

Floatel #1 and Floatel #2 Noise Monitoring Survey – Q2 2026 (March 16 – 20, 2026)

Woodfibre LNG Project

May 27, 2026

123222939EN-RPT0071

Preamble

The Woodfibre Liquefied Natural Gas Project (the Project) is a liquefied natural gas export facility being constructed on the former Woodfibre Pulp and Paper Mill site in Átl'ka7tsem (Howe Sound), approximately seven kilometres south of Skwxwú7mesh (Squamish). The Project is on the historical location of a Skwxwú7mesh Úxwumixw (Squamish Nation) village known as Swiyát. Swiyát and Átl'ka7tsem (Howe Sound) are tied to the cultural well-being of Skwxwú7mesh Úxwumixw (Squamish Nation) members, their ancestors, and their descendants, and to other Indigenous groups as defined in the Project's Environmental Assessment Certificates. The Project is also operating within the traditional, ancestral, and unceded territory of the səliwətał (Tsleil-Waututh) Nation, and to other Indigenous groups as defined in the Project's Environmental Assessment Certificates. Woodfibre LNG General Partner Inc. (Woodfibre LNG) recognizes the importance of these areas to the Skwxwú7mesh stélmexw (Squamish People), and other Indigenous groups. Woodfibre LNG General Partner Inc., as general partner on behalf of Woodfibre LNG Limited Partnership seeks to construct and operate the Project in a manner that is respectful of Indigenous values. This Floatel Noise Monitoring and Mitigation Plan is primarily written in English with important place names, phrases, and passages provided in Skwxwú7mesh sníchim (the Squamish language).

Temíxwiýikw chet wa naantem chet ti temíxw Swiyát
Chet wa sméñhemswit kwis ns7éyxñitas chet ti temíxw
We7ú chet kwis t'íchimwit iy íwás chet eḵ' l tti.

Our ancient ancestors named this place Swiyát
We, as their descendants safeguard these lands
We will continue to swim and fish in these clear waters.

Limitations and Sign-off

This document entitled Floatel #1 and Floatel #2 Noise Monitoring Survey – Q2 2026 was prepared by Stantec Consulting Ltd. (“Stantec”) for the account of Woodfibre LNG General Partner Inc. (the “Client”). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec’s professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

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Executive Summary

Woodfibre LNG General Partner Inc. (Woodfibre LNG) is constructing the Woodfibre Liquefied Natural Gas Project (the Project), a liquefied natural gas export facility located on the former Woodfibre Pulp Mill site approximately seven kilometres (km) southwest of Sk̓w̓w̓mesh (Squamish), British Columbia (BC).

In accordance with the Floatel Noise Monitoring and Mitigation Plan (FNMMP), Stantec Consulting Ltd. (Stantec) commenced quarterly noise monitoring program following the deployment of the floating worker accommodations (Floatel #1 and Floatel #2).

To satisfy Condition 36 of Amendment #4 of the Environmental Assessment Certification (EAC) #E15-02, the Quarter 2 (Q2) 2026 monitoring program for Floatel #1 and Floatel #2, was conducted from March 16 to March 20, 2026. Continuous sound level monitoring was conducted at five cabins located on different decks on Floatel #1: Cabin 5628, Cabin 6622, Cabin 7004, Cabin 9400, and Cabin 0102; and three cabins on Floatel #2: Cabin 4482, Cabin 508, and Cabin 064.

Sound level targets are set forth based on the Health Canada's Guidance for Evaluating Human Health Effects in Impact Assessment: Noise, 2023 (Health Canada thresholds), and the American National Standards Institute (ANSI) ANSI S12.2-2019 (Reaffirmed in 2023) Criteria for Evaluating Room Noise (ANSI S12.2). Measured sound levels were compared against the Health Canada sleep disturbance thresholds and the ANSI S12.2 indoor sound level criteria to assess compliance. Occupant interviews were also conducted to identify potential noise related concerns.

On Floatel #1, the measurement results complied with the ANSI S12.2 criteria but recorded above Health Canada thresholds. On Floatel #2, Cabin 064 met both criteria; while Cabin 508 were above Health Canada thresholds but complied with ANSI S12.2 criteria. Cabin 4482 were above ANSI S12.2 criteria, high airflow from the ventilation outlet was identified as a primary contributor to the elevated sound levels.

Noise complaints were received from the floatel occupants regarding noise from rock hammer operations, adjacent to the floatels, during nighttime. Field noise investigation monitoring was conducted at the Project site and Floatel #1. Noise mitigation by management control (e.g., earplugs) was recommended. In addition, the Communication Protocol and Complaint Response Procedure will be maintained to actively address and manage any noise concerns or complaints from the occupants on Floatel #1 and Floatel #2.

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Abbreviations

ANSI	American National Standards Institute
BC	British Columbia
BCER	British Columbia Energy Regulator
dB	Decibel level
dBA	A-weighted decibel level
EAC	Environmental Assessment Certificate
EAO	Environmental Assessment Office
FDS	Federal Decision Statement
FNMMMP	Floatel Noise Monitoring and Mitigation Plan
HVAC	Heating, ventilation, and air-conditioning
Hz	Hertz
L _{Amax}	Maximum A-weighted equivalent sound level
L _d	Daytime equivalent sound level
L _{eq}	Energy equivalent sound level
L _n	Nighttime equivalent sound level
LNG	Liquefied natural gas
MOH	Ministry of Health
the Project	Woodfibre Liquefied Natural Gas Project
SPL	Sound pressure level
VCH	Vancouver Coastal Health
WHO	World Health Organization
Woodfibre LNG	Woodfibre LNG General Partner Inc.

Glossary

Adaptive Management	A systematic process for continually improving management policies and practices by learning from the outcomes of operational programs.
Bands (octave, 1/3 octave)	A series of electronic filters separate sound into discrete frequency bands, making it possible to know how sound energy is distributed as a function of frequency. Each octave band has a centre frequency that is double the centre frequency of the octave band preceding it.
daytime	The hours from 07:00 to 22:00.
dB - Decibel	A logarithmic unit associated with sound pressure levels and sound power levels.
dBA - decibel, A-weighted	A logarithmic unit where the recorded sound has been filtered using the A frequency weighting scale. A-weighting somewhat mimics the response of the human ear to sounds at different frequencies. A weighted sound pressure levels are denoted by the suffix 'A' (i.e., dBA), and the term pressure is normally omitted from the description (i.e., sound level or noise level).
energy equivalent sound level (L _{eq})	An energy-average sound level taken over a specified period of time. It represents the average sound pressure encountered for the period. The time period is often added as a suffix to the label (e.g., L _{eq} (24) for the 24-hour equivalent sound level). L _{eq} is usually A-weighted. A L _{eq} value expressed in dBA is a good, single value descriptor of the annoyance of noise.
frequency	Number of cycles per unit of time. In acoustics frequency is expressed in hertz (Hz), i.e., cycles per second.
Floatel(s)	Marine-based work camp, associated facilities and mooring infrastructure dedicated to housing up to 705 and 735 workers (including crew), in Floatel #1 and Floatel #2, respectively, during the Construction and Commissioning of the Project.
hertz (Hz)	Unit of measurement of frequency, numerically equal to cycles per second.

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L_d	Daytime sound level, an equivalent continuous sound level taken over 15 hours from 07:00 to 22:00.
L_{Amax}	The maximum value of the A-weighted sound pressure level during a measurement duration.
L_n	Nighttime sound level, an equivalent continuous sound level taken over 9 hours from 22:00 to 07:00.
nighttime	The hours from 22:00 to 07:00.
noise	Unwanted sound.
noise level	Same as sound level, except applied to unwanted sounds.
sound	A dynamic (fluctuating) pressure.
sound pressure level (SPL)	The logarithmic ratio of the root mean square (RMS) sound pressure to the sound pressure at the threshold of hearing. The sound pressure level is defined by the equation below where P is the RMS pressure due to a sound and P_0 is the reference pressure. P_0 is usually taken as 2.0×10^{-5} Pascals. $SPL \text{ (dB)} = 20 \log (P_{RMS}/P_0)$

1.0 INTRODUCTION

In accordance with the Floatel Noise Monitoring and Mitigation Plan (FNMMP), Stantec conducted the Quarter 2 (Q2) subsequent noise monitoring survey on Floatel #1 and Floatel #2 from March 16 to March 20, 2026, to satisfy Condition 36 of Amendment #4 of the Environmental Assessment Certification (EAC) #E15-02. Figure 1 shows the locations of Floatel #1 and Floatel #2.

The objectives of the noise monitoring programs include the following:

- Measure sound levels at the selected cabins on Floatel #1 and Floatel #2.
- Conduct spot measurements at different locations outside the cabins at each deck on Floatel #2 and compare with the measurement results of the initial noise monitoring.
- Analyze data gathered and evaluate noise effects on the floatel cabin occupants from construction activities.
- Compare the measured sound levels with applicable sleep disturbance thresholds and assess compliance for sleep disturbance effect for sleeping quarter occupants.
- Conduct interviews about noise with occupants of both floatels.
- Recommend mitigation or adaptive management plan if required.

This report summarizes the measurement results and findings during the Q2 noise monitoring surveys for Floatel #1 and Floatel #2.

2.0 CABIN SOUND LEVEL TARGETS

Construction noise may cause sleep disturbance for the occupants on Floatel #1 and Floatel #2 during the Project construction phase. This section focuses on the sleep disturbance threshold recommendations by Health Canada and room sound level criteria from ANSI S12.2. The noise descriptors, including energy equivalent sound level (L_{eq}), daytime equivalent A-weighted sound level (L_d), nighttime equivalent A-weighted sound level (L_n), and maximum A-weighted sound level (L_{Amax}) are used to quantify noise levels.

2.1 HEALTH CANADA SLEEP DISTURBANCE THRESHOLD

The Project construction activities may be scheduled 24 hours per day, meaning that the floatel occupants could be off-duty and sleeping during both daytime and nighttime while construction is ongoing. In accordance with the Health Canada thresholds for sleep disturbances, the recommended indoor noise thresholds for Floatel #1 and Floatel #2 are:

- 30 dBA (L_{eq}) for continuous noise level during sleep periods.
- Maximum 15 times of occurrence of $L_{Amax} > 45$ dBA during both daytime (07:00 to 22:00) and nighttime (22:00 to 07:00).

Although the Health Canada sleep disturbance threshold of 30 dBA is used in this assessment, it is better suited for private residential bedrooms with very low background noise. However, in spaces with higher occupant density, such as apartment buildings and hotel or motel rooms, background noise from central heating, ventilation and air-conditioning (HVAC) systems, as well as local people activities, a sound level of 30 dBA may not be feasible.

Therefore, in addition to the Health Canada's thresholds, the ANSI S12.2 standard for hotel and motel room sound level criteria is used as an achievable target for evaluating interior noise on the floatels.

2.2 ANSI S12.2 SOUND LEVEL CRITERIA FOR ROOM

The ANSI S12.2 sound level criteria for room noise is commonly used as a reference guide for assessment of sound level criteria for occupants in various interior environments. The ANSI standard specifies sound level criteria when evaluating the room noise by using the survey method that employs the A-weighted sound level. Table 2.1 lists the A-weighted sound level criteria for individual rooms or suite in hotels and motels, based on ANSI sound level criteria for room of various uses (ANSI S12.2).

Table 2.1 A-weighted Sound Level Criteria for Rooms – Hotels and Motels

Occupancy	A-weighted Sound Level dBA
Hotels/motels	
Individual rooms or suites	39 to 44
Meeting/banquet rooms	35 to 44
Service support areas	48 to 57
Source: Table C.1 of ANSI S12.2	

As the floatel worker accommodation is similar to the hotel/motel classification, the A-weighted sound level criteria of 39 to 44 dBA for individual rooms or suites will be included in the noise evaluation for Floatel #1 and Floatel #2, and 44 dBA will be set as the achievable target for the sleep disturbance thresholds during both daytime and nighttime periods.

3.0 NOISE MONITORING PROGRAM

In accordance with the FNMMP, Stantec Qualified Professionals conducted the Q2 noise monitoring survey on Floatel #1 and Floatel #2 from March 16 to March 20, 2026. The following sections outline the monitoring program details, including cabin locations, measurement instrumentation, measurement setup, Project construction activities occurring during the measurement period, and data analysis methods.

3.1 CABIN LOCATIONS

The sound level meters were set up inside the representative cabins on different decks of Floatel #1 and Floatel #2. A representative cabin is an unoccupied cabin that is available for occupancy and is selected based on the highest potential noise impact. Key factors in cabin selection included proximity to construction activities, line of sight to noise sources, and availability during the survey period.

Five cabins were selected for the Q2 noise monitoring survey on Floatel #1: Cabin 5628, Cabin 6622, Cabin 7004, Cabin 9400, and Cabin 0102. Each cabin is located on a different deck, indicated by the first digit of the cabin number (e.g., Cabin 5628 on Deck 5 and Cabin 0102 on Deck 10).

Three cabins were selected on Floatel #2: Cabin 4482, Cabin 508, and Cabin 064 located on Deck 4, Deck 5 and Deck 6, respectively.

Construction activities within the Project area were the focus of the Q2 noise monitoring surveys. Floatel #1 is berthed starboard to shore, Cabin 5628, Cabin 7004, Cabin 9400 and Cabin 0102 are located at the starboard side of Floatel #1 and facing the southwestern construction 4100 Area. They were selected to evaluate noise effects from construction activities in the southwest. Because Deck 2 is under the vessel waterline and is unlikely to be affected by construction noise, Deck 2 was excluded in the Q2 noise monitoring survey.

Floatel #2 is also berthed starboard to shore and moored further away from the construction 4100 Area than Floatel #1. Cabin 4482 and Cabin 508 are located at the starboard side of the floatel/ Cabin 064 is located at the stern of the floatel. All three cabins are facing the southwestern construction 4100 Area.

Table 3.1 summarizes the selected cabins, general descriptions, and field observations. Figure 2 through Figure 6, and Figure 7 through Figure 14 illustrate these cabin locations on each deck of Floatel #1 and Floatel #2.

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Table 3.1 Selected Cabins, Descriptions, and Observations

Cabin	Deck	Description and Observations during Monitoring Period	Reference Figures
Floattel #1			
5628	5	- Total of 219 cabins. - There are Vent Stores (i.e., ventilation rooms) and Service Workshop located at the stern of Deck 5. - Cabin 5645 is located on the starboard side of the floatel and facing the southwestern construction 4100 Area. - Cabin ceiling ventilation was continuously operating.	Figure 2 Figure 7
6622	6	- Total of 248 cabins. - Cabin 6622 is located on the stern of the floatel and facing the 4100 Area. - Cabin ceiling ventilation was continuously operating.	Figure 3 Figure 8
7004	7	- Total of 58 cabins. - Ancillary service facilities on Deck 7 including Reception, Gym, Games Lounge, and other facility rooms. - Cabin 7400 is located on the starboard side of the floatel and facing the 4100 Area. - Cabin ceiling ventilation was continuously operating.	Figure 3 Figure 9
9400	9	- Total of 88 cabins. - There is an outdoor area at the stern and a smoking area on the starboard side of Deck 9. - Some cabins are located underneath the Fan Rooms (rooms with ventilation fans) on Deck 10. Higher noise from Fan Rooms ventilation openings was observed at the smoke area. - Cabin 9400 is located on the starboard side of the floatel and facing the 4100 Area. - Cabin ceiling ventilation was continuously operating.	Figure 4 Figure 10
0102	10	- Total of 17 cabins with office areas. - There are several Fan Rooms on Deck 10. - Cabin 0102 is located on the starboard side of the floatel and facing the 4100 Area. - Cabin ceiling ventilation was continuously operating.	Figure 4 Figure 11
Floattel #2			
4482	4	- Total of 195 cabins. - The deck is above the floatel operating equipment on Deck 3 and Deck 2, including heat pumps, and auxiliary equipment on Deck 3, and Engine Stores with power generators, and workshops on Deck 2. - Cabin 4482 is located on the starboard side of the floatel and close to the southwestern construction 4100 Area. - Cabin ceiling ventilation was continuously operating.	Figure 5 Figure 12

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Cabin	Deck	Description and Observations during Monitoring Period	Reference Figures
508	5	- Total of 200 cabins. - Cabin 508 is located on the starboard side of the floatel and close to the 4100 Area. - Cabin ceiling ventilation was not operating until 21:00 on March 18.	Figure 5 Figure 13
064	6	- Total of 215 cabins. - Cabin 064 is located on the stern of the floatel and facing the 4100 Area. - Cabin ceiling ventilation was not operating.	Figure 6 Figure 14Figure 6

3.2 MEASUREMENT INSTRUMENTATION

Noise monitoring was conducted with six Brüel & Kjær Model 2250 and 2270 sound level meters fitted with Brüel & Kjær 4189 and 4966 type microphones. The sound level meters meet the ANSI S1.4-2006 Type 1 and IEC 61672-1 Class 1 specifications. The sound level meters were field calibrated before and after each measurement period and have valid laboratory certificates. Laboratory certificates are considered valid for two years after the last recalibration for the sound level meters and within one year period for the calibrator.

Table 3.2 summarizes details of the measurement instrumentation. Corresponding calibration certificates for the sound level meters and calibrator are attached in Appendix B.

Table 3.2 Details of Measurement Instrumentation

Item	Description
Sound Level Meter	Brüel & Kjær Model 2250 s/n 2818093 Brüel & Kjær Model 2250 s/n 2009183 Brüel & Kjær Model 2250 s/n 3003408 Brüel & Kjær Model 2250 s/n 3007892 Brüel & Kjær Model 2250 s/n 3008995 Brüel & Kjær Model 2270 s/n 3002024
Microphone	Brüel & Kjær Model 4189 s/n 2799496 Brüel & Kjær Model 4189 s/n 2799510 Brüel & Kjær Model 4189 s/n 2866566 Brüel & Kjær Model 4189 s/n 2780543 Brüel & Kjær Model 4966 s/n 3391835 Brüel & Kjær Model 4189 s/n 3060527
Calibrator	Brüel & Kjær Model 4231 s/n 2053018
Bandwidth	1/3 Octave Band
Frequency Range	6.3 Hz – 20 kHz
Frequency Weightings	Z (Linear), A & C
Calibration Level	94 dB at 1 kHz

3.3 MEASUREMENT SETUP

Dayshift workers sleep during nighttime and nightshift workers sleep during daytime on Floatel #1 and Floatel #2. Therefore, continuous sound levels over 36 hours on Floatel #1 and over 24 hours on Floatel #2, i.e., multiple daytime and nighttime periods, were measured at the selected cabins, respectively.

Five sound level meters were deployed for continuous noise monitoring. The sound level meters were set to 1-minute logging intervals measuring L_{Amax} and L_{eq} sound levels in one-third octave band L_{eq} sound levels from 6.3 Hz to 20 kHz frequency range.

Sound level meters also recorded the continuous digital audio signal simultaneously for further data analysis and post-processing to remove (isolate) extraneous noise events from the dataset.

The microphones were set up at bed height (i.e., 1 meter above the room floor) in each cabin. Figure 7 through Figure 14 in Appendix A illustrate the sound level meter setup at each cabin.

One sound level meter (Brüel & Kjær 2250 s/n 3003408) was used in spot measurements on Floatel #2 to conduct sound level measurements outside the cabins along the corridors on each deck. L_{eq} and L_{Amax} sound levels in one-third octave band L_{eq} from 6.3 Hz to 20 kHz frequency range were measured up to 1-minute duration at each spot measurement location.

The monitoring procedures are described as below:

- On Floatel #1, four sound level meters were set up at Cabin 6622, Cabin 7004, Cabin 9400 and Cabin 0102, respectively, to collect continuous noise data on March 16. Noise monitoring was finished at three cabins (i.e., Cabin 6622, Cabin 7004 and Cabin 9400) on March 18. Noise monitoring continued at Cabin 0102 until March 20.
- One sound level meter was relocated to Cabin 5628 on Floatel #1, to collect continuous noise data from March 18 to March 20.
- On Floatel #2, three sound level meters were set up at Cabin 4482, Cabin 508 and Cabin 064, respectively, to collect continuous noise data from March 18 to March 19.
- During noise monitoring periods on Floatel #2, spot measurements at different locations outside cabins along corridors on Deck 4, Deck 5, and Deck 6 were conducted to investigate locations with potentially high noise impacts and compare with the measurement results of the initial noise monitoring survey.

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Table 3.3 summarizes the measurement duration at each cabin on Floatel #1 and Floatel #2 during the noise monitoring periods.

Table 3.3 Noise Monitoring Duration at Cabins

Cabin	Measurement Start		Measurement End		Measurement Duration (hrs mm))
	Date (mm/dd/yyyy)	Time (hh:mm)	Date (mm/dd/yyyy)	Time (hh:mm)	
Floatel #1					
5628	03/18/2026	10:53	03/20/2026	07:00	43 hrs 37 mins
6622	03/16/2026	21:19	03/18/2026	10:12	36 hrs 33 mins
7004	03/16/2026	11:19	03/18/2026	10:04	46 hrs 38 mins
9400	03/16/2026	07:54	03/18/2026	09:59	49 hrs 53 mins
0102	03/16/2026	07:34	03/20/2026	06:11	89 hrs 2 mins ¹
Floatel #2					
4482	03/18/2026	11:21	03/19/2026	13:01	25 hrs 40 mins
508	03/18/2026	11:35	03/19/2026	13:12	25 hrs 37 mins
064	03/18/2026	11:43	03/19/2026	13:19	25 hrs 36 mins

Note:

¹ The measurements stopped between 09:45 to 15:22 on March 19.

3.4 PROJECT CONSTRUCTION ACTIVITIES

There were dayshift and nightshift construction activities during the noise monitoring period from March 16 to March 20. The dayshift was from 07:00 to 17:00 and the nightshift was from 19:00 to 07:00. Figure 15 illustrates the construction areas onsite with Area ID #.

Based on the Construction Log of the Project, major construction activities during the noise monitoring period included the following:

- Excavator work was conducted in Areas 1100, 1200, and 4200.
- Aggregate was offloaded.
- Rock hammering/breaking activities were conducted in Area 4100.

3.5 DATA ISOLATION ANALYSIS

The FNMMP prescribes that measured noise data that are not representative of the existing acoustic environment, and non-representative weather conditions can be isolated from the data set prior to the calculation of any average values.

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It was raining during the noise monitoring periods, however, there were no high winds and heavy rain observed outside to influence the indoor measurements. Therefore, isolation was not applied to weather conditions.

Noise events isolated from the data set included:

- Qualified Professional activities (e.g., equipment setup and disassembly, daily regular checkups).
- Door knocking or opening at the monitored cabin.
- Noise from nearby neighboring occupants, such as door open/close, talking in the corridor.

These noise events were identified using audio recordings and also based on the Qualified Professional's field notes and then removed from the valid measurement data.

After the data isolation, L_{eq} , L_d , L_n , and L_{Amax} values were determined for the different measurement periods. Once the data isolation analysis was completed, the resulting valid noise data set (i.e., with invalid data removed) was logarithmically averaged over the corresponding time periods using the following formula:

$$L_{Aeq}(isolated, ave) = 10 \lg_{10} \left[\frac{1}{N_V} \sum_{i=1}^{N_V} 10^{(0.1 L_{A,eq})} \right] dBA$$

where:

N_V = number of valid 1-minute logging periods in the measurement data set.

4.0 MEASUREMENT RESULTS ON FLOATEL #1

This section summarizes the analysis results on Floatel #1. The L_d , L_n , occurrence of L_{Amax} higher than 45 dBA (i.e., Health Canada thresholds) are analyzed and presented in tables herein. In total, there are approximately 16,000 minutes logged measurement values from the five cabins during the monitoring period on Floatel #1.

4.1 MEASUREMENT RESULTS AT CABINS

Table 4.1 provides an overall summary of the noise monitoring results from each cabin. In all tables below, the nighttime period was designated as spanning from 22:00 until 07:00 of the following day, e.g., nighttime of March 16 was from 22:00 of March 16 to 07:00 of March 17.

Table 4.1 Summary of Measurement Results

Cabin	Deck	Overall Average Daytime L_d , dBA	Overall Average Nighttime L_n , dBA	Highest Occurrences of $L_{Amax} > 45$ dBA	
				Daytime	Nighttime
5628	5	37.3	37.1	31	4
6622	6	41.7	41.4	67	16
7004	7	38.9	38.9	15	9
9400	9	42.4	42.4	340	540
0102	10	41.0	41.1	86	27

The overall average daytime L_d and L_n sound levels are the logarithmic average of the daytime and nighttime measurement results at each cabin. Details of daily measurement results at each cabin are described in the following sections. The daily results are compared to the Health Canada sleep disturbance thresholds and ANSI room sound level criteria.

4.2 CABIN 5628

Table 4.2 summarizes the daily L_d and L_n sound levels, and occurrences with $L_{Amax} > 45$ dBA at Cabin 5628.

**WOODFIBRE LNG PROJECT:
FLOATEL #1 AND FLOATEL #2 NOISE MONITORING SURVEY – Q2 2026
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Table 4.2 Summary of Daily L_d and L_n at Cabin 5628

Date (mm/dd/yyyy)	Average Daytime L_d , dBA	Average Nighttime L_n , dBA	Daytime Occurrences of $L_{Amax} > 45$ dBA	Nighttime Occurrences of $L_{Amax} > 45$ dBA	Health Canada		ANSI S12.2
					L_{eq} , dBA	Qty. of $L_{Amax} > 45$ dBA	L_{eq} , dBA
03/18/2026 ¹	36.5	36.7	14	4	30	15	39 to 44
03/19/2026	37.9	37.5 ²	31	1 ²	30	15	39 to 44

Notes:

¹ The measurements started at 10:53.

² The measurements ended at 07:00 on March 20.

Monitoring results for Cabin 5628 are summarized as follows:

- L_d and L_n are higher than the Health Canada noise threshold of 30 dBA.
- L_d and L_n are lower than the recommended ANSI S12.2 room sound level criteria limit of 44 dBA.
- Occurrences with $L_{Amax} > 45$ dBA are less than 15 times during daytime period of March 18, and nighttime periods of March 18 and March 19.
- Occurrences with $L_{Amax} > 45$ dBA are more than 15 times during daytime period of March 19.

4.3 CABIN 6622

Table 4.3 summarizes the daily L_d and L_n sound levels, and occurrences with $L_{Amax} > 45$ dBA at Cabin 6622.

Table 4.3 Summary of Daily L_d and L_n at Cabin 6622

Date (mm/dd/yyyy)	Average Daytime L_d , dBA	Average Nighttime L_n , dBA	Daytime Occurrences of $L_{Amax} > 45$ dBA	Nighttime Occurrences of $L_{Amax} > 45$ dBA	Health Canada		ANSI S12.2
					L_{eq} , dBA	Qty. of $L_{Amax} > 45$ dBA	L_{eq} , dBA
03/16/2026 ¹	40.7	40.7	0	9	30	15	39 to 44
03/17/2026	42.1	42.0	67	16	30	15	39 to 44
03/18/2026	42.0	- ²	3	- ²	30	15	39 to 44

Notes:

¹ The measurements started at 21:19.

² “-” indicates no data was measured. The survey ended at 10:12.

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Monitoring results for Cabin 6622 are summarized as follows:

- L_d and L_n sound levels are higher than the Health Canada noise threshold of 30 dBA.
- L_d and L_n sound levels are lower than the ANSI S12.2 room sound level criteria limit of 44 dBA.
- Occurrences with $L_{Amax} > 45$ dBA are more than 15 times during daytime and nighttime periods of March 17.
- Occurrences with $L_{Amax} > 45$ dBA are less than 15 times during both daytime and nighttime periods of March 16 and daytime period of March 18.

4.4 CABIN 7004

Table 4.4 summarizes the daily L_d and L_n sound levels, and occurrences with $L_{Amax} > 45$ dBA at Cabin 7004.

Table 4.4 Summary of Daily L_d and L_n at Cabin 7004

Date (mm/dd/yyyy)	Average Daytime L_d , dBA	Average Nighttime L_n , dBA	Daytime Occurrences of $L_{Amax} > 45$ dBA	Nighttime Occurrences of $L_{Amax} > 45$ dBA	Health Canada		ANSI S12.2
					L_{eq} , dBA	Qty. of $L_{Amax} > 45$ dBA	L_{eq} , dBA
03/16/2026 ¹	38.7	38.9	15	3	30	15	39-44
03/17/2026	39.0	39.0	14	9	30	15	39-44
03/18/2026	39.0	- ²	9	- ²	30	15	39-44

Notes:

¹ The measurements started at 11:19.

² "-" indicates no data was measured. The survey ended at 10:04.

Monitoring results for Cabin 7004 are summarized as follows:

- L_d and L_n sound levels are higher than the Health Canada noise threshold of 30 dBA.
- L_d and L_n sound levels are lower than the ANSI S12.2 room sound level criteria limit of 44 dBA.
- Occurrences with $L_{Amax} > 45$ dBA are equal to or less than 15 times during all daytime and nighttime periods from March 16 to March 18.

4.5 CABIN 9400

Table 4.5 summarizes the daily L_d and L_n sound levels, and occurrences with $L_{Amax} > 45$ dBA at Cabin 9400.

**WOODFIBRE LNG PROJECT:
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Table 4.5 Summary of Daily L_d and L_n at Cabin 9400

Date (mm/dd/yyyy)	Average Daytime L_d , dBA	Average Nighttime L_n , dBA	Daytime Occurrences of $L_{Amax} > 45$ dBA	Nighttime Occurrences of $L_{Amax} > 45$ dBA	Health Canada		ANSI S12.2
					L_{eq} , dBA	Qty. of $L_{Amax} > 45$ dBA	L_{eq} , dBA
03/16/2026 ¹	40.7	39.9	172	48	30	15	39 to 44
03/17/2026	42.2	44.0	348	540	30	15	39 to 44
03/18/2026	43.8	- ²	177	- ²	30	15	39 to 44

Notes:

¹ The measurements started at 07:54.

² "-" indicates no data was measured. The survey ended at 09:59.

Monitoring results for Cabin 9400 are summarized as follows:

- L_d and L_n sound levels are higher than the Health Canada noise threshold of 30 dBA.
- L_d and L_n sound levels are equal to or lower than the ANSI S12.2 room sound level criteria limit of 44 dBA.
- Occurrences with $L_{Amax} > 45$ dBA are more than 15 times during all daytime and nighttime periods from March 16 to March 18.

4.6 CABIN 0102

Table 4.6 summarizes the daily L_d and L_n sound levels, and occurrences with $L_{Amax} > 45$ dBA at Cabin 0102.

Table 4.6 Summary of Daily L_d and L_n at Cabin 0102

Date (mm/dd/yyyy)	Average Daytime L_d , dBA	Average Nighttime L_n , dBA	Daytime Occurrences of $L_{Amax} > 45$ dBA	Nighttime Occurrences of $L_{Amax} > 45$ dBA	Health Canada		ANSI S12.2
					L_{eq} , dBA	Qty. of $L_{Amax} > 45$ dBA	L_{eq} , dBA
03/16/2026 ¹	41.0	41.4	58	18	30	15	39 to 44
03/17/2026	41.0	41.2	63	16	30	15	39 to 44
03/18/2026	41.0	41.1	86	14	30	15	39 to 44
03/19/2026	40.9	40.9 ²	51	27 ²	30	15	39 to 44

Notes:

¹ The measurements started at 07:08.

² The survey ended at 06:11 on March 20.

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Monitoring results for Cabin 0102 are summarized as follows:

- L_d and L_n sound levels are higher than the Health Canada noise threshold of 30 dBA.
- The L_d and L_n sound levels are lower than the ANSI S12.2 room sound level criteria limit of 44 dBA.
- Occurrences with $L_{Amax} > 45$ dBA are more than 15 times during most daytime and nighttime periods from March 16 to March 19, except the nighttime of March 18.
- Occurrences with $L_{Amax} > 45$ dBA are less than 15 times during nighttime period of March 18.

5.0 MEASUREMENT RESULTS ON FLOATEL #2

This section summarizes the analysis results for Floatel #2. The L_d , L_n , occurrence of L_{Amax} higher than 45 dBA (i.e., Health Canada thresholds) are analyzed and presented in tables herein. In total, there are approximately 4,600 minutes logged measurement values from the three cabins during the monitoring period on Floatel #2.

5.1 MEASUREMENT RESULTS AT CABINS

Table 5.1 provides an overall summary of the noise monitoring results from each cabin. In all tables below, the nighttime period was designated as spanning from 22:00 until 07:00 of the following day, e.g., nighttime of March 18 was from 22:00 of March 18 to 07:00 of March 19.

Table 5.1 Summary of Measurement Results

Cabin	Deck	Overall Average Daytime L_d , dBA	Overall Average Nighttime L_n , dBA	Highest Occurrences of $L_{Amax} > 45$ dBA	
				Daytime	Nighttime
4482	4	48.7	50.6	562	541
508	5	34.0	35.5	13	20
064	6	28.0	27.9	4	1

The overall average daytime L_d sound levels are the logarithmic average of two daytime measurement results at each cabin. Details of daily measurement results at each cabin are described in the following sections. The daily results are compared to the Health Canada sleep disturbance thresholds and ANSI room sound level criteria.

5.2 CABIN 4482

Table 5.2 summarizes the daily L_d and L_n sound levels, and occurrences with $L_{Amax} > 45$ dBA at Cabin 4482.

Table 5.2 Summary of Daily L_d and L_n at Cabin 4482

Date (mm/dd/yyyy)	Average Daytime L_d , dBA	Average Nighttime L_n , dBA	Daytime Occurrences of $L_{Amax} > 45$ dBA	Nighttime Occurrences of $L_{Amax} > 45$ dBA	Health Canada		ANSI S12.2
					L_{eq} , dBA	Qty. of $L_{Amax} > 45$ dBA	L_{eq} , dBA
03/18/2026 ¹	45.5	50.6	309	541	30	15	39 to 44
03/19/2026	50.6	- ²	562	- ²	30	15	39 to 44

Notes:

¹ The measurements started at 11:21.

² "-" indicates no data was measured. The survey ended at 13:01.

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Monitoring results for Cabin 4482 are summarized as follows:

- L_d and L_n are higher than the Health Canada noise threshold of 30 dBA.
- L_d and L_n are higher than the ANSI S12.2 room sound level criteria limit of 44 dBA.
- Occurrences with $L_{Amax} > 45$ dBA are more than 15 times during both daytime and nighttime periods from March 18 to March 19.

5.3 CABIN 508

Table 5.3 summarizes the daily L_d and L_n sound levels, and occurrences with $L_{Amax} > 45$ dBA at Cabin 508.

Table 5.3 Summary of Daily L_d and L_n at Cabin 508

Date (mm/dd/yyyy)	Average Daytime L_d , dBA	Average Nighttime L_n , dBA	Daytime Occurrences of $L_{Amax} > 45$ dBA	Nighttime Occurrences of $L_{Amax} > 45$ dBA	Health Canada		ANSI S12.2
					L_{eq} , dBA	Qty. of $L_{Amax} > 45$ dBA	L_{eq} , dBA
03/18/2026 ¹	30.6	35.5	6	20	30	15	39 to 44
03/19/2026	35.8	- ²	13	- ²	30	15	39 to 44

Notes:

¹ The measurements started at 11:35.

² "-" indicates no data was measured. The survey ended at 13:12.

Monitoring results for Cabin 508 are summarized as follows:

- L_d and L_n sound levels are higher than the Health Canada noise threshold of 30 dBA.
- L_d and L_n sound levels are lower than the ANSI S12.2 room sound level criteria limit of 44 dBA.
- Occurrences with $L_{Amax} > 45$ dBA are less than 15 times during daytime periods of March 18 and March 19.
- Occurrences with $L_{Amax} > 45$ dBA are more than 15 times during nighttime period of March 18.

5.4 CABIN 064

Table 5.4 summarizes the daily L_d and L_n sound levels, and occurrences with $L_{Amax} > 45$ dBA at Cabin 064.

Table 5.4 Summary of Daily L_d and L_n at Cabin 064

Date (mm/dd/yyyy)	Average Daytime L_d , dBA	Average Nighttime L_n , dBA	Daytime Occurrences of $L_{Amax} > 45$ dBA	Nighttime Occurrences of $L_{Amax} > 45$ dBA	Health Canada		ANSI S12.2
					L_{eq} , dBA	Qty. of $L_{Amax} > 45$ dBA	L_{eq} , dBA
03/18/2026 ¹	27.2	27.9	4	1	30	15	39 to 44
03/19/2026	28.7	- ²	2	- ²	30	15	39 to 44

Notes:

¹ The measurements started at 11:43.

² “-” indicates no data was measured. The survey ended at 13:19.

Monitoring results for Cabin 064 are summarized as follows:

- L_d and L_n sound levels are lower than the Health Canada noise threshold of 30 dBA.
- L_d and L_n sound levels are lower than the ANSI S12.2 room sound level criteria limit of 44 dBA.
- Occurrences with $L_{Amax} > 45$ dBA are less than 15 times during both daytime and nighttime periods of March 18 and March 19.

5.5 SPOT MEASUREMENTS

On Floatel #2, spot measurements were conducted outside the cabins along the corridors on each deck (i.e., Deck 4, Deck 5, and Deck 6) at the same locations during Q1 2026 noise monitoring. The purpose of the measurements was to collect the sound levels on each deck and compare the differences with the Q1 2026 and Q2 2026 noise monitoring surveys.

Details of the measurement time, locations, and L_{eq} sound level results from the spot measurements are summarized in Appendix C. Figure 16 through Figure 18 in Appendix A shows the measurement locations and corresponding L_{eq} sound levels.

During Q1 2026 noise monitoring, cabins on Deck 4 and Deck 5 were not occupied by workers and cabins on Deck 6 were occupied by approximately 109 workers. During Q2 2026 noise monitoring, all three decks were occupied by approximately 446 workers.

Comparison of the spot measurement results from Q1 2026 and Q2 2026 noise monitoring surveys at the same locations shows that the daytime and nighttime sound levels were generally higher on all three decks during Q2 2026 noise monitoring, the only exception was at the exit access door near Cabin 4684 at Deck 4 on the port side of the stern. The exit access door was open temporarily during the daytime in Q1 2026 noise monitoring and closed in Q2 2026 noise monitoring. With the door closed, sound levels along the nearby corridor were reduced by about 6 dB due to isolation of nearby operating equipment.

The elevated sound levels in Q2 2026 noise monitoring were due to the increase of occupied cabins which require more vessel operating capacity accordingly, such as increase of ventilation system capacity; and more local occupant activities.

6.0 NOISE COMPLAINT INVESTIGATION

Noise complaints were received and recorded in the Noise Complaint Form via the QR code system from floatel occupants in February and March 2026. Noise complaints were mainly related to noise from the rock hammer operations during nighttime at the construction 4100 Area, which is directly adjacent to Floatel #1. In accordance with the FNMMP Complaint Response Procedure, the Qualified Professional reviewed the noise complaint forms and initiated a noise investigation program during the period of March 16 to March 20, 2026. Because of the close proximity from Floatel #1 to 4100 Area, field noise monitoring investigation was conducted at 4100 Area and Floatel #1.

The noise investigation program included completion of Noise Complaint Forms and additional noise monitoring. As the additional noise monitoring coincided with the scheduled Q2 noise monitoring it was incorporated with the Q2 noise monitoring survey on Floatel #1 and conducted over at least two daytime and two nighttime periods at the selected cabins which are close to and facing 4100 Area, including Cabin 5628, Cabin 6622, Cabin 7004, Cabin 9400 and Cabin 0102. Noise monitoring at Cabin 0102 was conducted from March 16 to March 20. Noise monitoring durations were longer than normal noise monitoring programs because of the noise complaint investigation.

6.1 NOISE INVESTIGATION FORMS

As part of the FNMMP, the noise complaints records in the Noise Investigation Form – 2, which is filled in by the complainants, provides details related to construction noise annoyance, such as noise event date and time, weather conditions, and any other comments from the complainants. The forms were documented for review, further analysis and action.

At the Project site, the Qualified Professional completed the Noise Investigation Form – 1 to review and summarize the information contained in noise complaint forms, including duration and time of annoyance, cabin locations, description of noise characteristics, construction operating conditions and time. Details of the Noise Investigation Form – 1 and Noise Investigation Form – 2 are included in Appendix D.

The Qualified Professional interviewed 20 cabin occupants of Floatel #1 with a focus on those living at the cabins facing 4100 Area on the starboard side of Floatel #1 to obtain direct feedback from the occupants and identify if there are any specific locations with potential noise annoyance from rock hammer operations. Details of noise interviews are included in Section 7.0.

6.2 ANALYSIS OF ADDITIONAL NOISE MONITORING RESULTS

Results of the additional investigation noise monitoring were incorporated with the results of the Q2 noise monitoring survey on Floatel #1 for the five cabins, including Cabin 5628, Cabin 6622, Cabin 7004, Cabin 9400 and Cabin 0102.

During the periods of noise monitoring from 15:00 to 18:00 on March 19, 2026, the rock hammer was operating on and off due to rainfall conditions.

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Figure 19 and Figure 20 illustrate the measured L_{eq} and L_{Amax} sound levels at Cabin 5628 and Cabin 0102, respectively. L_{eq} sound levels represent the average sound level measured during each 1-minute interval and L_{Amax} sound levels represent the measured maximum sound level captured during every 1-minute interval. Abnormal noise events, such as Qualified Professional activities, neighbor door open and close, ventilation duct mechanical noise and people talking were shaded with green color in the figures. Sound level fluctuations during rock hammer operating are also marked in the figures.

At Cabin 5628, Figure 19 shows that the measured L_{eq} sound levels are steady during most of the measurement period without local activities. The sound level variance during the steady state period is less than 0.5 dB, including period of rock hammering activities. The measured L_{Amax} sound levels during rock hammer operating fluctuated with variance less than 2 dB.

At Cabin 0102, Figure 20 shows that the variance of the measured L_{eq} sound levels is less than 1 dB during period without local activities. The measured L_{Amax} sound levels during rock hammer operating fluctuated with variance less than 3 dB.

Based on research on the subjective effects of change in sound level to human ear (Bies and Hansen, 2009), approximately 3 dB sound level change is just perceptible by a normal ear. However, perceptibility is subjective and varies depending on changes in frequency and sound modulation, increased impulsiveness, and individual sensitivity. Figure 19 and Figure 20 show that the variances of instantaneous L_{Amax} sound levels at Cabin 5628 and Cabin 0102 are less than 3 dB, but some people may still perceive these instantaneous sound level changes due to rock hammer operating and experience sleep disturbance.

7.0 NOISE INTERVIEWS

During the noise monitoring periods on Floatel #1 and Floatel #2, the Qualified Professional interviewed various cabin occupants. The purpose of the interviews is to obtain an understanding of the noise effects of interest to the occupants; and perform an investigation if there are any potential noise issues identified on both floatels and inform the floatel management for further mitigation plans.

During the Q2 noise monitoring survey, there were approximately 512 total construction worker occupants on Floatel #1, and 446 occupants on Floatel #2, respectively.

In connection with the noise complaint investigation, four questions were asked regarding noise issues on Floatel #1:

1. General evaluation for your sleeping quality at the floatel.
2. Can you hear outside rock hammering noise?
3. Does rock hammering noise bother you?
4. Any noise concern/complaints.

On Floatel #2, 20 occupants were randomly selected for the interviews, which represents about 5% of the total occupants at the time.

Four questions were asked regarding noise issues on Floatel #2:

1. General evaluation for your sleeping quality at the floatel.
2. Does the cabin ceiling ventilation bother you while you sleep?
3. Can you hear outside construction noise?
4. Any noise concern/complaints.

Details of the interviews, including interviewee ID #, interview date, cabin location, and work shift; and answers for the questions are included in Appendix E.

Feedback from the interviewees of both floatels is summarized below:

- No interviewees had noise concerns or complaints regarding construction noise on Floatel #2.
- Three interviewees could hear rock hammering noise on Floatel #1, however, sleep disturbance was not reported.
- Interviewees reported no disturbance during their stay on Floatel #1 and Floatel #2.
- Occasionally, interviewees living on Deck 6 of Floatel #1 and Floatel #2 reported perceptible noise events. These events are due to activities in the Gym on Deck 7, such as weights dropping on the floor.

8.0 DISCUSSION

Table 8.1 summarizes the measurement results when compared to the Health Canada noise threshold and ANSI S12.2 room sound level criteria.

Table 8.1 Summary of Results

Cabin	Deck	Meet Health Canada Indoor L_{eq} Threshold of 30 dBA		Meet Health Canada $L_{Amax} > 45$ dBA Occurrences Less Than 15 Times		Meet ANSI S12.2 Room Sound Level Criteria of 44 dBA	
		Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
Floatel #1							
5628	5	No	No	Yes/No ¹	Yes	Yes	Yes
6622	6	No	No	Yes/No ²	Yes/No ²	Yes	Yes
7004	7	No	No	Yes/No ³	Yes	Yes	Yes
9400	9	No	No	No	No	Yes	Yes
0102	10	No	No	No	Yes/No ⁴	Yes	Yes
Floatel #2							
4482	5	No	No	No	No	No	No
508	6	No	No	Yes	No	Yes	Yes
064	7	Yes	Yes	Yes	Yes	Yes	Yes

Notes:

- ¹ Below threshold on March 18 but above threshold on March 19.
- ² Below threshold on March 16 and March 18 but above threshold on March 17.
- ³ Below threshold on March 17 and March 18 but above threshold on March 16.
- ⁴ Below threshold on March 18 but above threshold on March 16, March 17, and March 19.

Sound levels at all measured cabins on Floatel #1 and two cabins on Floatel #2 (i.e., Cabin 4482 and Cabin 508) were above the Health Canada sleep disturbance threshold of 30 dBA. Sound levels at Cabin 064 on Floatel #2 were lower than the Health Canada sleep disturbance threshold because the ceiling ventilation outlet was not operating during noise monitoring.

Except Cabin 4482 of Floatel #2, L_d and L_n sound levels of all other cabins met the ANSI S12.2 room sound level criteria of 44 dBA. Cabin 4482 was above the threshold due to strong airflow blowing through the ceiling ventilation outlet.

In terms of the threshold of 45 dBA L_{Amax} or above occurrence less than 15 times, Cabin 4482 of Floatel #2 had the highest occurrence of L_{Amax} above the threshold, continuous L_{Amax} more than 45 dBA noise levels were measured at the cabin. Cabin 064 of Floatel #2 met the threshold during both daytime and nighttime periods.

8.1 COMPARISON OF RECENT MEASUREMENT RESULTS

Table 8.2 compares the results from the three most recent surveys on Floatel #1, i.e., 7th survey in October 2025 (Q4 2025), 8th survey in December 2025 (Q1 2026), and Q2 2026 survey in March 2026. Table 8.3 compares the results from the two most recent surveys on Floatel #2, i.e., Q1 2026 survey in December 2025, and Q2 2026 survey in March 2026.

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Table 8.2 Comparisons of 7th, 8th (Q1 2026), and Q2 2026 Survey Results – Floatel #1

Cabin #			Daytime Highest L _d , dBA			Nighttime Highest L _n , dBA			Highest Occurrences of L _{Amax} > 45 dBA					
									Daytime			Nighttime		
7 th (Q4 2025)	8 th (Q1 2026)	Q2 2026	7 th (Q4 2025)	8 th (Q1 2026)	Q2 2026	7 th (Q4 2025)	8 th (Q1 2026)	Q2 2026	7 th (Q4 2025)	8 th (Q1 2026)	Q2 2026	7 th (Q4 2025)	8 th (Q1 2026)	Q2 2026
5634	5645	5628	44.6	36.8	37.9	44.6	36.6	37.5	551	45	31	540	18	4
6638	6437	6622	49.2	40.0	42.1	49.3	39.8	42.0	566	39	67	540	11	16
7716	7016	7004	39.3	35.8	39.0	39.4	35.8	39.0	16	8	15	8	20	9
9402	9400	9400	35.3	44.9	43.8	35.2	45.0	44.0	154	897	348	113	540	540
0105	0108	0102	39.8	42.2	41.0	39.8	42.1	41.4	38	75	86	2	7	27

Table 8.3 Comparisons of Q1 2026 and Q2 2026 Survey Results – Floatel #2

Cabin #		Daytime Highest L _d , dBA		Nighttime Highest L _n , dBA		Highest Occurrences of L _{Amax} > 45 dBA			
						Daytime		Nighttime	
Q1 2026	Q2 2026	Q1 2026	Q2 2026	Q1 2026	Q2 2026	Q1 2026	Q2 2026	Q1 2026	Q2 2026
4476	4482	40.9	50.6	40.8	50.6	91	562	1	541
521	508	33.6	35.8	33.5	35.5	34	13	2	20
065	064	33.7	28.7	33.5	27.9	35	4	1	1

8.2 ANSI S12.2 SOUND LEVEL CRITERIA

The ceiling ventilation outlets are the dominant noise contributors in most cabins. The ceiling ventilation is essential for maintaining comfortable conditions for cabin occupants and turning off the ventilation would compromise air circulation and temperature. Therefore, the measurement results are compared to the ANSI S12.2 room sound level criteria for hotel/motel rooms.

On Floatel #1, Cabin 9400 had the highest daytime and nighttime sound levels during Q1 2026 (i.e., L_d 44.9 dBA and L_n 45.0 dBA), and Q2 2026 (i.e., L_d 43.8 dBA and L_n 44.0 dBA). L_d and L_n sound levels in Q1 2026 were above the ANSI S12.2 room sound level criteria of 44 dBA. It was observed high airflow from the ceiling ventilation outlet contributed to higher sound levels.

On Floatel #2, Cabin 4482 had the highest daytime and nighttime sound levels during Q2 2026 (i.e., L_d 50.6 dBA and L_n 50.6 dBA) and were above the ANSI S12.2 room sound level criterion either. High airflow from the ceiling ventilation outlet remained the dominant noise contributor.

When the ceiling ventilation in Cabin 064 was turned off in Q2 2026, noise levels fell below the Health Canada threshold of 30 dBA (i.e., L_d 28.7 dBA and L_n 27.9 dBA). This confirms that ventilation noise is the dominant contributor to the sound level above the Health Canada threshold.

8.3 NOISE INTERVIEWS

Although noise complaints were received in February and March 2026, the interview results showed that the interviewees did not report sleep disturbance and noise concerns due to construction noise during the noise monitoring survey periods. However, the perceptibility of sound is subjective and varies depending on individual sensitivity, i.e., some people may still perceive construction noise and experience sleep disturbance.

9.0 MITIGATION MEASURES

Noise complaints were received from the occupants of Floatel #1 in February and March 2026. Noise complaints were mainly related to rock hammer operations during nighttime at the construction 4100 Area. Field noise investigation monitoring was triggered and conducted at the Project site and Floatel #1, and noise mitigation via management control was recommended:

- The noise complaint form will be updated to include an option for providing a cabin number or complainant name.
- Hearing protection (e.g., earplugs) will be readily available to occupants to facilitate undisturbed sleep.

And the general recommendations to improve the interior acoustic environment in the cabins, not only for construction noise, but local vessel and people activities, include the following:

- Shore grid power supply continues to provide power to Floatel #1 and Floatel #2, and the power generation engines inside the Engine Stores on both floatels will not be used except under conditions of regular maintenance, power outages, and emergency situations.
- For activities in the Gym, the management of both floatels has posted additional signage, and the receptionist also does regular patrolling to remind users that dropping the weights (e.g., deadlifts) should be minimized or avoided.
- If floatel management receives noise complaints, administration controls (e.g., earplugs) can be implemented.
- Maintain the Communication Protocol and Complaint Response Procedure to address and manage any future noise concerns or complaints by the occupants on Floatel #1 and Floatel #2.

10.0 CONCLUSIONS

The Quarter 2 2026 noise monitoring survey for Floatel #1 and Floatel #2 was conducted from March 16 to March 20, 2026, to fulfill the requirements of Condition 36 of Amendment #4 in EAC #E15-02.

On Floatel #1, the measurement results at all cabins complied with the ANSI S12.2 room sound level criteria. However, the results were above the Health Canada thresholds.

On Floatel #2, the measurement results of Cabin 064 met the Health Canada thresholds. The ceiling ventilation outlet of Cabin 064 was not operating. Measured sound levels inside Cabin 064 were L_d 28.7 dBA and L_n 27.9 dBA, and lower than the Health Canada sleep disturbance threshold of 30 dBA. This indicates that without the ventilation noise, the Health Canada thresholds can be achieved inside the cabins during construction period. Cabin 508 results complied with the ANSI S12.2 room sound level criteria but above the Health Canada thresholds. Cabin 4482 was above both criteria. The high airflow from the ventilation outlet was a primary contributing factor for the sound level above the Health Canada thresholds.

Noise complaints were received from the floatel occupants regarding noise from rock hammer operations during nighttime at the construction 4100 Area. Field noise investigation monitoring was conducted at the Project site and Floatel #1 and the monitoring results met the ANSI S12.2 room sound level criteria. Noise interviews were performed and the records showed that the interviewees did not report sleep disturbance and noise concerns due to construction noise during the noise monitoring survey periods. Noise mitigation by management control was recommended to address noise complaints. In addition, the Communication Protocol and Complaint Response Procedure will be maintained to actively address and manage any noise concerns or complaints from the occupants on Floatel #1 and Floatel #2.

11.0 REFERENCES

- ANSI (American National Standard) 2005. ANSI S12.9 – 2005/Part 4, Quantities and Procedures for Description and Measurement of Environmental Sound – Part 4: Noise Assessment and Prediction of Long-term Community Response. New York, 2005.
- ANSI (American National Standard) 2023. ANSI S12.2 – 2019 (Reaffirmed in 2023), Criteria for Evaluating Room Noise. New York, 2023.
- British Columbia Energy Regulator (BCER) 2024. British Columbia Noise Control Best Practices Guideline. June 2024.
- David A. Bies and Colin H. Hansen 2009. Engineering Noise Control: Theory and Practice (Forth edition). Spon Press. London and New York, 2009.
- District of Squamish 2014. Noise Regulation Bylaw No.2312. Available at: <https://squamish.ca/our-services/bylaws-and-enforcement/noise-bylaw/>.
- District of Squamish 2017. Noise Regulation Bylaw No.2541. Available at: <https://squamish.ca/business-and-development/home-land-and-property-development/builders-corner-blog/new-noise-regulation-bylaw-hours/>.
- Health Canada 2023. Guidance for Evaluating Human Health Impacts in Impact Assessment: NOISE, published by Health Canada. December 2023.
- Stantec 2022. Construction Phase Noise Assessment Technical Report – Woodfibre LNG. September 2022.
- Stantec FNMMP 2024. Floatel Noise Monitoring and Mitigation Plan – Woodfibre LNG Project. April 2024.
- Stantec 2024a. Floatel Noise Monitoring Survey - 1 (July 10 -14, 2024) – Woodfibre LNG Project. 123222160EN-RPT0052 Revision 1, September 16, 2024.
- Stantec 2024b. Floatel Noise Monitoring Survey - 2 (September 4 - 7, 2024) – Woodfibre LNG Project. 123222160EN-RPT0053 Revision 1, November 2024.
- Stantec 2024c. Floatel Noise Monitoring Survey - 3 (October 8 - 11, 2024) – Woodfibre LNG Project. 123222160EN-RPT0054, November 2024.
- Stantec 2025a. Floatel Noise Monitoring Survey - 4 (January 31 - 2, 2025) – Woodfibre LNG Project. 123222160EN-RPT0059, March 2025.
- Stantec 2025b. Floatel Noise Monitoring Survey - 5 (May 14 –17, 2025) – Woodfibre LNG Project. 123222160EN-RPT0060, July 2025
- Stantec 2025c. Floatel Noise Monitoring Survey - 6 (July 23 –28, 2025) – Woodfibre LNG Project. 123222160EN-RPT0060, September 2025
- Stantec 2025d. Floatel Noise Monitoring Survey - 7 (October 2 – 5, 2025) – Woodfibre LNG Project. 123222160EN-RPT0060, November 2025

**WOODFIBRE LNG PROJECT:
FLOATEL #1 AND FLOATEL #2 NOISE MONITORING SURVEY – Q2 2026
(MARCH 16 – 20, 2026)**

Stantec 2026a. Floatel #1 Noise Monitoring Survey - 8 (December 15 – 17, 2025) – Woodfibre LNG Project. 123222160EN-RPT0060, March 2026

Stantec 2026b. Floatel #2 Noise Monitoring Survey - 1 (December 15 – 17, 2025) – Woodfibre LNG Project. 123222160EN-RPT0060, March 2026

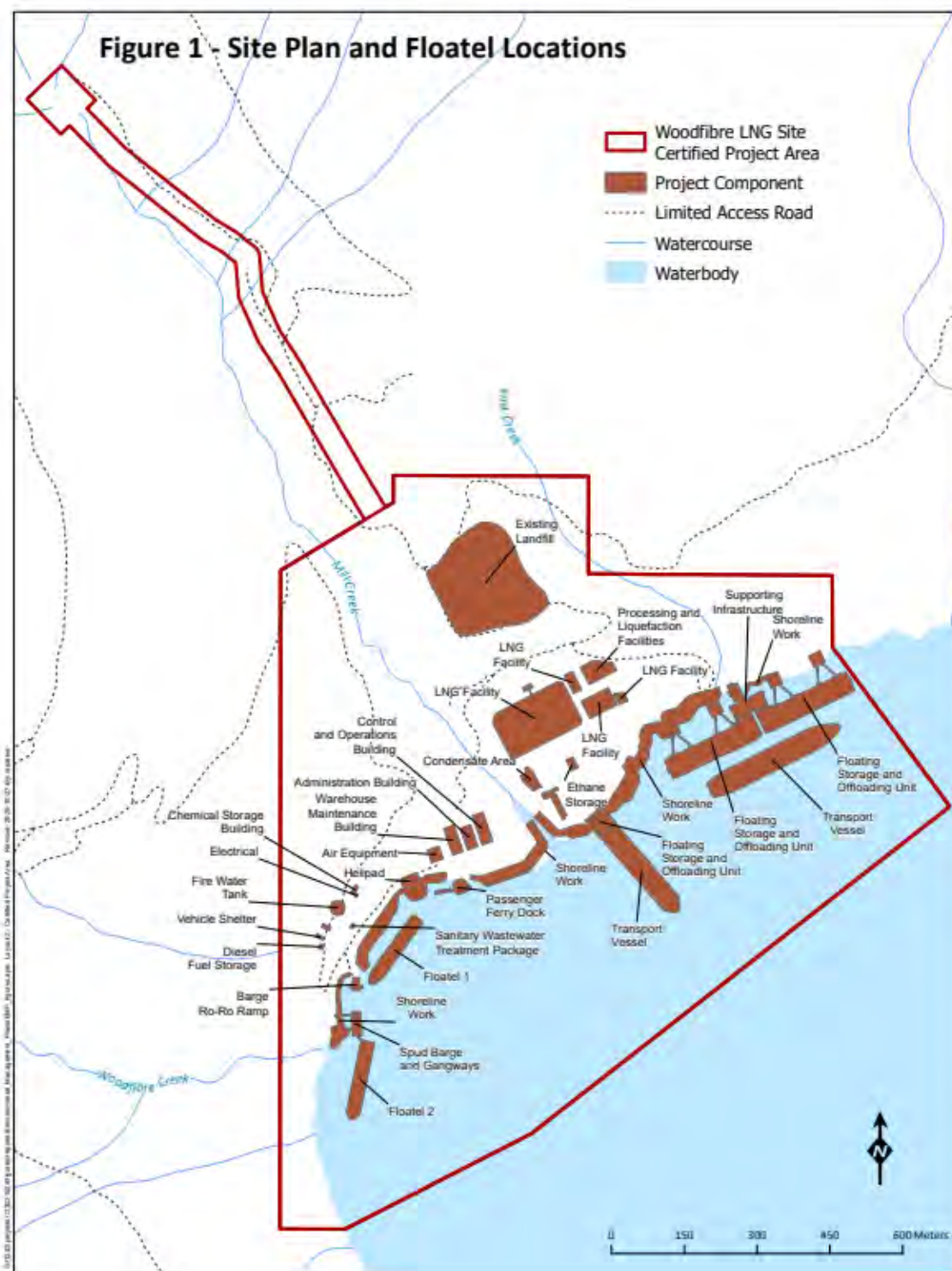
Stantec 2026. Floatel Noise Monitoring and Mitigation Plan – Floatel #1 and Floatel #2 – Woodfibre LNG Project. 123221624EN-RPT0049-Rev6, January 2026

Woodfibre LNG 2023. Application for a Temporary Use Permit for the District of Squamish – Floatel. August 2023.

APPENDIX A FIGURES

(MARCH 16 – 20, 2026)

Figure 1 Site Plan with Floatel #1 and Floatel #2 Locations



**WOODFIBRE LNG PROJECT:
FLOATEL #1 AND FLOATEL #2 NOISE MONITORING SURVEY – Q2 2026
(MARCH 16 – 20, 2026)**

Figure 2 Measurement Location at Cabin 5628 (Deck 5) – Floatel #1



Legend

Noise monitoring cabin

Quantity of cabins per deck (unless otherwise indicated, applies to all figures with cabins on Floatel #1)

	TYPE 1A-1	TYPE 1A-2	TYPE 1A-3	TYPE 1B-1	TYPE 1B-2	TYPE 1B-3	TYPE 1B-4	TYPE 1B-5	TYPE 1B-6	TYPE 1B-7	TYPE 1B-8	TYPE 1C-1	TYPE 1C-2	TYPE 1D	TYPE 1E-1	TYPE 1E-2	TYPE 1F-1	TYPE 1F-2	TYPE 2A	TYPE 2B	TYPE 2C	TYPE 3A	TYPE 3B	TYPE 4A	TYPE 4B	QUANTITY OF CABINS PER DECK
DECK 10				9																						17
DECK 9	18			8								30							7	1	17	4			1	88
DECK 7	24											30				2		2								58
DECK 6	208											8			2		2		24	1					3	248
DECK 5	102	6	44		15	5	9	10	7	9	7			4				14							1	219
DECK 2	34																							52		86
CABINS PER TYPE	386	6	44	17	15	5	9	10	7	1	1	60	8	4	2	2	2	2	45	2	17	4	2	8	57	716

**WOODFIBRE LNG PROJECT:
FLOATEL #1 AND FLOATEL #2 NOISE MONITORING SURVEY – Q2 2026
(MARCH 16 – 20, 2026)**

Figure 3 Measurement Location at Cabin 6622 and Cabin 7004 (Deck 6 and Deck 7) – Floatel #1

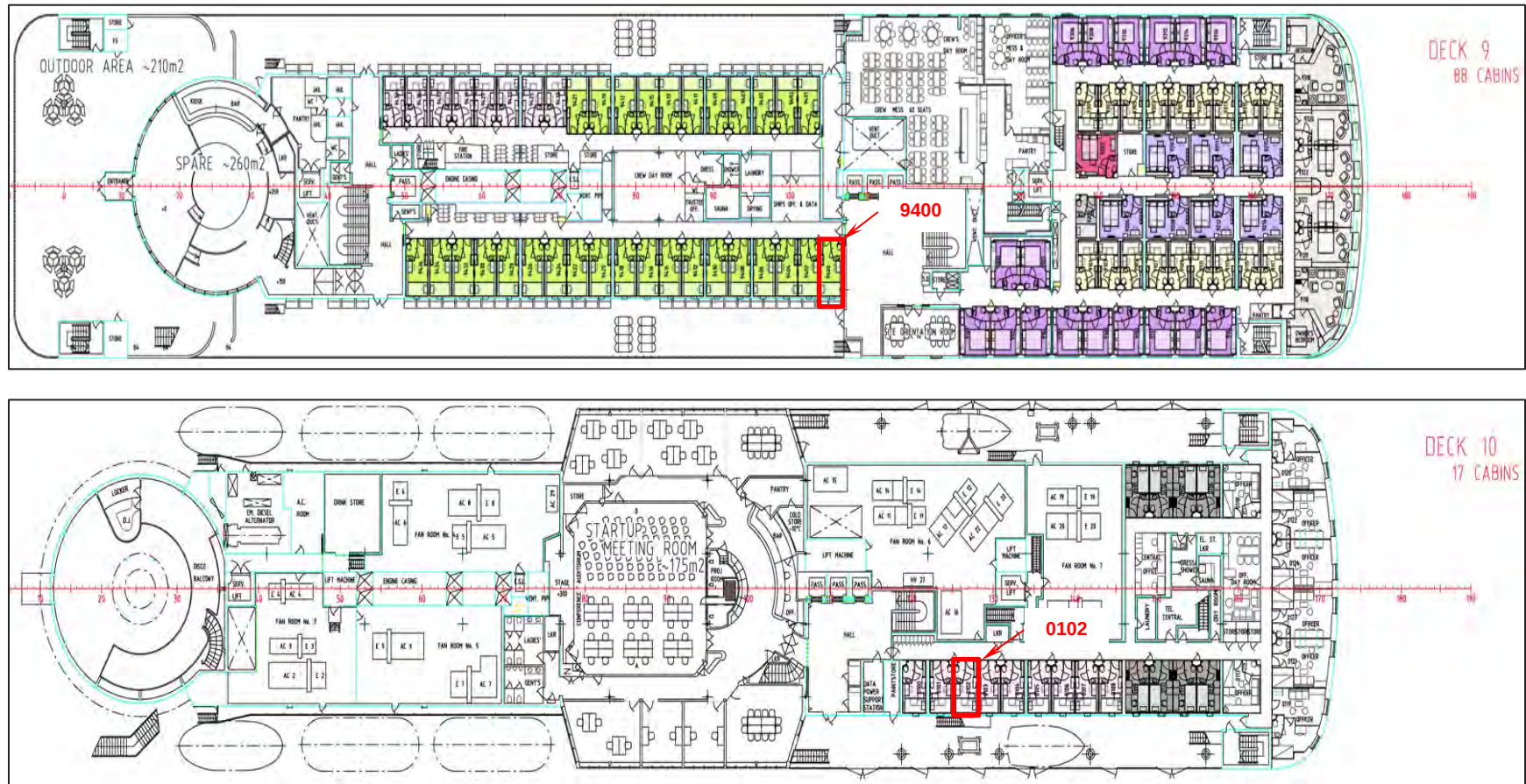


Legend

 Noise monitoring cabin

WOODFIBRE LNG PROJECT:
FLOATEL #1 AND FLOATEL #2 NOISE MONITORING SURVEY – Q2 2026
(MARCH 16 – 20, 2026)

Figure 4 Measurement Location at Cabin 9400 and Cabin 0102 (Deck 9 and Deck 10) – Floatel #1



Legend

Noise monitoring cabin

**WOODFIBRE LNG PROJECT:
FLOATEL #1 AND FLOATEL #2 NOISE MONITORING SURVEY – Q2 2026
(MARCH 16 – 20, 2026)**

Figure 5 Measurement Location at Cabin 4482 and Cabin 508 (Deck 4 and Deck 5) – Floatel #2



Legend

Noise monitoring cabin

	INTERIOR	EXTERIOR	SUITE	TOTAL
DECK 6	112	95	8	215
DECK 5	115	85	0	200
DECK 4	108	87	0	195
DECK 2	30	0	0	30
				640

**WOODFIBRE LNG PROJECT:
FLOATEL #1 AND FLOATEL #2 NOISE MONITORING SURVEY – Q2 2026
(MARCH 16 – 20, 2026)**

Figure 6 Measurement Location at Cabin 064 (Deck 6) – Floatel #2



Legend

Noise monitoring cabin

	INTERIOR	EXTERIOR	SUITE	TOTAL
DECK 6	112	95	8	215
DECK 5	115	85	0	200
DECK 4	108	87	0	195
DECK 2	30	0	0	30
				640

**WOODFIBRE LNG PROJECT:
FLOATEL #1 AND FLOATEL #2 NOISE MONITORING SURVEY – Q2 2026
(MARCH 16 – 20, 2026)**

Figure 7 Sound Level Meter Setup at Cabin 5628 – Floatel #1



Figure 8 Sound Level Meter Setup at Cabin 6622 – Floatel #1



**WOODFIBRE LNG PROJECT:
FLOATEL #1 AND FLOATEL #2 NOISE MONITORING SURVEY – Q2 2026
(MARCH 16 – 20, 2026)**

Figure 9 Sound Level Meter Setup at Cabin 7004 – Floatel #1



Figure 10 Sound Level Meter Setup at Cabin 9400 – Floatel #1



**WOODFIBRE LNG PROJECT:
FLOATEL #1 AND FLOATEL #2 NOISE MONITORING SURVEY – Q2 2026
(MARCH 16 – 20, 2026)**

Figure 11 Sound Level Meter Setup at Cabin 0102 – Floatel #1



Figure 12 Sound Level Meter Setup at Cabin 4482 – Floatel #2



**WOODFIBRE LNG PROJECT:
FLOATEL #1 AND FLOATEL #2 NOISE MONITORING SURVEY – Q2 2026
(MARCH 16 – 20, 2026)**

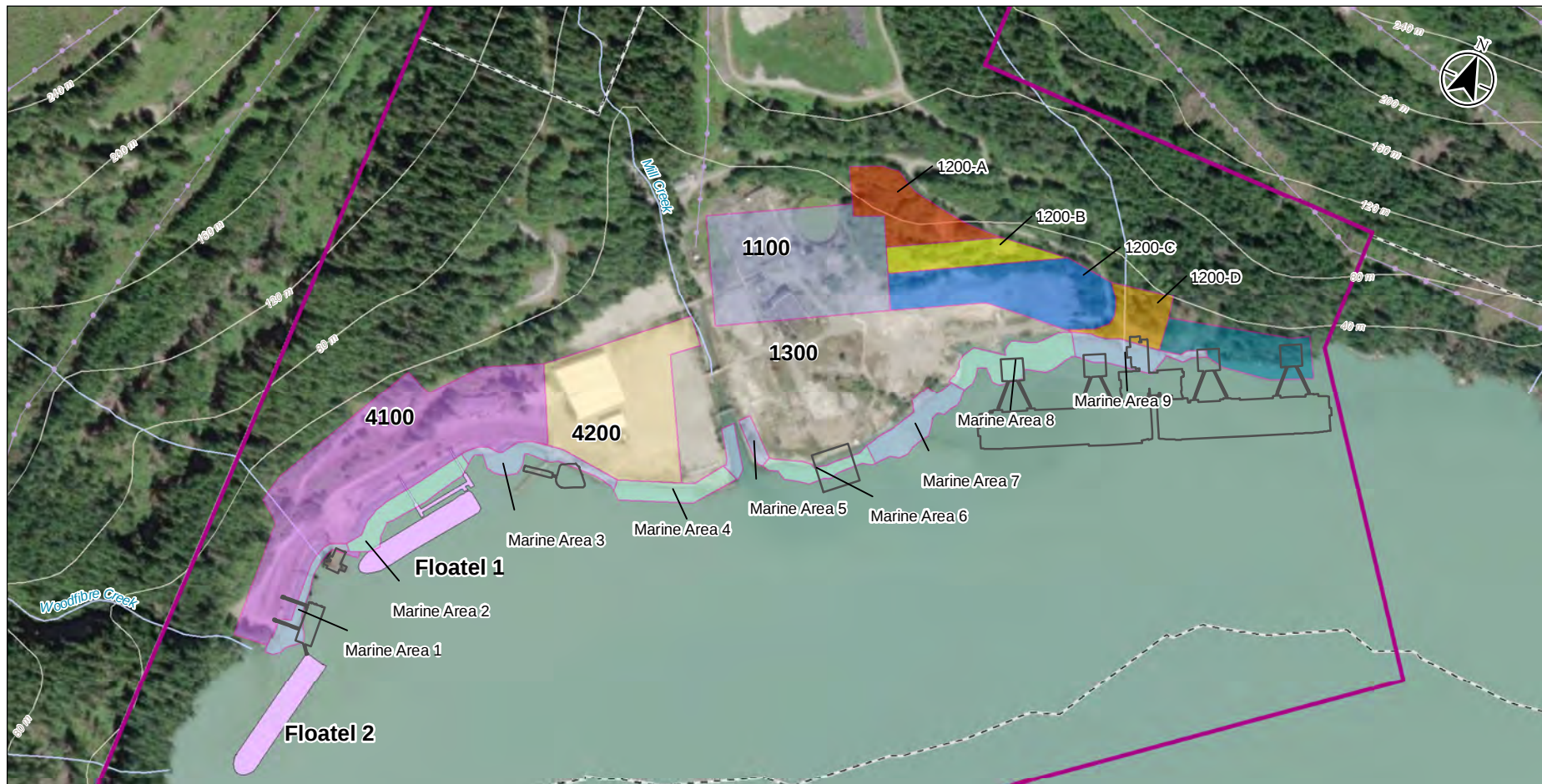
Figure 13 Sound Level Meter Setup at Cabin 508 – Floatel #2



Figure 14 Sound Level Meter Setup at Cabin 064 – Floatel #2

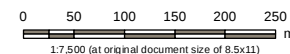


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- Transmission Line
- Topographic Contour
- Watercourse
- Municipal Boundary
- Supporting Infrastructure
- Floatel
- Certified Project Area

Notes
1. Coordinate System: NAD 1983 UTM Zone 10N
2. Data Sources: DataBC, Government of British Columbia; Natural Resources Canada
3. Orthoimagery: ESRI World Imagery



Project Location: Woodfibre, British Columbia
Project Number: 123222160
Prepared by PKASIANCHUK on 20241004
Requested by ACAL DERON on 20240822
Checked by YMA on 20240828

Client/Project/Report

Woodfibre LNG
Floatel Noise Monitoring Survey

Figure No.

15

Title

Construction Areas Onsite

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

**WOODFIBRE LNG PROJECT:
FLOATEL #1 AND FLOATEL #2 NOISE MONITORING SURVEY – Q2 2026
(MARCH 16 – 20, 2026)**

Figure 16 Floatel #2 Spot Measurement Locations and Sound Levels – Deck 4



Legend

● Spot Measurement Location

★ Exit Door

47.8/45.2 Red – Measured daytime sound level, dBA Blue – Measured nighttime sound level, dBA

**WOODFIBRE LNG PROJECT:
FLOATEL #1 AND FLOATEL #2 NOISE MONITORING SURVEY – Q2 2026
(MARCH 16 – 20, 2026)**

Figure 17 Floatel #2 Spot Measurement Locations and Sound Levels – Deck 5



Legend



Spot Measurement Location

39.8/ 37.4

Red – Measured daytime sound level, dBA Blue – Measured nighttime sound level, dBA

**WOODFIBRE LNG PROJECT:
FLOATEL #1 AND FLOATEL #2 NOISE MONITORING SURVEY – Q2 2026
(MARCH 16 – 20, 2026)**

Figure 18 Floatel #2 Spot Measurement Locations and Sound Levels – Deck 6



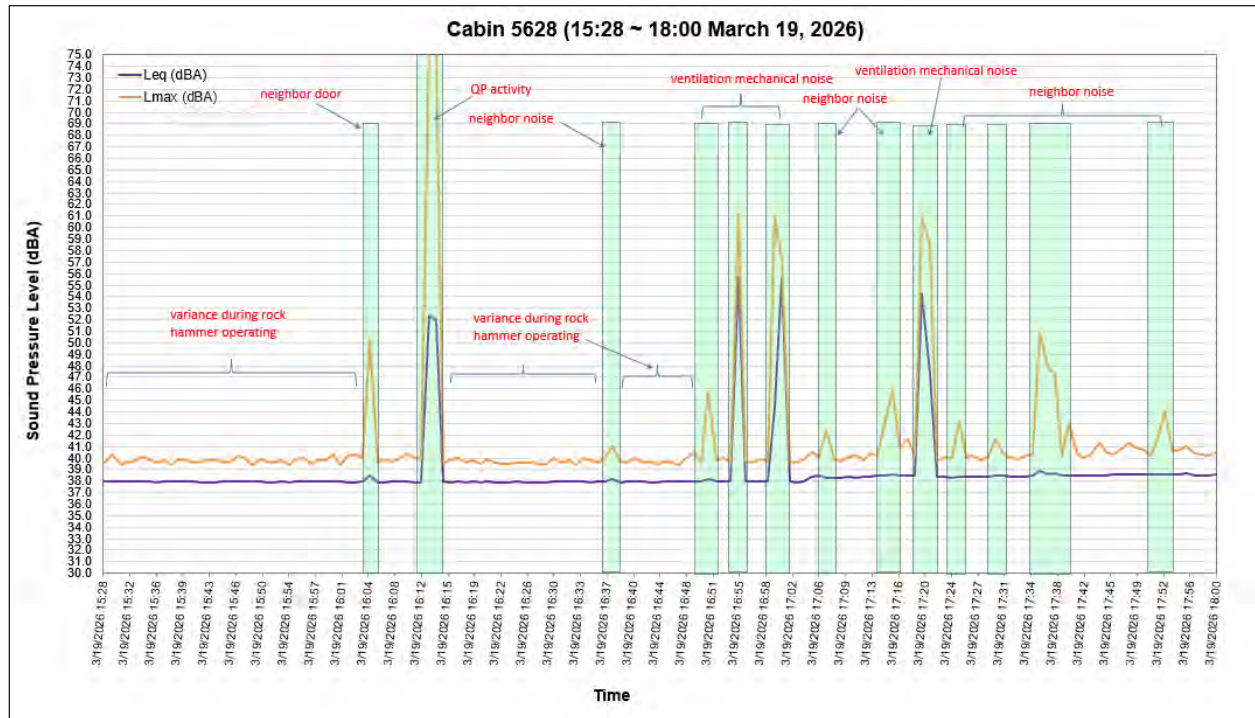
Legend

● Spot Measurement Location

42.4/ 39.0 Red – Measured daytime sound level, dBA Blue – Measured nighttime sound level, dBA

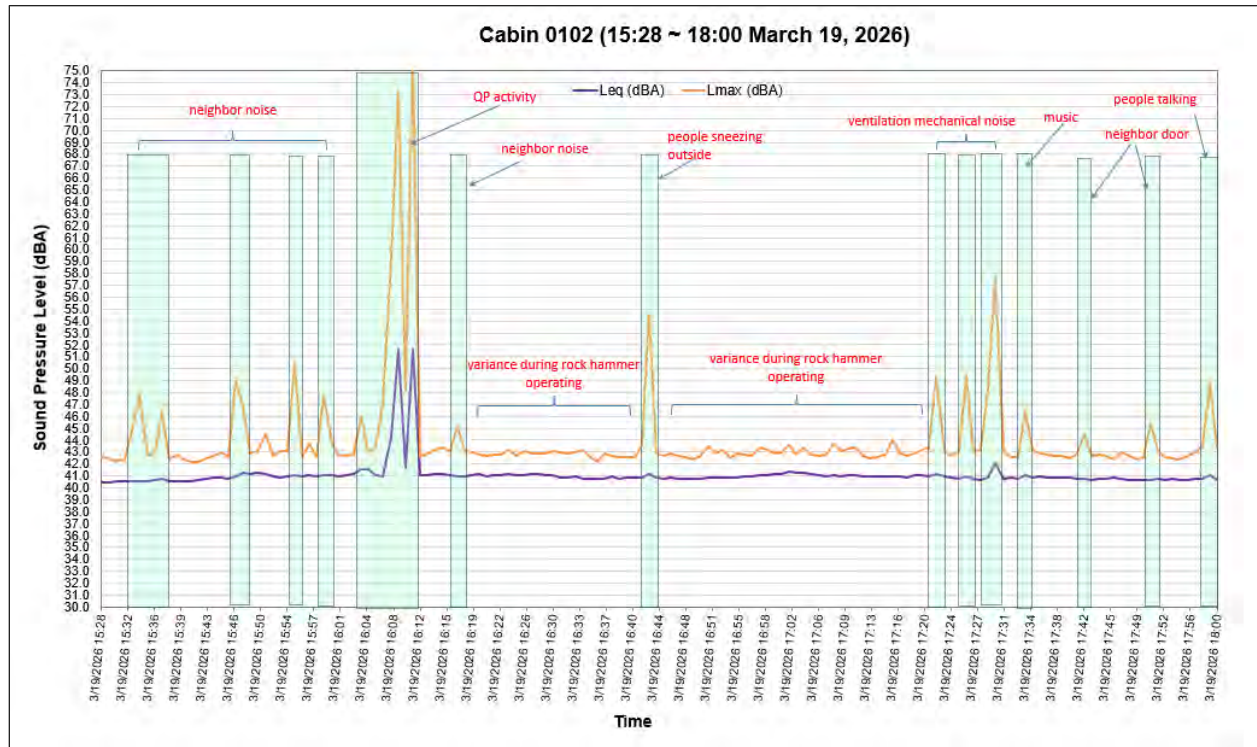
**WOODFIBRE LNG PROJECT:
FLOATEL #1 AND FLOATEL #2 NOISE MONITORING SURVEY – Q2 2026
(MARCH 16 – 20, 2026)**

Figure 19 Measured Sound Levels at Cabin 5628 (15:28 to 18:00 March 19)



**WOODFIBRE LNG PROJECT:
FLOATEL #1 AND FLOATEL #2 NOISE MONITORING SURVEY – Q2 2026
(MARCH 16 – 20, 2026)**

Figure 20 Measured Sound Levels at Cabin 0102 (15:28 to 18:00 March 19)



APPENDIX B INSTRUMENTATION CALIBRATION CERTIFICATION

CERTIFICATE OF CALIBRATION

No.: 458875-701

Page 1 of 2

CALIBRATION OF:

Calibrator:	Brüel & Kjær	Type	4231	Serial No.:	2053018
Identification:	B	IEC Class:	1		

CUSTOMER:Stantec Consulting Ltd.
325 25 Street SE - Unit 200
Calgary AB T2A 7H8
Emma.Xiong@stantec.com**CALIBRATION CONDITIONS:**

Environment conditions:	Air temperature:	22.8	°C
	Air pressure:	99.06	kPa
	Relative Humidity:	30.4	%RH

SPECIFICATIONS: This document certifies that the acoustic calibrator as listed under "Type" has been calibrated and unless otherwise indicated under "Final Data", meets acceptance criteria as prescribed by the referenced Procedure. Hottinger Brüel & Kjær Inc. utilizes a simple acceptance decision rule as defined by ILAC G8 with measurement uncertainty value which will not exceed 50% of the tolerance. The calibration of the listed transducer was accomplished using a test system which conforms to the requirements of ISO/IEC 17025, ANSI/NCSL Z540-1, and guidelines of ISO 10012-1. For "as received" and "final" data, see the attached page(s). Items marked with one asterisk (*) are not covered by the scope of the current A2LA accreditation. This Certificate and attached data pages shall not be reproduced, except in full, without written approval of the Hottinger Brüel & Kjær Inc. Calibration Laboratory-Duluth, GA. Results relate only to the items tested. The transducer has been calibrated using Measurement Standards with values traceable to the National Institute of Standards and Technology, National Measurement Institutes or derived from natural physical constants. The acoustic calibrator has been calibrated in accordance with the requirements as specified in IEC60942.

PROCEDURE: The measurements have been performed with the assistance of Hottinger Brüel & Kjær Inc. acoustic calibrator calibration application Software version 2.3.4 Type 7794 using calibration procedure 4231 Complete

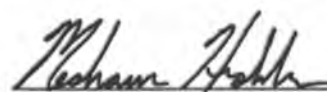
RESULTS:

☒ "As Received" Data: Within Acceptance Criteria	☐ "As Received" Data: Outside Acceptance Criteria
☒ "Final" Data : Within Acceptance Criteria	☐ "Final" Data : Outside Acceptance Criteria

The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor $k = 2$, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with EA-4/02 from elements originating from the standards, calibration method, effect of environmental conditions and any short time contribution from the calibrator under calibration.

Date of Calibration: 12 January, 2026

Certificate issued: 12 January, 2026

Can Phan
Calibration Technician
Meshawn Hobbs
Quality Representative

CERTIFICATE OF CALIBRATION

No.: 458875-701

Type: 4231

Serial No.: 2053018

Page 2 of 2

Sound Pressure Levels

All stated values are valid at environmental reference conditions

Nominal Level [dB]	Accept Limit Lower [dB]	Accept Limit Upper [dB]	Measured Level [dB]	Measurement Uncertainty [dB]
94	93.80	94.20	94.01	0.12
114	113.80	114.20	114.02	0.12

Frequency

Nominal Frequency [Hz]	Accept Limit Lower [Hz]	Accept Limit Upper [Hz]	Measured Frequency [Hz]	Measurement Uncertainty [Hz]
1000	999.00	1001.00	999.80	0.10

Total Distortion*

Distortion mode: ☒ TD* ☐ THD*

Calibration Level [dB]*	Accept Limit [%]*	Measured Distortion [%]*	Measurement Uncertainty [%]*
94	1.00	0.61	0.13
114	1.00	0.14	0.13

Environmental Reference Conditions:

Pressure: 101.3 kPa, Temperature: 23 °C, Relative Humidity: 50%

Instrument List

Type	Description	Serial no	Cal. date	Due date	Calibrated by	Trace number
3560	PULSE Analyzer	2723320	2025-10-30	2026-10-31	GK	448348-802
9545	Transfer Microphone	3	2024-10-18	2026-01-30	MH	401410-401
4228	Reference Sound Source	1618502	2025-04-29	2027-04-30	MH	423668-401

During the calibration the calibrator has been loaded by the load volume of the Transfer Microphone. The load volumes for a number of different types of Transfer Microphones are listed in the table below.

For Brüel & Kjær Pistonphones types 4220 and 4228 the result of the SPL calibration has been corrected to be valid for a load volume of 1333 mm³. For all other types the result is valid with the actual load volume.

Transfer Microphone Type	Fulfil standard IEC 61094-1 LS	Fulfil standard IEC 61094-4 WS	Load Volume 1" (1/2" mic including DP-0776)	Load Volume 1/2"
4180	yes	yes	1126 mm ³	43 mm ³
4192	-	yes	1273 mm ³	190 mm ³
9545	-	-	1333 mm ³	-

Condition "As Received":

Good

**CERTIFICATE OF CALIBRATION**

No.: 409505-701

Page 1 of 4

CALIBRATION OF:

Microphone: Brüel & Kjær Type 4189 Serial No. 2799496
Identification: 1

CUSTOMER:

Stantec Consulting
200-325 25 St SE
Calgary AB T2P 7H8

CALIBRATION CONDITIONS:

Environment conditions: Air temperature: 22 °C
 Air pressure: 99.3 kPa
 Relative Humidity: 23.5 %RH
Applied polarization voltage: 0 Vdc

SPECIFICATIONS:

This document certifies that the instrument as listed under "Type" has been calibrated and unless otherwise indicated under "Final Data", meets acceptance criteria as prescribed by the referenced Procedure. Hottinger Brüel & Kjær Inc. utilizes a simple acceptance decision rule as defined by ILAC G8 with measurement uncertainty value which will not exceed 50% of the tolerance. The calibration of the listed transducer was accomplished using a test system which conforms to the requirements of ISO/IEC 17025, ANSI/NCSL Z540-1, and guidelines of ISO 10012-1. For "as received" and "final" data, see the attached page(s). Items marked with one asterisk (*) are not covered by the scope of the current A2LA accreditation. This Certificate and attached data pages shall not be reproduced, except in full, without written approval of the Hottinger Brüel & Kjær Calibration Laboratory-Duluth, GA. Results relate only to the items tested. The transducer has been calibrated using Measurement Standards with values traceable to the National Institute of Standards and Technology, National Measurement Institutes or derived from natural physical constants.

PROCEDURE:

The measurements have been performed with the assistance of the Hottinger Brüel & Kjær Inc. Microphone Calibration System B&K 9721 with application software WT9649 and WT9650 version 5.3.0.11 using calibration procedure: 4189-S251-FF-01

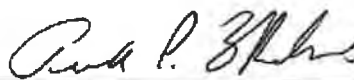
RESULTS:

☒ "As Received" Data: Within Acceptance Criteria ☐ "As Received" Data: Outside Acceptance Criteria
☒ "Final" Data : Within Acceptance Criteria ☐ "Final" Data : Outside Acceptance Criteria

The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor $k=2$ providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with EA-4/02 from elements originating from standards, calibration method, effect of environmental conditions and any short-term contribution from the device under calibration.

Date of Calibration: February 28, 2025

Certificate issued: February 28, 2025



Can Phan
Calibration Technician

Aundra Welch
Quality Representative

CERTIFICATE OF CALIBRATION

No.: 409505-701

Type: 4189

Serial No.: 2799496

Page 2 of 4

Sensitivity

Nominal sensitivity:	-26 dB re. 1V/Pa	+/-	1.5 dB
Sensitivity at calibration conditions:	-25.16 dB re. 1V/Pa	or	55.24 mV/Pa
Sensitivity at reference conditions:	-25.18 dB re. 1V/Pa	or	55.11 mV/Pa
Uncertainty:	+/- 0.11 dB		
Correction factor K at reference conditions:	-0.82 dB		
Calibration Frequency:	251.19 Hz		

Reference Conditions:

Pressure: 101.3 kPa

Temperature: 23 °C

Relative Humidity: 50%

Traceable references

Type	Serial no	Cal. date	Due date	Calibrated by	Trace number
4180	2602440	2024-04-23	2026-04-30	DPLA	M2.10-1646-3.1

Condition "As Received":

Good

The Hottinger Brüel & Kjær Calibration Laboratory
3079 Premiere Parkway Suite 120
Duluth, GA 30097
Telephone: 770/209-6907
Fax: 770/447-4033
Web site address: <http://www.hbkworld.com>

CERTIFICATE OF CALIBRATION

Certificate No: 409505- 802

Page 1 of 10

CALIBRATION OF:

Sound Level Meter:	Brüel & Kjær	2250	Serial No: 2818093
Microphone:	Brüel & Kjær	4189	Serial No: 2799496
Preamplifier:	Brüel & Kjær	ZC-0032	Serial No: 16971
Software version:	BZ7222 Version 4.7.8		

CLIENT: Stantec Consulting Ltd.
200 - 325 25th Street SE
Calgary, AB T2A 7H8

CALIBRATION CONDITIONS:

Preconditioning: 4 hours at 23 ± 3 °C
Environment conditions See actual values in Environmental Condition sections

SPECIFICATIONS:

This document certifies that the instrument as listed under "Model/Serial Number" has been calibrated and unless otherwise indicated under "Final Data", meets acceptance criteria as prescribed by the referenced Procedure. The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor $k = 2$ providing a level of confidence of approximately 95%. Statements of compliance, where applicable, are based on calibration results falling within specified criteria with no reduction by the uncertainty of the measurement. The calibration of the listed instrumentation, was accomplished using a test system which conforms with the requirements of ISO/IEC 17025, ANSI/NCSL Z540-1, and ISO 10012-1. For "as received" and/or "final" data, see the attached page(s). Items marked with one asterisk (*) are not covered by the scope of the current A2LA accreditation. This Certificate and attached data pages shall not be reproduced, except in full, without the written approval of the Hottinger Brüel & Kjær Calibration Laboratory-Duluth, GA. Results relate only to the items tested. This instrument has been calibrated using Measurement Standards with values traceable to the National Institute of Standards and Technology, National Measurement Institutes or derived from natural physical constants.

PROCEDURE:

Hottinger Brüel & Kjær Model 3630 Sound Level Meter Calibration System Software 7763 Version 8.6 - DB: 8.60 Test Collection 2250-4189.

RESULTS:

As Received Condition	As Received Data	Final Data
☒ Received in good condition	☒ Within acceptance criteria	☒ Within acceptance criteria

Date of Calibration: 28 Feb. 2025

Certificate issued: 28 Feb. 2025

Grant Kennedy

Calibration Technician

John Avitabile
Quality Representative

Summary

Preliminary inspection	<u>Passed</u>
Environmental conditions, Prior to calibration	<u>Passed</u>
Reference information	<u>Passed</u>
Indication at the calibration check frequency	<u>Passed</u>
Acoustical signal tests of a frequency weighting, C weighting	<u>Passed</u>
Self-generated noise, Microphone installed	<u>Passed</u>
Self-generated noise, Electrical	<u>Passed</u>
Electrical signal tests of frequency weightings, A weighting	<u>Passed</u>
Electrical signal tests of frequency weightings, C weighting	<u>Passed</u>
Electrical signal tests of frequency weightings, Z weighting	<u>Passed</u>
Frequency and time weightings at 1 kHz	<u>Passed</u>
Long-term stability, Reference	<u>Passed</u>
Level linearity on the reference level range, Upper	<u>Passed</u>
Level linearity on the reference level range, Lower	<u>Passed</u>
Toneburst response, Time-weighting Fast	<u>Passed</u>
Toneburst response, Time-weighting Slow	<u>Passed</u>
Toneburst response, LAE	<u>Passed</u>
C-weighted peak sound level, 8 kHz	<u>Passed</u>
C-weighted peak sound level, 500 Hz	<u>Passed</u>
Overload indication	<u>Passed</u>
Long-term stability, 1. relative	<u>Passed</u>
High-level stability	<u>Passed</u>
Long-term stability, 2. relative	<u>Passed</u>
Environmental conditions, Following calibration	<u>Passed</u>

The sound level meter submitted for testing successfully completed the 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 organization responsible for pattern approvals, to demonstrate 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.

Conformance to a performance specification is demonstrated when the following criteria are both satisfied: (a) a measured deviation from a design goal does not exceed the applicable acceptance limit and (b) the corresponding uncertainty of measurement does not exceed the corresponding maximum-permitted uncertainty of measurement given in IEC 61672-1:2013 for the same coverage probability of 95 %.

**CERTIFICATE OF CALIBRATION**

No.: 424477-701

Page 1 of 4

CALIBRATION OF:

Microphone:	Brüel & Kjær	Type	4189	Serial No.	2799510
Identification:	#2				

CUSTOMER:Stantec Consulting Ltd.
325 25 Street SE - Unit 200
Calgary, AB T2A 7H8**CALIBRATION CONDITIONS:**

Environment conditions:	Air temperature:	22.6	°C
	Air pressure:	98.622	kPa
	Relative Humidity:	50.6	%RH
Applied polarization voltage:	0 Vdc		

SPECIFICATIONS: This document certifies that the instrument as listed under "Type" has been calibrated and unless otherwise indicated under "Final Data", meets acceptance criteria as prescribed by the referenced Procedure. Hottinger Brüel & Kjær Inc. utilizes a simple acceptance decision rule as defined by ILAC G8 with measurement uncertainty value which will not exceed 50% of the tolerance. The calibration of the listed transducer was accomplished using a test system which conforms to the requirements of ISO/IEC 17025, ANSI/NCSL Z540-1, and guidelines of ISO 10012-1. For "as received" and "final" data, see the attached page(s). Items marked with one asterisk (*) are not covered by the scope of the current A2LA accreditation. This Certificate and attached data pages shall not be reproduced, except in full, without written approval of the Hottinger Brüel & Kjær Calibration Laboratory-Duluth, GA. Results relate only to the items tested. The transducer has been calibrated using Measurement Standards with values traceable to the National Institute of Standards and Technology, National Measurement Institutes or derived from natural physical constants.

PROCEDURE:

The measurements have been performed with the assistance of the Hottinger Brüel & Kjær Inc. Microphone Calibration System B&K 9721 with application software WT9649 and WT9650 version 5.3.0.11 using calibration procedure: 4189-S251-FF-01

RESULTS:

☒ "As Received" Data: Within Acceptance Criteria	☐ "As Received" Data: Outside Acceptance Criteria
☒ "Final" Data : Within Acceptance Criteria	☐ "Final" Data : Outside Acceptance Criteria

The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor $k=2$ providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with EA-4/02 from elements originating from standards, calibration method, effect of environmental conditions and any short-term contribution from the device under calibration.

Date of Calibration: 9 April, 2025

Certificate issued: 9 April, 2025

Can Phan
Calibration Technician
Grant Kennedy
Quality Representative

CERTIFICATE OF CALIBRATION

No.: 424477-701

Type: 4189

Serial No.: 2799510

Page 2 of 4

Sensitivity

Nominal sensitivity:	-26 dB re. 1V/Pa	+/-	1.5 dB
Sensitivity at calibration conditions:	-26.45 dB re. 1V/Pa	or	47.59 mV/Pa
Sensitivity at reference conditions:	-26.48 dB re. 1V/Pa	or	47.45 mV/Pa
Uncertainty:	+/- 0.11 dB		
Correction factor K at reference conditions:	0.48 dB		
Calibration Frequency:	251.19 Hz		

Reference Conditions:

Pressure: 101.3 kPa

Temperature: 23 °C

Relative Humidity: 50%

Traceable references

Type	Serial no	Cal. date	Due date	Calibrated by	Trace number
4180	2602440	2024-04-23	2026-04-30	DPLA	M2. 10-1646-3.1

Condition "As Received":

Good

CERTIFICATE OF CALIBRATION

Certificate No: 424477-803

Page 1 of 10

CALIBRATION OF:

Sound Level Meter:	Brüel & Kjær	2250	Serial No: 2809183
Microphone:	Brüel & Kjær	4189	Serial No: 2799510
Preamplifier:	Brüel & Kjær	ZC-0032	Serial No: 17456
Supplied Calibrator:	Brüel & Kjær	4231	Serial No: 3009303
Software version:	BZ7222 Version 4.7.7		

CLIENT: Stantec Consulting Ltd.
325 25 Street SE
Unit 200
Calgary, AB T2A 7H8

CALIBRATION CONDITIONS:

Preconditioning: 4 hours at 23 ± 3 °C
Environment conditions See actual values in Environmental Condition sections

SPECIFICATIONS: This document certifies that the instrument as listed under "Model/Serial Number" has been calibrated and unless otherwise indicated under "Final Data", meets acceptance criteria as prescribed by the referenced Procedure. The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor $k = 2$ providing a level of confidence of approximately 95%. Statements of compliance, where applicable, are based on calibration results falling within specified criteria with no reduction by the uncertainty of the measurement. The calibration of the listed instrumentation was accomplished using a test system which conforms with the requirements of ISO/IEC 17025, ANSI/NCSL Z540-1, and ISO 10012-1. For "as received" and/or "final" data, see the attached page(s). Items marked with one asterisk (*) are not covered by the scope of the current A2LA accreditation. This Certificate and attached data pages shall not be reproduced, except in full, without the written approval of the Hottinger Brüel & Kjær Calibration Laboratory-Duluth, GA. Results relate only to the items tested. This instrument has been calibrated using Measurement Standards with values traceable to the National Institute of Standards and Technology, National Measurement Institutes or derived from natural physical constants.

PROCEDURE: Hottinger Brüel & Kjær Model 3630 Sound Level Meter Calibration System Software 7763 Version 8.6 - DB: 8.60 Test Collection 2250-4189.

RESULTS:

As Received Condition	As Received Data	Final Data
☐ Received in good condition	☐ Within acceptance criteria	☐ Within acceptance criteria

Date of Calibration: 10 Apr. 2025

Certificate issued: 10 Apr. 2025

Grant Kennedy

Calibration Technician

Can Phan
Quality Representative

Summary

Preliminary inspection	<u>Passed</u>
Environmental conditions, Prior to calibration	<u>Passed</u>
Reference information	<u>Passed</u>
Indication at the calibration check frequency	<u>Passed</u>
Acoustical signal tests of a frequency weighting, C weighting	<u>Passed</u>
Self-generated noise, Microphone installed	<u>Passed</u>
Self-generated noise, Electrical	<u>Passed</u>
Electrical signal tests of frequency weightings, A weighting	<u>Passed</u>
Electrical signal tests of frequency weightings, C weighting	<u>Passed</u>
Electrical signal tests of frequency weightings, Z weighting	<u>Passed</u>
Frequency and time weightings at 1 kHz	<u>Passed</u>
Long-term stability, Reference	<u>Passed</u>
Level linearity on the reference level range, Upper	<u>Passed</u>
Level linearity on the reference level range, Lower	<u>Passed</u>
Toneburst response, Time-weighting Fast	<u>Passed</u>
Toneburst response, Time-weighting Slow	<u>Passed</u>
Toneburst response, LAE	<u>Passed</u>
C-weighted peak sound level, 8 kHz	<u>Passed</u>
C-weighted peak sound level, 500 Hz	<u>Passed</u>
Overload indication	<u>Passed</u>
Long-term stability, 1. relative	<u>Passed</u>
High-level stability	<u>Passed</u>
Long-term stability, 2. relative	<u>Passed</u>
Environmental conditions, Following calibration	<u>Passed</u>

The sound level meter submitted for testing successfully completed the 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 organization responsible for pattern approvals, to demonstrate 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.

Conformance to a performance specification is demonstrated when the following criteria are both satisfied: (a) a measured deviation from a design goal does not exceed the applicable acceptance limit and (b) the corresponding uncertainty of measurement does not exceed the corresponding maximum-permitted uncertainty of measurement given in IEC 61672-1:2013 for the same coverage probability of 95 %.

CERTIFICATE OF CALIBRATION

No.: 424477-702

Page 1 of 4

CALIBRATION OF:

Microphone:	Brüel & Kjær	Type	4189	Serial No.	2866566
Identification:	#3				

CUSTOMER:Stantec Consulting Ltd.
325 25 Street SE - Unit 200
Calgary, AB T2A 7H8**CALIBRATION CONDITIONS:**

Environment conditions:	Air temperature:	22.6	°C
	Air pressure:	98.622	kPa
	Relative Humidity:	50.6	%RH
Applied polarization voltage:	0 Vdc		

SPECIFICATIONS: This document certifies that the instrument as listed under "Type" has been calibrated and unless otherwise indicated under "Final Data", meets acceptance criteria as prescribed by the referenced Procedure. Hottinger Brüel & Kjær Inc. utilizes a simple acceptance decision rule as defined by ILAC G8 with measurement uncertainty value which will not exceed 50% of the tolerance. The calibration of the listed transducer was accomplished using a test system which conforms to the requirements of ISO/IEC 17025, ANSI/NC SL Z540-1, and guidelines of ISO 10012-1. For "as received" and "final" data, see the attached page(s). Items marked with one asterisk (*) are not covered by the scope of the current A2LA accreditation. This Certificate and attached data pages shall not be reproduced, except in full, without written approval of the Hottinger Brüel & Kjær Calibration Laboratory-Duluth, GA. Results relate only to the items tested. The transducer has been calibrated using Measurement Standards with values traceable to the National Institute of Standards and Technology, National Measurement Institutes or derived from natural physical constants.

PROCEDURE:

The measurements have been performed with the assistance of the Hottinger Brüel & Kjær Inc. Microphone Calibration System B&K 9721 with application software WT9649 and WT9650 version 5.3.0.11 using calibration procedure: 4189-S251-FF-01

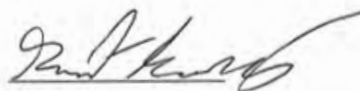
RESULTS:

☒ "As Received" Data: Within Acceptance Criteria	☐ "As Received" Data: Outside Acceptance Criteria
☒ "Final" Data : Within Acceptance Criteria	☐ "Final" Data : Outside Acceptance Criteria

The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor $k=2$ providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with EA-4/02 from elements originating from standards, calibration method, effect of environmental conditions and any short-term contribution from the device under calibration.

Date of Calibration: 9 April, 2025

Certificate issued: 9 April, 2025

Can Phan
Calibration Technician
Grant Kennedy
Quality Representative

CERTIFICATE OF CALIBRATION

No.: 424477-702

Type: 4189

Serial No.: 2866566

Page 2 of 4

Sensitivity

Nominal sensitivity:	-26 dB re. 1V/Pa	+/-	1.5 dB
Sensitivity at calibration conditions:	-25.03 dB re. 1V/Pa	or	56.05 mV/Pa
Sensitivity at reference conditions:	-25.06 dB re. 1V/Pa	or	55.87 mV/Pa
Uncertainty:	+/- 0.11 dB		
Correction factor K at reference conditions:	-0.94 dB		
Calibration Frequency:	251.19 Hz		

Reference Conditions:

Pressure: 101.3 kPa
Temperature: 23 °C
Relative Humidity: 50%

Traceable references

Type	Serial no	Cal. date	Due date	Calibrated by	Trace number
4180	2602440	2024-04-23	2026-04-30	DPLA	M2. 10-1646-3.1

Condition “As Received”:

Good

CERTIFICATE OF CALIBRATION

Certificate No: 424477-801

Page 1 of 10

CALIBRATION OF:

Sound Level Meter:	Brüel & Kjær	2250	Serial No: 3003408
Microphone:	Brüel & Kjær	4189	Serial No: 2866566
Preamplifier:	Brüel & Kjær	ZC-0032	Serial No: 19030
Supplied Calibrator:	Brüel & Kjær	4231	Serial No: 3009070
Software version:	BZ7222	Version 4.7.7	

CLIENT: Stantec Consulting Ltd.
325 25 Street SE
Unit 200
Calgary, AB T2A 7H8

CALIBRATION CONDITIONS:

Preconditioning: 4 hours at 23 ± 3 °C
Environment conditions See actual values in Environmental Condition sections

SPECIFICATIONS:

This document certifies that the instrument as listed under "Model/Serial Number" has been calibrated and unless otherwise indicated under "Final Data", meets acceptance criteria as prescribed by the referenced Procedure. The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor $k = 2$ providing a level of confidence of approximately 95%. Statements of compliance, where applicable, are based on calibration results falling within specified criteria with no reduction by the uncertainty of the measurement. The calibration of the listed instrumentation was accomplished using a test system which conforms with the requirements of ISO/IEC 17025, ANSI/NCSL Z540-1, and ISO 10012-1. For "as received" and/or "final" data, see the attached page(s). Items marked with one asterisk (*) are not covered by the scope of the current A2LA accreditation. This Certificate and attached data pages shall not be reproduced, except in full, without the written approval of the Hottinger Brüel & Kjær Calibration Laboratory-Duluth, GA. Results relate only to the items tested. This instrument has been calibrated using Measurement Standards with values traceable to the National Institute of Standards and Technology, National Measurement Institutes or derived from natural physical constants.

PROCEDURE: Hottinger Brüel & Kjær Model 3630 Sound Level Meter Calibration System Software 7763 Version 8.6 - DB: 8.60 Test Collection 2250-4189.

RESULTS:

As Received Condition	As Received Data	Final Data
☐ _X_ Received in good condition	☐ _X_ Within acceptance criteria	☐ _X_ Within acceptance criteria

Date of Calibration: 10 Apr. 2025

Certificate issued: 10 Apr. 2025

Grant Kennedy

Calibration Technician

Can Phan
Quality Representative

Summary

Preliminary inspection	<u>Passed</u>
Environmental conditions, Prior to calibration	<u>Passed</u>
Reference information	<u>Passed</u>
Indication at the calibration check frequency	<u>Passed</u>
Acoustical signal tests of a frequency weighting, C weighting	<u>Passed</u>
Self-generated noise, Microphone installed	<u>Passed</u>
Self-generated noise, Electrical	<u>Passed</u>
Electrical signal tests of frequency weightings, A weighting	<u>Passed</u>
Electrical signal tests of frequency weightings, C weighting	<u>Passed</u>
Electrical signal tests of frequency weightings, Z weighting	<u>Passed</u>
Frequency and time weightings at 1 kHz	<u>Passed</u>
Long-term stability, Reference	<u>Passed</u>
Level linearity on the reference level range, Upper	<u>Passed</u>
Level linearity on the reference level range, Lower	<u>Passed</u>
Toneburst response, Time-weighting Fast	<u>Passed</u>
Toneburst response, Time-weighting Slow	<u>Passed</u>
Toneburst response, LAE	<u>Passed</u>
C-weighted peak sound level, 8 kHz	<u>Passed</u>
C-weighted peak sound level, 500 Hz	<u>Passed</u>
Overload indication	<u>Passed</u>
Long-term stability, 1. relative	<u>Passed</u>
High-level stability	<u>Passed</u>
Long-term stability, 2. relative	<u>Passed</u>
Environmental conditions, Following calibration	<u>Passed</u>

The sound level meter submitted for testing successfully completed the 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 organization responsible for pattern approvals, to demonstrate 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.

Conformance to a performance specification is demonstrated when the following criteria are both satisfied: (a) a measured deviation from a design goal does not exceed the applicable acceptance limit and (b) the corresponding uncertainty of measurement does not exceed the corresponding maximum-permitted uncertainty of measurement given in IEC 61672-1:2013 for the same coverage probability of 95 %.

CERTIFICATE OF CALIBRATION

No.: 424477-703

Page 1 of 4

CALIBRATION OF:

Microphone:	Brüel & Kjær	Type	4189	Serial No.	3060527
Identification:	4				

CUSTOMER:Stantec Consulting Ltd.
325 25 Street SE - Unit 200
Calgary, AB T2A 7H8**CALIBRATION CONDITIONS:**

Environment conditions:	Air temperature:	22.6	°C
	Air pressure:	98.622	kPa
	Relative Humidity:	50.6	%RH
Applied polarization voltage:	0 Vdc		

SPECIFICATIONS: This document certifies that the instrument as listed under "Type" has been calibrated and unless otherwise indicated under "Final Data", meets acceptance criteria as prescribed by the referenced Procedure. Hottinger Brüel & Kjær Inc. utilizes a simple acceptance decision rule as defined by ILAC G8 with measurement uncertainty value which will not exceed 50% of the tolerance. The calibration of the listed transducer was accomplished using a test system which conforms to the requirements of ISO/IEC 17025, ANSI/NC SL Z540-1, and guidelines of ISO 10012-1. For "as received" and "final" data, see the attached page(s). Items marked with one asterisk (*) are not covered by the scope of the current A2LA accreditation. This Certificate and attached data pages shall not be reproduced, except in full, without written approval of the Hottinger Brüel & Kjær Calibration Laboratory-Duluth, GA. Results relate only to the items tested. The transducer has been calibrated using Measurement Standards with values traceable to the National Institute of Standards and Technology, National Measurement Institutes or derived from natural physical constants.

PROCEDURE:

The measurements have been performed with the assistance of the Hottinger Brüel & Kjær Inc. Microphone Calibration System B&K 9721 with application software WT9649 and WT9650 version 5.3.0.11 using calibration procedure: 4189-S251-FF-01

RESULTS:

☒ "As Received" Data: Within Acceptance Criteria	☐ "As Received" Data: Outside Acceptance Criteria
☒ "Final" Data : Within Acceptance Criteria	☐ "Final" Data : Outside Acceptance Criteria

The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor $k=2$ providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with EA-4/02 from elements originating from standards, calibration method, effect of environmental conditions and any short-term contribution from the device under calibration.

Date of Calibration: 9 April, 2025

Certificate issued: 9 April, 2025

Can Phan
Calibration Technician
Grant Kennedy

Quality Representative

CERTIFICATE OF CALIBRATION

No.: 424477-703

Type: 4189

Serial No.: 3060527

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Sensitivity

Nominal sensitivity:	-26 dB re. 1V/Pa	+/-	1.5 dB
Sensitivity at calibration conditions:	-25.63 dB re. 1V/Pa	or	52.33 mV/Pa
Sensitivity at reference conditions:	-25.65 dB re. 1V/Pa	or	52.17 mV/Pa
Uncertainty:	+/- 0.1 dB		
Correction factor K at reference conditions:	-0.35 dB		
Calibration Frequency:	251.19 Hz		

Reference Conditions:

Pressure: 101.3 kPa
Temperature: 23 °C
Relative Humidity: 50%

Traceable references

Type	Serial no	Cal. date	Due date	Calibrated by	Trace number
4180	2602440	2024-04-23	2026-04-30	DPLA	M2. 10-1646-3.1

Condition “As Received”:

Good

CERTIFICATE OF CALIBRATION

Certificate No: 424477-802

Page 1 of 10

CALIBRATION OF:

Sound Level Meter:	Brüel & Kjær	2270	Serial No: 3002024
Microphone:	Brüel & Kjær	4189	Serial No: 3060527
Preamplifier:	Brüel & Kjær	ZC-0032	Serial No: 19025
Supplied Calibrator:	Brüel & Kjær	4231	Serial No: 2053018
Software version:	BZ7222 Version 4.7.7		

CLIENT: Stantec Consulting Ltd.
325 25 Street SE
Unit 200
Calgary, AB T2A 7H8

CALIBRATION CONDITIONS:

Preconditioning: 4 hours at 23 ± 3 °C
Environment conditions See actual values in Environmental Condition sections

SPECIFICATIONS: This document certifies that the instrument as listed under "Model/Serial Number" has been calibrated and unless otherwise indicated under "Final Data", meets acceptance criteria as prescribed by the referenced Procedure. The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor $k = 2$ providing a level of confidence of approximately 95%. Statements of compliance, where applicable, are based on calibration results falling within specified criteria with no reduction by the uncertainty of the measurement. The calibration of the listed instrumentation was accomplished using a test system which conforms with the requirements of ISO/IEC 17025, ANSI/NCSL Z540-1, and ISO 10012-1. For "as received" and/or "final" data, see the attached page(s). Items marked with one asterisk (*) are not covered by the scope of the current A2LA accreditation. This Certificate and attached data pages shall not be reproduced, except in full, without the written approval of the Hottinger Brüel & Kjær Calibration Laboratory-Duluth, GA. Results relate only to the items tested. This instrument has been calibrated using Measurement Standards with values traceable to the National Institute of Standards and Technology, National Measurement Institutes or derived from natural physical constants.

PROCEDURE:

Hottinger Brüel & Kjær Model 3630 Sound Level Meter Calibration System Software 7763 Version 8.6 - DB: 8.60 Test Collection 2270-4189.

RESULTS:

As Received Condition	As Received Data	Final Data
☒ Received in good condition	☒ Within acceptance criteria	☒ Within acceptance criteria

Date of Calibration: 10 Apr. 2025

Certificate issued: 10 Apr. 2025

Grant Kennedy

Calibration Technician

Can Phan
Quality Representative

Summary

Preliminary inspection	<u>Passed</u>
Environmental conditions, Prior to calibration	<u>Passed</u>
Reference information	<u>Passed</u>
Indication at the calibration check frequency	<u>Passed</u>
Acoustical signal tests of a frequency weighting, C weighting	<u>Passed</u>
Self-generated noise, Microphone installed	<u>Passed</u>
Self-generated noise, Electrical	<u>Passed</u>
Electrical signal tests of frequency weightings, A weighting	<u>Passed</u>
Electrical signal tests of frequency weightings, C weighting	<u>Passed</u>
Electrical signal tests of frequency weightings, Z weighting	<u>Passed</u>
Frequency and time weightings at 1 kHz	<u>Passed</u>
Long-term stability, Reference	<u>Passed</u>
Level linearity on the reference level range, Upper	<u>Passed</u>
Level linearity on the reference level range, Lower	<u>Passed</u>
Toneburst response, Time-weighting Fast	<u>Passed</u>
Toneburst response, Time-weighting Slow	<u>Passed</u>
Toneburst response, LAE	<u>Passed</u>
C-weighted peak sound level, 8 kHz	<u>Passed</u>
C-weighted peak sound level, 500 Hz	<u>Passed</u>
Overload indication	<u>Passed</u>
Long-term stability, 1. relative	<u>Passed</u>
High-level stability	<u>Passed</u>
Long-term stability, 2. relative	<u>Passed</u>
Environmental conditions, Following calibration	<u>Passed</u>

The sound level meter submitted for testing successfully completed the 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 organization responsible for pattern approvals, to demonstrate 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.

Conformance to a performance specification is demonstrated when the following criteria are both satisfied: (a) a measured deviation from a design goal does not exceed the applicable acceptance limit and (b) the corresponding uncertainty of measurement does not exceed the corresponding maximum-permitted uncertainty of measurement given in IEC 61672-1:2013 for the same coverage probability of 95 %.

CERTIFICATE OF CALIBRATION

No.: 418346-703

Page 1 of 4

CALIBRATION OF:

Microphone: Brüel & Kjær Type 4189 Serial No. 2780543

CUSTOMER:Stantec Consulting
325 25 Street SE - Unit 200
Calgary, AB T2A 7H8
Canada**CALIBRATION CONDITIONS:**

Environment conditions:	Air temperature:	23.1	°C
	Air pressure:	98.58	kPa
	Relative Humidity:	29.1	%RH
Applied polarization voltage:	0 Vdc		

SPECIFICATIONS: This document certifies that the instrument as listed under "Type" has been calibrated and unless otherwise indicated under "Final Data", meets acceptance criteria as prescribed by the referenced Procedure. Hottinger Brüel & Kjær Inc. utilizes a simple acceptance decision rule as defined by ILAC G8 with measurement uncertainty value which will not exceed 50% of the tolerance. The calibration of the listed transducer was accomplished using a test system which conforms to the requirements of ISO/IEC 17025, ANSI/NCSL Z540-1, and guidelines of ISO 10012-1. For "as received" and "final" data, see the attached page(s). Items marked with one asterisk (*) are not covered by the scope of the current A2LA accreditation. This Certificate and attached data pages shall not be reproduced, except in full, without written approval of the Hottinger Brüel & Kjær Calibration Laboratory-Duluth, GA. Results relate only to the items tested. The transducer has been calibrated using Measurement Standards with values traceable to the National Institute of Standards and Technology, National Measurement Institutes or derived from natural physical constants.

PROCEDURE: The measurements have been performed with the assistance of the Hottinger Brüel & Kjær Inc. Microphone Calibration System B&K 9721 with application software WT9649 and WT9650 version 5.3.0.11 using calibration procedure: 4189-S251-FF-01

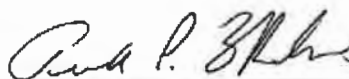
RESULTS:

☒ "As Received" Data: Within Acceptance Criteria	☐ "As Received" Data: Outside Acceptance Criteria
☒ "Final" Data : Within Acceptance Criteria	☐ "Final" Data : Outside Acceptance Criteria

The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor $k=2$ providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with EA-4/02 from elements originating from standards, calibration method, effect of environmental conditions and any short-term contribution from the device under calibration.

Date of Calibration: 27 February, 2025

Certificate issued: 27 February, 2025

Can Phan
Calibration TechnicianAundra Welch
Quality Representative

CERTIFICATE OF CALIBRATION

No.: 418346-703

Type: 4189

Serial No.: 2780543

Page 2 of 4

Sensitivity

Nominal sensitivity:	-26 dB re. 1V/Pa	+/-	1.5 dB
Sensitivity at calibration conditions:	-26.29 dB re. 1V/Pa	or	48.47 mV/Pa
Sensitivity at reference conditions:	-26.32 dB re. 1V/Pa	or	48.32 mV/Pa
Uncertainty:	+/- 0.11 dB		
Correction factor K at reference conditions:	0.32 dB		
Calibration Frequency:	251.19 Hz		

Reference Conditions:

Pressure: 101.3 kPa

Temperature: 23 °C

Relative Humidity: 50%

Traceable references

Type	Serial no	Cal. date	Due date	Calibrated by	Trace number
4180	2602440	2024-04-23	2026-04-30	DPLA	M2. 10-1646-3.1

Condition "As Received":

Good

The Hottinger Brüel & Kjær Calibration Laboratory
3079 Premiere Parkway Suite 120
Duluth, GA 30097
Telephone: 770/209-6907
Fax: 770/447-4033
Web site address: <http://www.hbkworld.com>

CERTIFICATE OF CALIBRATION

Certificate No: 418346-801

Page 1 of 10

CALIBRATION OF:

Sound Level Meter:	Brüel & Kjær	2250	Serial No: 3007892
Microphone:	Brüel & Kjær	4189	Serial No: 2780543
Preamplifier:	Brüel & Kjær	ZC-0032	Serial No: 30312
Software version:	BZ7222 Version 4.7.7		

CLIENT: Stantec Consulting Ltd.
200 - 325 25th Street SE
Calgary, AB T2A 7H8

CALIBRATION CONDITIONS:

Preconditioning: 4 hours at 23 ± 3 °C
Environment conditions See actual values in Environmental Condition sections

SPECIFICATIONS:

This document certifies that the instrument as listed under "Model/Serial Number" has been calibrated and unless otherwise indicated under "Final Data", meets acceptance criteria as prescribed by the referenced Procedure. The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor $k = 2$ providing a level of confidence of approximately 95%. Statements of compliance, where applicable, are based on calibration results falling within specified criteria with no reduction by the uncertainty of the measurement. The calibration of the listed instrumentation, was accomplished using a test system which conforms with the requirements of ISO/IEC 17025, ANSI/NCSL Z540-1, and ISO 10012-1. For "as received" and/or "final" data, see the attached page(s). Items marked with one asterisk (*) are not covered by the scope of the current A2LA accreditation. This Certificate and attached data pages shall not be reproduced, except in full, without the written approval of the Hottinger Brüel & Kjær Calibration Laboratory-Duluth, GA. Results relate only to the items tested. This instrument has been calibrated using Measurement Standards with values traceable to the National Institute of Standards and Technology, National Measurement Institutes or derived from natural physical constants.

PROCEDURE:

Hottinger Brüel & Kjær Model 3630 Sound Level Meter Calibration System Software 7763 Version 8.6 - DB: 8.60 Test Collection 2250-4189.

RESULTS:

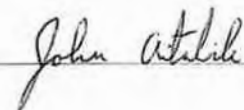
As Received Condition	As Received Data	Final Data
☐ Received in good condition	☒ Within acceptance criteria	☒ Within acceptance criteria

Date of Calibration: 27 Feb. 2025

Certificate issued: 28 Feb. 2025

Grant Kennedy

Calibration Technician



John Avitabile
Quality Representative

Summary

Preliminary inspection	<u>Passed</u>
Environmental conditions, Prior to calibration	<u>Passed</u>
Reference information	<u>Passed</u>
Indication at the calibration check frequency	<u>Passed</u>
Acoustical signal tests of a frequency weighting, C weighting	<u>Passed</u>
Self-generated noise, Microphone installed	<u>Passed</u>
Self-generated noise, Electrical	<u>Passed</u>
Electrical signal tests of frequency weightings, A weighting	<u>Passed</u>
Electrical signal tests of frequency weightings, C weighting	<u>Passed</u>
Electrical signal tests of frequency weightings, Z weighting	<u>Passed</u>
Frequency and time weightings at 1 kHz	<u>Passed</u>
Long-term stability, Reference	<u>Passed</u>
Level linearity on the reference level range, Upper	<u>Passed</u>
Level linearity on the reference level range, Lower	<u>Passed</u>
Toneburst response, Time-weighting Fast	<u>Passed</u>
Toneburst response, Time-weighting Slow	<u>Passed</u>
Toneburst response, LAE	<u>Passed</u>
C-weighted peak sound level, 8 kHz	<u>Passed</u>
C-weighted peak sound level, 500 Hz	<u>Passed</u>
Overload indication	<u>Passed</u>
Long-term stability, 1. relative	<u>Passed</u>
High-level stability	<u>Passed</u>
Long-term stability, 2. relative	<u>Passed</u>
Environmental conditions, Following calibration	<u>Passed</u>

The sound level meter submitted for testing successfully completed the 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 organization responsible for pattern approvals, to demonstrate 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.

Conformance to a performance specification is demonstrated when the following criteria are both satisfied: (a) a measured deviation from a design goal does not exceed the applicable acceptance limit and (b) the corresponding uncertainty of measurement does not exceed the corresponding maximum-permitted uncertainty of measurement given in IEC 61672-1:2013 for the same coverage probability of 95 %.

CERTIFICATE OF CALIBRATION

No.: 458875-702

Page 1 of 4

CALIBRATION OF:

Microphone: Brüel & Kjær Type 4966 Serial No. 3391835

CUSTOMER:Stantec Consulting Ltd.
325 25 Street SE - Unit 200
Calgary, AB T2A 7H8
Emma.Xiong@stantec.com**CALIBRATION CONDITIONS:**

Environment conditions:	Air temperature:	21.9 °C
	Air pressure:	99.04 kPa
	Relative Humidity:	31 %RH
Applied polarization voltage:	0 Vdc	

SPECIFICATIONS: This document certifies that the instrument as listed under "Type" has been calibrated and unless otherwise indicated under "Final Data", meets acceptance criteria as prescribed by the referenced Procedure. Hottinger Brüel & Kjær Inc. utilizes a simple acceptance decision rule as defined by ILAC G8 with measurement uncertainty value which will not exceed 50% of the tolerance. The calibration of the listed transducer was accomplished using a test system which conforms to the requirements of ISO/IEC 17025, ANSI/NCSL Z540-1, and guidelines of ISO 10012-1. For "as received" and "final" data, see the attached page(s). Items marked with one asterisk (*) are not covered by the scope of the current A2LA accreditation. This Certificate and attached data pages shall not be reproduced, except in full, without written approval of the Hottinger Brüel & Kjær Calibration Laboratory-Duluth, GA. Results relate only to the items tested. The transducer has been calibrated using Measurement Standards with values traceable to the National Institute of Standards and Technology, National Measurement Institutes or derived from natural physical constants.

PROCEDURE: The measurements have been performed with the assistance of the Hottinger Brüel & Kjær Inc. Microphone Calibration System B&K 9721 with application software WT9649 and WT9650 version 5.3.0.11 using calibration procedure: 4966 S251-FR01

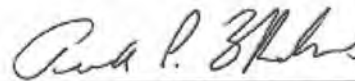
RESULTS:

☒ "As Received" Data: Within Acceptance Criteria	☐ "As Received" Data: Outside Acceptance Criteria
☒ "Final" Data : Within Acceptance Criteria	☐ "Final" Data : Outside Acceptance Criteria

The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor $k=2$ providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with EA-4/02 from elements originating from standards, calibration method, effect of environmental conditions and any short-term contribution from the device under calibration.

Date of Calibration: 12 January, 2026

Certificate issued: 12 January, 2026

Can Phan
Calibration TechnicianAundra Welch
Quality Representative

CERTIFICATE OF CALIBRATION

No.: 458875-702

Type: 4966

Serial No.: 3391835

Page 2 of 4

Sensitivity

Nominal sensitivity:	-26 dB re. 1V/Pa	+/-	1.5 dB
Sensitivity at calibration conditions:	-25.68 dB re. 1V/Pa	or	52.02 mV/Pa
Sensitivity at reference conditions:	-25.70 dB re. 1V/Pa	or	51.90 mV/Pa
Uncertainty:	+/- 0.11 dB		
Correction factor K at reference conditions:	-0.30 dB		
Calibration Frequency:	251.19 Hz		

Reference Conditions:

Pressure: 101.3 kPa

Temperature: 23 °C

Relative Humidity: 50%

Traceable references

Type	Serial no	Cal. date	Due date	Calibrated by	Trace number
4180	2602440	2024-04-23	2026-04-30	DPLA	M2. 10-1646-3.1

Condition "As Received":

Good

CERTIFICATE OF CALIBRATION

Certificate No: 458875-101

Page 1 of 10

CALIBRATION OF:

Sound Level Meter:	Brüel & Kjær	2250	Serial No: 3008995
Microphone:	Brüel & Kjær	4966	Serial No: 3391835
Preamplifier:	Brüel & Kjær	ZC-0032	Serial No: 23441
Supplied Calibrator:	Brüel & Kjær	4231	Serial No: 2053018
Software version:	BZ7222 Version 4.5.2		

CLIENT: Stantec Consulting Ltd.
325 25th Street SE, Unit 200
Calgary, AB T2A 7H8 Emma.Xiong@stantec.com

CALIBRATION CONDITIONS:

Preconditioning: 4 hours at 23 ± 3 °C
Environment conditions See actual values in Environmental Condition sections

SPECIFICATIONS:

This document certifies that the instrument as listed under "Model/Serial Number" has been calibrated and unless otherwise indicated under "Final Data", meets acceptance criteria as prescribed by the referenced Procedure. The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor $k = 2$ providing a level of confidence of approximately 95%. Statements of compliance, where applicable, are based on calibration results falling within specified criteria with no reduction by the uncertainty of the measurement. The calibration of the listed instrumentation, was accomplished using a test system which conforms with the requirements of ISO/IEC 17025, ANSI/NCSL Z540-1, and ISO 10012-1. For "as received" and/or "final" data, see the attached page(s). Items marked with one asterisk (*) are not covered by the scope of the current A2LA accreditation. This Certificate and attached data pages shall not be reproduced, except in full, without the written approval of the Hottinger Brüel & Kjær Calibration Laboratory-Duluth, GA. Results relate only to the items tested. This instrument has been calibrated using Measurement Standards with values traceable to the National Institute of Standards and Technology, National Measurement Institutes or derived from natural physical constants.

PROCEDURE:

Hottinger Brüel & Kjær Model 3630 Sound Level Meter Calibration System Software 7763 Version 8.6 - DB: 8.60 Test Collection 2250-4966.

RESULTS:

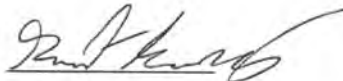
As Received Condition	As Received Data	Final Data
☒ _X_ Received in good condition	☒ _X_ Within acceptance criteria	☒ _X_ Within acceptance criteria

Date of Calibration: 13 January 2026

Certificate issued: 13 January 2026

John Avitabile

Calibration Technician

Grant Kennedy
Quality Representative

Summary

Preliminary inspection	<u>Passed</u>
Environmental conditions, Prior to calibration	<u>Passed</u>
Reference information	<u>Passed</u>
Indication at the calibration check frequency	<u>Passed</u>
Acoustical signal tests of a frequency weighting, C weighting	<u>Passed</u>
Self-generated noise, Microphone installed	<u>Passed</u>
Self-generated noise, Electrical	<u>Passed</u>
Electrical signal tests of frequency weightings, A weighting	<u>Passed</u>
Electrical signal tests of frequency weightings, C weighting	<u>Passed</u>
Electrical signal tests of frequency weightings, Z weighting	<u>Passed</u>
Frequency and time weightings at 1 kHz	<u>Passed</u>
Long-term stability, Reference	<u>Passed</u>
Level linearity on the reference level range, Upper	<u>Passed</u>
Level linearity on the reference level range, Lower	<u>Passed</u>
Toneburst response, Time-weighting Fast	<u>Passed</u>
Toneburst response, Time-weighting Slow	<u>Passed</u>
Toneburst response, LAE	<u>Passed</u>
C-weighted peak sound level, 8 kHz	<u>Passed</u>
C-weighted peak sound level, 500 Hz	<u>Passed</u>
Overload indication	<u>Passed</u>
Long-term stability, 1. relative	<u>Passed</u>
High-level stability	<u>Passed</u>
Long-term stability, 2. relative	<u>Passed</u>
Environmental conditions, Following calibration	<u>Passed</u>

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

As evidence was publicly available, from an independent testing organization responsible for approving the results of pattern-evaluation tests performed in accordance with IEC 61672-2:2013, to demonstrate that the model of sound level meter fully conformed to the class 1 specifications in IEC 61672-1:2013, the sound level meter submitted for testing conforms to the class 1 specifications of IEC 61672-1:2013.

Conformance to a performance specification is demonstrated when the following criteria are both satisfied: (a) a measured deviation from a design goal does not exceed the applicable acceptance limit and (b) the corresponding uncertainty of measurement does not exceed the corresponding maximum-permitted uncertainty of measurement given in IEC 61672-1:2013 for the same coverage probability of 95 %.

APPENDIX C FLOATEL #2 SPOT MEASUREMENT RESULTS

Item	Measurement Time (mm/dd/yyyy hh:mm)	Measurement Location	Sound Level Leq, dBA	Reference Figure
1	3/18/2026 13:46	Deck 4, in the corridor outside Cabin 4492	48.3	Figure 16
2	3/18/2026 13:47	Deck 4, in the corridor outside Cabin 4672	47.8	Figure 16
3	3/18/2026 13:49	Deck 4, in the corridor outside Cabin 4616	42.9	Figure 16
4	3/18/2026 13:53	Deck 4, in the corridor outside Cabin 4220	35.0	Figure 16
5	3/18/2026 13:54	Deck 4, in the corridor outside Cabin 4231	36.8	Figure 16
6	3/18/2026 13:59	Deck 4, in the corridor outside Cabin 4020	38.2	Figure 16
7	3/18/2026 14:05	Deck 4, in the corridor outside Cabin 4472	47.7	Figure 16
8	3/18/2026 14:10	Deck 5, in the corridor outside Cabin 5424	39.9	Figure 17
9	3/18/2026 14:14	Deck 5, in the corridor outside Cabin 510	43.0	Figure 17
10	3/18/2026 14:17	Deck 5, in the corridor outside Cabin 530	39.8	Figure 17
11	3/18/2026 14:19	Deck 5, in the corridor outside Cabin 5624	46.6	Figure 17
12	3/18/2026 14:21	Deck 5, in the corridor outside Cabin 5514	39.9	Figure 17
13	3/18/2026 14:24	Deck 5, in the corridor outside Cabin 5014	33.6	Figure 17
14	3/18/2026 14:26	Deck 5, in the corridor outside Cabin 5006	37.1	Figure 17
15	3/18/2026 14:28	Deck 5, in the corridor outside Cabin 5028	36.6	Figure 17
16	3/18/2026 14:31	Deck 5, in the corridor outside Cabin 5206	36.0	Figure 17
17	3/18/2026 14:34	Deck 6, in the corridor outside Cabin 6006	37.5	Figure 18
18	3/18/2026 14:40	Deck 6, in the corridor outside Cabin 6104	42.5	Figure 18
19	3/18/2026 14:44	Deck 6, in the corridor outside Cabin 6206	38.5	Figure 18
20	3/18/2026 14:45	Deck 6, in the corridor outside Cabin 6024	42.1	Figure 18
21	3/18/2026 14:50	Deck 6, in the corridor outside Cabin 628	40.0	Figure 18
22	3/18/2026 14:52	Deck 6, in the corridor outside Cabin 064	42.4	Figure 18
23	3/18/2026 14:54	Deck 6, in the corridor outside Cabin 608	41.2	Figure 18
24	3/18/2026 14:58	Deck 6, in the corridor outside Cabin 6420	35.0	Figure 18
25	3/18/2026 15:00	Deck 6, in the corridor outside Cabin 6513	42.8	Figure 18

WOODFIBRE LNG PROJECT:

**Floatel #1 and Floatel #2 Noise Monitoring Survey – Q2 2026
(March 16 – 20, 2026)**

Item	Measurement Time (mm/dd/yyyy hh:mm)	Measurement Location	Sound Level Leq, dBA	Reference Figure
26	3/18/2026 22:09	Deck 4, in the corridor outside Cabin 4220	43.6	Figure 16
27	3/18/2026 22:10	Deck 4, in the corridor outside Cabin 4231	33.7	Figure 16
28	3/18/2026 22:12	Deck 4, in the corridor outside Cabin 4020	33.1	Figure 16
29	3/18/2026 22:15	Deck 4, in the corridor outside Cabin 4472	48.0	Figure 16
30	3/18/2026 22:18	Deck 4, in the corridor outside Cabin 4492	47.6	Figure 16
31	3/18/2026 22:20	Deck 4, in the corridor outside Cabin 4672	45.2	Figure 16
32	3/18/2026 22:21	Deck 4, in the corridor outside Cabin 4616	41.8	Figure 16
33	3/18/2026 22:24	Deck 5, in the corridor outside Cabin 5424	38.4	Figure 17
34	3/18/2026 22:26	Deck 5, in the corridor outside Cabin 510	41.5	Figure 17
35	3/18/2026 22:29	Deck 5, in the corridor outside Cabin 5514	37.9	Figure 17
36	3/18/2026 22:31	Deck 5, in the corridor outside Cabin 5624	44.7	Figure 17
37	3/18/2026 22:32	Deck 5, in the corridor outside Cabin 530	37.4	Figure 17
38	3/18/2026 22:39	Deck 5, in the corridor outside Cabin 5006	34.8	Figure 17
39	3/18/2026 22:40	Deck 5, in the corridor outside Cabin 5014	31.7	Figure 17
40	3/18/2026 22:41	Deck 5, in the corridor outside Cabin 5028	41.2	Figure 17
41	3/18/2026 22:43	Deck 5, in the corridor outside Cabin 5206	34.4	Figure 17
42	3/18/2026 22:53	Deck 6, in the corridor outside Cabin 6006	39.7	Figure 18
43	3/18/2026 22:55	Deck 6, in the corridor outside Cabin 6024	35.9	Figure 18
44	3/18/2026 22:57	Deck 6, in the corridor outside Cabin 6104	40.9	Figure 18
45	3/18/2026 22:58	Deck 6, in the corridor outside Cabin 6206	39.0	Figure 18
46	3/18/2026 23:01	Deck 6, in the corridor outside Cabin 6513	42.0	Figure 18
47	3/18/2026 23:03	Deck 6, in the corridor outside Cabin 6420	41.0	Figure 18
48	3/18/2026 23:05	Deck 6, in the corridor outside Cabin 608	40.0	Figure 18
49	3/18/2026 23:07	Deck 6, in the corridor outside Cabin 064	39.0	Figure 18
50	3/18/2026 23:10	Deck 6, in the corridor outside Cabin 628	37.2	Figure 18

APPENDIX D NOISE INVESTIGATION FORMS

Noise Investigation Form – 1 (To be completed by noise specialist)

Date (DD/MM/YYYY): March 16, 2026 ~ March 20, 2026

Interviewee: Anonymous (See Interview Form)

Noise Specialist: Yong Ma

Address: Floatel #1 (Isabelle)

Address:

Noise characterization – Identify the quality and characteristics of the noise

Distance to source: Approx. 150 (m)

When is noise a problem (day/night)? night

Pitch (high/low): high

Where is noise most annoying (inside/outside)? inside

Is there a noticeable tone? No

Describe: sound like metallic “ping”

Is noise steady/intermittent/pulsating? Intermittent/pulsating Describe: rock hammering activity

Is the noise heard and/or a vibration felt? Yes Describe: Noise was heard but no vibration felt

PROJECT OPERATING CONDITIONS

Identify the weather conditions when the noise is most noticeable.

Equipment: Rock hammer

Location: Construction 4100 Area

Operating Time: Night 03:00 ~ 05:00 and Mar 19; 15:00 ~ 18:00/Mar 19 (observed)

Other comments:

Noise generated by rock hammer operating was faintly audible inside cabins at Deck 9 and Deck 10

REPRESENTATIVE CONDITIONS

From the above, identify the conditions that should exist as closely as possible during a noise monitoring survey.

Noise generated by rock hammer operating caused noise complaints by some floatel residences

**Floatel #1 and Floatel #2 Noise Monitoring Survey – Q2 2026
(March 16 – 20, 2026)**

Noise Complaint Records (Noise Investigation Form – 2)

Date of Noise Event	Time of Noise Event	Duration of Noise Event (e.g., number of minutes, hours or all the time)	Noticeable Tone	Occurrence Frequency	Noticeability ¹	Wind Speed ¹	Precipitation ¹	Location (where heard)	Is noise from construction site?	Other comments ¹
2/7/2026	3:50AM	Long enough to wake me up and keep me awake for a while	Yes	Pulsating	Noise Heard	Mild	Rain	Sleeping in dorm room facing work site	Yes	Rock hammering in 4100 woke me and 2 other people in different dorm rooms facing site on the Isabelle X
2/12/2026	3 am	All night	Yes	Continuous	Noise Heard	Mild	None	9th floor	Yes	Stop Rock hammering at night
2/15/2026	8:53	1hr	Yes	Continuous	Noise Heard	Mild	None	9th floor of floatel	Yes	Stop rock hammering at night
2/17/2026	Feb 16-17 all night long	All night long	Yes	Continuous	Noise Heard	Mild	None	Deck 9 of the floatel	Yes	Stop rock hammering by the floatel at night
2/16/2026	8PM	Regularly over 10 hours	Yes	Pulsating	Noise Heard	Low	Rain	In dorm room of Isabelle X that faces the site	Yes	I could hear the rock hammering in 4100 all night through my earplugs. It woke me up multiple times throughout the night. It started before I fell asleep around 8PM and was still going when I got up around 5:30AM. This needs to stop.
2/19/2026	All the time	All the time	Yes	Continuous	Noise Heard			In my room 4460	No	Loud engine noise, like a generator or similar. I have issues with sleep and can't sleep with this noise.
3/30/2026	2 am onwards	All night	Yes	Continuous	Noise Heard	Mild	None	Deck nine of the floatel	Yes	Rock hammering in the upper 4100 keeping me up at night
3/29/2026	8:30PM until morning	9 hours	Yes	Pulsating	Noise Heard	Mild	Rain	Isabelle X dorm room facing site	Yes	Rock hammering all night long. Very loud and even heard through earplugs

APPENDIX E NOISE INTERVIEW RECORDS

Table E.1 Interview Questionnaire – Floatel #1

Interviewer: Yong Ma				Interview Questionnaire			
Interviewee Information							
ID # of Interviewee	Interview Date	Living Deck	Work Shift	1.General evaluation for your sleeping at Floatel	2. Can you hear outside rock hammering noise?	3. Does rock hammering noise bother you?	3. Any noise concerns/ complaints
#1	March 16	9	Day	Sleep well	Can hear	OK, not bothering	Not from construction, noise from smokers outside
#2	March 16	10	Day	No issue	Yes, noticeable	But not disturbing	No
#3	March 16	9	Night	No problem	Didn't get	No	None
#4	March 16	10	Day	Sleep OK	Not heard	No	Don't have
#5	March 16	9	Day	No issue	No	No	Not at all
#6	March 16	6	Day	Not bad	No	Not bothering	No, some floatel noise
#7	March 16	6	Day	No problem	Heard	But no issue	No, only noise from people
#8	March 16	6	Day	No real issue	No	No	Noise from room fan, gym
#9	March 16	6	Day	No problem	No	Not bothering	Gym noise
#10	March 16	6	Day	Nothing, deep sleeper	Not very often, some backup alarm	No	No
#11	March 16	6	Day	Not much issue	Barely heard	No	No
#12	March 17	6	Day	Fine	Not hearing	No	So far so good
#13	March 17	5	Day	Very good	Not hearing	Not bothering	No
#14	March 17	7	Day	Good	No	No	No issue
#15	March 17	5	Day	Deep sleeping	Not heard	No	Happy stay
#16	March 17	5	Day	Fine	Didn't hear	No	All good
#17	March 17	5	Day	Good	Not hearing	No	No issue
#18	March 17	5	Day	Good	Not heard	No	Gym noise while staying at Deck 6
#19	March 17	9	Day	Fine	Not hearing	No bothering	No issue
#20	March 17	9	Day	Fine	Not heard	No	Nothing

Table E.2 Interview Questionnaire – Floatel #2

Interviewer: Yong Ma				Interview Questionnaire			
Interviewee Information				1.General evaluation for your sleeping quality at Floatel	2.Does AC in cabin bother you?	3. Can you hear outside construction noise?	3. Any noise concerns/ complaints
ID # of Interviewee	Interview Date	Living Deck	Work Shift				
#1	March 18	6	N	No problem	No	May / Slight	All good
#2	March 18	5	D	No issue	May sometimes	No	So far so good
#3	March 18	6	D	Ok	Cabin Ventilation does	Didn't hearing	Not really
#4	March 18	5	D	Ok	Not really	No	People speaking
#5	March 18	4	D	Very good	No	No	Not at all
#6	March 18	6	D	Great	It's ok	Nothing	It's fine
#7	March 18	5	D	It's ok for noise issue	AC is ok	Did not	Nothing
#8	March 18	5	D	Good	No	No	No other concern
#9	March 18	6	D	Can sleep all night	No, but AC still noisy	No	No
#10	March 18	6	D	Good	It's ok	No	Nothing
#11	March 18	4	D	Room is really cold	No	No	Other is ok
#12	March 18	5	D	Ok	No	Nothing heard from construction	No
#13	March 18	5	D	Ok, but people close the door noisy	No, fans are not noisy	No	Nothing to complaint
#14	March 18	6	D	Great sleep	Room AC is not working	Didn't hear	Noise from Gym
#15	March 19	4	D	Ok	Ventilation sound	No	Wave noise hit the ship
#16	March 19	5	N	Noisy during daytime	Ok	Nothing	Noise is ok
#17	March 19	6	N	Sleep ok, but noise from gym	Not hearing	No	Noise from Gym
#18	March 19	6	D	Good still hear sound from gym	No	Nothing	No, very nice conditions, pleased
#19	March 19	5	D	Very good	No bother	Not at all	No, deep sleep
#20	March 19	5	D	fine	Fine	No	No concerns