Floatel #2
Noise Monitoring Survey – 1 (December 15 – 17, 2025)

Woodfibre LNG Project

March 5, 2026

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Woodfibre LNG

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 Sḵwx̱wú7mesh (Squamish). The Project is on the historical location of a Sḵwx̱wú7mesh Úxwumixw (Squamish Nation) village known as Swiẏát. Swiẏát and Átl'ḵ'a7tsem (Howe Sound) are tied to the cultural well-being of Sḵwx̱wú7mesh 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 səlilwətaɬ (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 Sḵwx̱wú7mesh 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 Sḵwx̱wú7mesh sníchim (the Squamish language).

Temíxwiẏiḵw chet wa naantem chet ti temíxw Swiẏát
Chet wa sméṅhemswit kwis ns7éyx̱nitas chet ti temíxw
We7ú chet kwis t'íchimwit iy íẇas chet eḵ' I tti.

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

Limitations and Sign-off

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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 Sḵwx̱wú7mesh (Squamish), British Columbia (BC).

The installation and operation of a second floating worker accommodation (Floatel #2) was approved under Amendment #4 of EAC #E15-02 (Amendment #4). Floatel #2 was deployed at the Project site in December 2025. Floatel #2 provides accommodation for approximately 735 occupants, including both flotel crews and construction workers, during peak construction periods.

In accordance with the Floatel Noise Monitoring and Mitigation Plan (FNMMP), Stantec Consulting Ltd. (Stantec) conducted the initial noise monitoring survey for Floatel #2 to satisfy Condition 36 of Amendment #4. The survey, considered Quarter 1 2026 monitoring, was completed between December 15 and December 17, 2025. Continuous sound level monitoring over a 48-hour period was conducted at three selected cabins on Deck 4, Deck 5, and Deck 6.

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.

The initial noise monitoring results indicated that measured sound levels exceeded Health Canada thresholds; however, the indoor sound level complied with ANSI S12.2 room sound level criteria. No sleep disturbances, complaints, or occupant concerns related to construction noise were reported during the survey period. Noise generated by Project construction activities did not affect the interior acoustic environment within Floatel #2.

Based on these findings, it is recommended that the monitoring frequency may be reduced after the second survey once Floatel #2 is supplied by the shore power, and if consistent results are observed. From the second subsequent noise monitoring, the monitoring durations may also be reduced from 48 hours to 24 hours. The Communication Protocol and Complaint Response Procedure outlined in the FNMMP will remain in effect to address and manage any future noise concerns raised by occupants.

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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
FNMMP	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	Liquified 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.
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 (dB) = 20 log (P_{RMS}/P_0)

1.0 INTRODUCTION

In accordance with the Floatel Noise Monitoring and Mitigation Plan (FNMMP), Stantec conducted the initial noise monitoring survey for Floatel #2 from December 15 to December 17, 2025, to satisfy Condition 36 of Amendment #4.

The objectives of the initial noise monitoring program of Floatel #2 include the following:

- Measure sound levels at the selected cabins.
- Conduct spot measurements at different locations outside the cabins at each deck on Floatel #2.
- Analyze data gathered and evaluate noise effects on the Floatel #2 cabins 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.
- Compare monitoring results between Floatel #1 and Floatel #2.
- Recommend mitigation or adaptive management plan if required.

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

2.0 CABIN SOUND LEVEL TARGETS

Construction noise may cause sleep disturbance for the occupants on Floatel #2 during the Project construction phase. This section focuses on the sleep disturbance threshold recommendations by Health Canada, as well as 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 for Floatel #2.

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 #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	39-44
Meeting/banquet rooms	35-44
Service support areas	48-57
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 #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 Professional conducted the initial noise monitoring program on Floatel #2 from December 15 to December 17, 2025. 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 #2. A representative cabin is an unoccupied cabin that is available for occupancy and is selected based on potential highest noise impact from the Project construction activities. Key factors in cabin selection included proximity to construction activities, line of sight to noise sources, and availability during the survey period.

Floatel #2 contains ten decks, in which three decks (i.e., Deck 4, 5 and 6) are assigned with accommodation spaces or cabins for construction workers, and other ancillary service facilities with food services, medical rooms, recreation and leisure facilities and offices and do not contain sleeping accommodations. Three cabins were selected for the initial noise monitoring survey on Deck 4, Deck 5 and Deck 6: Cabin 4476, Cabin 521, and Cabin 065. Since the remaining seven decks do not contain accommodation cabins, noise monitoring was not conducted on those decks.

Construction activities within the Project area were the major noise sources onsite and were the focus of the initial noise monitoring survey. Floatel #2 is berthed starboard to shore, Cabin 4476 and Cabin 521 are located at the starboard side of the floatel, Cabin 065 is located at the stern of the floatel. All three cabins are facing or close to the southwestern construction 4100 Area (refer to Figure 6) The rationale for the cabin selections is also presented in Table 3.1. Cabins on Deck 4 and Deck 5 were not occupied by the construction workers during the survey period. Cabins on Deck 6 were occupied by approximately 109 construction workers.

Table 3.1 summarizes the selected cabins, general descriptions, and field observations. Figure 2 and Figure 3 show these cabin locations on Deck 4, Deck 5, and Deck 6 of Floatel #2.

Table 3.1 Selected Cabins, Descriptions, and Observations

Cabin	Deck	Description and Observations during Monitoring Period	Reference Figures
4476	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 4476 was selected as it is located at the starboard side of the floatel, and close to the southwestern construction site. • Cabin ceiling ventilation was continuously operating.	Figure 2 Figure 4
521	5	• Total of 200 cabins. • Cabin 521 was selected as it is located at the starboard side of the floatel, and close to the southwestern construction site. • Cabin ceiling ventilation was continuously operating.	Figure 2 Figure 5
065	6	• Total of 215 cabins. • Cabin 065 was selected as it is located at the stern of the floatel, and face to the southwestern construction site. • Cabin ceiling ventilation was continuously operating.	Figure 3 Figure 6

3.2 MEASUREMENT INSTRUMENTATION

Noise monitoring was conducted with four Brüel & Kjær Model 2250 and 2270 sound level meters fitted with Brüel & Kjær 4189 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 within two-year period after 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 of 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 2809183 Brüel & Kjær Model 2250 s/n 3003408 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 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 #2. Therefore, continuous sound levels over 48 hours (i.e., over two daytime and two nighttime periods) were measured at the cabins.

Three sound level meters were deployed for continuous noise monitoring inside the selected cabins. 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 4 through Figure 6 in Appendix A illustrate the sound level meter setup at each cabin.

One sound level meter (Brüel & Kjær s/n 2270) was used in spot measurements. 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:

- Three sound level meters were set up at Cabin 4476, Cabin 521, and Cabin 065 and collect continuous noise data over 48 hours from December 15 to December 17. Note that the FNMMP plan proposed two rounds of monitoring in five days; however, this initial noise monitoring deployed three monitoring units and was able to conduct the monitoring for three cabins at the same time over three days.

- During noise monitoring periods, 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.

Table 3.3 summarizes the measurement duration at each cabin during the noise monitoring period.

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)	
4476	12/15/2025	20:33	12/17/2025	21:18	48 hrs 45 mins
521	12/15/2025	20:44	12/17/2025	21:23	48 hrs 39 mins
065	12/15/2025	20:54	12/17/2025	21:29	48 hrs 35 mins

3.4 PROJECT CONSTRUCTION ACTIVITIES

There were Project dayshift and nightshift construction activities during the noise monitoring period from December 15 to December 17. The dayshift was from 07:00 to 17:00 and the nightshift was from 19:00 to 07:00. Figure 7 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 scaling and drilling activities were conducted in Areas 1100.

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.

Weather during this monitoring period was representative most of the time, there were no high winds and heavy rain 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.

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. Noise from local anthropogenic activities from neighbor occupants (e.g., toilet flushing, foot traffic and conversation in the corridor on Deck 6) and crew member activities nearby (e.g., regular operations, cleaning and maintenance activities) was considered to be part of the existing acoustic environment and was not isolated.

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:

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

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

4.0 MEASUREMENT RESULTS

This section summarizes the analysis results. The L_d, L_n, the occurrence of L_{Amax} higher than 45 dBA (i.e., Health Canada thresholds) are analyzed and presented in tables herein. In total, there are more than 8700 minutes logged measurement values at three cabins during the monitoring period on Floatel #2.

4.1 MEASUREMENT RESULTS AT CABINS

Table 4.1 provides an overall summary of the noise monitoring results at each noise monitoring 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 December 15 was from 22:00 of December 15 to 07:00 of December 16.

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
4476	4	40.6	40.8	91	1
521	5	33.5	33.2	34	2
065	6	33.6	33.4	35	1

The overall average daytime L_d and L_n sound levels are the logarithmic average of two 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 4476

Table 4.2 summarizes the daily L_d and L_n sound levels, and occurrences with L_{Amax} > 45 dBA at Cabin 4476.

Table 4.2 Summary of Daily L_d and L_n at Cabin 4476

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
12/15/2025[1]	39.9	40.8	0	1	30	15	39 to 44
12/16/2025	40.8	40.7	91	1	30	15	39 to 44
12/17/2025	40.9	-[2]	30	-[2]	30	15	39 to 44

Notes:
[1] The measurements started at 20:33.
[2] "-" indicates no data was measured. The survey ended at 21:18.

Monitoring results for Cabin 4476 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 recommended ANSI S12.2 room sound level criteria limit of 44 dBA.
- Occurrences with L_{Amax} > 45 dBA are more than 15 times during daytime periods of December 16 and December 17.
- Occurrences with L_{Amax} > 45 dBA are less than 15 times during daytime period of December 15 and both nighttime periods of December 15 and December 16.

4.3 CABIN 521

Table 4.3 summarizes the daily L_d and L_n sound levels, and occurrences with L_{Amax} > 45 dBA at Cabin 521.

Table 4.3 Summary of Daily L_d and L_n at Cabin 521

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
12/15/2025[1]	33.4	33.5	2	0	30	15	39 to 44
12/16/2025	33.4	32.9	34	2	30	15	39 to 44
12/17/2025	33.6	-[2]	8	-[2]	30	15	39 to 44

Notes:

[1] The measurements started at 20:44.

[2] "-" indicates no data was measured. The survey ended at 21:23.

Monitoring results for Cabin 521 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 recommended ANSI S12.2 room sound level criteria limit of 44 dBA.
- Occurrences with L_{Amax} > 45 dBA are more than 15 times during daytime period of December 16.
- Occurrences with L_{Amax} > 45 dBA are less than 15 times during daytime periods of December 15 and December 17, and both nighttime periods of December 15 and December 16.

4.4 CABIN 065

Table 4.4 summarizes the daily L_d and L_n sound levels, and occurrences with L_{Amax} > 45 dBA at Cabin 065.

Table 4.4 Summary of Daily L_d and L_n at Cabin 065

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
12/15/2025[1]	33.3	33.5	0	0	30	15	39 to 44
12/16/2025	33.7	33.4	35	1	30	15	39 to 44
12/17/2025	33.7	-[2]	12	-[2]	30	15	39 to 44

Notes:

[1] The measurements started at 20:55.

[2] "-" indicates no data was measured. The survey ended at 21:29.

Monitoring results for Cabin 065 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 period of December 16.
- Occurrences with L_{Amax} > 45 dBA are less than 15 times during daytime periods of December 15 and December 17, and both nighttime periods of December 15 and December 16.

4.5 SPOT MEASUREMENTS

Spot measurements were conducted at different locations outside the cabins along the corridors on each deck (i.e., Deck 4, Deck 5, and Deck 6) to investigate the locations with potential high noise levels during the daytime and nighttime periods. Spot measurements were collected during the periods with minimum local activities at each deck; and were measured up to 1-minute duration at each spot measurement location.

Details of the measurement time, locations, and L_{eq} sound level results from the spot measurements are summarized in Appendix B. Figure 8 through Figure 10 (Appendix A) show the measurement locations and corresponding L_{eq} sound levels.

Observations regarding the acoustic environment at each deck are summarized as follows:

Table 4-5 Selected Locations, Descriptions and Observations during Spot Measurements

Deck	Description and Observations during Monitoring Period	Reference Figures
4	• Short-term daytime L_{eq} sound levels along the corridor ranged from 32.1 dBA to 55.4 dBA. • Short-term nighttime L_{eq} sound levels along the corridor ranged from 33.0 dBA to 47.3 dBA. • One of the exit access doors at Deck 4 on the port side of the stern was temporally open during the daytime measurements and closed during the nighttime measurements, resulting in noticeable differences between short-term daytime and nighttime L_{eq} sound levels. In particular, the daytime L_{eq} sound levels were approximately 7 dB and 10 dB higher than the nighttime levels in the corridor outside Cabin 4492 and Cabin 4672, respectively.	Figure 8
5	• Short-term daytime L_{eq} sound levels along the corridor ranged from 32.0 dBA to 41.5 dBA. • Short-term nighttime L_{eq} sound levels along the corridor ranged from 31.1 dBA to 42.5 dBA.	Figure 9
6	• Short-term daytime L_{eq} sound levels along the corridor ranged from 29.3 dBA to 42.2 dBA. • Short-term nighttime L_{eq} sound levels along the corridor ranged from 27.4 dBA to 41.8 dBA. • The measurement location in the corridor outside Cabin 6024 had the lowest short-term daytime and nighttime L_{eq} sound levels, at 29.3 dB and 27.4 dB, respectively.	Figure 10

5.0 NOISE INTERVIEWS

During the noise monitoring period, 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 Floatel #2 and inform the floatel management for further mitigation plans.

There were approximately 109 total construction workers staying on Floatel #2 during the initial noise monitoring survey. Ten 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:

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

Feedback for the questions from the interviewees is summarized as below:

- No interviewees have noise concerns or complaints regarding construction noise.
- All interviewees don’t have sleep disturbance issues during the stay on Floatel #2, including sleeping during the daytime period.

6.0 DISCUSSION

Table 6.1 summarizes the measurement results when compared to the Health Canada noise threshold and ANSI S12.2 room sound level criteria.

Table 6.1 Summary of Results

Cabin	Deck	Meet Health Canda 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
4476	4	No	No	Yes/No[1]	Yes	Yes	Yes
521	5	No	No	Yes/No[2]	Yes	Yes	Yes
065	6	No	No	Yes/No[3]	Yes	Yes	Yes

Notes:

[1] Meet threshold on December 15 but exceed threshold on December 16 and December 17

[2] Meet threshold on December 15 and December 17 but exceed threshold on December 16

[3] Meet threshold on December 15 and December 17 but exceed threshold on December 16

Sound levels in all measured cabins are above the Health Canada sleep disturbance threshold of 30 dBA. During noise monitoring, L_d and L_n sound levels of all measured cabins are below the thresholds of 44 dBA.

6.1 ANSI S12.2 SOUND LEVEL CRITERIA

It was observed that the ceiling ventilation outlets are the dominant noise contributors in the cabins and causes the exceedance over the Health Canada threshold of 30 dBA. All cabins do not have the option to open the window. Ceiling ventilation is essential to keep the cabins in comfortable warm or cool air flow for the occupants, similar to any hotel room. Turning off ventilation will affect the air circulation and temperature for cabin occupants. Therefore, the measurement results are compared to the ANSI S12.2 room sound level criteria for hotel/motel rooms. L_d and L_n sound levels in all measured cabins are below the thresholds of 44 dBA during noise monitoring.

6.2 HEALTH CANADA THRESHOLD OF 45 DBA L_{AMAX}

In terms of meeting the threshold of 45 dBA L_{Amax} or above occurrence less than 15 times, all measured cabins meet the threshold during nighttime; and meet the threshold part of days during daytime in the initial noise monitoring survey. Cabin 4476 had the highest occurrences of L_{Amax} exceeding the threshold because Deck 4 is above the Floatel #2 operating equipment on Deck 3 and Deck 2.
The power generation engines on Deck 2 and auxiliary equipment on Deck 3 were operating during the noise monitoring periods, likely producing high noise emissions which are potentially transmitted to Deck 4. The observation from the spot measurements indicated that an exit access door at Deck 4 on the port side of the stern was temporally open during the daytime measurements and closed during the

nighttime measurements, the measured L_d sound levels were approximately 7 dB and 10 dB higher than the L_n levels in the corridor outside Cabin 4492 and Cabin 4672, respectively (Figure 8), this evidence reflected noise from operating equipment on Deck 3 was transmitted from the stairwell or corridor into Deck 4.

After Floatel #2 connects to the shore power grid for power supply in the future, the power generation engines will be shut down and used only in emergency situations; noise levels on Deck 4 are expected to be reduced accordingly.

6.3 COMPARISON OF FLOATEL #1 AND FLOATEL #2 NOISE MONITORING RESULTS

To compared the acoustic environment between Floatel #1 and Floatel #2 and to inform the recommended monitoring frequency for Floatel #2 noise measurement, Table 6.2 summaries the noise monitoring results at each noise monitoring cabin on Floatel #1 and Floatel #2 during December 2025.

Table 6.2 Noise Monitoring Results Comparison of Floatel #1 and Floatel #2

Floatel	Cabin	Overall Average Daytime L_d, dBA	Overall Average Nighttime L_n, dBA	Highest Occurrences of L_{Amax} > 45 dBA	
				Daytime	Nighttime
#1	2027	41.7	41.5	82	90
	5645	36.7	36.6	45	18
	6437	39.9	39.8	39	11
	7016	35.8	35.8	8	20
	9400	44.8	44.8	897	540
	0108	42.1	42.1	75	7
#2	4476	40.6	40.8	91	1
	521	33.5	33.2	34	2
	065	33.6	33.4	35	1

For Floatel #1, Cabin 9400 had the highest noise levels as high airflow from the ceiling ventilation outlet was observed. Cabin 2027 had the second highest noise levels, because it's located close to the operating equipment on Deck 3.

For Floatel #2, Cabin 4476 had the highest noise levels because it is located close to operating equipment on Deck 3 and Deck 2.

Noise levels measured at selected cabins on Floatel #2 were generally lower than Floatel #1. One reason is the lower occupancy in Floatel #2 (i.e., 109 on Floatel #2 vs. 593 on Floatel #1). Only cabins at Deck 6 on Floatel #2 were occupied. This resulted in less local workers' activities on each deck.

6.4 NOISE INTERVIEWS

On all decks, noise from the construction activities does not affect the Floatel #2 interior acoustic environment. The interview results also indicate that no sleep disturbance issues and no noise concerns or complaints due to construction noise during the noise monitoring survey periods.

6.5 SUBSEQUENT NOISE MONITORING

The power generation engines inside the Engine Stores were operating during the initial noise monitoring survey. When Floatel #2 connects the shore power grid for power supply, it is expected to reduce noise levels in the cabins on Deck 4; and spot noise measurements will be conducted again on Deck 4 to compare the noise level differences before and after power generation engines are shut down.

It is recommended that noise monitoring frequency on Floatel #2 may be reduced after the second noise monitoring for the floatel with the shore power grid for power supply if consistent findings are observed. From the second subsequent noise monitoring, the duration of monitoring may be reduced from 48 hours to 24 hours.

7.0 MITIGATION MEASURES

There are currently no sleep disturbance issues and noise complaints due to construction noise on Floatel #2. To maintain acoustic environment for the cabins, potential noise mitigation measures and management controls are recommended as follows:

- Where possible, keep the exit doors at Deck 4 closed, especially those ones on the port side of the stern, to reduce noise potentially transmitted from Deck 3.
- Maintain the Communication Protocol and Complaint Response Procedure in the FNMMP to address and manage any future noise concerns or complaints by the occupants on Floatel #2.
- Should the floatel management receive noise complaints, administration may be implemented to select or change specific cabins or decks for the workers who need alternative cabins.

8.0 CONCLUSIONS

The initial, counted as Quarter 1 2026 noise monitoring survey for Floatel #2 was conducted from December 15 to December 17, 2025, to fulfill the requirements of Condition 36 of Amendment #4 in EAC #E15-02.

The measurement results of the initial noise monitoring survey are above the Health Canada thresholds. The measurement results met the ANSI S12.2 room sound criteria. There were no sleep disturbance issues and noise concerns or complaints due to construction noise received from the Floatel #2 occupants. Noise from the Project construction activities did not affect the interior acoustic environment on Floatel #2. After the second noise monitoring survey for Floatel #2 with the shore power grid for power supply, subsequent noise monitoring frequency may be reduced; and the monitoring duration may be shortened from 48 hours to 24 hours.

In addition, the Communication Protocol and Complaint Response Procedure from the FNMMP will be maintained to address and manage any noise concerns or complaints from the occupants on Floatel #2.

9.0 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.

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.

Woodfibre LNG 2015. Woodfibre LNG Project Application for an Environmental Assessment Certificate.

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

Stantec FNMMP 2026. Floatel Noise Monitoring and Mitigation Plan – Woodfibre LNG Project. January 2026.

Stantec 2026. Floatel Noise Monitoring Survey - 8 (December 15 – 19, 2025) – Woodfibre LNG Project. 123222160EN-RPT0071, February 2026

APPENDIX A FIGURES

Figure 1 Site Plan with Floatel #2 Location

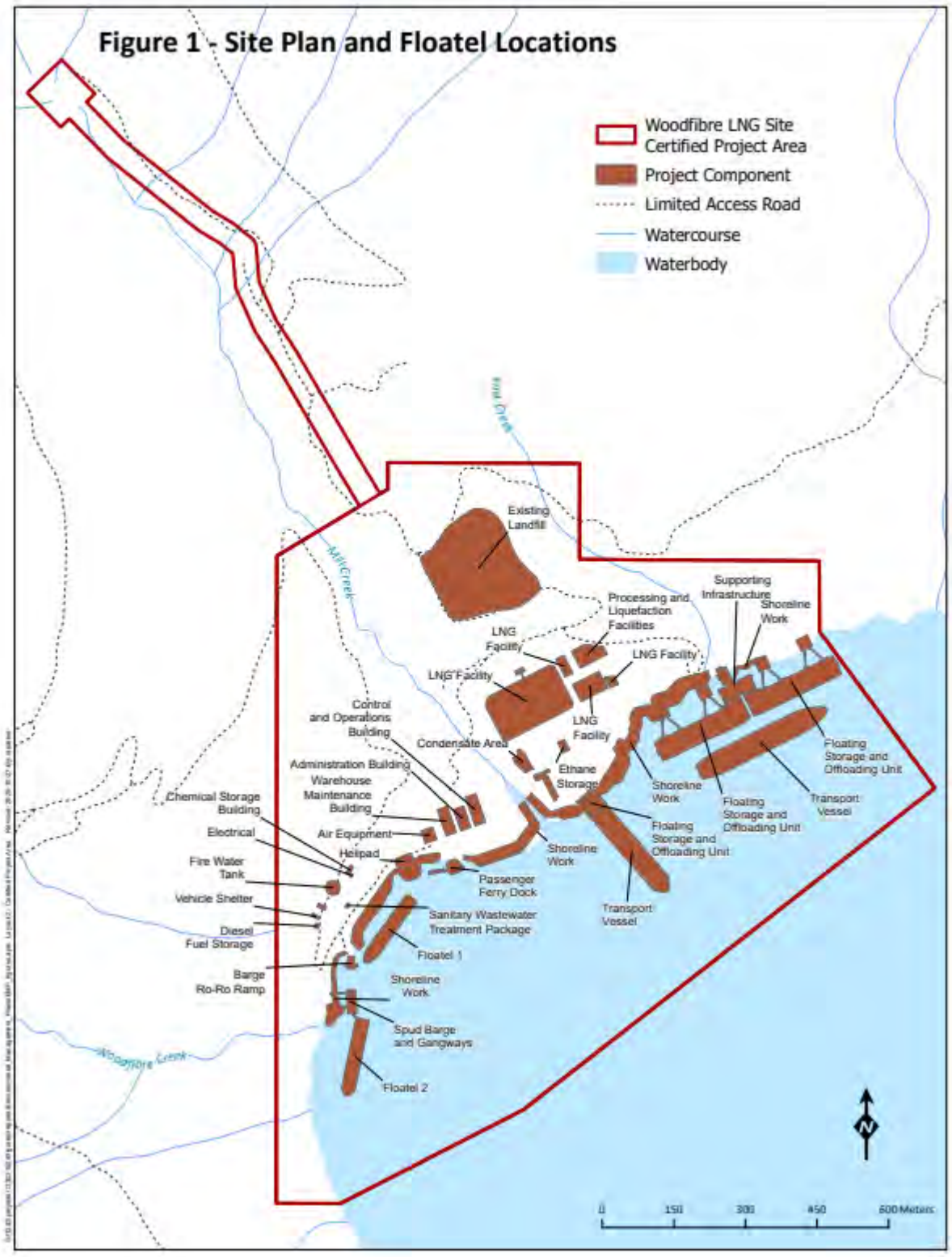


Figure 2 Measurement Location at Cabin 4476 and Cabin 521 (Deck 4 and Deck 5)

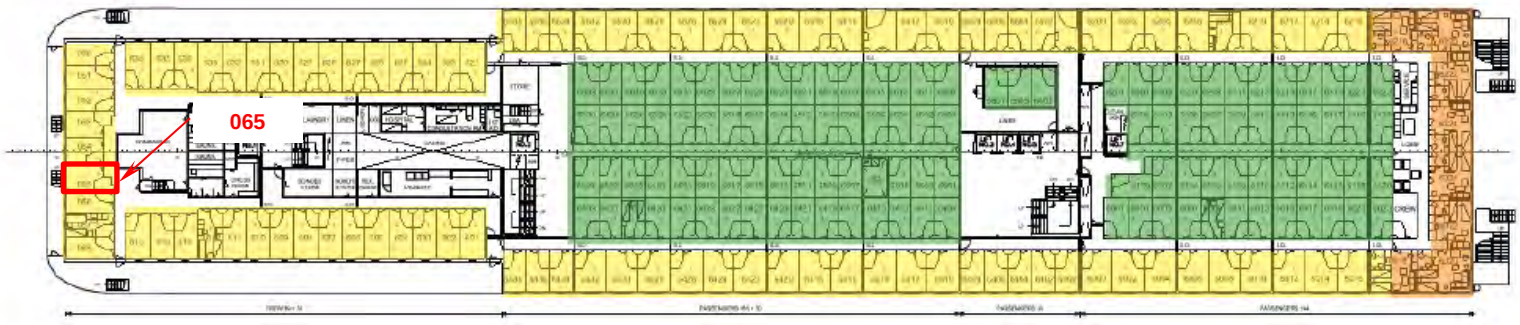
Legend

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

Figure 3 Measurement Location at Cabin 065 (Deck 6)



Legend

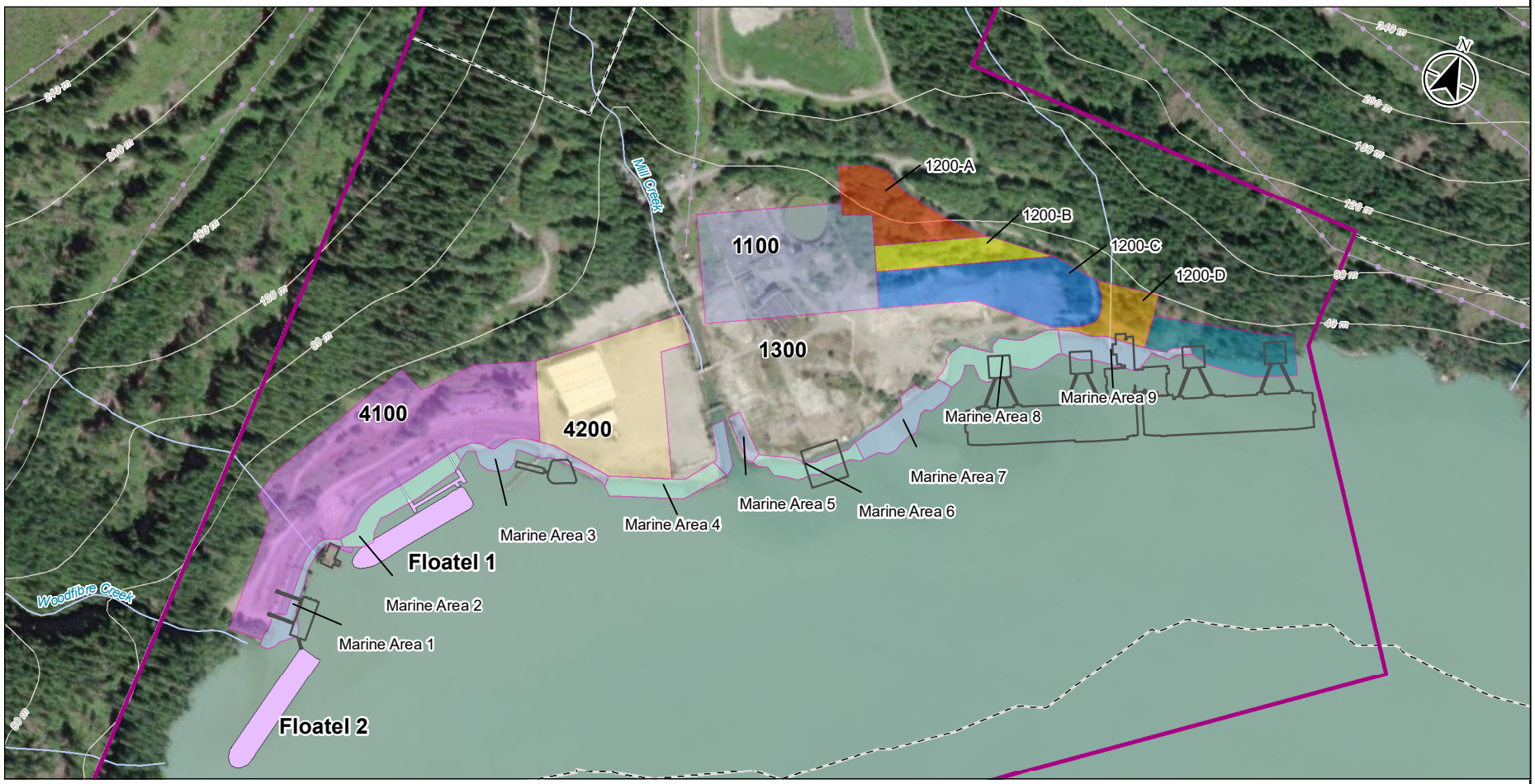
Noise monitoring cabin

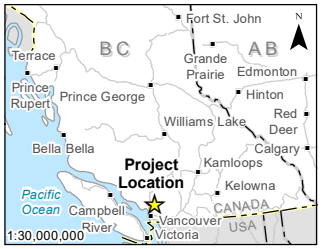
	INTERIOR	EXTERIOR	SUITE	TOTAL
DECK 6	112	95	8	215
DECK 5	115	85	0	200
DECK 4	108	87	0	195
DECK 2	30	0	0	30
				640

Figure 4 Sound Level Meter Setup at Cabin 4476

Figure 5 Sound Level Meter Setup at Cabin 521

Figure 6 Sound Level Meter Setup at Cabin 065





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

0 50 100 150 200 250 m

1:7,500 (at original document size of 8.5x11)

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

Stantec

Project Location:
Woodfibre, British Columbia

Project Number: 123222160
Prepared by PKASIANCHUK on 20241004
Requested by ACALDERON on 20240822
Checked by YMA on 20240828

Client/Project/Report

Woodfibre LNG
Floatel Noise Monitoring Survey

Figure No.
7

Title
Construction Areas Onsite

Figure 8 Spot Measurement Locations and Sound Levels – Deck 4

Legend

Spot Measurement Location

Exit Door

40.0/ 39.3 Red – Measured daytime sound level, dBA Blue – Measured nighttime sound level, dBA

Figure 9 Spot Measurement Locations and Sound Levels – Deck 5

Legend

● Spot Measurement Location

37.6/ 36.2 Red – Measured daytime sound level, dBA Blue – Measured nighttime sound level, dBA

Figure 10 Spot Measurement Locations and Sound Levels – Deck 6

Legend

Spot Measurement Location

39.7/ 39.2 Red – Measured daytime sound level, dBA Blue – Measured nighttime sound level, dBA

APPENDIX B INSTRUMENTATION CALIBRATION CERTIFICATION

APPENDIX C SPOT MEASUREMENT RESULTS

Item	Measurement Time (mm/dd/yyyy hh:mm)	Measurement Location	Sound Level L_{eq}, dBA	Reference Figure
1	12/16/2025 9:59	Deck 4, in the corridor outside Cabin 4472	49.0	Figure 8
2	12/16/2025 10:01	Deck 4, in the corridor outside Cabin 4492	51.1	Figure 8
3	12/16/2025 10:03	Deck 4, in the corridor outside Cabin 4672	55.4	Figure 8
4	12/16/2025 10:07	Deck 4, in the corridor outside Cabin 4616	40.0	Figure 8
5	12/16/2025 10:13	Deck 4, in the corridor outside Cabin 4220	34.2	Figure 8
6	12/16/2025 10:16	Deck 4, in the corridor outside Cabin 4231	34.5	Figure 8
7	12/16/2025 10:18	Deck 4, in the corridor outside Cabin 4020	32.1	Figure 8
8	12/16/2025 10:23	Deck 5, in the corridor outside Cabin 5206	34.4	Figure 9
9	12/16/2025 10:25	Deck 5, in the corridor outside Cabin 5006	34.6	Figure 9
10	12/16/2025 10:27	Deck 5, in the corridor outside Cabin 5028	35.0	Figure 9
11	12/16/2025 10:29	Deck 5, in the corridor outside Cabin 5014	32.0	Figure 9
12	12/16/2025 10:31	Deck 5, in the corridor outside Cabin 5424	35.5	Figure 9
13	12/16/2025 10:33	Deck 5, in the corridor outside Cabin 5514	37.8	Figure 9
14	12/16/2025 10:35	Deck 5, in the corridor outside Cabin 5624	37.6	Figure 9
15	12/16/2025 10:37	Deck 5, in the corridor outside Cabin 530	40.7	Figure 9
16	12/16/2025 10:40	Deck 5, in the corridor outside Cabin 510	41.5	Figure 9
17	12/16/2025 10:43	Deck 6, in the corridor outside Cabin 608	39.7	Figure 10
18	12/16/2025 10:44	Deck 6, in the corridor outside Cabin 064	37.5	Figure 10
19	12/16/2025 10:45	Deck 6, in the corridor outside Cabin 628	39.7	Figure 10
20	12/16/2025 10:49	Deck 6, in the corridor outside Cabin 6420	32.5	Figure 10
21	12/16/2025 10:50	Deck 6, in the corridor outside Cabin 6513	39.9	Figure 10
22	12/16/2025 10:54	Deck 6, in the corridor outside Cabin 6026	32.8	Figure 10
23	12/16/2025 10:56	Deck 6, in the corridor outside Cabin 6006	35.7	Figure 10
24	12/16/2025 10:58	Deck 6, in the corridor outside Cabin 6024	29.3	Figure 10
25	12/16/2025 10:59	Deck 6, in the corridor outside Cabin 6104	42.2	Figure 10
26	12/16/2025 23:06	Deck 4, in the corridor outside Cabin 4472	47.3	Figure 8
27	12/16/2025 23:08	Deck 4, in the corridor outside Cabin 4492	44.0	Figure 8

Item	Measurement Time (mm/dd/yyyy hh:mm)	Measurement Location	Sound Level L_{eq}, dBA	Reference Figure
28	12/16/2025 23:09	Deck 4, in the corridor outside Cabin 4672	45.3	Figure 8
29	12/16/2025 23:12	Deck 4, in the corridor outside Cabin 4616	39.3	Figure 8
30	12/16/2025 23:14	Deck 4, in the corridor outside Cabin 4220	34.2	Figure 8
31	12/16/2025 23:15	Deck 4, in the corridor outside Cabin 4231	33.0	Figure 8
32	12/16/2025 23:16	Deck 4, in the corridor outside Cabin 4020	34.7	Figure 8
33	12/16/2025 23:19	Deck 5, in the corridor outside Cabin 5206	33.9	Figure 9
34	12/16/2025 23:20	Deck 5, in the corridor outside Cabin 5006	35.0	Figure 9
35	12/16/2025 23:23	Deck 5, in the corridor outside Cabin 5028	35.0	Figure 9
36	12/16/2025 23:25	Deck 5, in the corridor outside Cabin 5014	31.1	Figure 9
37	12/16/2025 23:27	Deck 5, in the corridor outside Cabin 5424	33.5	Figure 9
38	12/16/2025 23:29	Deck 5, in the corridor outside Cabin 5514	38.0	Figure 9
39	12/16/2025 23:30	Deck 5, in the corridor outside Cabin 5624	36.2	Figure 9
40	12/16/2025 23:33	Deck 5, in the corridor outside Cabin 530	42.5	Figure 9
41	12/16/2025 23:41	Deck 5, in the corridor outside Cabin 510	41.9	Figure 9
42	12/16/2025 23:45	Deck 6, in the corridor outside Cabin 608	40.0	Figure 10
43	12/16/2025 23:47	Deck 6, in the corridor outside Cabin 064	37.4	Figure 10
44	12/16/2025 23:49	Deck 6, in the corridor outside Cabin 628	39.2	Figure 10
45	12/16/2025 23:52	Deck 6, in the corridor outside Cabin 6420	32.2	Figure 10
46	12/16/2025 23:54	Deck 6, in the corridor outside Cabin 6513	39.2	Figure 10
47	12/16/2025 23:59	Deck 6, in the corridor outside Cabin 6026	32.0	Figure 10
48	12/17/2025 0:01	Deck 6, in the corridor outside Cabin 6006	35.7	Figure 10
49	12/17/2025 0:03	Deck 6, in the corridor outside Cabin 6024	27.4	Figure 10
50	12/17/2025 0:04	Deck 6, in the corridor outside Cabin 6104	41.8	Figure 10

APPENDIX D NOISE INTERVIEW RECORDS

Interviewer: Emma Xiong, EIT				Interview Questionnaire			
Interviewee Information							
ID # of Interviewee	Interview Date	Living Deck	Work Shift	1.General evaluation for your sleeping quality at Floatel #2	2. Can you hear outside construction noise?	3. Does the cabin ceiling ventilation bother you while you sleep?	3. Any noise concerns/ complaints
#1	December 16	6	Night	Great	Not at all	It's Ok	No
#2	December 16	6	Night	Good, can adjust myself	No	It's Ok	Good camp, no noise issue
#3	December 16	6	Night	Generally Ok	Nothing heard from outside	AC is Ok	No complaint for noise, great accommodation
#4	December 16	2	Night	Always good	No	Already used to AC sound	No noise concerns
#5	December 17	6	Day	Sleep is good	Never	Barely not	No noise concerns
#6	December 17	6	Day	Not a problem	Not hearing from construction	It's Ok for me	It's quite inside
#7	December 17	2	Night	Already used to	No	Never	No concern
#8	December 18	6	Day	Excellent	Never heard from construction	No	Everything good
#9	December 18	6	Day	Not bad	No construction sound	It's Ok	No
#10	December 18	6	Day	Good	No	AC is Ok	Nothing for noise