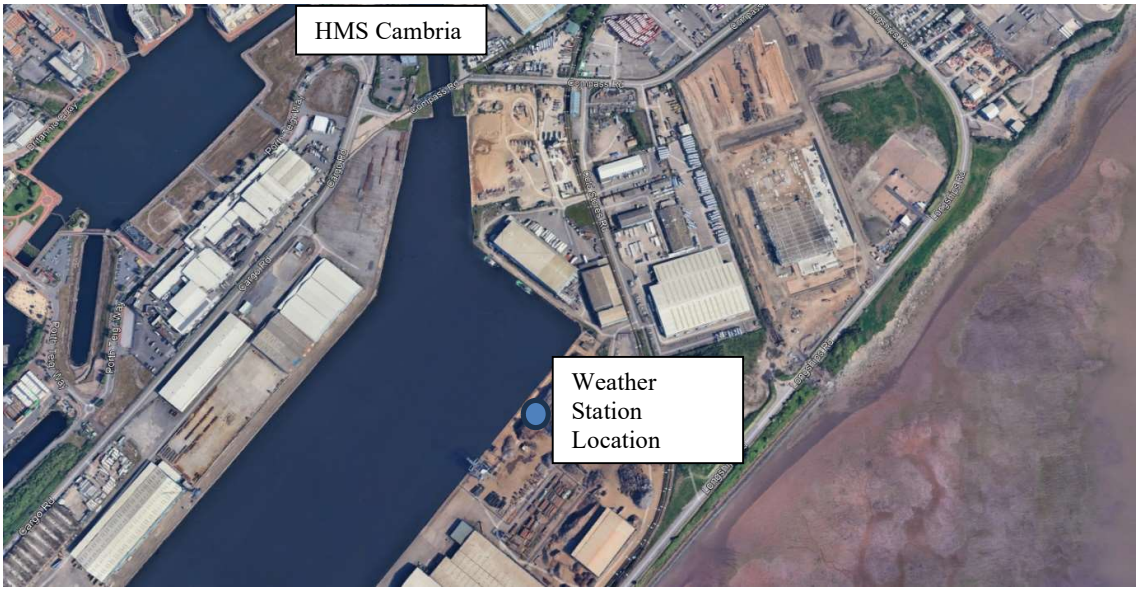
The NIA is required to include weather conditions, including wind speed(s) and direction(s), precipitation, temperature, etc. at the measurement location taken when the measures were being taken. Section 6.4 of the Method implementation document (MID) for BS 4142 makes it clear what is required regarding weather conditions and states "Meteorological data from a third-party weather station is not acceptable, even if local. You must assess weather at the microphone location and monitor it in real-time. You must not use weather archive websites (for example, wunderground.com) to report weather conditions."

The NIA confirms that weather data was "obtained from representative data at Cardiff International Airport". This is not acceptable.

As weather conditions must be recorded at the measurement location taken when the measures are being taken, the baseline noise measurements must be taken again with the weather conditions correctly recorded.

3. Action: Complete new baseline noise monitoring ensuring that all requirements as set out in BS4142 and the Method implementation document are met.

A new baseline noise survey has been conducted at HMS Cambria. It was my intention to set up a weather station at HMS Cambria. The weather station sends the data to a cloud network via a wi-fi network. However, the sending of data through the wi-fi network was not permitted at HMS Cambria. I therefore set up the weather station at the Ward Recycling site on Cargo Road, Cardiff.



The weather station was positioned in an open location, approximately 465 south west of HMS Cambria. Please not there were no material stockpiles in this area (as shown in the picture below).

4. **Action: correct the designation reference for Cardiff Bay Wetlands and Hamadryad Park Local Nature reserve**
5. **Action: provide justification why Cardiff Bay Wetlands and Hamadryad Park was selected as a sensitive receptor for noise assessments**
6. **provide justification why Severn Estuary SSSI, SAC, SPA and Ramsar has been omitted from the NIA as a sensitive receptor.**

This revised noise assessment has included the Severn Estuary SPA & Ramsar and Severn Estuary SSSI & SAC area during the daytime periods only.

7. Action: provide a description of the intervening ground

This ground comprises of hard standing and water bodies between the sources and receptors. It has therefore been classified as 100% hard ground. There are no topographical features. The ground level is flat between the sources and receptor.

Section 4.6 states that the Sunday survey results have been disregarded as there are no operations on Sundays, however section 4.9 confirms ship loading operations are proposed to take place 24 hours a day 7 days a week. As waste could be loaded onto ships this should be included.

Section 4.9 specifies that ship loading operations only will take place 24-hours a day 7 days a week. This operation has been assessed at the closest residential receptor HMS Cambria.

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