Appendix 41

Meadowbank and Whale Tail 2023 Noise Monitoring Report

AGNICO EAGLE

MEADOWBANK COMPLEX

2023 Noise Monitoring Report

In Accordance with NIRB Project Certificates No.004 and No. 008

Prepared by:
Agnico Eagle Mines Limited – Meadowbank Complex

March, 2024

EXECUTIVE SUMMARY

The 2023 noise monitoring program at the Meadowbank Complex was conducted according to the Noise Monitoring and Abatement Plan (Version 4, December 2018). The objective of this program is to measure noise levels at 11 previously determined monitoring locations (R1 – R11) around the Meadowbank Complex, over at least two 24 h periods annually. One additional far field station at the Whale Tail Mine Local Study Area boundary (R12) is also surveyed periodically. Since high winds in the area tend to substantially reduce the quantity of available valid data, Agnico Eagle aims to conduct a minimum of two monitoring events of two to four days per station to fulfill monitoring objectives.

In 2023, two or more successful surveys were conducted for all required monitoring locations (R1 – R11). One survey was performed opportunistically at far field monitoring station R12.

After data processing in keeping with standard methods (Alberta Energy Resource Conservation Board Directive 038), monitoring results collected under specified weather conditions were compared to the site's daytime and night-time target sound levels. Measured values were also compared to FEIS predictions for Project + background sound levels at the monitoring locations.

In 2023, all monitoring results (Table 1) met daytime design targets. For one survey at station R2, the night-time design target of 45 dBA was exceeded (49.1 dBA). This occurred due to a temporary runway construction activity that was ongoing during night shift, approximately 600 m from the monitoring station. The night-time design target was met for all other surveys and monitoring stations. For one of the two surveys at station R5, two hourly L_{eq} values (August 8, 3 & 4 pm - 58 dBA, 62 dBA) marginally exceeded the FEIS-predicted maximum (57 dBA). This was caused by two brief (<2 minute) helicopter fly-overs, which were not included in FEIS noise models since they are an occasional occurrence and may be related to exploration activities, rather than operations. Results for all other surveys and monitoring stations were less than FEIS predictions. Historical comparisons indicate no clear trends towards increasing sound levels.

No human receptors (e.g. cabins) are located in the vicinity of noise monitoring stations, and no noise-related complaints have been received to date. Impacts of sensory disturbance on wildlife are determined separately through the Terrestrial Ecosystem Monitoring Plan (TEMP), and reported annually in the Wildlife Summary Report.

Based on these results, no changes to noise abatement or mitigation measures are proposed at this time. Actions to ensure more complete noise data collection in 2023 were enacted as planned, resulting in significant improvement in successful survey rates compared to 2022.

Table 1. Daytime, night-time, and 24-h L_{eq} values for annual monitoring locations R1 – R11 and far-field monitoring location R12 in 2023. Monitoring periods with insufficient valid data due to specified weather conditions are indicated (-). *R5 values are max. 1-h L_{eq}. Values exceeding targets are in bold. ^While FEIS predictions were exceeded in one event at R5, this was caused by helicopter fly-overs, which were not part of Cumberland (2005) noise models since they are infrequent occurrences.

Monitoring Station and Survey Start Date (MM/DD)		**$L_{eq,\ day}$ (dBA)** *Design Target = 55 dBA*	**$L_{eq,\ night}$ (dBA)** *Design Target = 45 dBA*	***FEIS Prediction (dBA)***	**$L_{eq,\ 24h}$ (dBA)**
R1	1: 06/27	33.5	33.7	*58 - 63*	33.6
	2: 08/02	43.3	38.4		42.3
	3: 09/06	41.5	36.9		40.5
R2	1: 07/09	44.8	**49.1**	*58 - 63*	46.7
	2: 08/08	51.5	37.7		49.6
R3	1: 07/25	43.5	33.8	*49 - 53*	42.0
	2: 08/15	-	25.0		-
	3: 09/06	42.9	37.2		41.4
R4	1: 07/17	34.7	32.8	*58 - 63*	33.4
	2: 08/11	39.8	37.3		39.3
R5	1: 07/01	39.8	-	*57**	43.7*
	2: 08/08	49.1	44.7		**(61.6)*^**
R6	1: 07/24	37.3	29.5	*40.5 - 42.5*	35.4
	2: 08/11	40.3	39.5		40.0
R7	1: 07/19	37.3	38.2	*36.2 - 40.4*	37.8
	2: 07/29	28.6	33.8		31.1
R8a	1: 06/28	38.8	36.6	*36.2 - 40.4*	38.2
	2: 08/17	23.7	19.7		22.7
R9a	1: 07/09	34.1	40.2	*40.4 - 45.1*	37.2
	2: 08/17	29.8	32.1		30.7
R10a	1: 07/14	34.0	32.2	*36.2 - 40.4*	33.5
	2: 08/03	32.4	30.6		31.8
R11a	1: 07/14	37.9	36.7	*45.1 - 50.0*	37.5
	2: 08/24	37.1	41.1		38.8
Monitoring Station and Survey Start Date (MM/DD)		**$L_{eq,\ day}$ (dBA)** *Permissible Sound Level = 50 dBA*	**$L_{eq,\ night}$ (dBA)** *Permissible Sound Level = 40 dBA*	***FEIS Prediction (dBA)***	**$L_{eq,\ 24h}$ (dBA)**
R12	1: 07/02	-	31.8	*<35*	-

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SECTION 1 • INTRODUCTION

Since 2008, Agnico Eagle Mines Ltd. (Agnico Eagle) has conducted outdoor noise monitoring at the Meadowbank Complex, near Baker Lake, Nunavut, in accordance with NIRB Project Certificate No. 004. The Noise Monitoring and Abatement Plan (Version 4; December, 2018) was updated to include monitoring for the Whale Tail Pit Expansion Project, according to NIRB Project Certificate No. 008. The objective of this monitoring program is to measure representative ambient outdoor sound levels at the Meadowbank Complex, to inform the implementation of noise mitigation measures.

1.1 MONITORING STATIONS

To fulfill monitoring objectives, the Noise Monitoring and Abatement Plan (the Plan) indicates that at least two 24 h surveys of ambient outdoor noise will be conducted annually at 11 representative locations site-wide. However, due to a tendency towards sub-optimal weather conditions for noise monitoring (see Section 2.2), Agnico Eagle aims to conduct a minimum of two surveys for each location, with each survey lasting 48 hours or more. In addition to the annual monitoring stations, noise surveys are to be conducted periodically at a far-field station (R12) to confirm impact assessment predictions for noise levels at the Whale Tail Mine Local Study Area boundary.

Survey dates in 2023 and UTM coordinates for the monitoring stations are provided in Table 2. Stations are shown in relation to mine site features in Figures 1 and 2. Photos of the monitoring locations in 2023 are provided in Appendix A.

Noise monitoring stations R1 – R5 for the Meadowbank Mine have been in place with minor adjustments since 2008. Stations R6 – R11 were added in 2018 in response to development of the Whale Tail Pit and Haul Road, and sited according to the Noise Monitoring and Abatement Plan (Version 3 – June, 2018). Stations R8 – R11 were ultimately moved according to the Noise Monitoring and Abatement Plan (Version 4 – December, 2018) to accommodate the Whale Tail Pit Expansion Project. For clarity, Version 4 locations are referred to here as R8a, R9a, R10a, and R11a, and monitoring at those locations began in 2021 (R11a) or 2022 (R8a, R9a, R10a). Both Version 3 and Version 4 locations are shown in Figure 2.

Table 2. UTM coordinates and monitoring dates for the Meadowbank Complex noise monitoring locations in 2023.

Monitoring Location	UTM Coordinates	Event #	Recording Start Time (Local)	Recording Stop Time (Local)
R1	14N 636151 7217333	1	6/27/23 8:40	6/29/23 22:21
		2	8/02/23 13:30	8/05/23 9:32
		3	9/06/23 10:43	9/08/23 16:54
R2	14N 636795 7214435	1	7/09/23 12:16	7/11/23 15:35
		2	8/08/23 10:45	8/10/23 8:23
R3	14N 641121 7214417	1	7/25/23 13:50	7/27/23 11:13
		2	8/15/23 10:32	8/17/23 8:11
		3	9/06/23 16:37	9/09/23 9:25
R4	14N 639441 7218750	1	7/17/23 10:33	7/20/23 9:27

Monitoring Location	UTM Coordinates	Event #	Recording Start Time (Local)	Recording Stop Time (Local)
		2	8/11/23 10:44	8/13/23 11:22
R5	14N 633779 7214494	1	7/01/23 11:34	7/03/23 16:32
		2	8/08/23 10:20	8/10/23 10:40
R6	14N 640708 7221964	1	7/24/23 14:13	7/27/23 15:51
		2	8/11/23 15:30	8/13/23 15:20
R7	14N 620194 7239038	1	7/19/23 16:21	7/21/23 11:46
		2	7/29/23 8:02	7/31/23 15:53
R8a	14N 612414 7256890	1	6/28/23 16:26	7/01/23 14:44
		2	8/17/23 15:52	8/19/23 7:29
R9a	14N 603301 7256750	1	7/09/23 16:02	7/11/23 14:54
		2	8/17/23 16:25	8/19/23 15:43
R10a	14N 608154 7250529	1	7/14/23 15:31	7/16/23 14:09
		2	8/03/23 14:38	8/05/23 12:46
R11a	14N 606756 7258558	1	7/14/23 16:07	7/16/23 14:32
		2	8/24/23 16:52	8/26/23 8:25
R12	14N 599641 7256320	1	7/02/23 9:31	7/03/23 6:35

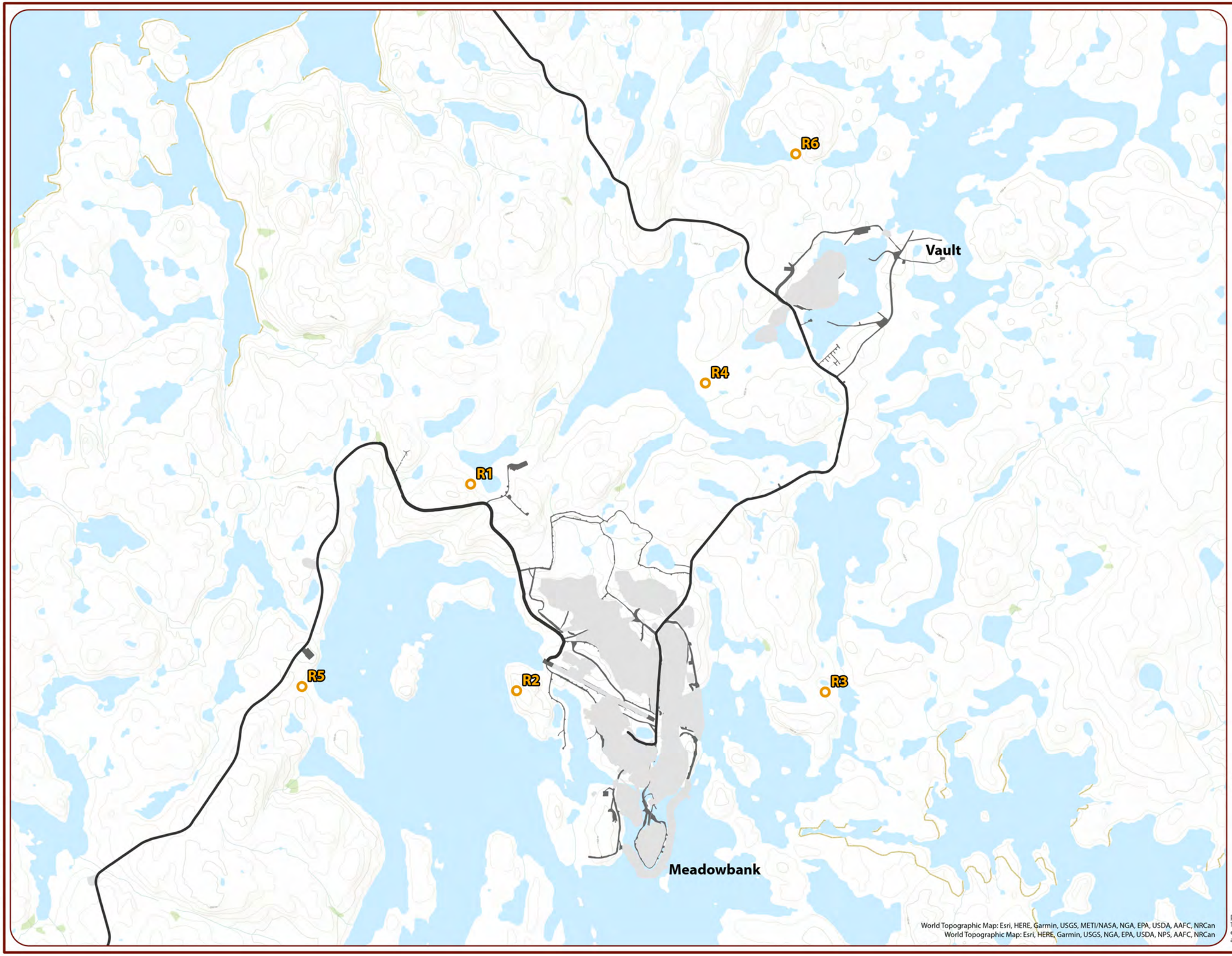
PROJECT: DA11-062-08

CLIENT: Agnico-Eagle Mines Ltd. Meadowbank Division

DATE: 12, March 2022

DRAWN BY: Janel Sauder/Nicole White

Figure 1:
Noise Monitoring
Locations R1 - R6



- Noise Monitoring Location
- Road
- Mine Site

0 0.5 1 2

Kilometres

SCALE: 1:50,000

N

UTM Zone 17N NAD83

World Topographic Map: Esri, HERE, Garmin, USGS, METI/NASA, NGA, EPA, USDA, AAFC, NRCan
World Topographic Map: Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS, AAFC, NRCan

PROJECT: DA11-062-08

CLIENT: Agnico-Eagle Mines Ltd. Meadowbank Division

DATE: 12, February 2023

DRAWN BY: Janel Sauder/Nicole White

Figure 2
Noise Monitoring
Locations R7 - R12

- Noise Monitoring Location

Mine Plan (2025)

- Whale Tail Haul Road
- Road
- Mine Site

0 0.75 1.5 3

Kilometres

SCALE: 1:80,000

N

UTM Zone 17N NAD83

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1.1.1 R1

Monitoring station R1 was initially approximately 700 m south of the explosive storage area, and 400 m northeast of the all-weather access road. A spur road and a storage area were constructed within 100 m of this location in 2011. As a result, in 2014 Agnico Eagle moved this station approximately 700 m northwest of the explosives storage area to better represent the originally intended orientation.

1.1.2 R2

Monitoring station R2 is approximately 600 m west of the airstrip. Third Portage Lake is to the west and southwest and surrounding terrain is vegetated tundra with rocky outcrops.

1.1.3 R3

Monitoring station R3 is approximately 1,800 m east of the East Dike. Second Portage Lake is to the west and east, and surrounding terrain is vegetated tundra with rocky outcrops.

1.1.4 R4

Monitoring station R4 is approximately 1,500 m southwest of Vault Pit, 1,000 m from Phaser Pit, and less than 1 km from the Vault Haul Road. Turn Lake is to the west, and surrounding terrain is vegetated tundra with rocky outcrops.

1.1.5 R5

Monitoring station R5 is approximately 500 m south of the exploration camp and 300 m east of the all-weather access road. Third Portage Lake is immediately to the east, and surrounding terrain away from the shoreline is vegetated tundra with rocky outcrops. This location is situated on a known caribou migration route.

1.1.6 R6

Monitoring station R6 is located approximately 1,500 m east from the Whale Tail Haul Road and approximately 1,500 m north from the centre of Vault Pit. The terrain is relatively flat and covered by vegetation typical of tundra (i.e., low vegetation). In addition, the ground surface near the receptor is covered by scattered rocks. The waste rock storage area of the Vault Pit is located approximately 750 m south from the monitoring site.

1.1.7 R7

Monitoring station R7 is located approximately 1,500 m east from the Whale Tail Haul Road. The ground surface around the monitoring site is generally covered by typical tundra vegetation and scattered rocks.

1.1.8 R8 and R8a

From 2018 – 2021, station R8 was located on an elevated plateau approximately 1,500 m northeast from the Whale Tail Pit site. The ground surface in that area is covered by typical tundra vegetation and scattered rocks. This monitoring station was 150 m east of the original baseline monitoring location due to ongoing quarrying activities.

Beginning in 2022, this station was moved to approximately 1,500 m east from the Whale Tail Pit Expansion Project, in accordance with the Noise Monitoring and Abatement Plan, Version 4 (December, 2018). This location is referred to as R8a.

1.1.9 R9 and R9a

From 2018 – 2021, station R9 was located approximately 1,500 m northwest from Whale Tail Pit. The ground surface in that area is covered by typical tundra vegetation and scattered rocks.

Beginning in 2022, this station was re-located to approximately 1,500 m west from the Whale Tail Pit Expansion Project, in accordance with the Noise Monitoring and Abatement Plan, Version 4 (December, 2018). This location is referred to as R9a.

1.1.10 R10 and R10a

From 2018 – 2021, station R10 was located approximately 1,000 m southeast from the Whale Tail Pit site, on the east side of Whale Tail Lake.

Beginning in 2022, this station was re-located to approximately 1,500 m south from the Whale Tail Pit Expansion Project, in accordance with the Noise Monitoring and Abatement Plan, Version 4 (December, 2018). This location is referred to as R10a.

1.1.11 R11 and R11a

From 2018 – 2020, station R11 was located approximately 1,000 m north from the Whale Tail Pit site, on the east side of Nemo Lake.

Beginning in 2021, station R11 was re-located to approximately 1,500 m north from the Whale Tail Pit Expansion Project in accordance with the Noise Monitoring and Abatement Plan, Version 4 (December, 2018). This location is referred to as R11a.

1.1.12 R12

R12 corresponds to the location on the Local Study Area boundary with the maximum predicted Project noise levels (Rmax in Agnico Eagle, 2018 – Section 4.4.3.1.1). This station is located approximately 5 km west from the Whale Tail Pit Expansion Project site, and the surrounding terrain is a gently sloping tundra plateau with scattered small boulders. Monitoring for this location is required periodically, and was conducted in 2022, to correspond with the year of highest predicted noise impact. One survey was also conducted opportunistically in 2023.

SECTION 2 • METHODS

In 2023, Agnico Eagle technicians aimed to conduct two noise surveys at each of the locations described in Section 1.1. These surveys provide data on average noise levels during a typical day, as well as variability of noise levels within the day. For all required monitoring locations, two or more surveys were successfully conducted.

2.1 SOUND LEVEL METER

For all stations a Bruel and Kjaer Model 2250 integrating sound level meter was used to conduct the noise survey. As in the past, the sound level logging rate was set at one-minute intervals.

The parameters logged each minute included:

- Equivalent continuous A-weighted sound level – L_{Aeq}
- Absolute maximum sound level, in dBA – L_{max}
- Absolute minimum sound level, in dBA – L_{min}
- Statistical data – e.g. L_{10}, L_{90}

Sound recordings were also obtained for the complete duration of all monitoring events to facilitate data interpretation.

Calibration of the instrument was performed before and after each monitoring event using a Bruel and Kjaer Type 4231 Calibrator, to ensure variance was within 0.5 dB (see field notes, Appendix C). Estimated uncertainty of the calibrator is ± 0.12 dB at a 99% confidence level.

2.2 WEATHER DATA

Weather data for the noise monitoring periods was collected using the mine site's permanent weather stations. The Meadowbank Mine weather station data was used for analysis of noise monitoring stations R1 – R6, and the Whale Tail Mine weather station data was used for analysis of noise monitoring stations R7 – R12. Hourly data for wind, temperature, and relative humidity was available from these stations. Precipitation events were recorded for each site using a rain gauge, read approximately daily.

The Alberta Energy Regulator Directive 038 (AER, 2023) identifies preferred weather conditions for data validity in noise complaint investigations, because wind and precipitation can affect sound levels. Based on these guidelines and the intent of the annual ambient noise monitoring program, recorded data was filtered to remove measurements when average measured wind speed exceeded 15 km/h (4.17 m/s). This is the highest acceptable wind speed over an extended period for use in noise monitoring complaint situations in AER (2023). Although this value is specified for sites located in closer proximity to noise sources than most Meadowbank Complex monitoring stations, and AER (2023) recommends different wind speed limits depending on wind direction, this screening approach is considered appropriate here for general comparison with site noise targets, since higher winds dominate in this area (e.g. summertime average of 18 km/h in 2023), no residential receptors (e.g. cabins) are located in the vicinity of the Project, and no noise-related complaints have been received. This approach also facilitates comparison with historical values, which were screened in the same manner according to recommendations in AER (2007).

Average hourly wind speed values from onsite weather stations were used since filtering based on maximum values has historically resulted in exclusion of nearly the entire noise dataset. As a result, the possibility for undocumented local gusts in excess of 15 km/h is noted. Historically, data was also filtered out when relative humidity exceeded 90% (assuming precipitation occurred). However, beginning in 2021, data filtering for precipitation only occurred on an as-needed basis, through review of field notes and sound recordings, and cross-referencing humidity data with recorded precipitation events. Any data filtered out on this basis is described in the Results section, below.

Weather data (wind speed, wind direction, temperature, and humidity) for the monitoring periods are provided in Appendix B.

2.3 FIELD NOTES

A pocket weather meter (Kestrel 3000) was used by field staff to record wind speed, direction, relative humidity, and temperature at the beginning and end of each monitoring period. Other observations included precipitation, cloud cover and observed noise sources during instrument set-up and take-down. All field observations are provided in Appendix C.

2.4 DATA ANALYSIS

Since noise levels vary constantly over time, the monitoring instruments used at the Meadowbank Complex measure continuously and record a single-number value for each minute, representing the equivalent A-weighted sound level (referred to here as L_{eq}).

All datapoints associated with the first and last hour of measurement were filtered out to remove noise from technicians, and to ensure more than 30 min of data contributed to hourly averages. Recorded one-minute L_{eq} values were then used to calculate hourly equivalent noise levels ($L_{eq, 1h}$). After filtering based on weather considerations (Section 2.2), valid hourly L_{eq} values were energy-averaged across calendar days within a monitoring event (usually two sequential 24-h periods) and average values for each hour were used to calculate daytime (7am-11pm), night-time (11pm-7am) and 24 h L_{eq} values for each event. This approach was taken beginning in 2016 due to the frequency of high-wind conditions, in order to maximize the utility of the available data, and obtain day- and night-time L_{eq} values with at least 3 h of coverage.

When calculated L_{eq} values exceeded FEIS predictions or noise targets, sound recordings were reviewed to identify and if appropriate, remove noise data dominated by background noise sources unrelated to mine activity, and causing recorded L_{eq} values in excess of FEIS predictions or noise targets (e.g. wind gusts, ongoing animal disturbance in close proximity to the microphone, human interference, steady precipitation). Sounds from aircraft were not specifically removed, but a discussion of their impact on results is provided when necessary. Since these are occasional occurrences, often related to exploration rather than operational activities, they are not generally included in FEIS noise modelling. After this second data filtering, hourly L_{eq} values with less than 30 min of valid data were excluded from calculations, in accordance with Directive 038. Similarly, day- and night-time, and 24-h L_{eq} values were only calculated when more than 180 valid minutes were available from each of the daytime and nighttime periods.

These final L_{eq} values were compared to FEIS predictions and the site's noise-related design targets (see Table 3).

2.5 SITE NOISE TARGETS AND FEIS PREDICTIONS

Although no residential receptors are located nearby, Agnico Eagle aims to meet target sound levels identified in Environment Canada's "Environmental Code of Practice for Metal Mines" (2009) for all monitoring locations. These values are 55 dBA (daytime) and 45 dBA (night-time).

For all monitoring stations, results are also compared to predictions of sound levels made in the Project FEIS documents for the Meadowbank and Whale Tail Mines (Cumberland, 2005; Agnico Eagle, 2016; 2018) (Table 3). Table 3 identifies FEIS (Agnico Eagle, 2016) predictions for Phase 1 of the Whale Tail Project, which are applied to results obtained in 2018 and 2019, and FEIS Addendum (Agnico Eagle, 2018 – Whale Tail Pit Expansion Project) predictions for both *Noise Abatement and Monitoring Plan* Version 3 locations (R8 – R11) and Version 4 locations (R8a – R11a), which are applied to results obtained in 2020+, as indicated in the table.

Predictions for Whale Tail Mine sites R6 – R12 have been adjusted to include contributions from background sound levels (39 dBA for R6, 30 dBA for R7-R12), as measured in the impact assessment for that project (Agnico Eagle, 2018). For the initial Meadowbank EIS (sites R1 – R5; Cumberland, 2005), contributions from background noise were not measured and assumed to be negligible in comparison to project-related noise, and were not quantified, so no adjustment was made.

It is noted that while noise modeling for EIS purposes determined a single sound pressure level produced by a specified combination of Project-related activities at a given location under certain assumed atmospheric conditions, in reality, measured noise levels vary over time, depending on contributions from background sources, wind direction, ongoing or punctual activities, etc. Thus while FEIS predictions are not specifically time-averaged, they are compared here to the 24-h L_{eq} calculated from monitoring results, which represents the average sound pressure level produced by all sources over the course of a day, under varying climatic conditions including wind speeds and direction. This evaluation is therefore considered a screening-level comparison for the purposes of noise management, and not a comprehensive validation of those model predictions.

Finally, in the FEIS Addendum for the Whale Tail Pit (Agnico Eagle, 2018), noise impacts were assessed by comparing modeled Project sound levels at the noise local study area (LSA) boundary (5 km from the Project footprint) with Permissible Sound Levels (PSLs) from AER Directive 038 (40 dBA night-time, 50 dBA daytime). Since all the regular monitoring locations for the Whale Tail Mine are located well within the noise LSA (closer to project infrastructure), annual monitoring results are not compared to the PSL at this time. In accordance with noise mitigation measures listed in the FEIS Addendum (Volume 3, Appendix 3-C, Table 3-C-1), periodic far-field monitoring is conducted at the LSA boundary to confirm adherence with the PSLs. This far-field monitoring (station R12) occurred for the first time in 2022, to coincide with the anticipated year of maximum production and maximum sound emissions, as indicated in the FEIS Addendum. One survey was also conducted opportunistically at this station in 2023.

Table 3. FEIS predictions and target sound levels for the Meadowbank and Whale Tail Mines (R1 – R5 predictions from Cumberland, 2005; 2018 & 2019 R6 – R11 predictions from Agnico Eagle, 2016; 2020+ R6 - R12 predictions from Agnico Eagle, 2018).

Location	Monitoring Years	FEIS Prediction (dBA)	Design Target	
			$L_{eq\text{-}daytime}$ (dBA)	$L_{eq\text{-}night\text{-}time}$ (dBA)
R1	2008+	58-63	55	45
R2	2008+	58-63	55	45
R3	2008+	49-53	55	45
R4	2008+	58-63	55	45
R5	2008+	(all 1 hr L_{eq} < 57)	55	45
R6	2018 & 2019	46.0 - 50.3	55	45
	2020+	40.5 - 42.5	55	45
R7	2018 & 2019	45.1 – 50.0	55	45
	2020+	36.2 - 40.4	55	45
R8	2018 - 2021	40.4 - 45.1	55	45
R8a	2022+	36.2 – 40.4	55	45
R9	2018 & 2019	36.2 - 40.4	55	45
	2020 & 2021	40.4 - 45.1	55	45
R9a	2022+	40.4 - 45.1	55	45
R10	2018 - 2021	45.1 – 50.0	55	45
R10a	2022+	36.2 – 40.4	55	45
R11	2018 - 2020	45.1 – 50.0	55	45
R11a	2021+	45.1 – 50.0	55	45
Location	**Monitoring Years**	**FEIS Prediction (dBA)**	**Permissible Sound Level**	
			$L_{eq\text{-}daytime}$ (dBA)	$L_{eq\text{-}night\text{-}time}$ (dBA)
R12	2022+	<35	50	40

SECTION 3 • RESULTS

3.1 R1

Recorded 1-min L_{eq} values, maximum sound levels (L_{max}), and minimum sound levels (L_{min}) during monitoring events 1, 2, and 3 at R1 are shown in Figures 3, 4, and 5. Invalid data points filtered out prior to data analysis (as described in Section 2.4) are indicated for reference (LA_{eq}-unfiltered).

In total, 53 h of valid data were available from the first monitoring event after 14 h were filtered out due to recorded weather conditions or set-up/take-down. In the second event, 62 h of valid data were available, and 7 h were filtered out. For the third event, 31 h of valid data were available and 24 were filtered out. No secondary data filtering was required.

Final calculated daytime, night-time, and 24-h L_{eq} values are provided in Table 4. No exceedances of site noise targets or FEIS predictions occurred.

Weather data and hourly L_{eq} values are provided in Appendix B.

Noise sources noted in the field log at this location include helicopters, traffic, and waves (Appendix C).

Table 4. Daytime, night-time, and 24-h L_{eq} values for monitoring locations R1.

Monitoring Station and Start Date (M/DD)		$L_{eq,\ day}$ (dBA)		$L_{eq,\ night}$ (dBA)		$L_{eq,\ 24h}$ (dBA)	
		Design Target	**Measured Value**	***Design Target***	**Measured Value**	***FEIS Prediction***	**Measured Value**
R1	1: 6/27	*55*	33.5	*45*	33.7	*58 - 63*	33.6
	2: 8/02		43.3		38.4		42.3
	3: 9/06		41.5		36.9		40.5

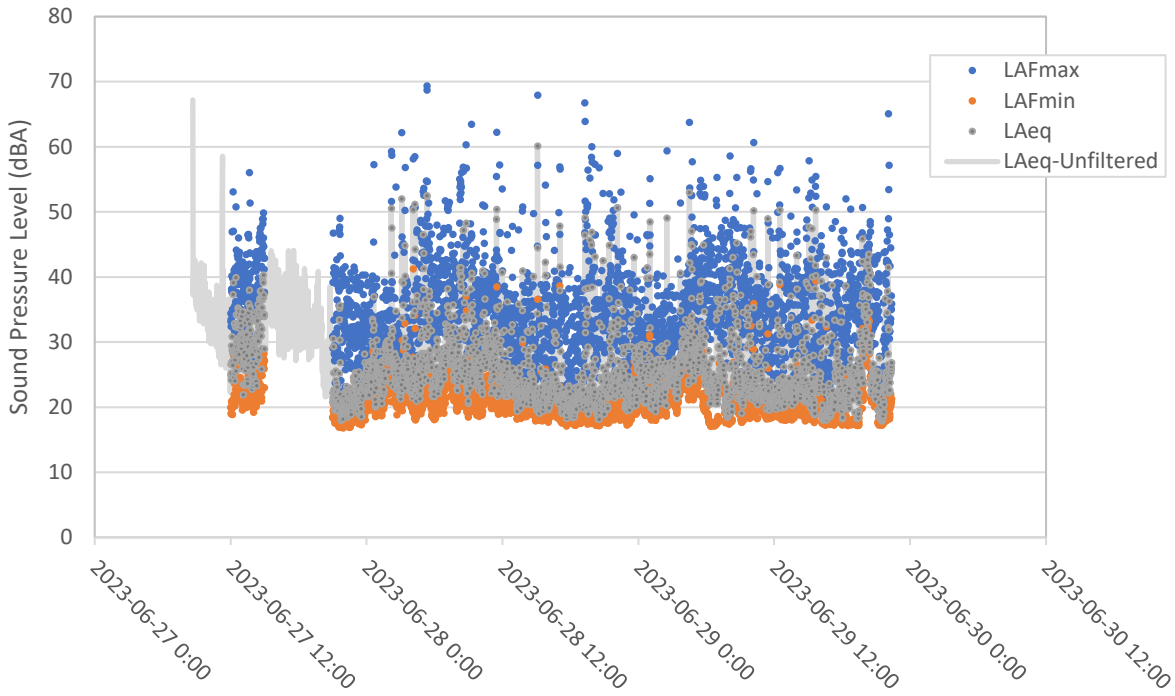


Figure 3. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R1 during monitoring event 1.

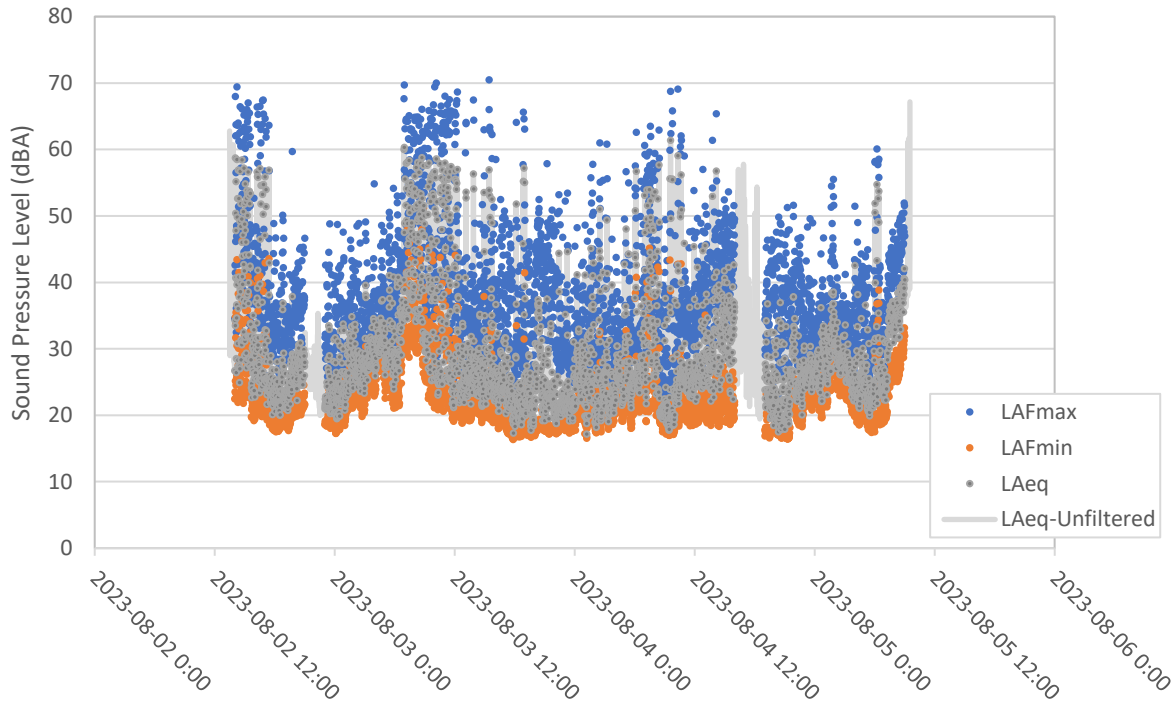


Figure 4. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R1 during monitoring event 2.

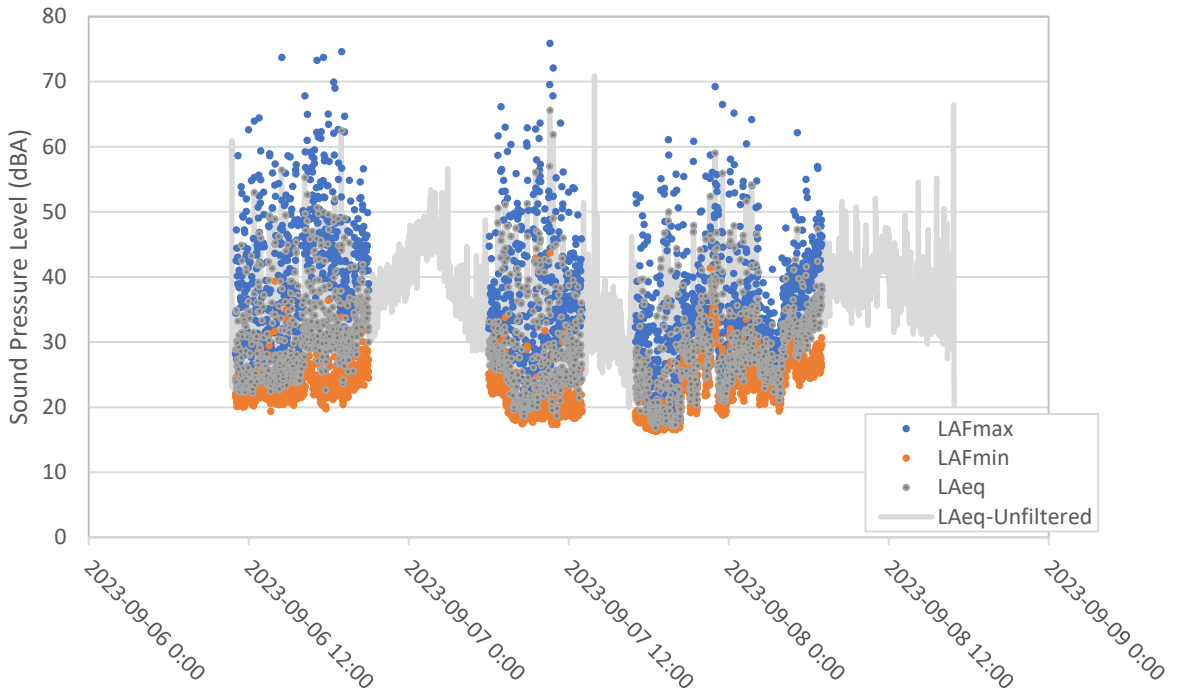


Figure 5. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R1 during monitoring event 3.

3.2 R2

Recorded 1-min L_{eq} values, maximum sound levels (L_{max}), and minimum sound levels (L_{min}) during monitoring events 1 and 2 (July 9 - 11; August 8 – 10) at R2 are shown in Figure 6 and 7. Invalid data points filtered out prior to data analyses (as described in Section 2.4) are indicated for reference (LA_{eq}-unfiltered).

For monitoring event 1, 31 h of valid data were available after 21 h were filtered out due to recorded weather conditions or set up/take down. For event 2, 42 h of valid data were available after 5 h were filtered out due to recorded weather conditions or set-up/take-down. No secondary filtering was required.

Final calculated daytime, night-time, and 24-h L_{eq} values are provided in Table 5. During monitoring event 1, noise levels were uncharacteristically elevated during the period of 1 am – 5 am on July 11, and the night-time design target (45 dBA) was exceeded (49.1 dBA) for this date. Upon investigation, a temporary construction event (runway re-surfacing) was ongoing at this time. The runway is located approximately 600 m northeast of the monitoring station, and during the 1 am – 5 am period on July 11, relatively strong winds were also blowing from the north-east (gusts up to 6.2 m/s), contributing to the elevated acoustic environment in this location. Since this was a temporary construction event (<1 week), ongoing exceedances of design targets are not anticipated. All other monitoring results were less than design targets and FEIS predictions.

Weather data and hourly L_{eq} values for all noise monitoring events are provided in Appendix B.

Potential noise sources noted in the field log at this location include aircraft, traffic, and boats (Appendix C).

Table 5. Daytime, night-time, and 24-h L_{eq} values for monitoring location R2.

Monitoring Station and Start Date (M/DD)		$L_{eq,\ day}$ (dBA)		$L_{eq,\ night}$ (dBA)		$L_{eq,\ 24h}$ (dBA)	
		Design Target	**Measured Value**	***Design Target***	**Measured Value**	***FEIS Prediction***	**Measured Value**
R2	1: 7/09	*55*	44.8	*45*	**49.1**	*58 - 63*	46.7
	2: 8/08		51.5		37.7		49.6

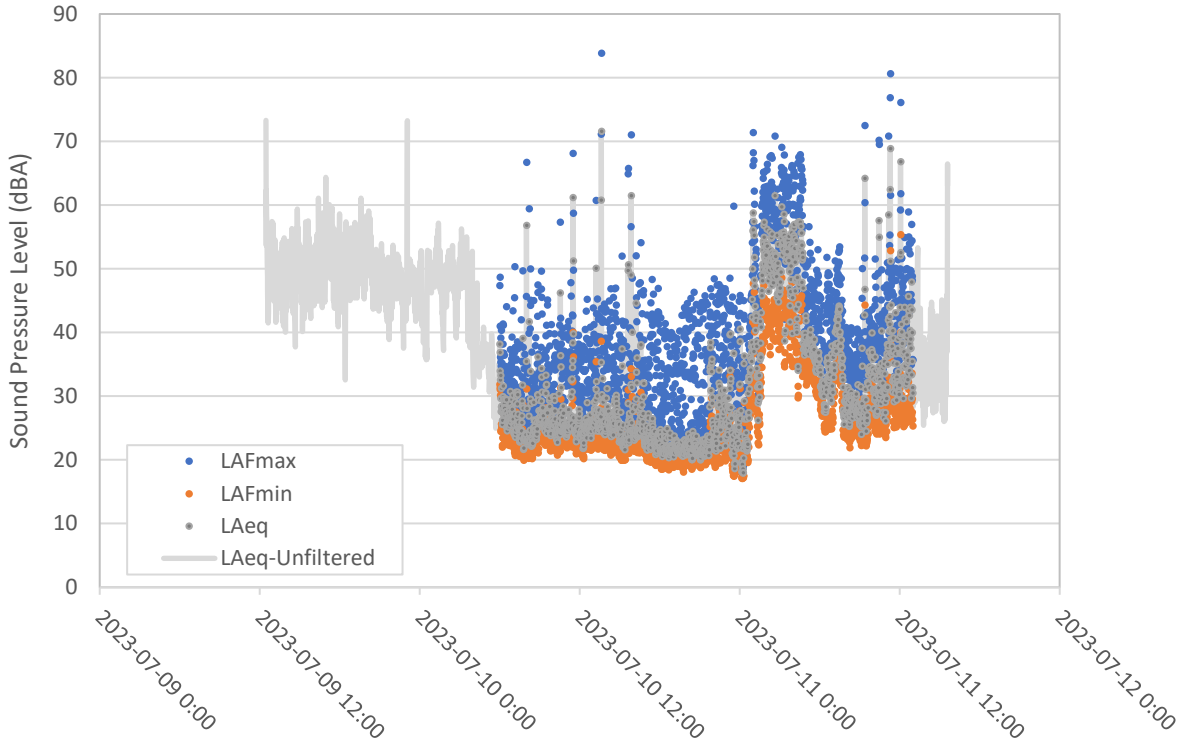


Figure 6. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R2 during monitoring event 1.

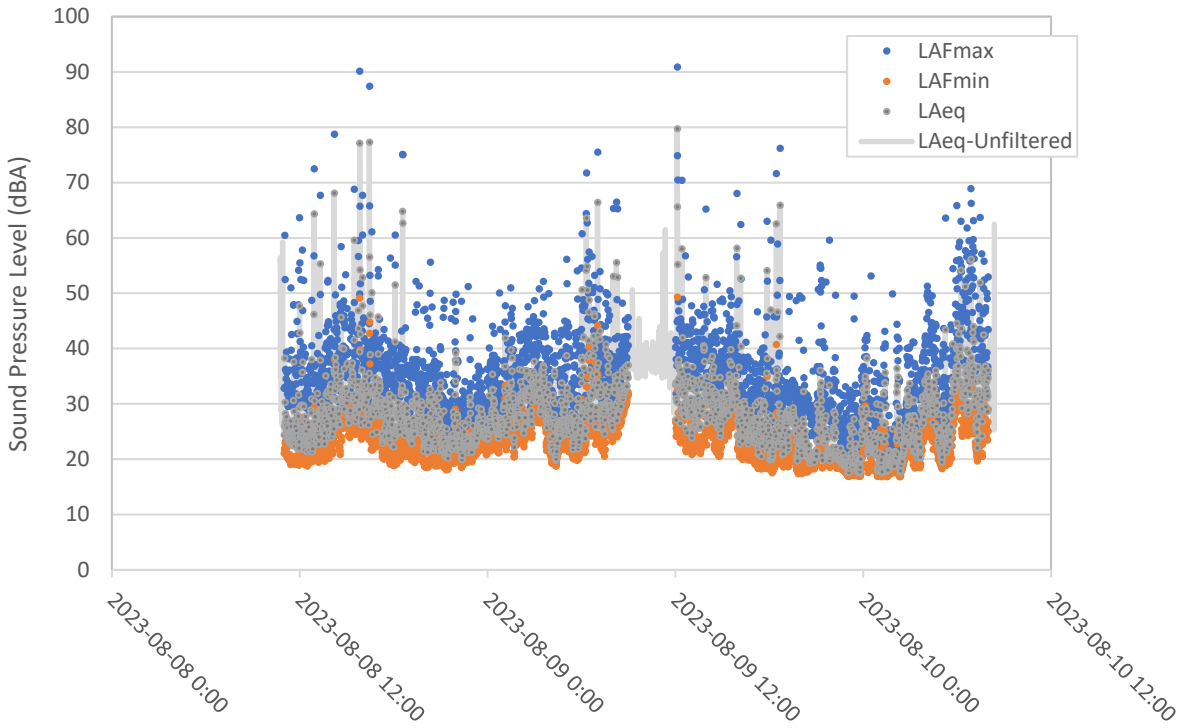


Figure 7. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R2 during monitoring event 2.

3.3 R3

Recorded 1-min L_{eq} values, maximum sound levels (L_{max}), and minimum sound levels (L_{min}) during monitoring events 1, 2, and 3 at R3 are shown in Figures 8, 9, and 10. Invalid data points filtered out prior to data analysis (as described in Section 2.4) are indicated for reference (LA_{eq}-unfiltered).

For monitoring event 1, 45 h of valid data were available after 2 h were filtered out due to recorded weather conditions or set-up/take-down. For event 2, 7 h of valid data were available after 40 h were filtered out. Fewer than three hours of daytime data were available, so only the night-time L_{eq} was calculated. For event 3, 28 h of valid data were available after 38 h were filtered out. No secondary filtering was required.

Final calculated daytime, night-time, and 24-h L_{eq} values are provided in Table 6. No exceedances of design targets or FEIS predictions occurred.

Weather data and hourly L_{eq} values for both events are provided in Appendix B.

Noises noted in the field log for this location include aircraft, waves, and animals (Appendix C).

Table 6. Daytime, night-time, and 24-h L_{eq} values for monitoring location R3. Periods with insufficient valid data are excluded (-).

Monitoring Station and Start Date (M/DD)		$L_{eq,\ day}$ (dBA)		$L_{eq,\ night}$ (dBA)		$L_{eq,\ 24h}$ (dBA)	
		Design Target	**Measured Value**	***Design Target***	**Measured Value**	***FEIS Prediction***	**Measured Value**
R3	1: 7/25	*55*	43.5	*45*	33.8	*58 - 63*	42.0
	2: 8/15		-		25.0		-
	2: 9/11		42.9		37.2		41.4

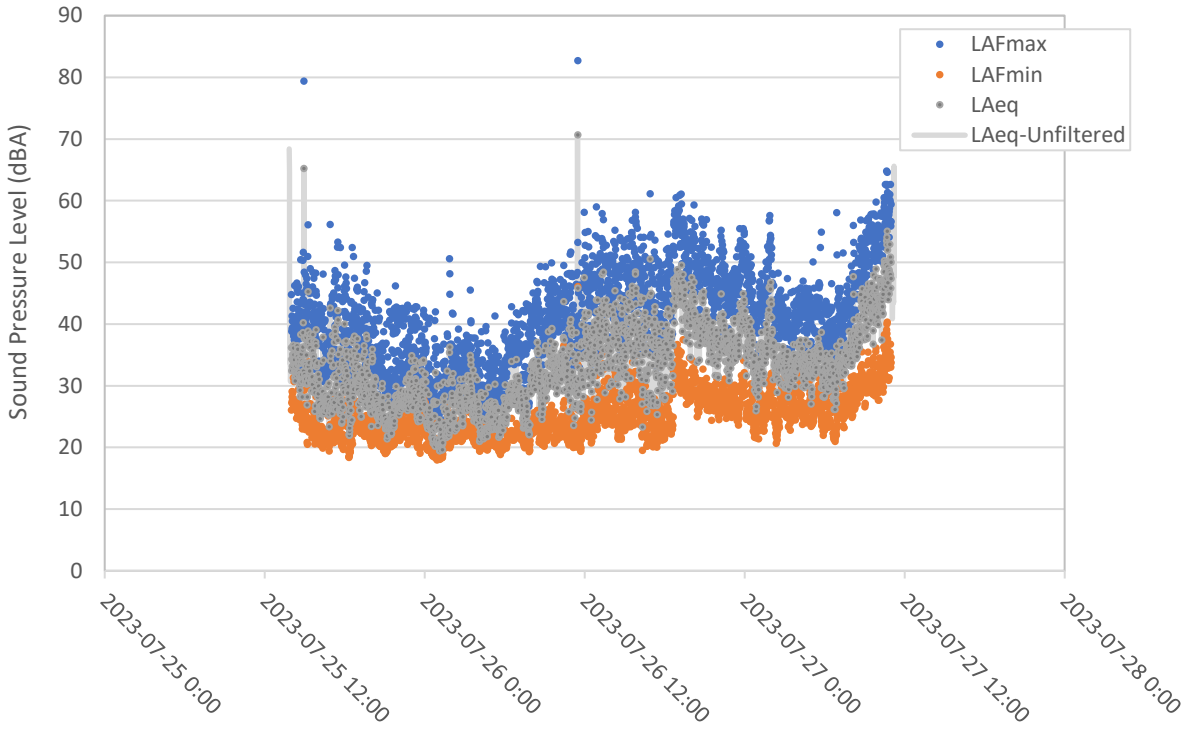


Figure 8. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R3 during monitoring event 1.

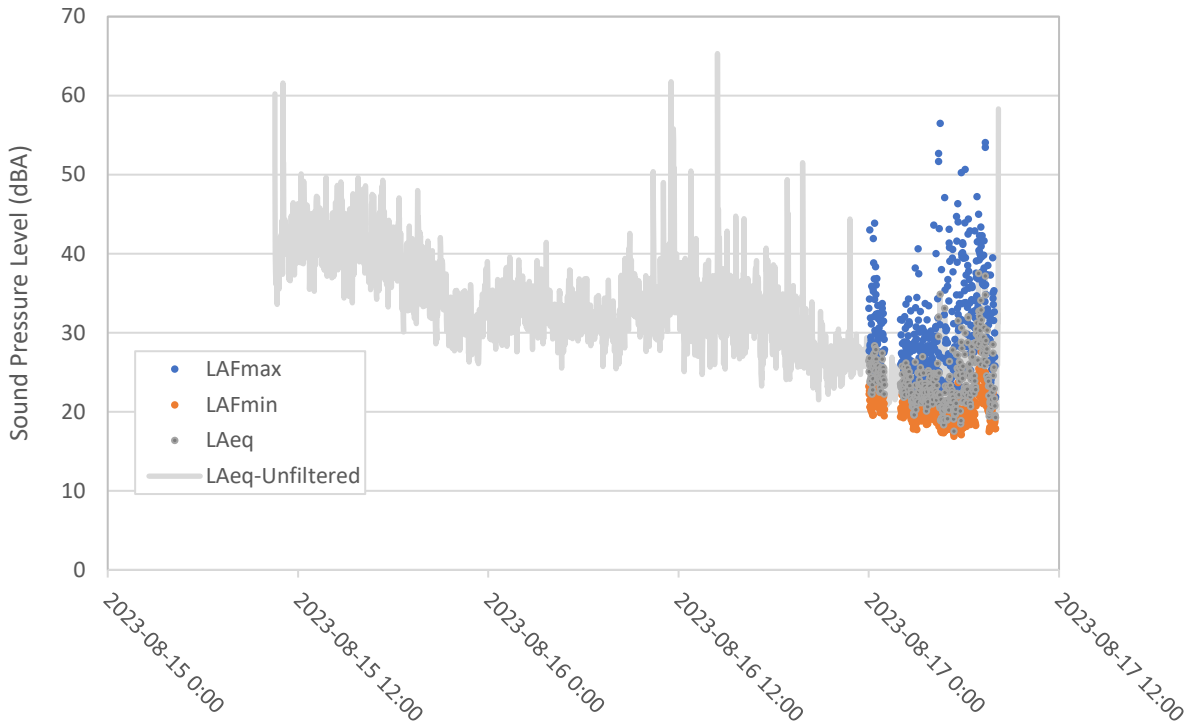


Figure 9. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R3 during monitoring event 2.

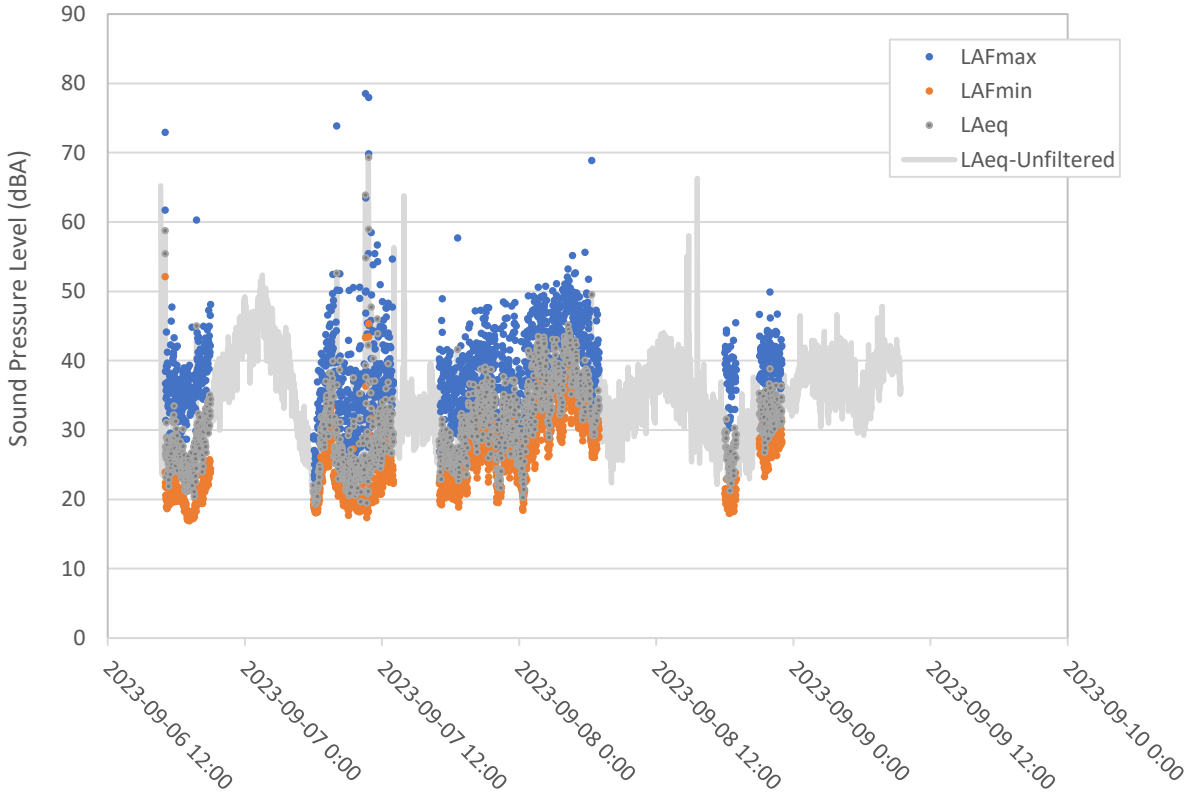


Figure 10. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R3 during monitoring event 3.

3.4 R4

Recorded 1-min L_{eq} values, maximum sound levels (L_{max}), and minimum sound levels (L_{min}) during monitoring events 1 and 2 at R4 are shown in Figures 11 and 12. Invalid data points filtered out prior to data analysis (as described in Section 2.4) are indicated for reference (LA_{eq}-unfiltered).

For event 1, 13 h of valid data were available after 30 h were filtered out due to recorded weather conditions or set-up/take-down. For event 2, 25 h of valid data were available after 25 h were filtered out due to recorded weather conditions or set-up/take-down. No secondary filtering was required.

Final calculated daytime, night-time, and 24-h L_{eq} values are provided in Table 7. No exceedances of design targets or FEIS predictions occurred.

Weather data and hourly L_{eq} values for both events are provided in Appendix B.

Noise sources noted in the field log for this location include waves, bugs, and ducks (Appendix C).

Table 7. Daytime, night-time, and 24-h L_{eq} values for monitoring location R4.

Monitoring Station and Start Date (M/DD)		$L_{eq,\ day}$ (dBA)		$L_{eq,\ night}$ (dBA)		$L_{eq,\ 24h}$ (dBA)	
		Design Target	**Measured Value**	***Design Target***	**Measured Value**	***FEIS Prediction***	**Measured Value**
R4	1: 7/17	*55*	34.7	*45*	32.8	*58 - 63*	33.4
	2: 8/11		39.8		37.3		39.3

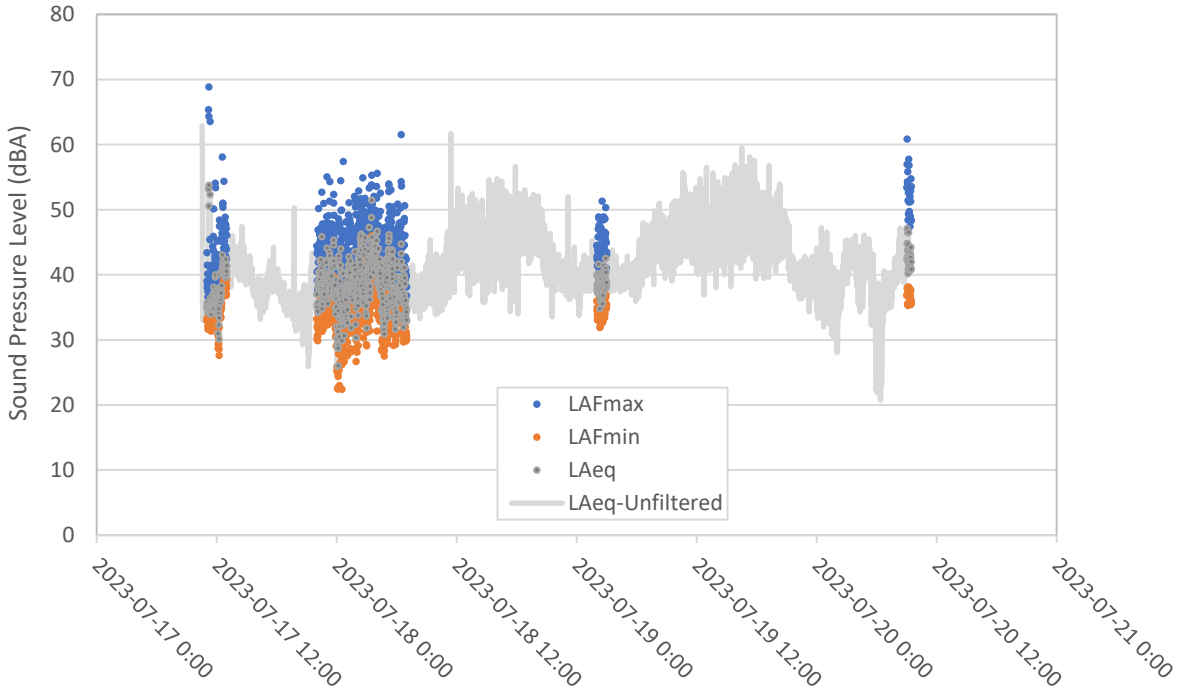


Figure 11. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R4 during monitoring event 1.

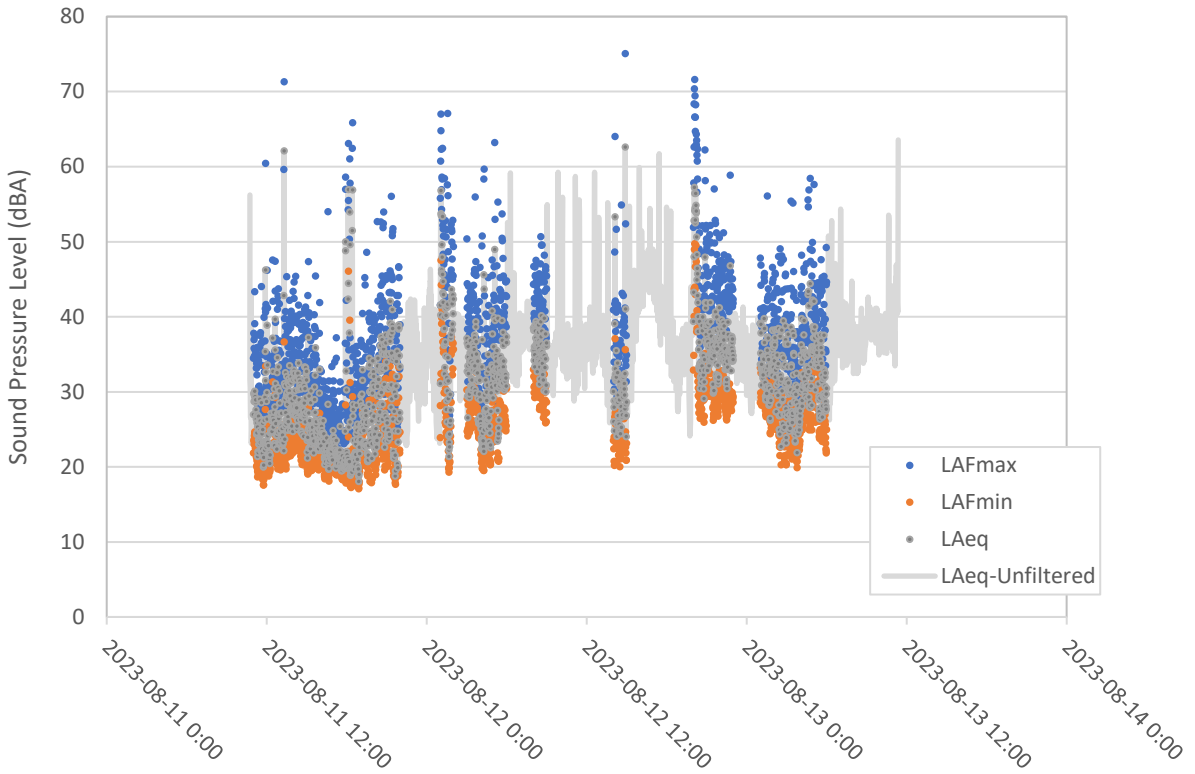


Figure 12. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R4 during monitoring event 2.

3.5 R5

Recorded 1-min L_{eq} values, maximum sound levels (L_{max}), and minimum sound levels (L_{min}) during monitoring events 1 and 2 at R5 are shown in Figures 13 and 14. Invalid data points filtered out prior to data analysis (as described in Section 2.4) are indicated for reference (LA_{eq}-unfiltered).

For event 1, 13 h of valid data were available after 41 h were filtered out due to recorded weather conditions or set-up/take-down. For event 2, 44 h of valid data were available after 5 h were filtered out due to recorded weather conditions or set-up/take-down. No secondary filtering was performed.

Final calculated daytime, night-time, and 24-h L_{eq} values are provided in Table 8. Neither design targets nor FEIS predictions were exceeded in monitoring event 1. In event 2, the maximum predicted 1 h L_{eq} value of 57 dBA was exceeded in two hours of the 44 h dataset (3 & 4 pm on August 8). Review of the data and sound recordings indicated these exceedances were caused by helicopter overflights, which lasted less than 2 minutes in each hour. Helicopters were not included in FEIS noise models because of their infrequent occurrence and short duration. Helicopters are also frequently used as part of exploration activities rather than operations.

Weather data and hourly L_{eq} values for both events are provided in Appendix B.

Noise sources noted in the field log for this location include helicopters, waves, and traffic (Appendix C).

Table 8. Daytime, night-time, and 24-h L_{eq} values for monitoring location R5. ^Maximum 1-h L_{eq} values for event 2 exceeded the FEIS prediction, but this was caused by helicopter noise, which was not included in FEIS models in Cumberland (2005) because of their infrequent occurrence and short duration.

Monitoring Station and Start Date (M/DD)		$L_{eq,\ day}$ (dBA)		$L_{eq,\ night}$ (dBA)		Max $L_{eq,\ 1h}$ (dBA)	
		Design Target	**Measured Value**	***Design Target***	**Measured Value**	***FEIS Prediction***	**Measured Value**
R5	1: 7/01	*55*	39.8	*45*	35.5	*57*	43.7
	2: 8/08		49.1		44.7		**(61.6)^**

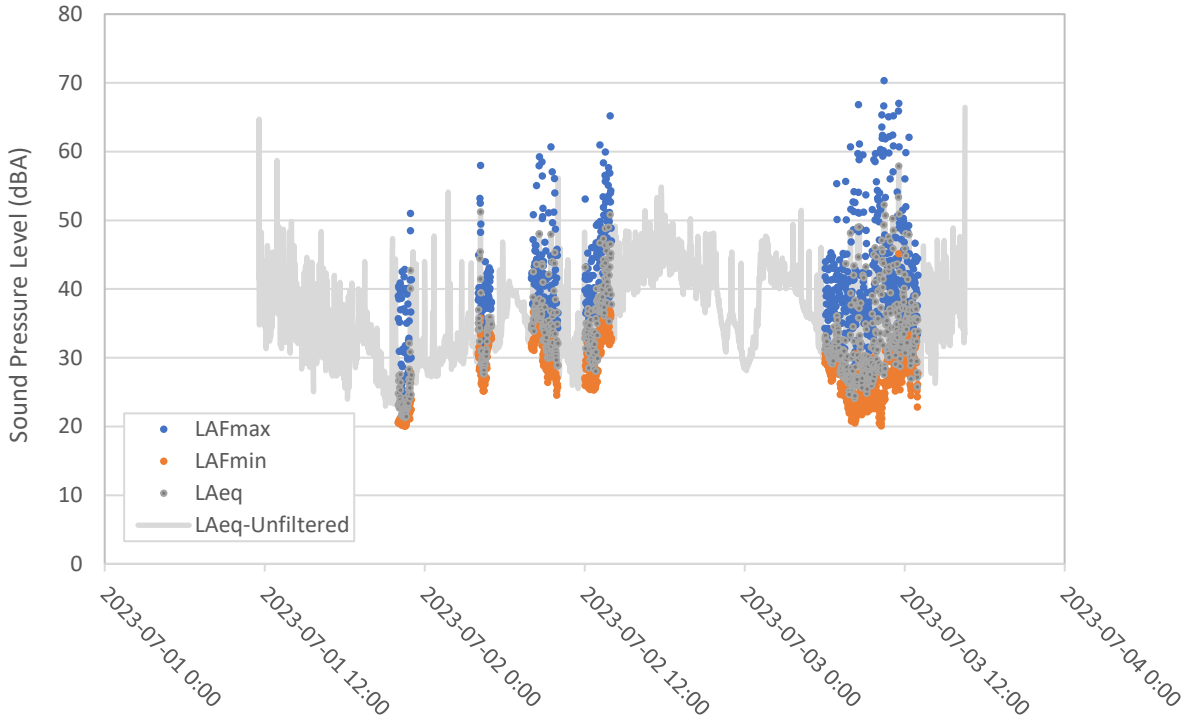


Figure 13. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R5 during monitoring event 1.

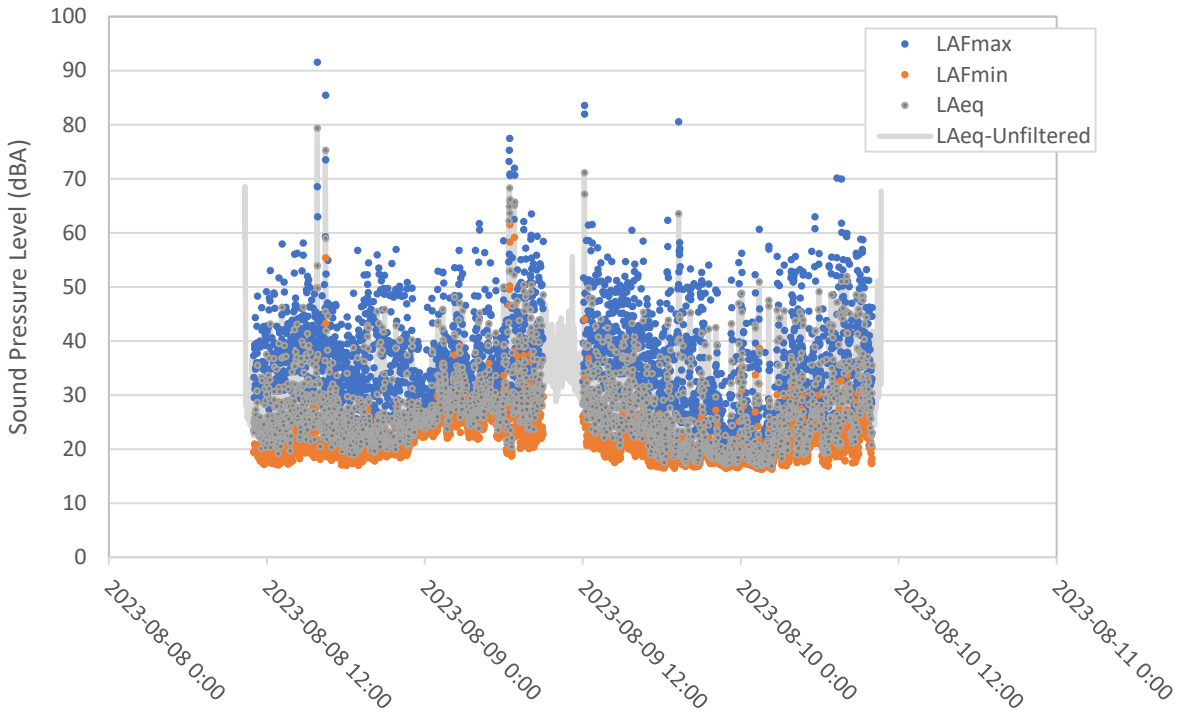


Figure 14. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R5 during monitoring event 2.

3.6 R6

Recorded 1-min L_{eq} values, maximum sound levels (L_{max}), and minimum sound levels (L_{min}) during monitoring events 1 and 2 at R6 are shown in Figure 15 and 16. Invalid data points filtered out prior to data analysis (as described in Section 2.4) are indicated for reference (LA_{eq}-unfiltered).

For event 1, 15 h of valid data were available after 59 h were filtered out due to recorded weather conditions or set-up/take-down. For event 2, 21 h of valid data were available after 28 h were filtered out due to recorded weather conditions or set-up/take-down. No secondary filtering was required.

Final calculated daytime, night-time, and 24-h L_{eq} values are provided in Table 9. No exceedances of site noise targets or FEIS predictions occurred.

Weather data and hourly L_{eq} values are provided in Appendix B.

Noise sources noted in the field log at this location include animals and traffic (Appendix C).

Table 9. Daytime, night-time, and 24-h L_{eq} values for monitoring location R6.

Monitoring Station and Start Date (M/DD)		$L_{eq,\ day}$ (dBA)		$L_{eq,\ night}$ (dBA)		$L_{eq,\ 24h}$ (dBA)	
		Design Target	**Measured Value**	***Design Target***	**Measured Value**	***FEIS Prediction***	**Measured Value**
R6	1: 7/24	*55*	37.3	*45*	29.5	*40.5 - 42.5*	35.4
	2: 8/11		40.3		39.5		40.0

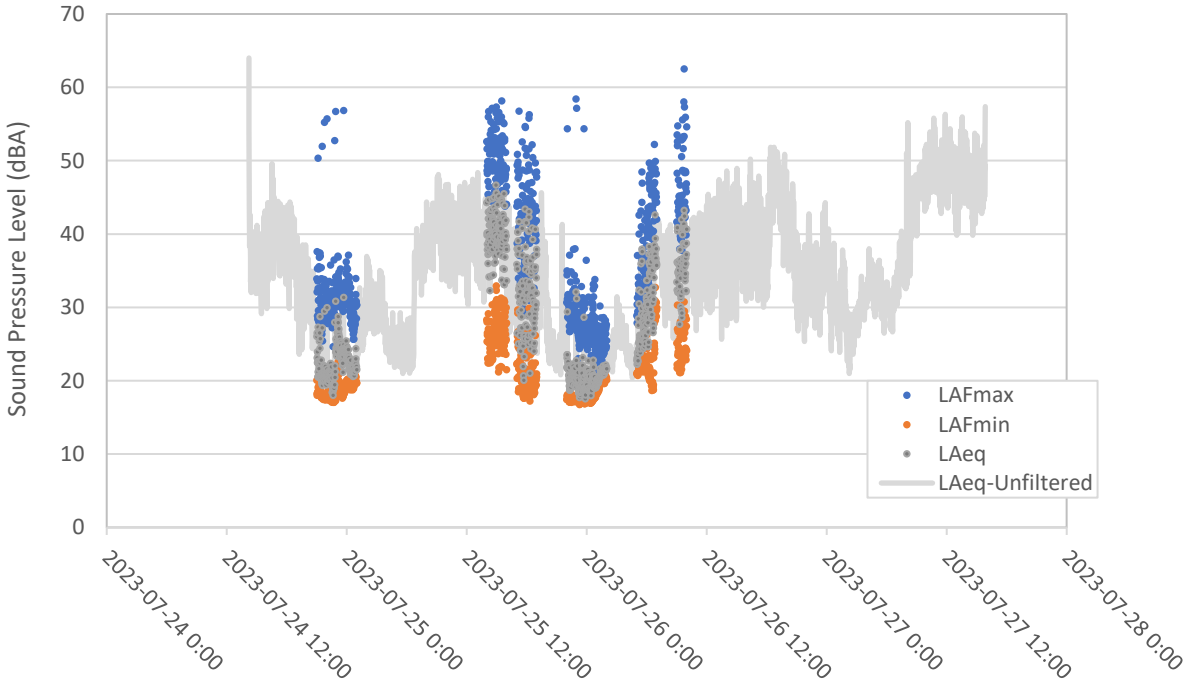


Figure 15. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R6 during monitoring event 1.

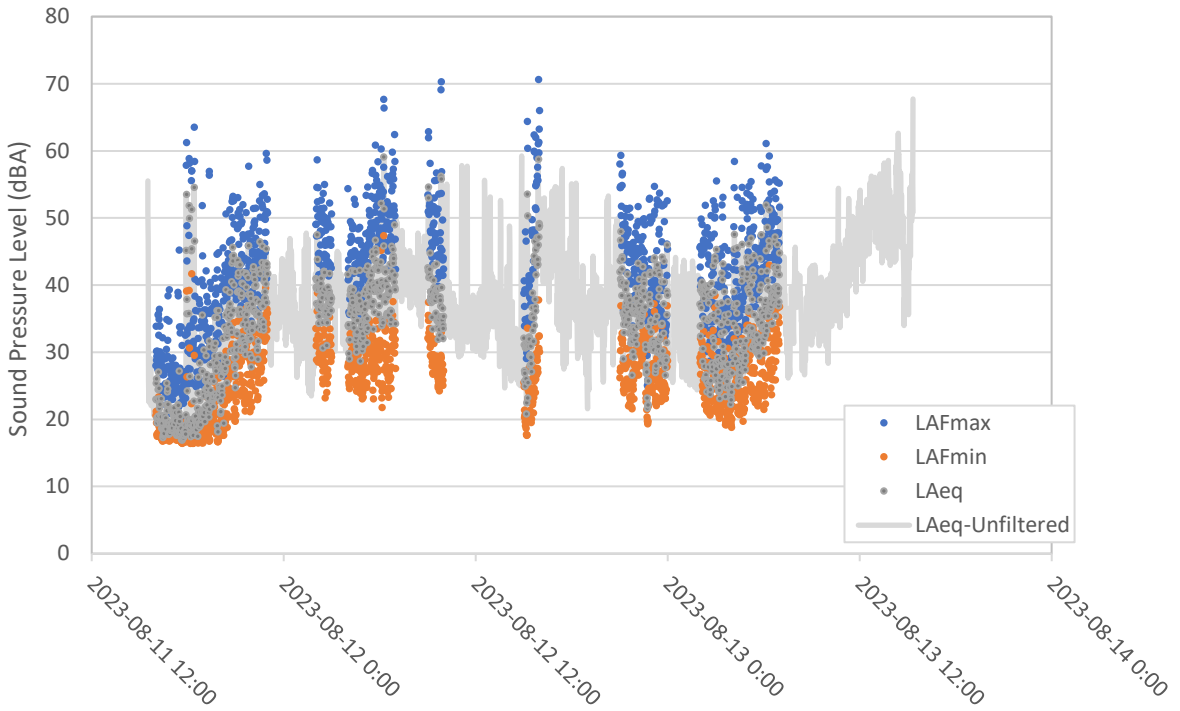


Figure 16. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R6 during monitoring event 2.

3.7 R7

Recorded 1-min L_{eq} values, maximum sound levels (L_{max}), and minimum sound levels (L_{min}) during monitoring events 1 and 2 at R7 are shown in Figures 17 and 18. Invalid data points filtered out prior to data analysis (as described in Section 2.4) are indicated for reference (LA_{eq}-unfiltered).

For event 1, 42 h of valid data were available after 2 h were filtered out due to recorded weather conditions or set-up/take-down. For event 2, 54 h of valid data were available after 2 h were filtered out due to recorded weather conditions or set-up/take-down.

For event 1, the FEIS prediction (40 dBA) was initially exceeded (44 dBA) so recorded data and sound files were investigated further. Wind interference was audible in sound recordings, with no significant mine-related noise. While the Whale Tail Mine weather station recorded wind speeds < 4.17 m/s during this event, the Meadowbank Mine weather station recorded elevated winds (> 4.17 m/s; generally > 7 m/s and up to 9 m/s) for extended periods throughout the event. Further, recorded L90 values during these periods of high winds exceeded 30 dBA, the assumed background noise level, with recorded values up to 48 dBA. Finally, wind speeds measured *in situ* during instrument retrieval using the handheld weather meter were recorded at 6.7 m/s. Therefore, on the basis of apparent localized elevated wind speeds during this event, a further 23 h were filtered from the dataset (as indicated in in Appendix B), corresponding to time points where L90 values exceeded 30 dBA, and Meadowbank Mine average hourly wind speeds exceeded 4.17 m/s. The remaining available data was used to calculate the daytime, night-time, and 24-h L_{eq} values, which did not exceed site noise targets or predictions. No secondary filtering was required for event 2.

Final calculated daytime, night-time, and 24-h L_{eq} values are provided in Table 10. No exceedances of site noise targets or FEIS predictions occurred.

Weather data and hourly L_{eq} values are provided in Appendix B.

Noise sources noted in the field log at this location include animals and traffic (Appendix C).

Table 10. Daytime, night-time, and 24-h L_{eq} values for monitoring location R7.

Monitoring Station and Start Date (M/DD)		$L_{eq,\ day}$ (dBA)		$L_{eq,\ night}$ (dBA)		$L_{eq,\ 24h}$ (dBA)	
		Design Target	**Measured Value**	***Design Target***	**Measured Value**	***FEIS Prediction***	**Measured Value**
R7	1: 7/19	*55*	37.3	*45*	38.2	*36.2 - 40.4*	37.8
	2: 7/29		28.6		33.8		31.1

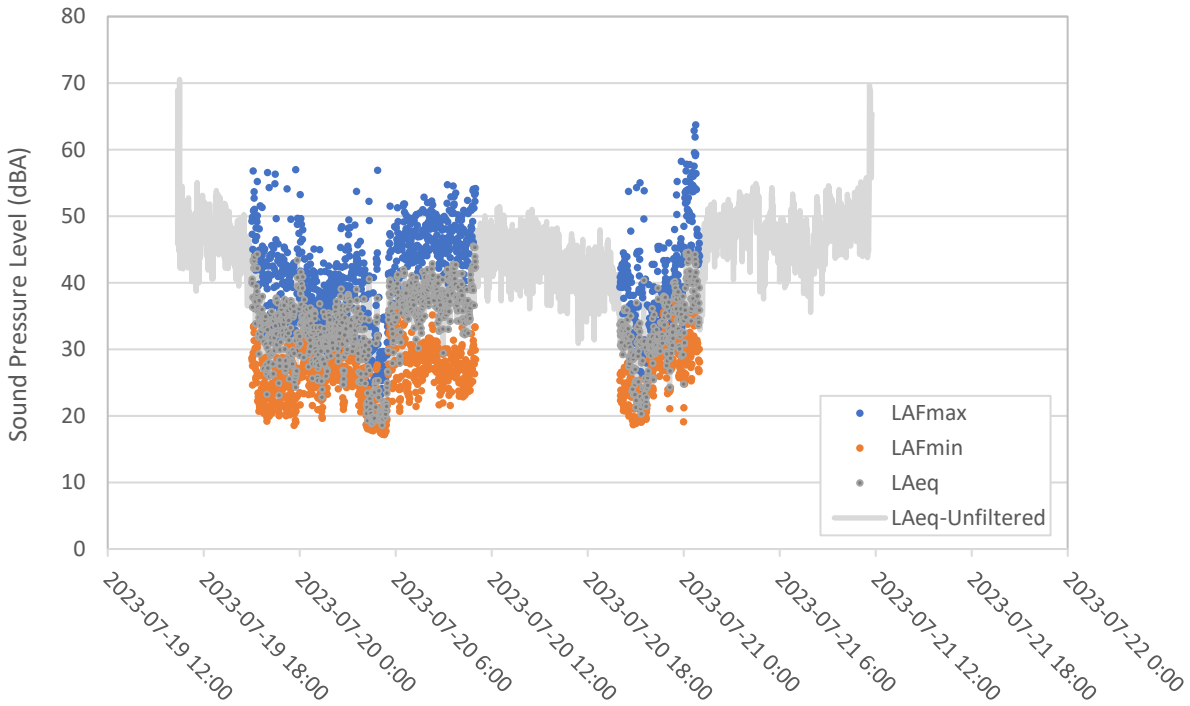


Figure 17. 1-min L_{eq}, Lmax and Lmin values recorded at station R7 during monitoring event 1.

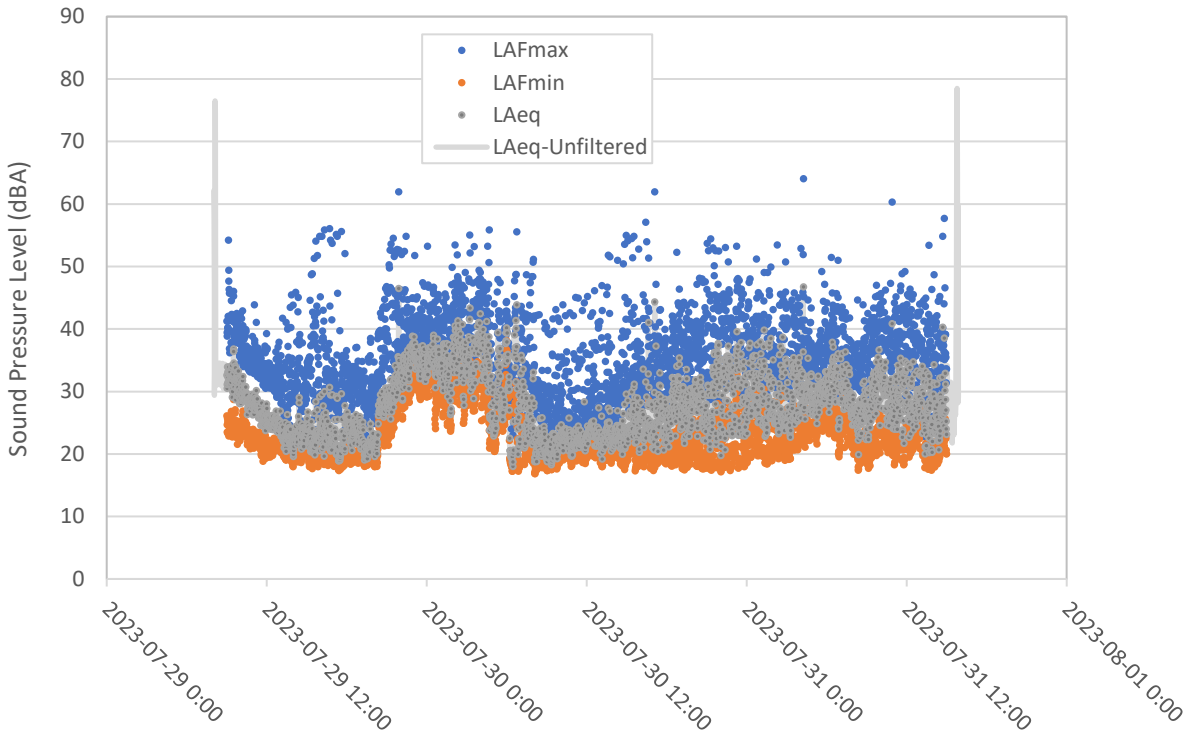


Figure 18. 1-min L_{eq}, Lmax and Lmin values recorded at station R7 during monitoring event 2.

3.8 R8A

Recorded 1-min L_{eq} values, maximum sound levels (L_{max}), and minimum sound levels (L_{min}) during monitoring events 1 and 2 at R8a are shown in Figures 19 and 20. Invalid data points filtered out prior to data analysis (as described in Section 2.4) are indicated for reference (LA_{eq}-unfiltered).

For monitoring event 1, 29 h of valid data were available after 12 h were filtered out due to weather conditions or set-up/take-down. For event 2, 62 h of valid data were available after 9 h were filtered out due to recorded weather conditions or set-up/take-down. No secondary filtering was required.

Final calculated daytime, night-time, and 24-h L_{eq} values are provided in Table 11. Results did not exceed the site's day-time and night-time sound targets or FEIS prediction for this monitoring station.

Weather data and hourly L_{eq} values for both events are provided in Appendix B.

Audible noises noted in the field log for this location include helicopters and blasts (Appendix C).

Table 11. Daytime, night-time, and 24-h L_{eq} values for monitoring location R8a.

Monitoring Station and Start Date (M/DD)		$L_{eq,\ day}$ (dBA)		$L_{eq,\ night}$ (dBA)		$L_{eq,\ 24h}$ (dBA)	
		Design Target	**Measured Value**	***Design Target***	**Measured Value**	***FEIS Prediction***	**Measured Value**
R8a	1: 6/28	*55*	38.8	*45*	36.6	*36.2 – 40.4*	38.2
	2: 8/17		23.3		21.4		22.8

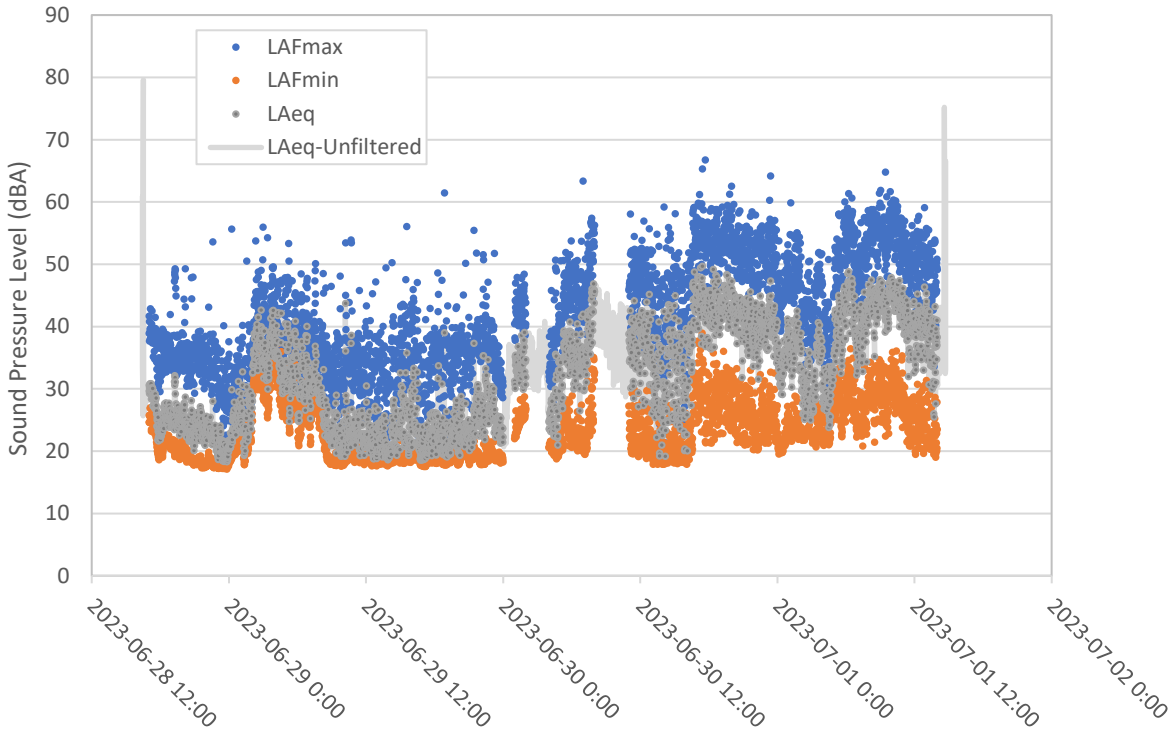


Figure 19. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R8a during monitoring event 1.

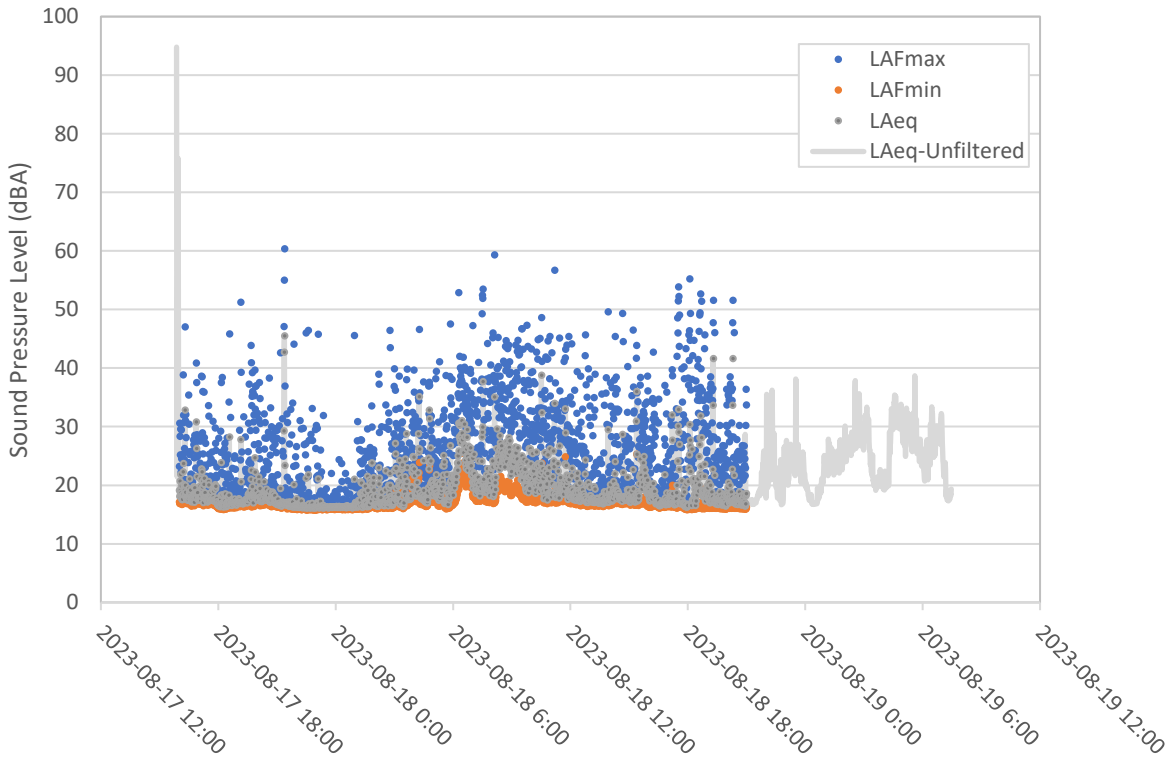


Figure 20. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R8a during monitoring event 2.

3.9 R9A

Recorded 1-min L_{eq} values, maximum sound levels (L_{max}), and minimum sound levels (L_{min}) during monitoring events 1 and 2 at R9a are shown in Figure 21 and 22. Invalid data points filtered out prior to data analysis (as described in Section 2.4) are indicated for reference (LA_{eq}-unfiltered).

For event 1, 33 h of valid data were available after 14 h were filtered out due to recorded weather conditions or set-up/take-down. For event 2, 28 h of valid data were available after 27 h were filtered out due to recorded weather conditions or set-up/take-down. No secondary filtering was required.

Final calculated daytime, night-time, and 24-h L_{eq} values are provided in Table 12. No exceedances of site noise targets or FEIS predictions occurred.

Weather data and hourly L_{eq} values for both events are provided in Appendix B.

Audible noises noted in the field log for this location include animals, waves, and helicopters (Appendix C).

Table 12. Daytime, night-time, and 24-h L_{eq} values for monitoring location R9a.

Monitoring Station and Start Date (M/DD)		$L_{eq,\ day}$ (dBA)		$L_{eq,\ night}$ (dBA)		$L_{eq,\ 24h}$ (dBA)	
		Design Target	**Measured Value**	***Design Target***	**Measured Value**	***FEIS Prediction***	**Measured Value**
R9a	1: 7/09	*55*	34.1	*45*	40.2	*40.4 - 45.1*	37.2
	2: 8/17		29.8		32.1		30.7

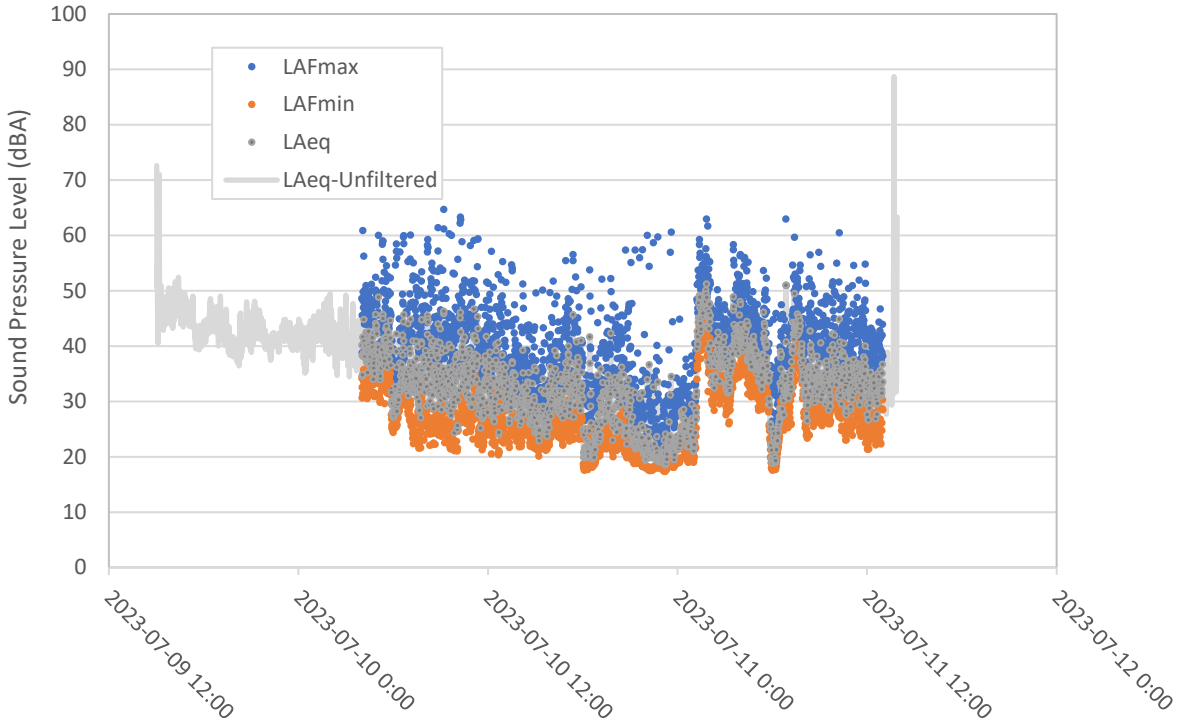


Figure 21. 1-min L_{eq}, Lmax and Lmin values recorded at station R9a during monitoring event 1.

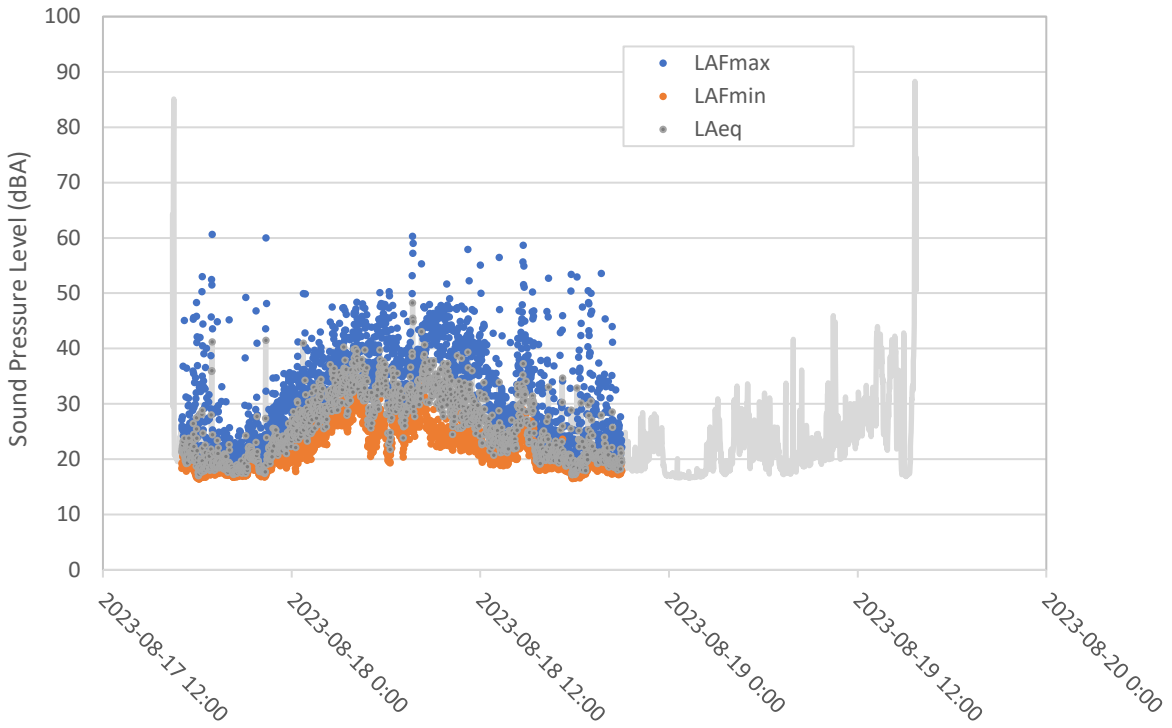


Figure 22. 1-min L_{eq}, Lmax and Lmin values recorded at station R9a during monitoring event 2.

3.10 R10A

Recorded 1-min L_{eq} values, maximum sound levels (L_{max}), and minimum sound levels (L_{min}) during monitoring events 1 and 2 at R10a are shown in Figures 23 and 24. Invalid data points filtered out prior to data analysis (as described in Section 2.4) are indicated for reference (LA_{eq}-unfiltered).

For event 1, 46 h of valid data were available after 2 h were filtered out due to recorded weather conditions or set-up/take-down. For event 2, 38 h of valid data were available after 9 h were filtered out due to recorded weather conditions or set-up/take-down. No secondary filtering was required.

Final calculated daytime, night-time, and 24-h L_{eq} values are provided in Table 13. Neither the FEIS prediction nor the site target sound levels were exceeded.

Weather data and hourly L_{eq} values are provided in Appendix B.

Audible noise sources noted in the field logs for this location included road traffic (haul road 1.5 km away) and helicopters (Appendix C).

Table 13. Daytime, night-time, and 24-h L_{eq} values for monitoring location R10a.

Monitoring Station and Start Date (M/DD)		$L_{eq,\ day}$ (dBA)		$L_{eq,\ night}$ (dBA)		$L_{eq,\ 24h}$ (dBA)	
		Design Target	**Measured Value**	***Design Target***	**Measured Value**	***FEIS Prediction***	**Measured Value**
R10a	1: 7/14	*55*	34.0	*45*	32.2	*36.2 – 40.4*	33.5
	2: 8/03		32.4		30.6		31.8

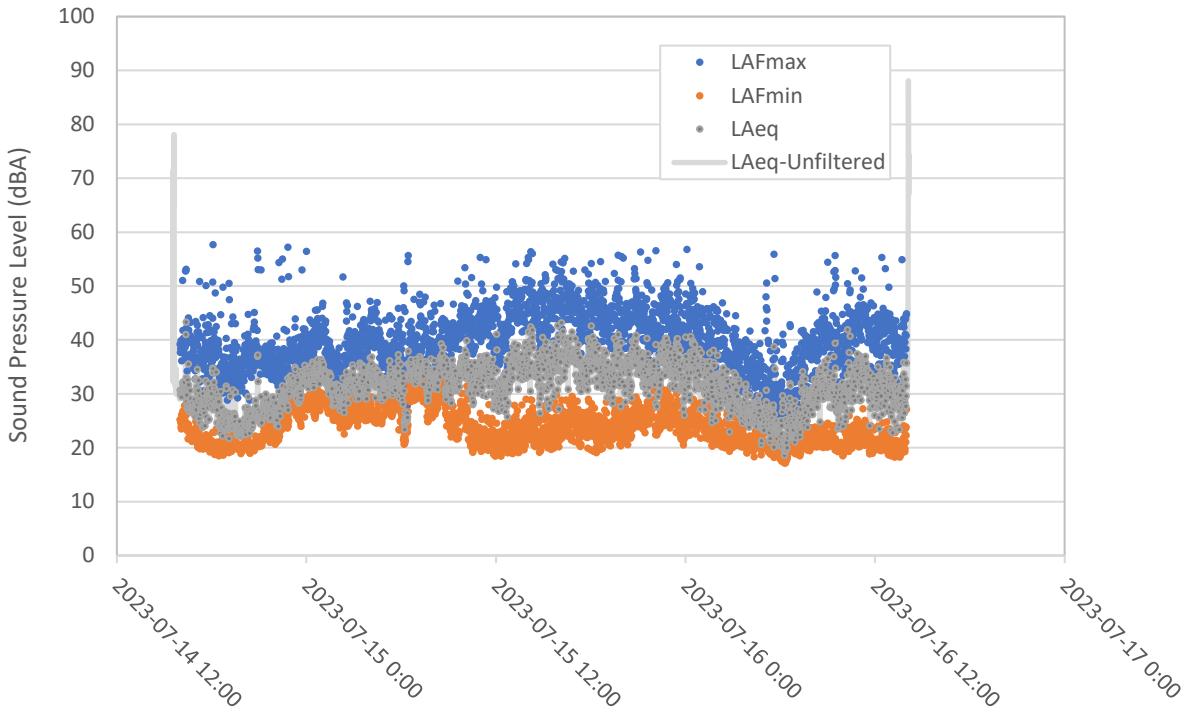


Figure 23. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R10a during monitoring event 1.

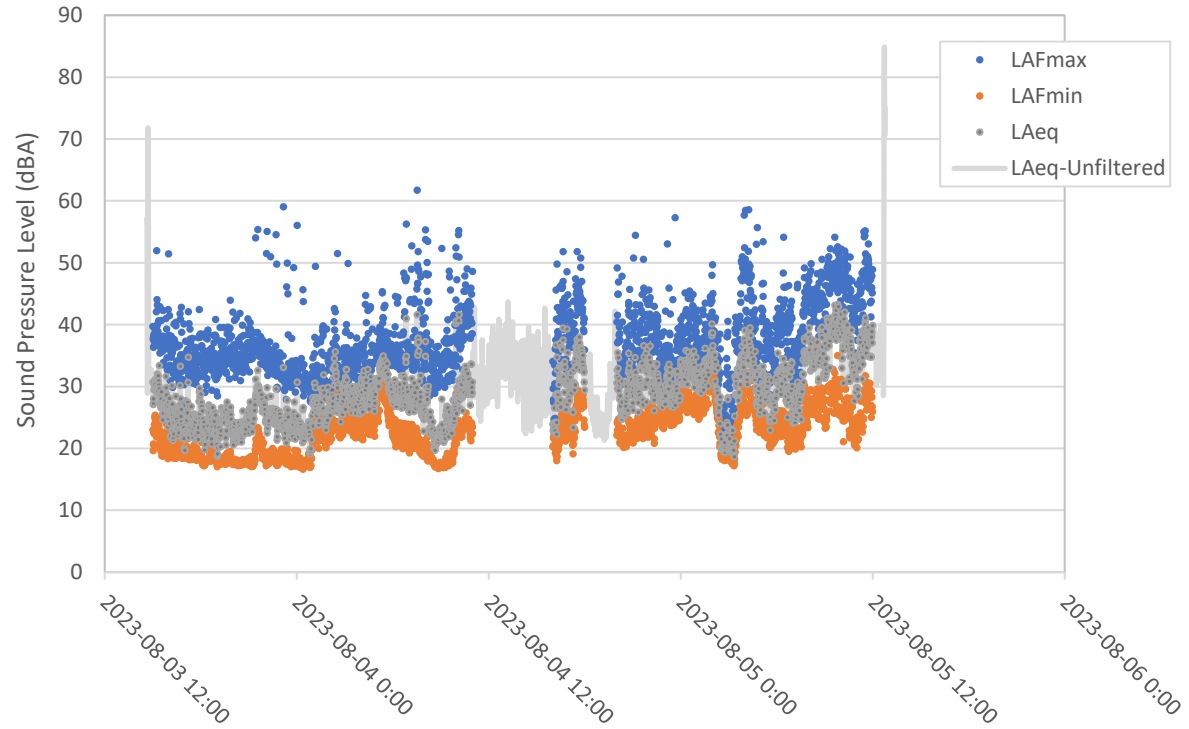


Figure 24. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R10a during monitoring event 2.

3.11 R11A

Recorded 1-min L_{eq} values, maximum sound levels (L_{max}), and minimum sound levels (L_{min}) during monitoring events 1 and 2 at R11a are shown in Figures 25 and 26. Invalid data points filtered out prior to data analysis (as described in Section 2.4) are indicated for reference (LA_{eq}-unfiltered).

For event 1, 45 h of valid data were available after 2 h were filtered out due to recorded weather conditions or set-up/take-down. For event 2, 25 h of valid data were available after 16 h were filtered out due to recorded weather conditions or set-up/take-down. No secondary filtering was required.

Final calculated daytime, night-time, and 24-h L_{eq} values are provided in Table 14. Neither the FEIS prediction nor the site target sound levels were exceeded.

Weather data and hourly L_{eq} values are provided in Appendix B.

No specific noise sources were noted in the field logs for this location in 2023 (Appendix C).

Table 14. Daytime, night-time, and 24-h L_{eq} values for monitoring location R11a.

Monitoring Station and Start Date (M/DD)		$L_{eq,\ day}$ (dBA)		$L_{eq,\ night}$ (dBA)		$L_{eq,\ 24h}$ (dBA)	
		Design Target	**Measured Value**	***Design Target***	**Measured Value**	***FEIS Prediction***	**Measured Value**
R11a	1: 7/14	*55*	37.9	*45*	36.7	*36.2 – 40.4*	37.5
	2: 8/24		37.1		41.1		38.8

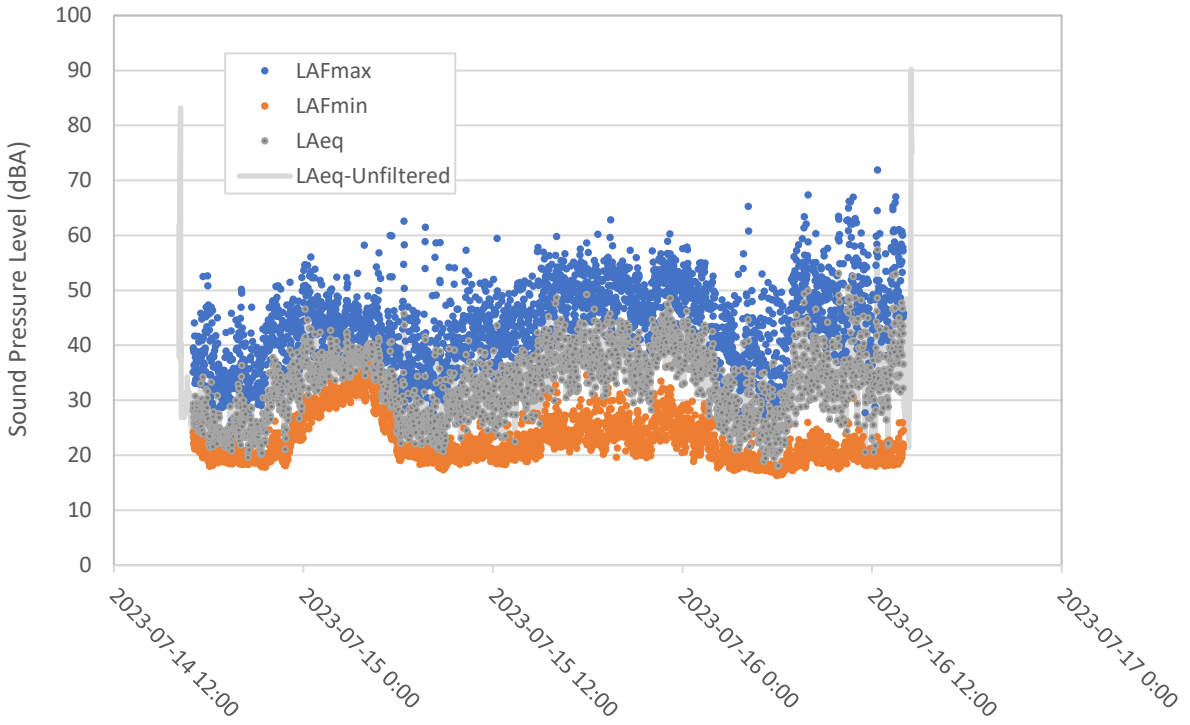


Figure 25. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R11a during monitoring event 1.

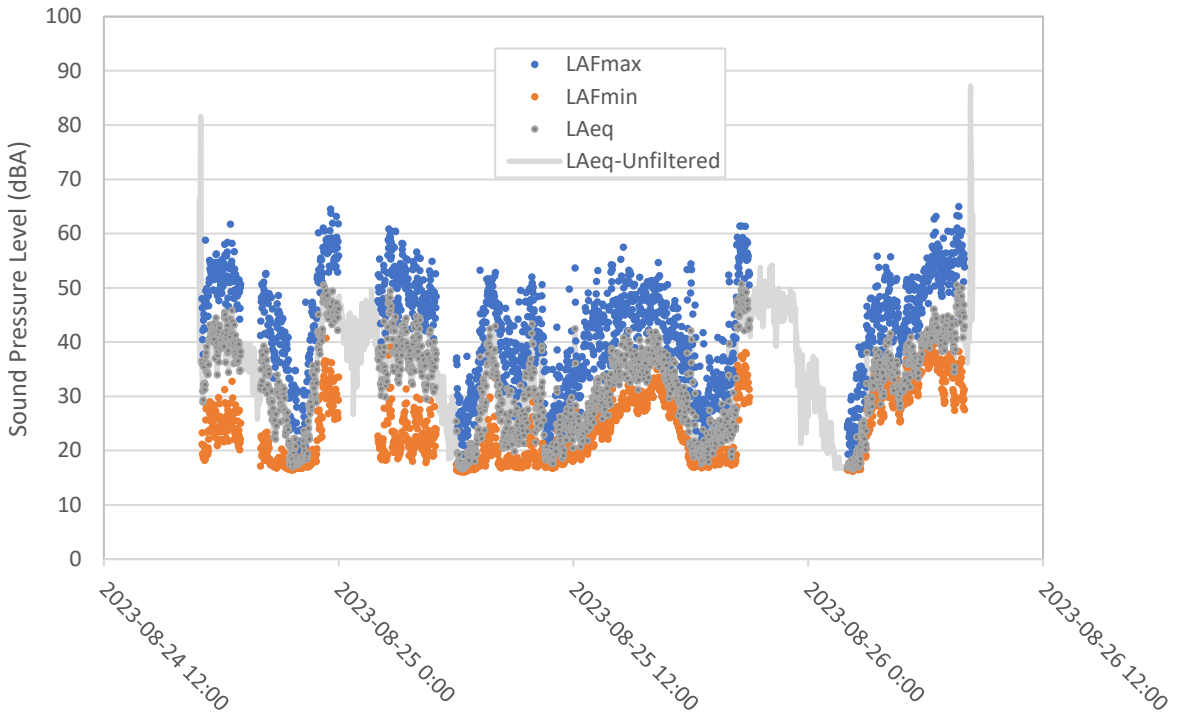


Figure 26. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R11a during monitoring event 2.

3.12 R12

Recorded 1-min L_{eq} values, maximum sound levels (L_{max}), and minimum sound levels (L_{min}) during the single monitoring event at R12 are shown in Figure 27. Invalid data points filtered out prior to data analysis (as described in Section 2.4) are indicated for reference (LA_{eq}-unfiltered).

In total, 11 h of valid data were available after 11 h were filtered out due to recorded weather conditions or set-up/take-down. Since the 24-h L_{eq} (37 dBA) initially exceeded the FEIS prediction (<35 dBA), data and sound recordings were reviewed further. Similar to event 1 at R7, wind interference was audible in sound recordings, with no apparent mine-related noise. Although wind speeds recorded at the Whale Tail Site weather station were less than 4.17 m/s during these hours, the Meadowbank Mine weather station recorded elevated winds (> 4.17 m/s) throughout the event. Recorded L90 values also exceeded 30 dB, the assumed background noise level, for all but the final 6 hours of the survey. During the entire monitoring period, wind was blowing from the north-east (48 – 70°), which represents a cross-wind between the Project facilities and the monitoring station. Under these conditions, AER (2023) recommends a maximum wind speed of 10 km/h (2.8 m/s) for data validity. Therefore, on the basis of apparent localized wind gusts during this event, a further 5 h were filtered from the dataset, corresponding to time points with both L90 values in excess of 30 dB, and average measured wind speeds in excess of 2.8 m/s (as indicated in Appendix B).

Remaining available data was from the night-time period, so only a L_{eq} night-time was calculated (Table 15), and this value did not exceed the PSL.

Weather data and hourly L_{eq} values are provided in Appendix B.

No audible noise sources were specifically noted in the field log for this location (Appendix C).

Table 15. Permissible Sound Levels (PSL) and measured daytime, night-time, and 24-h L_{eq} values for monitoring location R12. Periods with insufficient valid data are excluded (-).

Monitoring Station and Start Date (M/DD)		$L_{eq,\ day}$ (dBA)		$L_{eq,\ night}$ (dBA)		$L_{eq,\ 24h}$ (dBA)	
		PSL	**Measured Value**	***PSL***	**Measured Value**	***FEIS Prediction***	**Measured Value**
R12	1: 7/02	*50*	-	*40*	31.8	*<35*	-

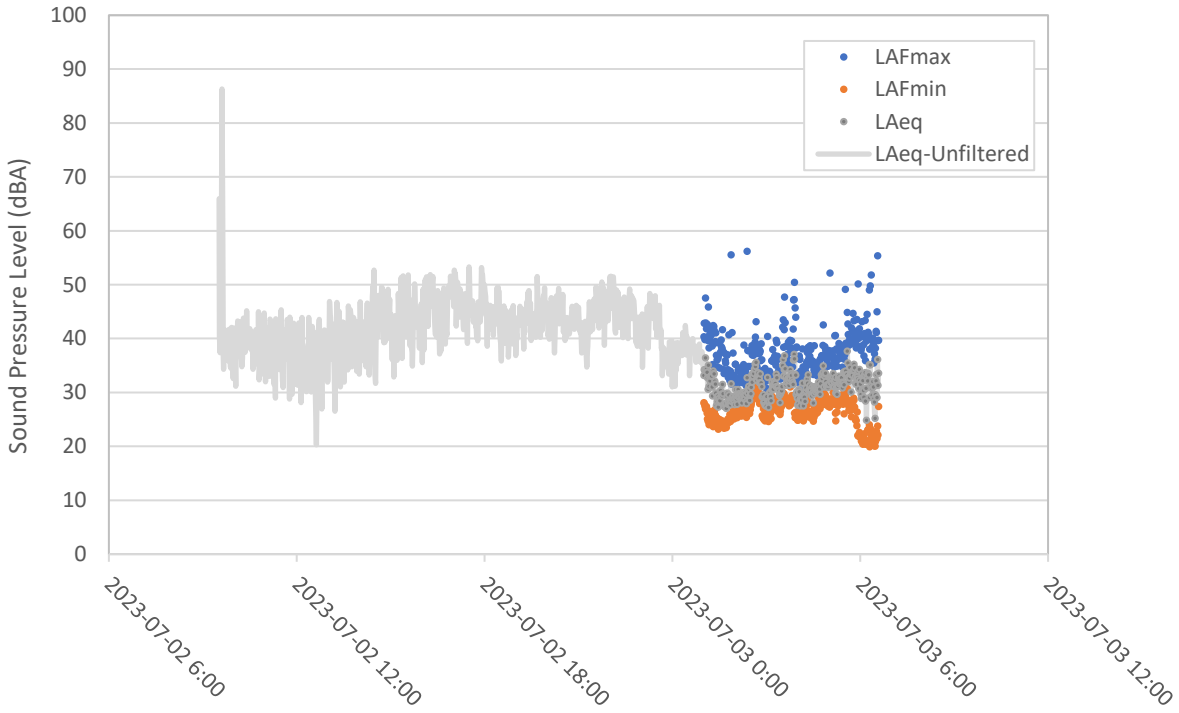


Figure 27. 1-min L_{eq}, L_{max} and L_{min} values recorded at station R12 during monitoring event 1.

SECTION 4 • HISTORICAL DATA

4.1 MEADOWBANK SITE

Historical 24-h L_{eq} measurements (2009 – 2023) for Meadowbank Mine monitoring stations R1 – R5 are shown in Figures 28 - 32 in relation to FEIS (Cumberland, 2005) predictions.

No clear trends towards increasing or unpredicted excess noise levels are evident. For all sites except one instance at R4 in 2018, measured 24-h L_{eq} values have remained below FEIS-modeled sound levels.

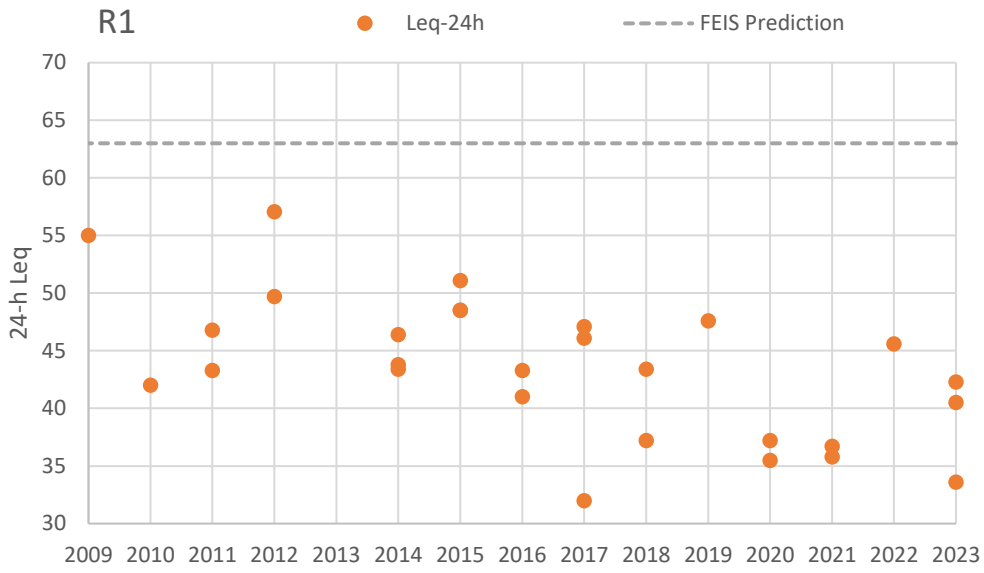


Figure 28. Historical 24-h L_{eq} values for monitoring station R1 at the Meadowbank Mine. Dashed line indicates the maximum FEIS prediction. No measurement was available in 2013.

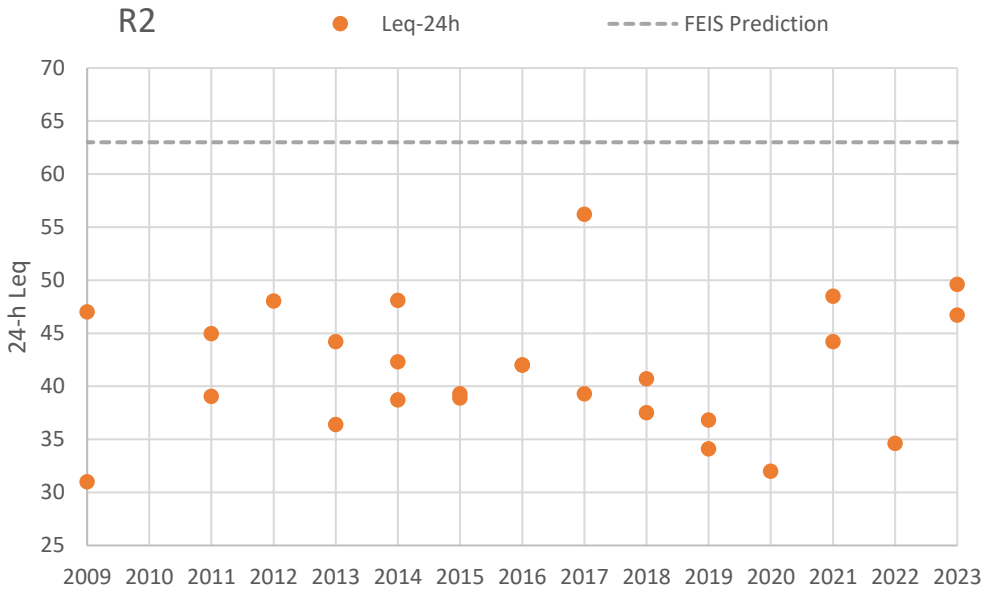


Figure 29. Historical 24-h L_{eq} values for monitoring station R2 at the Meadowbank Mine. Dashed line indicates the maximum FEIS prediction. No measurement was available in 2010.

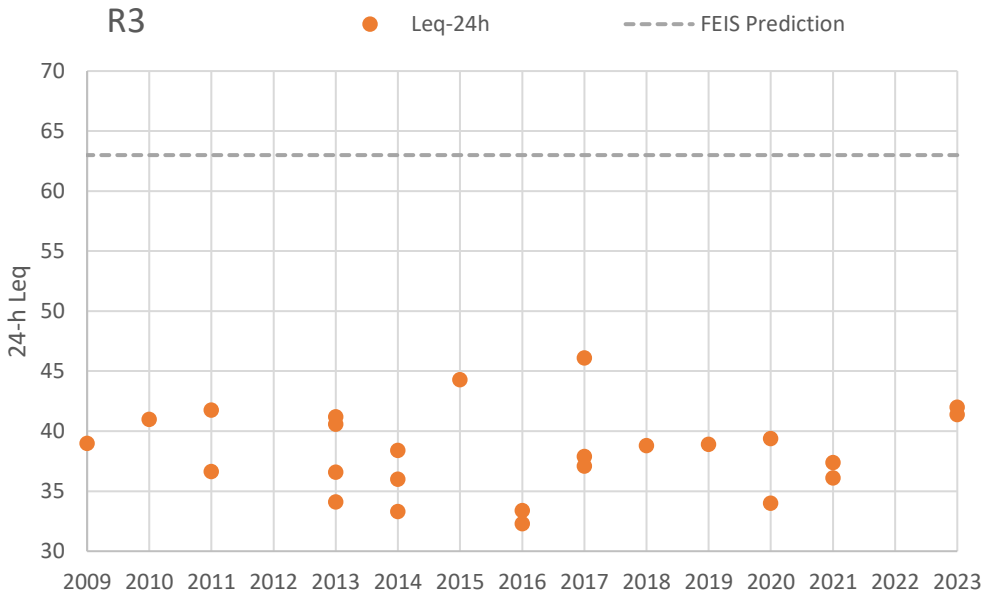


Figure 30. Historical 24-h L_{eq} values for monitoring station R3 at the Meadowbank Mine. Dashed line indicates the maximum FEIS prediction. No measurement was available in 2012 or 2022.

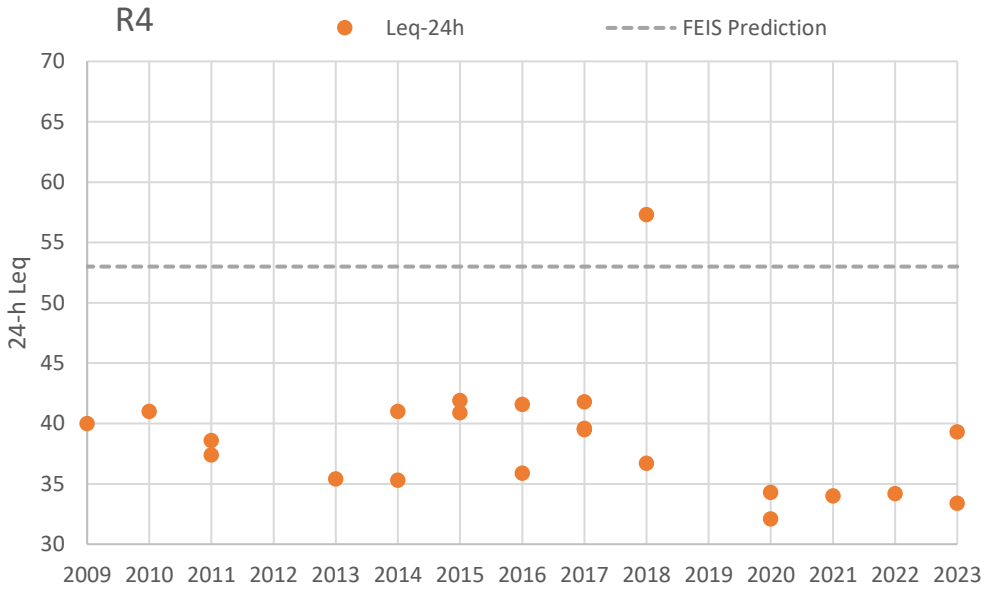


Figure 31. Historical 24-h L_{eq} values for monitoring station R4 at the Meadowbank site. Dashed line indicates the maximum FEIS prediction. No measurement was available in 2012 or 2019.

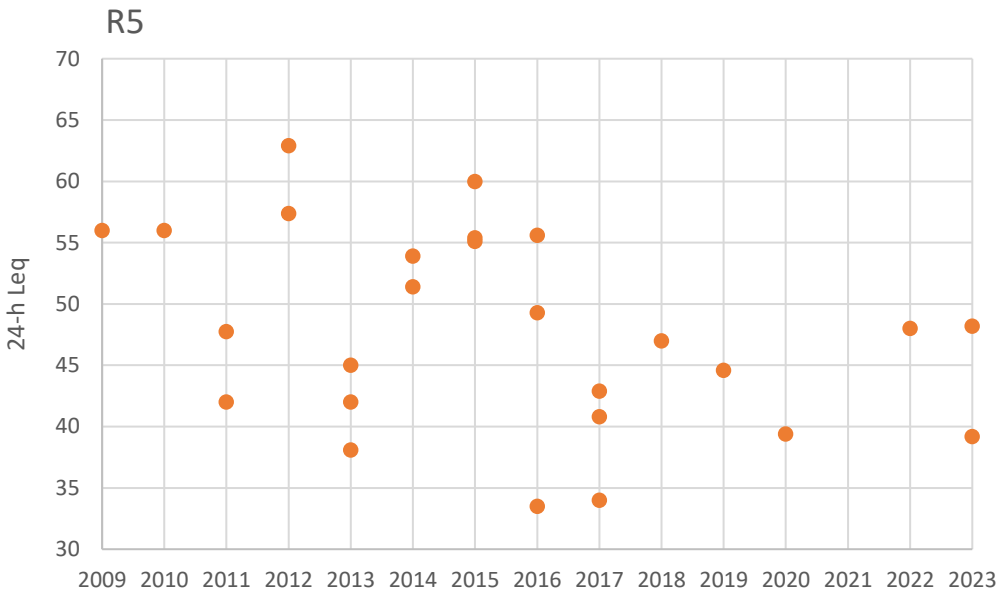


Figure 32. Historical 24-h L_{eq} values for monitoring station R5 at the Meadowbank site. No FEIS prediction for the 24-h L_{eq} was available. No measurement was available in 2021.

4.2 WHALE TAIL SITE

For stations R6 – R11, available historical results are shown in Figures 33 - 38 along with maximum FEIS predictions for 2018/2019 (Agnico Eagle, 2016), and FEIS Addendum predictions for 2020 onwards (Agnico Eagle, 2018). Monitoring data was not available for R7 – R11 in 2019. Overall, no clear trends towards unpredicted noise levels are evident at this time.

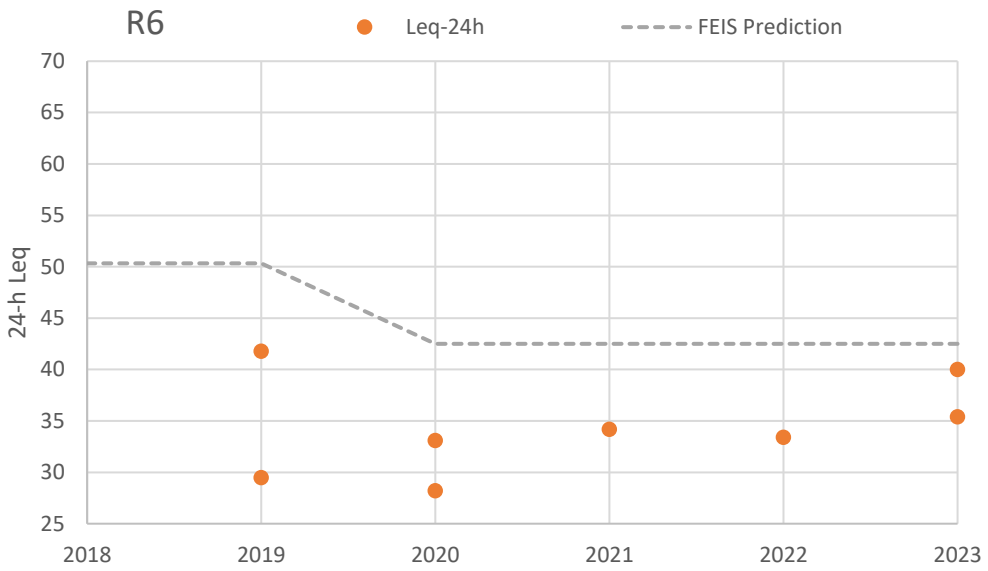


Figure 33. Historical 24-h L_{eq} values for monitoring station R6 at the Meadowbank site. Dashed line indicates the maximum FEIS prediction (2018, 2019 – Agnico Eagle, 2016; 2020+ - Agnico Eagle, 2018). No measurement was available in 2018.

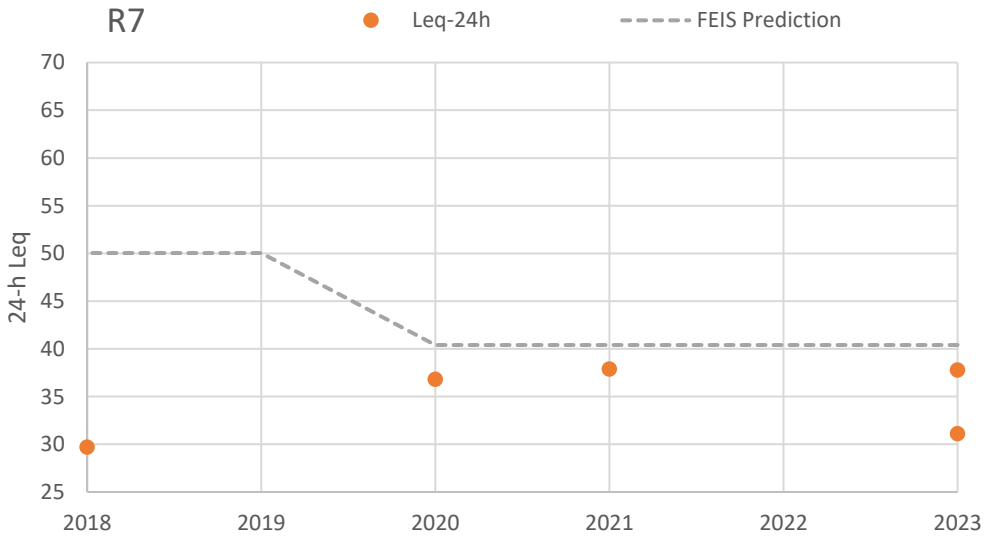


Figure 34. Historical 24-h L_{eq} values for monitoring station R7 along the Whale Tail Haul Road. Dashed line indicates the maximum FEIS prediction (2018, 2019 – Agnico Eagle, 2016; 2020+ - Agnico Eagle, 2018). No measurement was available in 2019 or 2022.

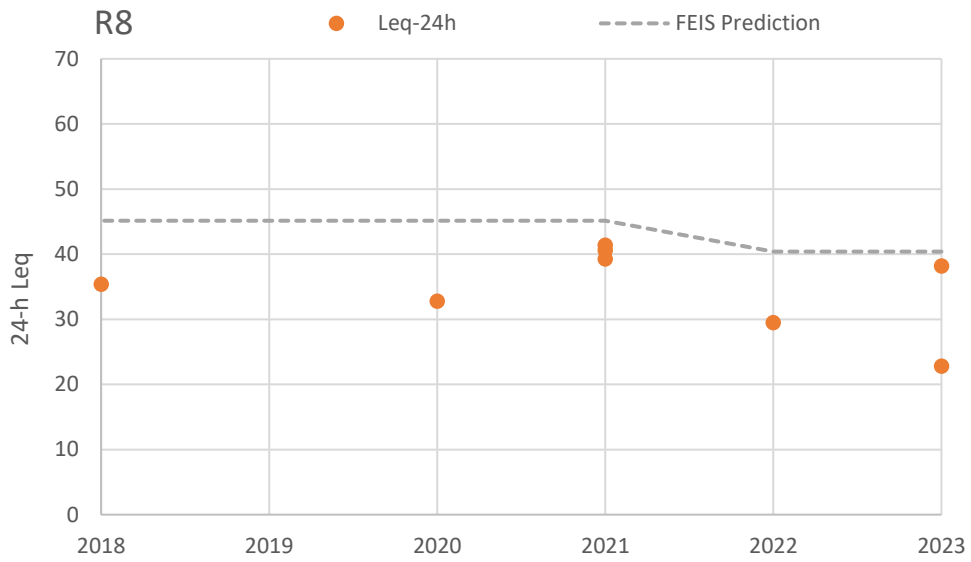


Figure 35. Historical 24-h L_{eq} values for monitoring station R8 (2018 – 2021) and R8a (2022+) at the Whale Tail site. Dashed line indicates the maximum FEIS prediction (2018, 2019 – Agnico Eagle, 2016; 2020+ - Agnico Eagle, 2018). No measurement was available in 2019.

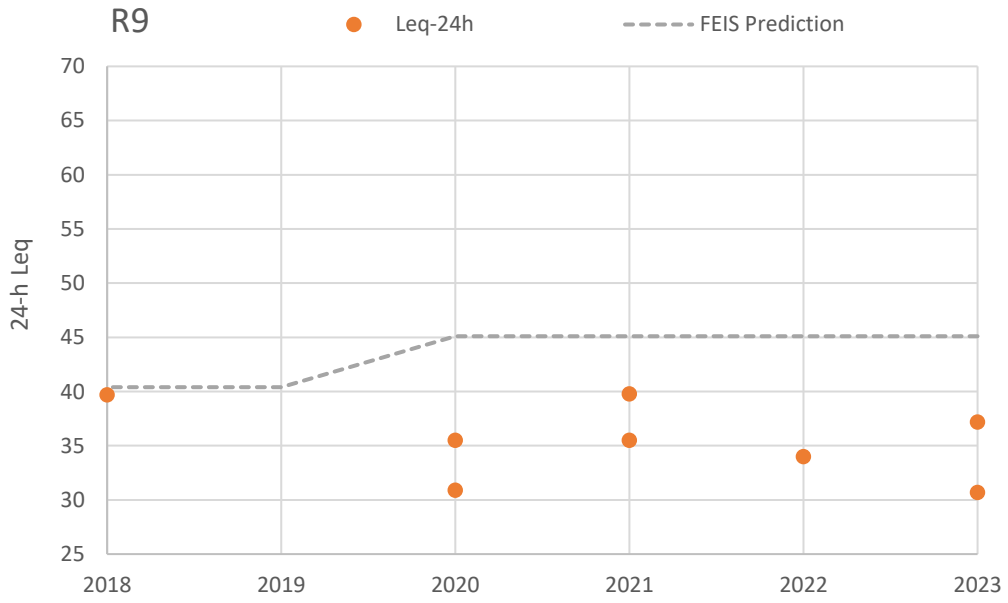


Figure 36. Historical 24-h L_{eq} values for monitoring station R9 (2018 – 2021) and R9a (2022+) at the Meadowbank site. Dashed line indicates the maximum FEIS prediction (2018, 2019 – Agnico Eagle, 2016; 2020+ - Agnico Eagle, 2018). No measurement was available in 2019.

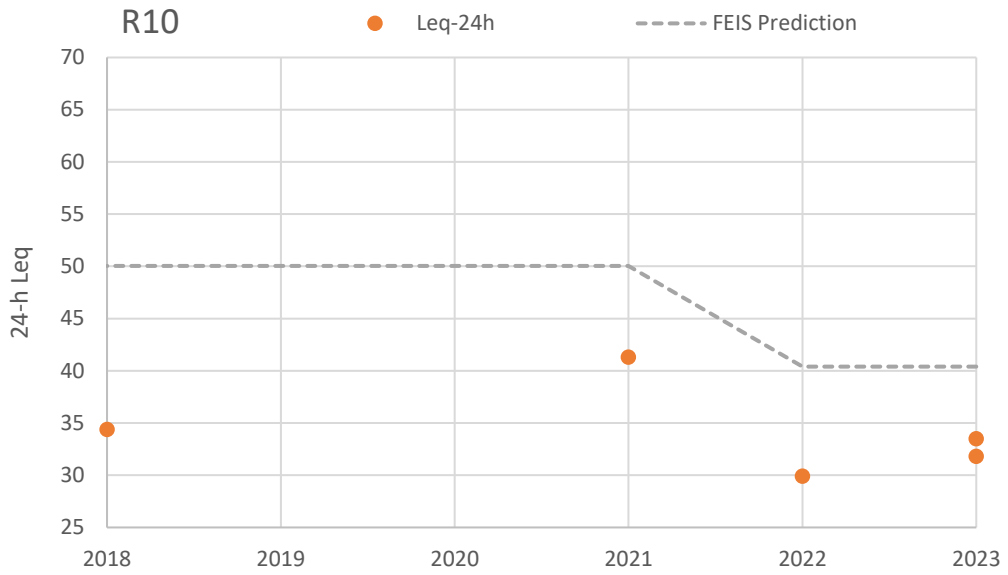


Figure 37. Historical 24-h L_{eq} values for monitoring station R10 (2018 – 2021) and R10a (2022+) at the Whale Tail site. Dashed line indicates the maximum FEIS prediction (2018, 2019 – Agnico Eagle, 2016; 2020+ - Agnico Eagle, 2018). No valid data was available in 2019 or 2020.

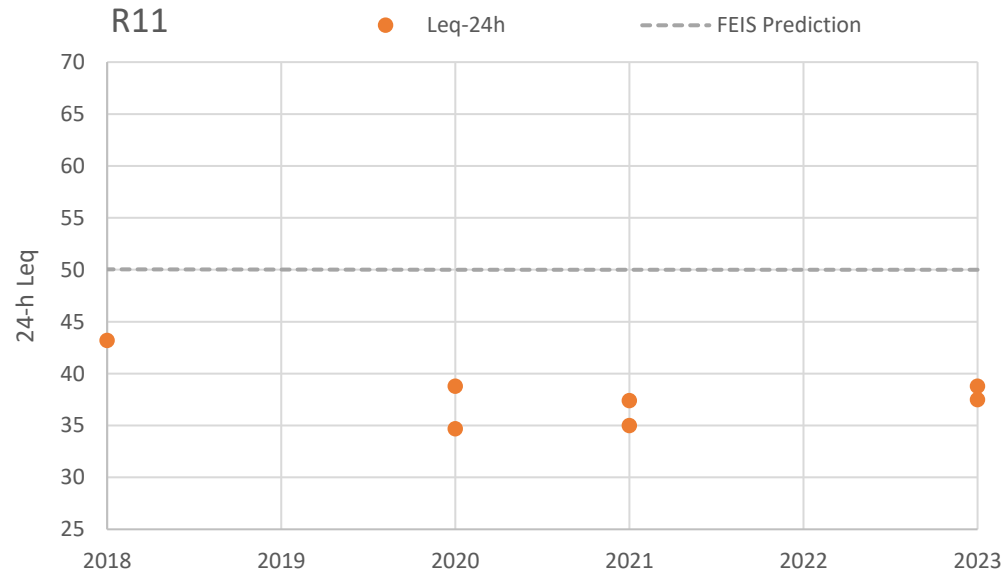


Figure 38. Historical 24-h L_{eq} values for monitoring station R11 (2018 – 2020) and R11a (2021+) at the Whale Tail Mine. Dashed line indicates the maximum FEIS prediction (2018, 2019 – Agnico Eagle, 2016; 2020+ Agnico Eagle, 2018), which is the same for both R11 and R11a locations. No measurements were available in 2019 or 2022.

SECTION 5 • SUMMARY

The objective of the noise monitoring program at the Meadowbank Complex is to measure noise levels at 11 previously determined monitoring locations over at least two 24 h periods each year, and periodically at one additional far field monitoring station. Agnico Eagle aims to conduct a minimum of two monitoring events of two to four days per station annually, since high winds in the area tend to substantially reduce the quantity of available valid data.

In 2023, two or three surveys were successfully performed at stations R1 – R11, and one survey was performed opportunistically at the far field monitoring station, R12.

Following removal of datapoints obtained under sub-optimal weather conditions, two or more sets of valid daytime, night-time, and 24 h L_{eq} measurements were available for all stations except R12. For R12, one $L_{eq\text{-}night\text{-}time}$ was available.

The site's day-time design target was met for all stations and monitoring events. For one survey at station R2, the night-time design target of 45 dBA was exceeded (49.1 dBA). This occurred due to a temporary construction event (runway re-surfacing) in close proximity to the monitoring station. The night-time design target was met for all other surveys and monitoring stations. For station R5, two hourly L_{eq} values exceeded the FEIS-predicted range in one survey, but this was determined to be caused by two brief (<2 minute) helicopter fly-overs, which were not included in FEIS noise models since they are an occasional occurrence. Helicopter activity may also be related to exploration activities rather than operations. Results for all other stations were less than FEIS predictions.

Based on these results, no changes to noise abatement or mitigation measures are proposed at this time. Monitoring at far field station R12 will next be scheduled for 2025.

Impacts of sensory disturbance on wildlife are evaluated through the Terrestrial Ecosystem Monitoring Plan (TEMP), and reported annually in the Wildlife Summary Report.

SECTION 6 • ACTIONS

Data collection in 2022 did not meet management plan targets (2 noise surveys per monitoring station) primarily due to the mechanical issues with the microphone and cables, along with turnaround time to receive new parts. In 2023 Agnico purchased additional parts for the noise monitoring units. All parts requiring calibration were shipped to the manufacturer and returned to site. In-house field testing was completed prior to field deployment to ensure better data collection in 2023. These measures resulted in significant improvement in rates of completed surveys, and no surveys were invalidated in 2023 due to mechanical issues.

No remedial actions related to ambient noise monitoring are planned for 2024.

SECTION 7 • REFERENCES

Cumberland, 2005. Meadowbank Gold Project Environmental Impact Statement. Cumberland Resources Ltd. October, 2005.

AER (Alberta Energy Regulator), 2023. Directive 038: Noise Control.

AER (Alberta Energy Regulator), 2007. Directive 038: Noise Control.

Agnico Eagle, 2018. Final Environment Impact Statement (FEIS) Addendum - Whale Tail Pit Expansion Project. Volume 4 – Atmospheric Environment. Agnico Eagle Mines Ltd. December, 2018.

Agnico Eagle, 2016. Final Environment Impact Statement (FEIS) for the Whale Tail Pit Project. Volume 4 – Atmospheric Environment. Agnico Eagle Mines Ltd. May, 2016.

APPENDIX A

Site Photos

Figure -Apx 1: Monitoring location R1, looking north (June 30, 2023).

Figure -Apx 2: Monitoring location R2 (July 9, 2023).

Figure -Apx 3: Monitoring location R3 (August 15, 2023).

Figure -Apx 4: Monitoring location R4 (July 17, 2023).

Figure -Apx 5: Monitoring location R5 (August 8, 2023).

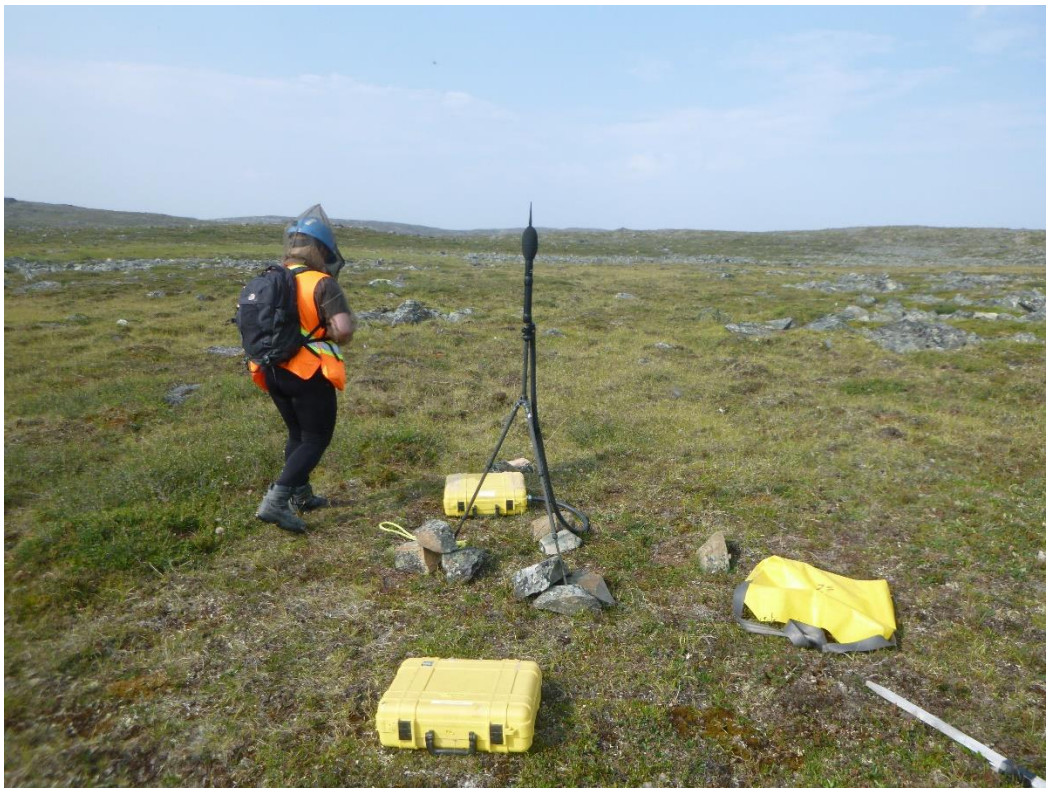


Figure Apx 6: Monitoring location R6 (July 24, 2023).

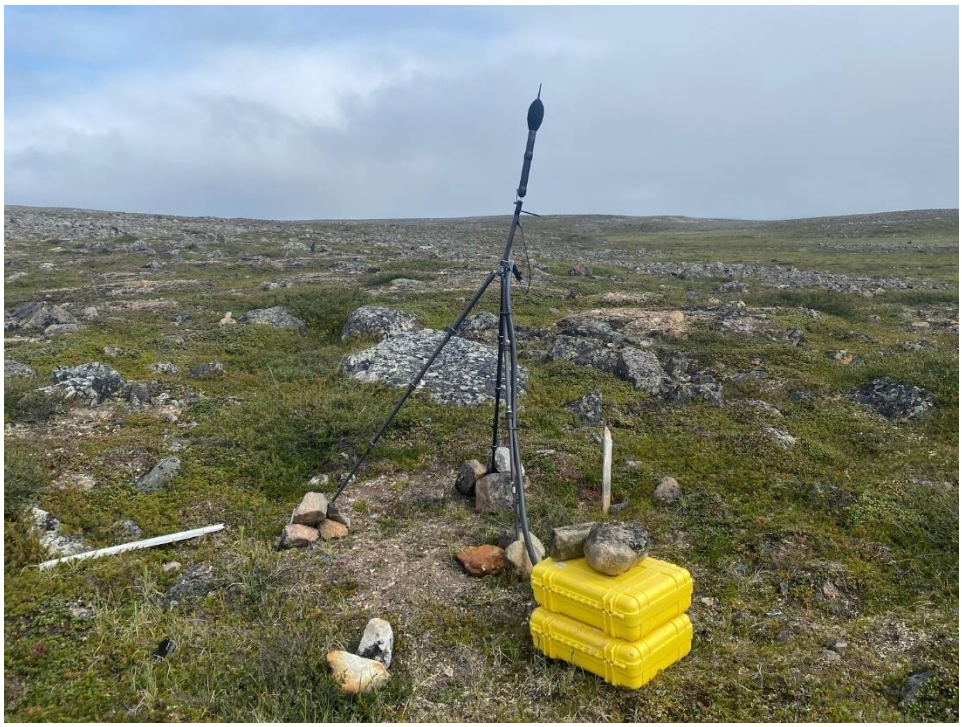


Figure -Apx 7: Monitoring location R7 (July 21, 2023).

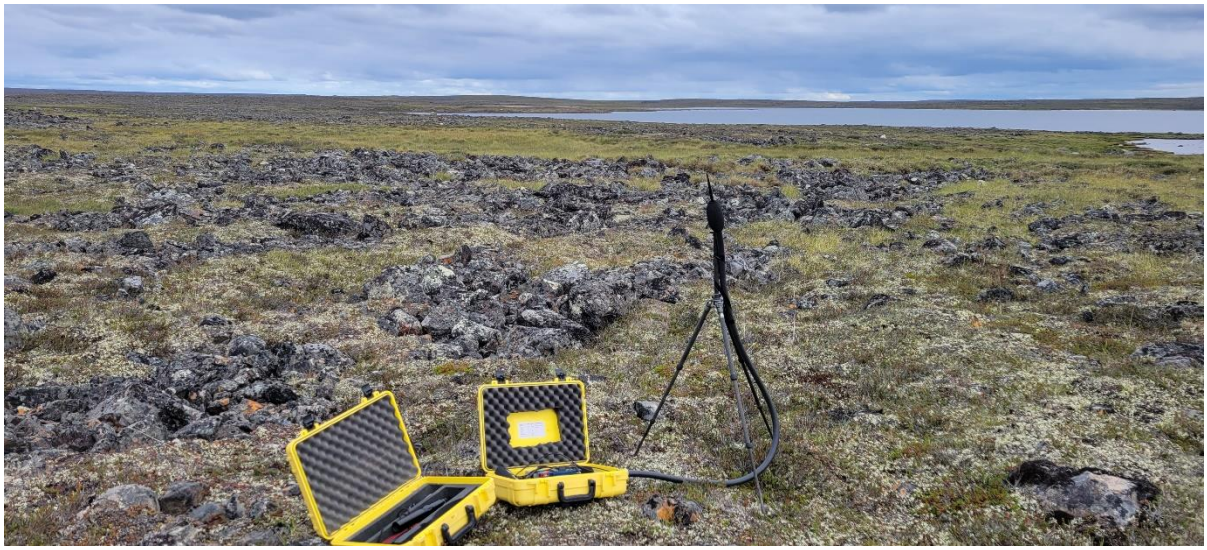


Figure -Apx 8: Monitoring location R8a (August 17, 2023).

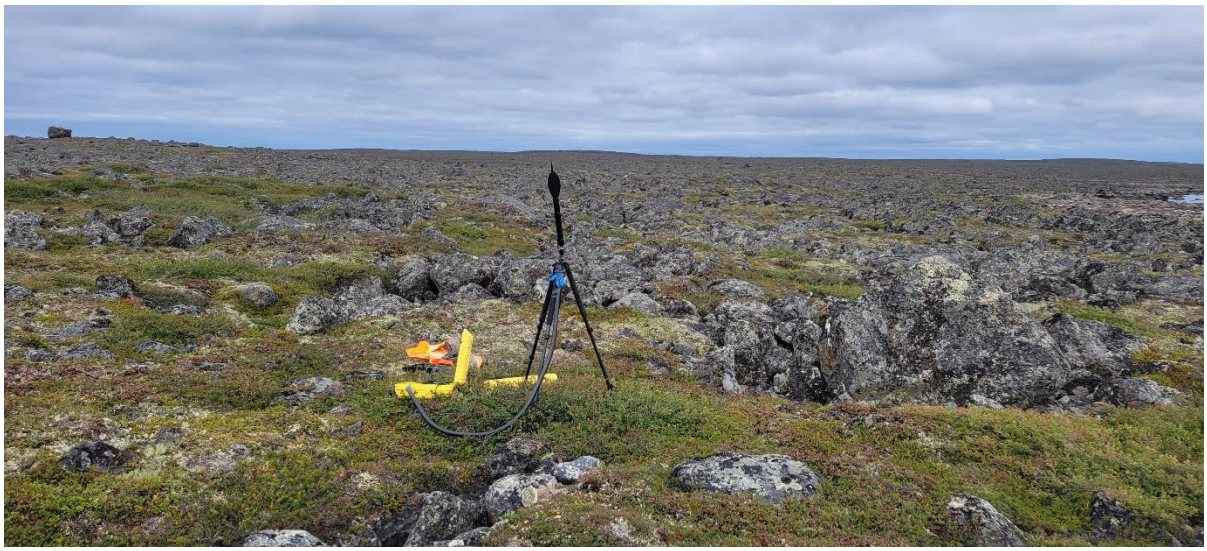


Figure Apx 9: Monitoring Location R9a (August 17, 2023).

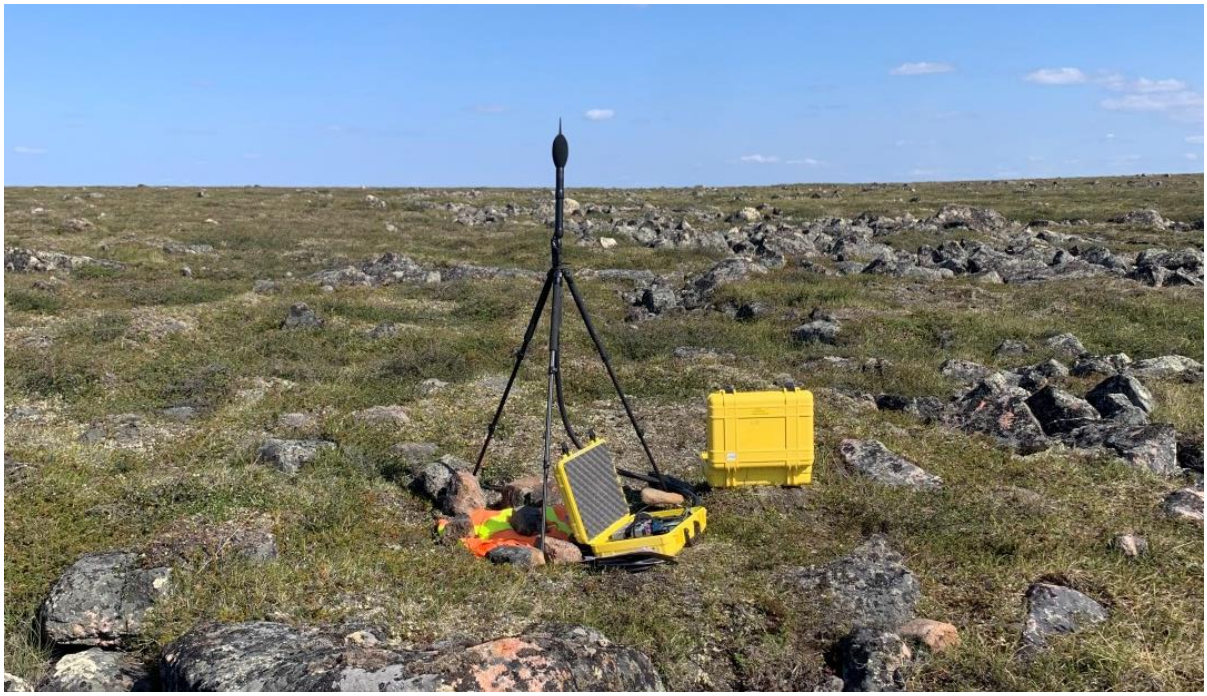


Figure Apx 10: Monitoring location R10a (August 3, 2023).

Figure Apx 11: Monitoring location R11a (August 24, 2023).

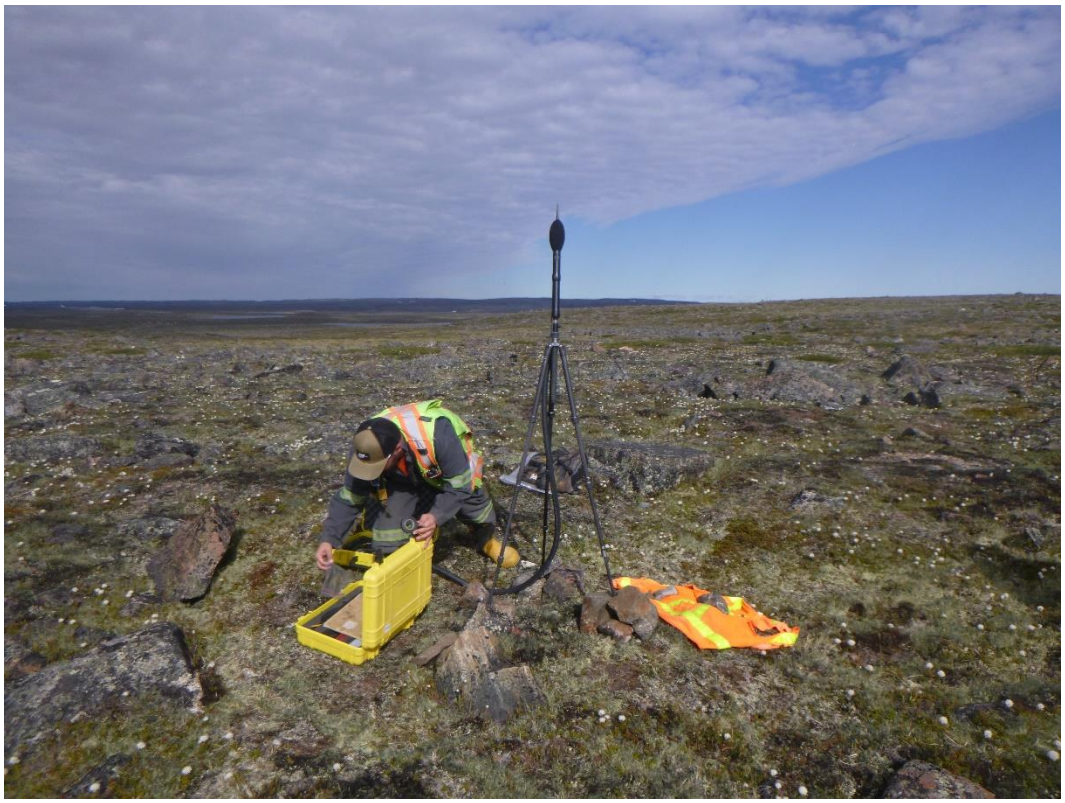


Figure Apx 12: Monitoring location R12 (July 1, 2023).

APPENDIX B

Weather Data and 1-h L_{eq} Values

App. Table 1. Average hourly air temperature, relative humidity, wind speed, and wind direction for the Meadowbank Mine weather station and calculated valid 1-h L_{eq} values for Meadowbank stations R1 – R6. Those filtered out from analyses based on unacceptable weather conditions or set-up/take-down are excluded (-).

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R1	R2	R3	R4	R5	R6
6/27/23 8:00	6.1	82	6.1	329	-					
6/27/23 9:00	6.2	81	6.2	337	-					
6/27/23 10:00	5.9	76	5.2	333	-					
6/27/23 11:00	6.8	72	4.4	321	-					
6/27/23 12:00	8.0	59	3.7	300	31.7					
6/27/23 13:00	9.7	58	3.7	315	30.3					
6/27/23 14:00	10.8	51	3.6	318	34.1					
6/27/23 15:00	12.3	44	4.2	332	-					
6/27/23 16:00	13.6	38	5.8	327	-					
6/27/23 17:00	14.3	36	5.4	315	-					
6/27/23 18:00	14.8	37	5.5	314	-					
6/27/23 19:00	15.1	34	5.7	318	-					
6/27/23 20:00	15.3	36	4.9	330	-					
6/27/23 21:00	15.1	39	3.8	350	25.2					
6/27/23 22:00	14.3	40	2.5	11	21.1					
6/27/23 23:00	13.5	42	2.4	9	23.1					
6/28/23 0:00	12.3	46	1.9	28	27.2					
6/28/23 1:00	10.7	69	2.1	72	26.9					
6/28/23 2:00	9.1	74	0.8	111	35.5					
6/28/23 3:00	9.0	75	0.8	69	36.1					
6/28/23 4:00	9.1	68	2.2	57	37.2					
6/28/23 5:00	8.7	71	1.7	81	39.2					
6/28/23 6:00	8.9	70	2.1	60	27.1					
6/28/23 7:00	9.6	70	3.0	44	30.6					
6/28/23 8:00	10.4	62	3.5	48	38.0					
6/28/23 9:00	10.9	59	3.2	48	30.5					
6/28/23 10:00	11.7	52	3.3	39	31.0					
6/28/23 11:00	12.3	51	3.3	39	36.1					
6/28/23 12:00	13.2	44	3.0	48	26.1					
6/28/23 13:00	14.2	38	2.5	53	27.3					
6/28/23 14:00	15.2	36	1.9	69	26.8					
6/28/23 15:00	16.2	31	1.1	6	42.6					
6/28/23 16:00	16.4	30	1.7	162	24.4					
6/28/23 17:00	16.6	32	2.1	178	31.8					
6/28/23 18:00	16.9	33	1.9	122	20.9					

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R1	R2	R3	R4	R5	R6
6/28/23 19:00	17.0	35	2.6	157	36.8					
6/28/23 20:00	16.8	33	2.7	154	29.2					
6/28/23 21:00	16.8	34	2.1	136	30.6					
6/28/23 22:00	16.1	35	1.0	193	34.1					
6/28/23 23:00	15.4	32	0.3	292	29.0					
6/29/23 0:00	14.2	41	0.0	157	29.5					
6/29/23 1:00	11.9	57	0.2	185	32.6					
6/29/23 2:00	12.0	59	0.1	89	32.3					
6/29/23 3:00	11.4	58	0.5	84	28.3					
6/29/23 4:00	8.9	65	0.3	224	38.1					
6/29/23 5:00	9.5	65	0.9	249	32.6					
6/29/23 6:00	11.4	73	0.3	335	26.0					
6/29/23 7:00	12.5	59	0.2	164	28.8					
6/29/23 8:00	14.8	35	0.2	328	33.7					
6/29/23 9:00	15.4	43	0.6	173	33.2					
6/29/23 10:00	16.5	38	0.6	305	34.2					
6/29/23 11:00	17.3	37	1.3	294	32.2					
6/29/23 12:00	18.0	34	1.5	235	33.5					
6/29/23 13:00	18.4	31	1.9	223	29.1					
6/29/23 14:00	18.7	32	2.5	181	28.0					
6/29/23 15:00	19.5	29	1.9	141	37.0					
6/29/23 16:00	19.0	29	1.3	185	29.9					
6/29/23 17:00	19.3	29	1.1	301	26.9					
6/29/23 18:00	17.2	55	3.8	199	25.2					
6/29/23 19:00	16.4	55	2.5	205	32.2					
6/29/23 20:00	17.1	48	0.9	193	35.5					
6/29/23 21:00	17.8	48	0.9	326	26.0					
6/29/23 22:00	17.0	69	0.9	342	31.0					
7/01/23 11:00	14.3	58	5.8	324					-	
7/01/23 12:00	15.4	48	6.3	320					-	
7/01/23 13:00	16.5	45	5.9	319					-	
7/01/23 14:00	17.4	40	5.8	319					-	
7/01/23 15:00	18.1	36	5.1	324					-	
7/01/23 16:00	18.4	31	5.0	314					-	
7/01/23 17:00	18.7	33	5.2	317					-	
7/01/23 18:00	18.7	33	5.0	320					-	
7/01/23 19:00	18.5	34	5.0	320					-	
7/01/23 20:00	18.2	37	5.4	330					-	

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R1	R2	R3	R4	R5	R6
7/01/23 21:00	17.2	43	5.1	330					-	
7/01/23 22:00	16.4	49	4.1	331					28.9	
7/01/23 23:00	14.7	57	5.2	326					-	
7/02/23 0:00	13.2	64	4.9	341					-	
7/02/23 1:00	12.1	67	4.4	345					-	
7/02/23 2:00	11.4	72	5.2	341					-	
7/02/23 3:00	10.4	79	5.1	339					-	
7/02/23 4:00	9.7	81	3.2	358					37.4	
7/02/23 5:00	10.7	70	4.3	22					-	
7/02/23 6:00	10.9	71	4.9	25					-	
7/02/23 7:00	11.1	72	5.3	28					-	
7/02/23 8:00	11.8	64	4.1	29					38.7	
7/02/23 9:00	12.5	57	4.1	27					36.7	
7/02/23 10:00	12.6	57	4.2	40					-	
7/02/23 11:00	12.9	52	4.2	37					-	
7/02/23 12:00	13.7	48	3.8	29					34.4	
7/02/23 13:00	14.0	44	4.1	34					42.8	
7/02/23 14:00	14.1	43	5.0	24					-	
7/02/23 15:00	14.1	42	5.7	26					-	
7/02/23 16:00	14.2	40	6.5	26					-	
7/02/23 17:00	14.3	42	6.6	26					-	
7/02/23 18:00	14.2	45	7.0	27					-	
7/02/23 19:00	13.7	44	7.4	36					-	
7/02/23 20:00	13.5	41	6.4	39					-	
7/02/23 21:00	13.4	42	5.8	35					-	
7/02/23 22:00	13.0	42	6.9	37					-	
7/02/23 23:00	12.7	44	5.5	33					-	
7/03/23 0:00	12.1	48	5.2	28					-	
7/03/23 1:00	11.4	53	5.2	23					-	
7/03/23 2:00	9.3	67	5.7	11					-	
7/03/23 3:00	8.6	71	5.9	15					-	
7/03/23 4:00	8.5	75	5.6	18					-	
7/03/23 5:00	8.2	78	4.9	22					-	
7/03/23 6:00	8.6	76	3.6	21					31.8	
7/03/23 7:00	9.3	73	3.2	19					34.1	
7/03/23 8:00	10.2	65	3.2	41					37.4	
7/03/23 9:00	11.1	59	3.1	24					35.5	
7/03/23 10:00	11.5	58	3.6	30					41.8	
7/03/23 11:00	12.0	54	3.9	21					43.7	

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R1	R2	R3	R4	R5	R6
7/03/23 12:00	12.8	46	4.0	9					37.8	
7/03/23 13:00	13.1	44	4.6	0					-	
7/03/23 14:00	13.6	40	4.2	4					-	
7/03/23 15:00	14.3	40	5.2	20					-	
7/03/23 16:00	14.7	35	5.2	5					-	
7/09/23 12:00	11.1	69	6.0	32		-				
7/09/23 13:00	11.4	62	6.5	19		-				
7/09/23 14:00	11.7	61	6.6	29		-				
7/09/23 15:00	12.0	61	6.7	42		-				
7/09/23 16:00	12.5	57	6.5	46		-				
7/09/23 17:00	13.5	54	6.8	46		-				
7/09/23 18:00	14.0	54	7.1	55		-				
7/09/23 19:00	14.0	57	6.9	62		-				
7/09/23 20:00	13.5	60	6.9	57		-				
7/09/23 21:00	13.3	61	6.6	46		-				
7/09/23 22:00	13.1	64	6.4	48		-				
7/09/23 23:00	12.5	71	5.6	43		-				
7/10/23 0:00	11.8	75	5.1	39		-				
7/10/23 1:00	11.1	81	5.5	47		-				
7/10/23 2:00	10.2	93	4.4	47		-				
7/10/23 3:00	9.6	100	4.5	39		-				
7/10/23 4:00	9.7	100	4.4	55		-				
7/10/23 5:00	9.4	100	4.2	40		-				
7/10/23 6:00	9.5	100	3.9	41		29.4				
7/10/23 7:00	9.9	100	2.9	45		27.4				
7/10/23 8:00	11.4	100	2.3	51		39.4				
7/10/23 9:00	12.7	96	1.9	36		27.9				
7/10/23 10:00	13.3	90	2.3	38		30.8				
7/10/23 11:00	14.4	81	2.3	25		44.0				
7/10/23 12:00	15.6	80	1.9	42		25.0				
7/10/23 13:00	16.6	79	1.9	52		54.2				
7/10/23 14:00	17.3	71	2.4	32		26.9				
7/10/23 15:00	18.1	70	1.9	22		44.6				
7/10/23 16:00	18.7	70	2.2	276		30.8				
7/10/23 17:00	19.2	67	2.3	291		23.6				
7/10/23 18:00	19.6	60	2.2	344		22.3				
7/10/23 19:00	19.9	60	1.5	19		21.9				
7/10/23 20:00	19.5	60	2.1	193		22.0				

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R1	R2	R3	R4	R5	R6
7/10/23 21:00	18.9	62	1.7	218		28.6				
7/10/23 22:00	18.2	62	1.4	248		27.1				
7/10/23 23:00	16.8	60	0.6	205		29.3				
7/11/23 0:00	15.7	64	1.2	285		40.2				
7/11/23 1:00	14.5	66	2.3	292		50.3				
7/11/23 2:00	14.2	71	3.7	342		52.0				
7/11/23 3:00	15.0	71	3.3	49		53.2				
7/11/23 4:00	13.9	75	3.5	59		51.8				
7/11/23 5:00	13.1	80	3.6	53		37.2				
7/11/23 6:00	12.4	85	3.7	59		32.3				
7/11/23 7:00	12.6	94	3.3	53		38.5				
7/11/23 8:00	13.8	89	3.4	85		28.7				
7/11/23 9:00	14.4	86	3.5	98		46.7				
7/11/23 10:00	15.0	83	3.1	98		42.1				
7/11/23 11:00	15.8	78	3.4	60		52.5				
7/11/23 12:00	16.5	65	4.0	35		49.7				
7/11/23 13:00	17.3	63	4.4	52		-				
7/11/23 14:00	17.8	58	4.2	48		-				
7/11/23 15:00	18.5	54	4.3	44		-				
7/17/23 10:00	18.4	100	3.0	250				-		
7/17/23 11:00	20.7	100	2.7	256				37.7		
7/17/23 12:00	22.3	90	4.1	253				33.5		
7/17/23 13:00	23.4	83	5.4	251				-		
7/17/23 14:00	23.9	60	5.5	258				-		
7/17/23 15:00	23.1	68	5.9	282				-		
7/17/23 16:00	23.6	71	5.7	278				-		
7/17/23 17:00	23.3	71	5.8	281				-		
7/17/23 18:00	23.9	67	5.8	302				-		
7/17/23 19:00	24.3	60	5.8	305				-		
7/17/23 20:00	23.8	44	5.1	304				-		
7/17/23 21:00	22.6	49	4.2	303				-		
7/17/23 22:00	21.9	49	4.1	317				28.4		
7/17/23 23:00	21.2	53	3.8	338				25.2		
7/18/23 0:00	18.3	64	1.6	331				21.1		
7/18/23 1:00	17.3	66	2.0	308				23.1		
7/18/23 2:00	16.8	68	1.9	323				27.2		
7/18/23 3:00	15.0	82	2.6	293				26.9		
7/18/23 4:00	14.4	77	2.6	304				35.5		

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R1	R2	R3	R4	R5	R6
7/18/23 5:00	15.1	86	2.2	325				36.1		
7/18/23 6:00	15.2	96	3.1	322				37.2		
7/18/23 7:00	14.8	100	5.1	311				-		
7/18/23 8:00	15.0	100	4.3	317				-		
7/18/23 9:00	16.0	100	6.2	334				-		
7/18/23 10:00	16.9	90	6.7	341				-		
7/18/23 11:00	18.1	79	6.2	351				-		
7/18/23 12:00	19.1	56	7.1	352				-		
7/18/23 13:00	19.7	48	7.3	1				-		
7/18/23 14:00	20.0	45	7.6	3				-		
7/18/23 15:00	20.3	39	7.3	2				-		
7/18/23 16:00	20.5	38	7.6	356				-		
7/18/23 17:00	20.1	42	7.7	1				-		
7/18/23 18:00	20.1	43	7.4	357				-		
7/18/23 19:00	19.7	45	8.5	345				-		
7/18/23 20:00	18.8	44	7.8	358				-		
7/18/23 21:00	17.7	38	7.7	3				-		
7/18/23 22:00	16.5	42	7.2	3				-		
7/18/23 23:00	14.9	51	5.8	351				-		
7/19/23 0:00	13.1	59	4.9	337				-		
7/19/23 1:00	12.0	69	5.0	336				-		
7/19/23 2:00	11.5	83	4.1	340				29.5		
7/19/23 3:00	10.9	90	4.8	354				-		
7/19/23 4:00	10.2	96	5.4	352				-		
7/19/23 5:00	9.8	100	5.1	348				-		
7/19/23 6:00	10.2	99	5.1	356				-		
7/19/23 7:00	10.7	93	7.0	1				-		
7/19/23 8:00	11.3	91	7.1	5				-		
7/19/23 9:00	11.9	88	7.4	3				-		
7/19/23 10:00	12.8	78	8.0	357				-		
7/19/23 11:00	13.9	69	7.5	5				-		
7/19/23 12:00	15.1	70	7.8	356				-		
7/19/23 13:00	16.2	69	7.8	359				-		
7/19/23 14:00	16.7	65	7.7	340				-		
7/19/23 15:00	17.6	60	8.4	336				-		
7/19/23 16:00	18.1	56	8.4	333				-		
7/19/23 17:00	18.5	56	8.9	331				-		
7/19/23 18:00	18.6	57	8.7	325				-		
7/19/23 19:00	18.3	59	8.3	320				-		

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R1	R2	R3	R4	R5	R6
7/19/23 20:00	17.9	61	7.7	324				-		
7/19/23 21:00	17.8	61	8.0	325				-		
7/19/23 22:00	16.8	66	6.6	328				-		
7/19/23 23:00	15.5	69	4.8	329				-		
7/24/23 14:00	16.2	58	6.6	47						-
7/24/23 15:00	16.2	56	5.5	30						-
7/24/23 16:00	16.9	51	5.0	24						-
7/24/23 17:00	18.2	46	5.8	17						-
7/24/23 18:00	18.6	44	5.9	19						-
7/24/23 19:00	18.8	44	5.6	27						-
7/24/23 20:00	18.7	45	4.4	26						-
7/24/23 21:00	18.7	48	3.7	43						23.0
7/24/23 22:00	17.9	53	3.8	40						22.4
7/24/23 23:00	16.9	56	3.9	37						25.1
7/25/23 0:00	15.9	63	4.0	18						22.2
7/25/23 1:00	14.4	69	4.4	11						-
7/25/23 2:00	13.0	75	4.4	0						-
7/25/23 3:00	12.7	77	5.3	8						-
7/25/23 4:00	12.7	75	5.2	13						-
7/25/23 5:00	12.6	76	5.1	21						-
7/25/23 6:00	12.4	75	4.9	19						-
7/25/23 7:00	12.4	75	4.2	15						-
7/25/23 8:00	13.2	71	4.2	23						-
7/25/23 9:00	14.5	61	5.0	39						-
7/25/23 10:00	15.4	58	5.5	51						-
7/25/23 11:00	16.0	57	5.4	44						-
7/25/23 12:00	16.5	56	4.8	54						-
7/25/23 13:00	17.2	54	4.7	57			-			-
7/25/23 14:00	17.9	52	4.0	49			47.7			41.3
7/25/23 15:00	18.7	50	4.2	49			34.9			40.8
7/25/23 16:00	19.1	47	4.5	45			30.5			-
7/25/23 17:00	19.0	45	3.7	42			34.0			35.3
7/25/23 18:00	19.8	41	4.0	28			32.8			34.8
7/25/23 19:00	20.3	38	4.2	56			31.3			-
7/25/23 20:00	20.3	38	4.4	54			28.5			-
7/25/23 21:00	19.9	39	4.5	45			25.4			-
7/25/23 22:00	19.4	40	3.2	27			28.2			22.6
7/25/23 23:00	18.3	48	2.1	5			30.0			20.4

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R1	R2	R3	R4	R5	R6
7/26/23 0:00	17.0	49	2.7	8			26.3			19.9
7/26/23 1:00	15.6	58	3.6	356			26.4			21.0
7/26/23 2:00	14.8	58	4.2	10			27.4			-
7/26/23 3:00	14.2	64	4.3	10			28.7			-
7/26/23 4:00	13.7	64	4.6	6			25.0			-
7/26/23 5:00	12.9	69	2.9	359			24.9			29.2
7/26/23 6:00	12.8	70	2.7	24			28.6			35.0
7/26/23 7:00	13.0	66	5.1	39			27.4			-
7/26/23 8:00	13.7	62	4.5	50			32.2			-
7/26/23 9:00	14.5	59	4.0	28			33.8			37.2
7/26/23 10:00	15.2	53	4.4	26			34.8			-
7/26/23 11:00	16.5	47	4.2	26			53.0			-
7/26/23 12:00	16.9	43	4.4	30			37.8			-
7/26/23 13:00	17.8	37	4.9	34			39.9			-
7/26/23 14:00	18.4	34	5.9	37			38.5			-
7/26/23 15:00	18.8	33	5.2	26			41.0			-
7/26/23 16:00	19.3	32	5.6	24			39.4			-
7/26/23 17:00	19.5	31	5.4	34			36.0			-
7/26/23 18:00	19.8	30	5.4	21			42.7			-
7/26/23 19:00	19.5	39	6.6	10			44.1			-
7/26/23 20:00	18.8	41	7.7	7			42.1			-
7/26/23 21:00	18.0	42	7.1	6			37.9			-
7/26/23 22:00	17.4	48	5.7	5			38.0			-
7/26/23 23:00	16.3	55	5.6	8			39.6			-
7/27/23 0:00	15.5	60	5.7	7			36.4			-
7/27/23 1:00	15.0	62	5.5	6			39.2			-
7/27/23 2:00	14.5	65	5.1	357			35.1			-
7/27/23 3:00	14.0	74	5.1	350			32.9			-
7/27/23 4:00	13.5	79	5.5	325			34.2			-
7/27/23 5:00	13.4	83	6.3	327			33.8			-
7/27/23 6:00	13.2	84	6.5	336			32.2			-
7/27/23 7:00	13.0	83	6.0	329			34.7			-
7/27/23 8:00	12.7	84	6.1	318			40.6			-
7/27/23 9:00	13.8	65	7.2	324			43.9			-
7/27/23 10:00	15.0	58	8.1	325			48.2			-
7/27/23 11:00	16.0	58	8.9	323			-			-
7/27/23 12:00	17.3	54	8.7	344						-
7/27/23 13:00	18.3	51	8.5	340						-
7/27/23 14:00	19.6	51	8.2	348						-

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R1	R2	R3	R4	R5	R6
7/27/23 15:00	20.1	46	8.5	337						-
8/02/23 13:00	20.9	40	4.5	8	-					
8/02/23 14:00	22.1	36	3.6	359	49.8					
8/02/23 15:00	22.9	34	2.7	17	46.6					
8/02/23 16:00	23.4	33	3.0	326	47.3					
8/02/23 17:00	23.4	33	3.1	323	43.6					
8/02/23 18:00	23.5	33	3.5	319	26.2					
8/02/23 19:00	23.3	34	3.1	307	26.4					
8/02/23 20:00	22.7	33	3.3	303	27.5					
8/02/23 21:00	22.5	32	4.7	333	-					
8/02/23 22:00	20.9	38	4.5	340	-					
8/02/23 23:00	19.1	40	4.2	342	25.3					
8/03/23 0:00	17.9	41	2.8	1	26.4					
8/03/23 1:00	17.2	39	3.5	358	28.6					
8/03/23 2:00	16.5	54	3.3	360	27.4					
8/03/23 3:00	15.4	64	3.1	346	30.8					
8/03/23 4:00	14.4	73	2.3	310	31.6					
8/03/23 5:00	13.7	75	2.8	322	32.0					
8/03/23 6:00	13.9	77	2.2	331	46.0					
8/03/23 7:00	14.9	80	2.4	332	50.1					
8/03/23 8:00	15.9	67	2.8	337	50.7					
8/03/23 9:00	17.7	59	3.4	4	49.0					
8/03/23 10:00	19.3	50	3.3	5	50.0					
8/03/23 11:00	20.1	48	3.0	10	49.8					
8/03/23 12:00	20.9	45	2.6	348	45.3					
8/03/23 13:00	21.6	44	2.5	320	42.8					
8/03/23 14:00	21.9	39	2.8	299	36.8					
8/03/23 15:00	22.5	36	2.6	309	43.5					
8/03/23 16:00	22.8	38	2.4	288	26.7					
8/03/23 17:00	23.2	35	2.6	294	24.6					
8/03/23 18:00	23.5	33	2.3	290	43.7					
8/03/23 19:00	23.6	33	2.4	314	24.8					
8/03/23 20:00	23.5	33	2.0	311	30.8					
8/03/23 21:00	23.3	35	1.8	321	26.2					
8/03/23 22:00	22.6	37	1.5	331	28.6					
8/03/23 23:00	20.2	53	0.7	2	28.8					
8/04/23 0:00	18.3	63	0.3	199	28.6					
8/04/23 1:00	17.3	63	0.6	177	33.7					

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R1	R2	R3	R4	R5	R6
8/04/23 2:00	17.1	61	0.4	170	35.9					
8/04/23 3:00	17.2	62	0.1	141	33.5					
8/04/23 4:00	16.6	68	0.3	11	28.8					
8/04/23 5:00	15.5	83	1.1	134	33.2					
8/04/23 6:00	15.4	82	0.8	169	41.9					
8/04/23 7:00	15.1	75	1.3	173	45.1					
8/04/23 8:00	15.9	72	1.6	180	42.9					
8/04/23 9:00	17.9	53	0.8	152	46.3					
8/04/23 10:00	19.8	42	1.2	163	44.5					
8/04/23 11:00	21.1	34	3.2	189	30.4					
8/04/23 12:00	21.9	35	3.5	195	31.8					
8/04/23 13:00	22.8	32	3.8	190	37.2					
8/04/23 14:00	23.9	29	3.8	223	40.5					
8/04/23 15:00	24.7	27	4.0	228	35.0					
8/04/23 16:00	25.2	28	4.7	238	-					
8/04/23 17:00	25.1	31	4.9	228	-					
8/04/23 18:00	25.1	26	4.4	221	-					
8/04/23 19:00	25.2	27	3.9	243	27.1					
8/04/23 20:00	24.3	35	3.3	261	26.7					
8/04/23 21:00	23.4	33	2.2	264	28.5					
8/04/23 22:00	22.4	46	3.1	288	25.9					
8/04/23 23:00	20.8	53	3.6	357	26.7					
8/05/23 0:00	19.6	59	3.6	5	28.6					
8/05/23 1:00	18.3	71	3.2	337	31.9					
8/05/23 2:00	17.4	81	3.6	321	29.6					
8/05/23 3:00	17.5	87	4.5	3	26.8					
8/05/23 4:00	16.9	86	3.6	11	29.2					
8/05/23 5:00	16.4	88	2.5	12	25.9					
8/05/23 6:00	16.3	92	2.9	15	43.1					
8/05/23 7:00	16.0	93	2.8	7	32.8					
8/05/23 8:00	16.1	93	4.6	346	37.1					
8/05/23 9:00	16.0	92	5.1	8	-					
8/08/23 10:00	17.0	63	1.1	63		-			-	
8/08/23 11:00	17.7	58	1.7	15		31.9			27.6	
8/08/23 12:00	18.6	44	1.9	0		46.7			30.7	
8/08/23 13:00	19.1	37	2.5	30		38.1			31.9	
8/08/23 14:00	19.7	35	3.2	1		50.4			34.8	
8/08/23 15:00	20.0	35	3.3	325		59.5			61.6	

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R1	R2	R3	R4	R5	R6
8/08/23 16:00	20.3	32	3.5	318		59.6			57.7	
8/08/23 18:00	20.9	21	3.8	317		31.7			26.8	
8/08/23 19:00	21.1	20	4.0	323		49.3			27.1	
8/08/23 20:00	20.8	24	3.6	327		27.5			32.3	
8/08/23 21:00	20.0	31	3.3	333		27.4			34.7	
8/08/23 22:00	18.7	36	3.1	345		28.2			28.4	
8/08/23 23:00	17.1	44	3.2	354		24.3			29.0	
8/09/23 0:00	16.0	48	2.9	7		25.3			28.1	
8/09/23 1:00	15.6	50	3.0	8		27.7			31.2	
8/09/23 2:00	14.5	60	2.4	346		31.8			33.8	
8/09/23 3:00	13.3	59	2.0	313		32.2			36.9	
8/09/23 4:00	12.8	66	2.2	325		32.3			29.5	
8/09/23 5:00	12.3	69	2.5	312		27.7			34.7	
8/09/23 6:00	12.2	84	1.5	307		28.7			34.5	
8/09/23 7:00	12.6	74	2.2	307		47.6			56.3	
8/09/23 8:00	13.5	60	2.6	300		48.9			39.5	
8/09/23 9:00	15.4	51	4.2	318		41.6			39.8	
8/09/23 10:00	16.4	49	5.7	327		-			-	
8/09/23 11:00	17.6	42	5.4	344		-			-	
8/09/23 12:00	18.4	34	5.0	4		-			-	
8/09/23 13:00	19.1	29	3.8	6		62.2			55.0	
8/09/23 14:00	19.7	27	3.5	354		36.9			33.9	
8/09/23 15:00	20.1	29	4.0	356		31.5			31.1	
8/09/23 16:00	20.4	31	3.7	338		41.2			34.9	
8/09/23 17:00	20.6	35	3.6	308		35.9			32.5	
8/09/23 18:00	20.9	31	3.6	308		36.9			26.7	
8/09/23 19:00	21.0	33	3.0	320		49.9			31.4	
8/09/23 20:00	20.5	39	1.5	271		26.3			46.2	
8/09/23 21:00	19.0	52	1.2	207		22.8			29.6	
8/09/23 22:00	18.3	55	1.7	246		27.1			30.9	
8/09/23 23:00	17.6	64	1.5	246		22.3			28.4	
8/10/23 0:00	16.9	67	1.6	279		22.6			32.0	
8/10/23 1:00	16.1	82	2.5	303		27.7			33.8	
8/10/23 2:00	14.9	80	1.6	284		25.4			34.9	
8/10/23 3:00	15.1	83	1.7	280		27.5			35.3	
8/10/23 4:00	15.4	83	2.7	294		27.2			31.3	
8/10/23 5:00	14.9	97	3.4	285		30.6			35.2	
8/10/23 6:00	14.9	89	3.1	257		33.4			35.1	
8/10/23 7:00	14.5	90	3.0	259		43.9			34.6	

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R1	R2	R3	R4	R5	R6
8/10/23 8:00	14.7	88	2.5	249		37.6			38.4	
8/10/23 9:00	16.1	80	2.1	237		-			39.9	
8/10/23 10:00	16.5	77	2.6	259					38.5	
8/11/23 10:00	18.3	75	2.0	248				-		
8/11/23 11:00	16.8	77	2.6	197				30.8		
8/11/23 12:00	17.9	72	2.1	175				29.8		
8/11/23 13:00	19.1	61	1.6	177				44.5		
8/11/23 14:00	20.2	51	3.7	184				29.9		
8/11/23 15:00	20.3	51	2.8	162				27.4		-
8/11/23 16:00	21.7	42	1.7	137				23.1		21.4
8/11/23 17:00	22.7	41	0.8	303				35.0		36.6
8/11/23 18:00	22.8	39	0.6	305				44.1		41.3
8/11/23 19:00	21.4	54	3.0	260				28.1		28.1
8/11/23 20:00	20.3	59	2.6	251				31.9		36.2
8/11/23 21:00	19.0	68	2.3	163				34.1		38.1
8/11/23 22:00	18.2	69	2.2	164				-		39.8
8/11/23 23:00	17.5	65	4.2	166				-		-
8/12/23 0:00	17.0	64	5.0	183				-		-
8/12/23 1:00	18.3	47	6.3	180				44.8		-
8/12/23 2:00	18.6	67	4.1	157				-		39.0
8/12/23 3:00	15.7	84	4.7	157				33.8		-
8/12/23 4:00	14.8	79	3.5	169				33.1		36.8
8/12/23 5:00	14.7	87	2.6	134				35.8		40.5
8/12/23 6:00	14.2	90	3.7	146				-		44.9
8/12/23 7:00	14.5	88	5.2	154				-		-
8/12/23 8:00	15.0	90	5.9	168				36.3		-
8/12/23 9:00	15.6	76	4.1	168				-		44.6
8/12/23 10:00	17.3	64	4.7	167				-		-
8/12/23 11:00	18.6	62	4.6	183				-		-
8/12/23 12:00	19.7	57	4.6	187				-		-
8/12/23 13:00	20.9	52	5.4	189				-		-
8/12/23 14:00	21.8	49	4.8	191				45.5		-
8/12/23 15:00	22.4	47	3.8	192				-		44.8
8/12/23 16:00	21.3	52	6.5	170				-		-
8/12/23 17:00	20.9	42	7.7	152				-		-
8/12/23 18:00	21.1	50	6.9	149				-		-
8/12/23 19:00	20.5	51	5.5	159				-		-
8/12/23 20:00	20.0	59	5.9	171				48.2		-

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R1	R2	R3	R4	R5	R6
8/12/23 21:00	19.5	58	2.5	117				36.6		38.8
8/12/23 22:00	18.4	67	2.7	109				36.7		37.3
8/12/23 23:00	16.6	85	3.7	170				-		37.5
8/13/23 0:00	15.9	84	4.2	190				-		-
8/13/23 1:00	15.8	82	4.3	194				34.1		-
8/13/23 2:00	15.3	86	3.3	194				33.8		37.4
8/13/23 3:00	14.9	89	2.2	188				31.0		34.1
8/13/23 4:00	14.7	92	2.4	187				36.1		37.9
8/13/23 5:00	14.3	95	3.5	189				34.2		38.9
8/13/23 6:00	14.0	96	3.8	187				-		42.3
8/13/23 7:00	14.2	95	4.6	186				-		-
8/13/23 8:00	14.7	89	5.6	187				-		-
8/13/23 9:00	15.9	83	5.9	184				-		-
8/13/23 10:00	17.3	75	6.6	183				-		-
8/13/23 11:00	19.2	60	6.5	182				-		-
8/13/23 12:00	20.5	58	8.3	185						-
8/13/23 13:00	21.0	54	8.3	192						-
8/13/23 14:00	21.2	49	8.6	194						-
8/13/23 15:00	21.3	51	8.7	200						-
8/15/23 10:00	11.6	75	5.7	205			-			
8/15/23 11:00	12.6	64	6.7	217			-			
8/15/23 12:00	12.9	56	7.9	231			-			
8/15/23 13:00	13.1	56	8.6	229			-			
8/15/23 14:00	13.7	54	8.1	229			-			
8/15/23 15:00	13.8	52	8.0	230			-			
8/15/23 16:00	14.1	55	8.8	230			-			
8/15/23 17:00	13.0	57	8.1	237			-			
8/15/23 18:00	12.8	61	8.2	243			-			
8/15/23 19:00	11.9	68	7.5	247			-			
8/15/23 20:00	11.8	65	7.3	248			-			
8/15/23 21:00	11.3	77	7.3	241			-			
8/15/23 22:00	10.5	83	6.3	237			-			
8/15/23 23:00	10.4	86	5.6	237			-			
8/16/23 0:00	10.3	85	5.2	251			-			
8/16/23 1:00	10.0	87	5.3	252			-			
8/16/23 2:00	9.6	90	6.1	247			-			
8/16/23 3:00	8.9	97	6.0	246			-			
8/16/23 4:00	8.5	100	6.1	259			-			

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R1	R2	R3	R4	R5	R6
8/16/23 5:00	8.2	97	5.4	261			-			
8/16/23 6:00	7.9	98	5.7	270			-			
8/16/23 7:00	8.0	92	5.9	287			-			
8/16/23 8:00	8.3	89	5.3	301			-			
8/16/23 9:00	8.1	87	5.9	292			-			
8/16/23 10:00	8.7	82	5.5	280			-			
8/16/23 11:00	9.1	78	5.6	284			-			
8/16/23 12:00	9.7	76	5.8	289			-			
8/16/23 13:00	10.7	72	5.5	280			-			
8/16/23 14:00	11.1	72	5.4	281			-			
8/16/23 15:00	12.0	62	5.6	292			-			
8/16/23 16:00	12.6	59	5.4	280			-			
8/16/23 17:00	12.8	63	5.9	291			-			
8/16/23 18:00	12.8	61	5.9	291			-			
8/16/23 19:00	12.5	61	5.4	286			-			
8/16/23 20:00	12.3	62	5.8	280			-			
8/16/23 21:00	12.1	64	5.2	276			-			
8/16/23 22:00	11.9	64	4.7	268			-			
8/16/23 23:00	11.7	69	4.5	303			-			
8/17/23 0:00	11.2	63	3.7	302			25.2			
8/17/23 1:00	11.2	63	4.5	285			-			
8/17/23 2:00	11.2	65	3.7	278			23.3			
8/17/23 3:00	10.9	61	3.2	271			23.0			
8/17/23 4:00	11.0	62	3.4	277			24.5			
8/17/23 5:00	11.0	60	2.6	277			24.2			
8/17/23 6:00	10.8	66	2.7	287			27.8			
8/17/23 7:00	10.1	84	2.7	290			28.1			
8/17/23 8:00	10.2	71	1.9	264			-			
9/06/23 10:00	1.2	89	2.0	283	-					
9/06/23 11:00	1.3	86	1.6	325	33.1					
9/06/23 12:00	1.6	88	1.5	273	38.4					
9/06/23 13:00	2.3	84	1.5	188	38.2					
9/06/23 14:00	2.7	78	0.9	299	40.6					
9/06/23 15:00	3.8	69	1.1	167	34.5					
9/06/23 16:00	4.6	71	1.7	125	42.6		-			
9/06/23 17:00	5.0	66	3.2	92	41.2		42.8			
9/06/23 18:00	5.7	71	3.2	135	46.0		25.9			
9/06/23 19:00	5.3	67	4.1	105	36.3		29.8			

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R1	R2	R3	R4	R5	R6
9/06/23 20:00	5.5	67	4.1	138	35.6		30.9			
9/06/23 21:00	5.4	69	4.5	121	-		-			
9/06/23 22:00	5.3	73	4.8	118	-		-			
9/06/23 23:00	5.1	76	6.2	113	-		-			
9/07/23 0:00	5.2	78	6.9	113	-		-			
9/07/23 1:00	5.4	78	7.0	115	-		-			
9/07/23 2:00	5.5	81	7.5	127	-		-			
9/07/23 3:00	5.4	88	6.3	123	-		-			
9/07/23 4:00	5.5	97	4.7	121	-		-			
9/07/23 5:00	5.8	100	4.4	121	-		-			
9/07/23 6:00	6.2	100	4.0	133	37.6		26.7			
9/07/23 7:00	6.1	100	3.6	148	37.9		33.8			
9/07/23 8:00	6.1	100	3.7	179	37.5		35.8			
9/07/23 9:00	6.1	97	3.2	208	40.9		25.9			
9/07/23 10:00	5.8	100	2.5	214	50.0		53.1			
9/07/23 11:00	5.6	100	3.1	204	35.0		34.9			
9/07/23 12:00	5.8	100	3.9	216	31.3		31.7			
9/07/23 13:00	6.8	90	4.3	224	-		-			
9/07/23 14:00	8.2	77	4.8	228	-		-			
9/07/23 15:00	8.9	69	5.0	231	-		-			
9/07/23 16:00	9.4	72	4.6	223	-		-			
9/07/23 17:00	9.8	57	3.8	222	29.4		27.7			
9/07/23 18:00	10.2	60	3.5	213	28.8		28.4			
9/07/23 19:00	9.7	66	3.2	226	36.5		30.8			
9/07/23 20:00	9.5	74	1.4	226	31.9		33.3			
9/07/23 21:00	9.0	76	0.4	182	35.3		34.1			
9/07/23 22:00	8.7	80	0.6	139	43.3		30.7			
9/07/23 23:00	8.2	88	1.5	99	40.1		31.7			
9/08/23 0:00	7.9	89	2.1	102	37.5		31.7			
9/08/23 1:00	8.0	93	1.8	144	39.9		38.2			
9/08/23 2:00	7.5	96	1.3	150	33.7		37.6			
9/08/23 3:00	7.0	96	2.9	166	26.1		38.5			
9/08/23 4:00	6.8	100	2.2	159	33.3		41.2			
9/08/23 5:00	6.5	100	2.3	161	35.1		36.6			
9/08/23 6:00	6.0	100	4.0	174	36.5		35.7			
9/08/23 7:00	5.6	100	5.1	170	-		-			
9/08/23 8:00	5.3	100	6.7	172	-		-			
9/08/23 9:00	5.4	100	6.1	166	-		-			
9/08/23 10:00	5.7	100	6.2	165	-		-			

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R1	R2	R3	R4	R5	R6
9/08/23 11:00	5.8	100	5.9	167	-		-			
9/08/23 12:00	6.3	100	6.7	169	-		-			
9/08/23 13:00	6.9	100	6.9	164	-		-			
9/08/23 14:00	7.5	95	6.6	163	-		-			
9/08/23 15:00	7.9	90	5.3	169	-		-			
9/08/23 16:00	8.2	84	5.4	182	-		-			
9/08/23 17:00	8.8	79	5.0	181			-			
9/08/23 18:00	9.1	76	3.9	178			26.8			
9/08/23 19:00	9.2	77	4.2	171			-			
9/08/23 20:00	8.8	78	4.6	167			-			
9/08/23 21:00	7.7	89	3.5	168			33.0			
9/08/23 22:00	6.9	89	3.6	164			32.8			
9/08/23 23:00	6.7	100	4.5	156			-			
9/09/23 0:00	6.2	100	4.6	160			-			
9/09/23 1:00	5.8	100	5.5	177			-			
9/09/23 2:00	5.1	100	5.2	178			-			
9/09/23 3:00	5.0	100	4.8	172			-			
9/09/23 4:00	4.7	100	4.2	171			-			
9/09/23 5:00	4.5	100	4.3	173			-			
9/09/23 6:00	4.4	100	4.9	175			-			
9/09/23 7:00	4.5	100	5.6	177			-			
9/09/23 8:00	5.0	100	5.9	177			-			
9/09/23 9:00	5.8	100	5.7	162			-			

App. Table 2. Average hourly air temperature, relative humidity, wind speed, and wind direction for the Whale Tail Mine weather station and valid calculated 1-h L_{eq} values for Whale Tail Mine stations R7 – R11. Those filtered out from analyses based on unacceptable weather conditions and set up/take down are excluded (-). Values excluded from subsequent calculations after secondary filtering, as explained in Section 2.4, are in italics.

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R7	R8	R9	R10	R11	R12
6/28/23 16:00	17.0	30	1.3	187		-				
6/28/23 17:00	17.2	31	1.3	126		28.0				
6/28/23 18:00	16.9	31	1.6	37		25.6				
6/28/23 19:00	17.2	32	1.2	106		26.3				
6/28/23 20:00	17.1	32	1.5	312		24.3				
6/28/23 21:00	17.1	32	0.8	33		24.1				
6/28/23 22:00	16.4	35	1.2	57		23.2				
6/28/23 23:00	15.6	38	2.4	59		20.4				

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R7	R8	R9	R10	R11	R12
6/29/23 0:00	14.3	46	3.8	63		25.1				
6/29/23 1:00	12.9	52	3.8	68		26.3				
6/29/23 2:00	11.6	56	3.6	72		37.1				
6/29/23 3:00	10.7	60	3.4	74		37.2				
6/29/23 4:00	10.5	61	3.1	70		36.1				
6/29/23 5:00	10.5	60	3.1	52		34.8				
6/29/23 6:00	11.2	59	2.9	72		33.1				
6/29/23 7:00	14.1	52	1.5	75		31.3				
6/29/23 8:00	14.4	53	1.3	46		26.1				
6/29/23 9:00	16.2	45	1.3	60		23.0				
6/29/23 10:00	16.6	40	1.4	56		29.5				
6/29/23 11:00	17.8	35	1.3	51		23.1				
6/29/23 12:00	18.4	33	1.6	62		22.8				
6/29/23 13:00	19.8	31	1.4	344		22.4				
6/29/23 14:00	19.0	32	1.5	73		23.6				
6/29/23 15:00	19.4	32	1.6	80		26.6				
6/29/23 16:00	19.7	31	1.6	64		26.0				
6/29/23 17:00	20.0	31	1.3	49		22.3				
6/29/23 18:00	19.7	31	1.9	318		25.8				
6/29/23 19:00	19.0	33	2.3	301		23.5				
6/29/23 20:00	20.3	31	1.9	300		23.5				
6/29/23 21:00	19.4	33	0.6	284		26.6				
6/29/23 22:00	17.6	48	1.4	190		28.7				
6/29/23 23:00	16.7	47	2.6	61		25.3				
6/30/23 0:00	15.3	48	4.9	65		-				
6/30/23 1:00	14.0	49	3.2	64		34.4				
6/30/23 2:00	13.4	50	4.2	61		-				
6/30/23 3:00	13.0	54	5.3	61		-				
6/30/23 4:00	12.6	60	5.3	61		-				
6/30/23 5:00	12.7	63	3.8	67		36.2				
6/30/23 6:00	13.5	59	3.0	60		35.8				
6/30/23 7:00	14.2	58	2.1	60		41.0				
6/30/23 8:00	14.9	54	4.2	66		-				
6/30/23 9:00	15.6	52	5.1	61		-				
6/30/23 10:00	16.0	47	4.6	64		-				
6/30/23 11:00	17.1	43	3.5	64		38.2				
6/30/23 12:00	18.2	38	2.8	62		38.5				
6/30/23 13:00	18.4	36	4.0	69		33.3				
6/30/23 14:00	19.1	35	2.3	56		36.6				

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R7	R8	R9	R10	R11	R12
6/30/23 15:00	19.5	32	2.5	64		34.8				
6/30/23 16:00	19.8	29	2.9	58		41.7				
6/30/23 17:00	20.0	28	3.0	59		44.7				
6/30/23 18:00	20.0	30	2.4	51		43.5				
6/30/23 19:00	19.7	29	2.0	54		44.5				
6/30/23 20:00	18.9	28	2.1	44		42.7				
6/30/23 21:00	17.9	31	2.0	53		41.2				
6/30/23 22:00	16.4	41	1.8	50		40.4				
6/30/23 23:00	14.8	52	1.5	53		41.0				
7/01/23 0:00	12.9	61	1.1	42		35.6				
7/01/23 1:00	11.5	64	1.9	49		38.0				
7/01/23 2:00	10.5	66	2.2	45		31.9				
7/01/23 3:00	9.5	72	1.1	26		35.1				
7/01/23 4:00	8.8	73	1.0	329		30.9				
7/01/23 5:00	8.5	67	1.3	19		41.5				
7/01/23 6:00	9.6	67	1.0	351		43.9				
7/01/23 7:00	11.1	66	1.1	14		40.9				
7/01/23 8:00	12.6	63	1.1	33		44.6				
7/01/23 9:00	14.0	59	1.3	339		44.5				
7/01/23 10:00	15.0	53	1.2	306		44.6				
7/01/23 11:00	16.5	45	1.4	315		40.8				
7/01/23 12:00	17.6	41	1.6	305		40.4				
7/01/23 13:00	17.8	37	1.7	315		38.8				
7/01/23 14:00	18.0	35	1.7	320		-				
7/02/23 9:00	10.9	51	3.8	62						-
7/02/23 10:00	11.5	45	3.5	64						*40.1*
7/02/23 11:00	12.4	40	3.1	62						*39.7*
7/02/23 12:00	12.9	39	3.2	63						*38.5*
7/02/23 13:00	12.8	39	4.5	68						-
7/02/23 14:00	12.9	39	5.4	70						-
7/02/23 15:00	13.1	40	5.7	68						-
7/02/23 16:00	13.2	40	6.1	65						-
7/02/23 17:00	13.2	41	6.1	66						-
7/02/23 18:00	12.9	41	6.6	66						-
7/02/23 19:00	12.8	42	6.3	66						-
7/02/23 20:00	12.8	41	5.3	64						-
7/02/23 21:00	12.6	43	4.6	66						-
7/02/23 22:00	12.2	44	4.7	64						-

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R7	R8	R9	R10	R11	R12
7/02/23 23:00	11.3	52	3.3	65						*42.8*
7/03/23 0:00	9.9	58	2.9	65						*37.8*
7/03/23 1:00	8.9	60	2.4	62						31.1
7/03/23 2:00	7.9	65	2.0	63						31.2
7/03/23 3:00	7.1	69	1.3	58						32.3
7/03/23 4:00	6.6	74	1.7	48						31.1
7/03/23 5:00	6.6	75	2.6	64						33.0
7/03/23 6:00	7.4	72	2.2	50						31.8
7/09/23 16:00	12.4	62	7.2	72			-			
7/09/23 17:00	13.3	59	8.2	80			-			
7/09/23 18:00	13.2	63	6.6	75			-			
7/09/23 19:00	13.3	64	7.1	75			-			
7/09/23 20:00	13.3	63	6.6	79			-			
7/09/23 21:00	13.0	65	6.1	86			-			
7/09/23 22:00	12.0	68	6.9	88			-			
7/09/23 23:00	11.0	72	5.4	74			-			
7/10/23 0:00	9.9	77	4.5	73			-			
7/10/23 1:00	9.4	80	4.9	70			-			
7/10/23 2:00	8.9	82	4.7	63			-			
7/10/23 3:00	8.3	84	4.5	66			-			
7/10/23 4:00	7.6	87	3.9	73			41.4			
7/10/23 5:00	7.5	89	3.9	71			40.1			
7/10/23 6:00	8.3	86	3.4	71			40.4			
7/10/23 7:00	10.5	78	2.8	75			36.4			
7/10/23 8:00	12.3	71	1.9	76			36.6			
7/10/23 9:00	13.8	64	1.4	67			38.1			
7/10/23 10:00	14.0	60	1.6	56			35.9			
7/10/23 11:00	16.5	49	1.1	89			37.3			
7/10/23 12:00	17.2	45	1.2	58			37.2			
7/10/23 13:00	17.3	40	1.5	90			34.5			
7/10/23 14:00	17.7	41	1.4	98			31.9			
7/10/23 15:00	18.4	38	1.6	80			30.7			
7/10/23 16:00	19.1	35	1.6	91			28.6			
7/10/23 17:00	19.0	33	1.7	73			32.7			
7/10/23 18:00	19.3	32	1.4	59			35.3			
7/10/23 19:00	19.8	32	1.6	336			27.9			
7/10/23 20:00	19.7	32	1.3	9			30.9			
7/10/23 21:00	19.2	33	0.8	71			31.0			

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R7	R8	R9	R10	R11	R12
7/10/23 22:00	18.6	36	1.1	331			25.3			
7/10/23 23:00	17.0	40	1.3	303			24.8			
7/11/23 0:00	15.7	45	0.8	294			23.3			
7/11/23 1:00	14.2	54	0.8	290			25.0			
7/11/23 2:00	13.7	55	1.5	357			45.7			
7/11/23 3:00	13.7	55	4.1	73			39.7			
7/11/23 4:00	12.8	57	3.2	75			41.3			
7/11/23 5:00	12.4	59	3.0	72			40.7			
7/11/23 6:00	12.1	62	3.3	72			37.6			
7/11/23 7:00	12.3	63	3.1	76			35.4			
7/11/23 8:00	14.8	58	2.5	86			41.5			
7/11/23 9:00	16.7	49	3.4	90			35.0			
7/11/23 10:00	15.9	54	3.3	114			35.5			
7/11/23 11:00	16.5	49	3.1	109			35.7			
7/11/23 12:00	17.6	39	2.9	68			34.8			
7/11/23 13:00	18.2	35	3.4	70			32.4			
7/11/23 14:00	18.6	33	4.2	83			-			
7/14/23 15:00	15.3	73	1.9	58				-		
7/14/23 16:00	16.0	65	2.9	64				31.8	-	
7/14/23 17:00	16.9	53	3.5	87				29.2	28.2	
7/14/23 18:00	17.3	50	2.8	89				28.6	25.1	
7/14/23 19:00	18.0	48	3.0	73				24.8	25.6	
7/14/23 20:00	18.4	45	2.6	86				27.4	26.5	
7/14/23 21:00	18.3	45	3.0	77				27.4	27.2	
7/14/23 22:00	17.7	51	2.3	61				29.0	32.8	
7/14/23 23:00	16.2	64	1.4	60				32.1	34.1	
7/15/23 0:00	14.2	77	2.3	59				33.6	38.3	
7/15/23 1:00	13.1	83	3.4	63				32.1	37.4	
7/15/23 2:00	12.3	87	2.4	45				31.2	37.6	
7/15/23 3:00	11.8	88	2.7	33				32.3	37.7	
7/15/23 4:00	10.9	91	1.5	18				32.9	38.0	
7/15/23 5:00	10.3	94	1.8	15				32.9	32.8	
7/15/23 6:00	10.7	92	1.8	16				33.0	32.0	
7/15/23 7:00	11.2	90	1.4	23				33.9	30.0	
7/15/23 8:00	13.3	82	0.5	106				34.4	29.2	
7/15/23 9:00	13.7	81	0.8	349				33.5	31.0	
7/15/23 10:00	15.2	77	0.9	331				34.0	32.8	
7/15/23 11:00	17.2	69	0.8	9				34.0	33.1	

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R7	R8	R9	R10	R11	R12
7/15/23 12:00	17.9	65	1.4	327				32.5	32.7	
7/15/23 13:00	18.0	63	2.1	312				36.5	34.2	
7/15/23 14:00	17.4	63	3.6	311				36.6	34.8	
7/15/23 15:00	17.4	63	3.6	311				36.1	39.3	
7/15/23 16:00	18.5	60	2.1	320				38.0	39.7	
7/15/23 17:00	18.4	59	1.9	306				35.7	40.1	
7/15/23 18:00	17.5	64	1.6	319				36.7	39.0	
7/15/23 19:00	16.8	66	1.2	306				35.5	40.5	
7/15/23 20:00	16.6	68	1.4	45				36.1	40.0	
7/15/23 21:00	15.4	72	1.0	37				34.8	36.7	
7/15/23 22:00	14.4	76	0.9	1				36.1	41.5	
7/15/23 23:00	13.8	79	1.5	56				35.2	42.2	
7/16/23 0:00	12.9	83	1.2	50				35.6	40.4	
7/16/23 1:00	12.1	86	1.2	56				32.8	37.8	
7/16/23 2:00	11.3	87	2.0	59				31.2	30.7	
7/16/23 3:00	10.7	90	1.8	62				29.3	29.8	
7/16/23 4:00	10.2	91	2.5	65				26.3	31.9	
7/16/23 5:00	10.1	91	1.6	62				27.0	28.3	
7/16/23 6:00	10.7	87	0.7	42				25.2	29.5	
7/16/23 7:00	11.1	86	1.1	56				28.3	40.5	
7/16/23 8:00	12.2	81	0.7	32				31.8	37.7	
7/16/23 9:00	13.5	76	0.9	42				30.8	39.5	
7/16/23 10:00	13.9	74	0.8	317				33.4	41.9	
7/16/23 11:00	14.2	74	1.1	341				33.0	38.4	
7/16/23 12:00	15.3	68	1.2	20				31.9	41.8	
7/16/23 13:00	16.7	61	1.6	0				30.0	42.8	
7/16/23 14:00	18.2	56	1.5	319				-	-	
7/19/23 16:00	18.8	38	1.7	359	-					
7/19/23 17:00	19.0	37	1.8	319	*48.7*					
7/19/23 18:00	19.0	38	2.2	296	*48.5*					
7/19/23 19:00	18.7	40	1.7	302	*47.8*					
7/19/23 20:00	18.4	39	2.5	297	*45.6*					
7/19/23 21:00	17.7	42	1.3	298	37.8					
7/19/23 22:00	16.6	47	0.9	288	33.1					
7/19/23 23:00	15.4	54	1.5	295	34.2					
7/20/23 0:00	14.2	59	2.4	301	34.8					
7/20/23 1:00	13.3	64	2.9	297	31.4					
7/20/23 2:00	12.2	69	3.3	303	33.4					

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R7	R8	R9	R10	R11	R12
7/20/23 3:00	11.4	73	2.9	300	33.8					
7/20/23 4:00	10.8	79	2.3	298	29.8					
7/20/23 5:00	10.5	82	2.5	304	33.5					
7/20/23 6:00	11.0	78	3.7	302	37.9					
7/20/23 7:00	13.3	68	3.6	308	38.1					
7/20/23 8:00	14.8	61	3.2	308	38.8					
7/20/23 9:00	15.8	56	3.1	310	38.9					
7/20/23 10:00	16.9	53	2.8	307	39.5					
7/20/23 11:00	18.5	48	3.4	304	*45.1*					
7/20/23 12:00	19.5	40	3.2	306	*46.5*					
7/20/23 13:00	20.1	36	1.8	297	*44.8*					
7/20/23 14:00	19.4	38	3.4	303	*46.0*					
7/20/23 15:00	20.0	35	3.1	307	*44.8*					
7/20/23 16:00	20.3	34	2.9	304	*42.8*					
7/20/23 17:00	20.5	33	2.9	302	*41.6*					
7/20/23 18:00	20.4	32	2.9	303	*41.8*					
7/20/23 19:00	20.3	35	1.6	298	*41.3*					
7/20/23 20:00	19.7	42	0.7	26	*31.6*					
7/20/23 21:00	18.9	47	0.8	65	*30.0*					
7/20/23 22:00	17.9	50	0.6	114	33.4					
7/20/23 23:00	17.0	62	1.2	233	35.3					
7/21/23 0:00	16.2	70	3.2	275	40.3					
7/21/23 1:00	14.7	86	2.6	302	*47.6*					
7/21/23 2:00	12.0	83	1.7	295	*48.3*					
7/21/23 3:00	9.9	83	2.0	296	*49.7*					
7/21/23 4:00	7.9	87	2.9	296	*50.6*					
7/21/23 5:00	7.0	89	2.8	300	*48.2*					
7/21/23 6:00	6.6	89	2.1	299	*47.6*					
7/21/23 7:00	6.4	88	1.7	288	*45.3*					
7/21/23 8:00	7.1	85	1.7	290	*47.8*					
7/21/23 9:00	7.3	85	1.8	296	*50.4*					
7/21/23 10:00	7.8	81	2.1	300	*49.8*					
7/21/23 11:00	9.0	72	2.4	300	-					
7/29/23 8:00	17.0	61	0.9	314	-					
7/29/23 9:00	18.8	56	1.1	314	32.3					
7/29/23 10:00	19.3	53	1.1	348	29.3					
7/29/23 11:00	19.8	50	1.1	47	27.0					
7/29/23 12:00	21.1	46	1.3	27	25.1					

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R7	R8	R9	R10	R11	R12
7/29/23 13:00	21.5	44	1.2	25	23.1					
7/29/23 14:00	21.8	42	1.2	16	23.5					
7/29/23 15:00	21.8	41	1.2	62	23.6					
7/29/23 16:00	23.4	36	1.6	270	24.6					
7/29/23 17:00	23.1	36	1.3	210	23.2					
7/29/23 18:00	22.9	36	1.5	186	24.1					
7/29/23 19:00	23.6	34	1.2	186	22.1					
7/29/23 20:00	21.9	37	2.0	118	26.6					
7/29/23 21:00	21.4	39	1.7	148	32.8					
7/29/23 22:00	20.3	43	1.5	165	34.6					
7/29/23 23:00	18.6	53	2.4	183	35.1					
7/30/23 0:00	16.7	62	3.1	198	35.4					
7/30/23 1:00	15.8	64	3.0	205	34.2					
7/30/23 2:00	14.6	67	1.6	235	36.9					
7/30/23 3:00	14.4	62	2.1	260	36.7					
7/30/23 4:00	14.9	60	1.3	322	35.5					
7/30/23 5:00	14.0	66	0.4	84	32.9					
7/30/23 6:00	13.5	69	0.4	128	33.4					
7/30/23 7:00	17.9	53	0.1	240	28.5					
7/30/23 8:00	20.4	46	0.8	279	22.3					
7/30/23 9:00	19.8	48	0.7	26	21.1					
7/30/23 10:00	18.9	52	1.9	68	22.6					
7/30/23 11:00	20.5	48	3.0	79	22.5					
7/30/23 12:00	21.4	44	2.7	85	23.6					
7/30/23 13:00	21.9	42	1.6	55	23.0					
7/30/23 14:00	22.5	41	1.5	339	23.5					
7/30/23 15:00	23.1	40	1.7	345	25.7					
7/30/23 16:00	22.9	40	2.2	312	28.1					
7/30/23 17:00	23.0	39	2.1	318	29.9					
7/30/23 18:00	22.8	40	2.0	317	29.0					
7/30/23 19:00	22.3	41	1.6	317	27.8					
7/30/23 20:00	21.8	41	1.1	319	28.5					
7/30/23 21:00	21.0	44	0.8	40	31.2					
7/30/23 22:00	19.7	48	0.8	62	31.9					
7/30/23 23:00	18.3	52	0.6	59	32.1					
7/31/23 0:00	17.0	59	0.6	71	31.4					
7/31/23 1:00	16.1	61	0.4	47	32.2					
7/31/23 2:00	15.6	62	0.4	346	30.3					
7/31/23 3:00	14.8	68	1.4	307	30.8					

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R7	R8	R9	R10	R11	R12
7/31/23 4:00	14.2	74	1.2	326	32.7					
7/31/23 5:00	13.6	78	0.7	345	29.8					
7/31/23 6:00	13.6	76	0.6	15	32.2					
7/31/23 7:00	15.7	65	0.8	59	30.8					
7/31/23 8:00	16.4	66	1.2	34	26.9					
7/31/23 9:00	17.0	64	1.5	49	30.5					
7/31/23 10:00	17.5	60	2.0	57	31.0					
7/31/23 11:00	19.0	55	1.8	47	30.3					
7/31/23 12:00	19.6	54	1.9	41	29.4					
7/31/23 13:00	19.8	48	1.8	20	28.5					
7/31/23 14:00	19.8	48	1.7	32	29.6					
7/31/23 15:00	19.8	45	1.9	39	-					
8/03/23 14:00	23.0	40	2.0	327				-		
8/03/23 15:00	23.2	38	2.0	350				28.9		
8/03/23 16:00	23.7	37	1.7	317				25.6		
8/03/23 17:00	23.5	37	1.7	357				25.6		
8/03/23 18:00	23.6	37	1.2	360				24.6		
8/03/23 19:00	23.4	37	1.5	31				24.2		
8/03/23 20:00	23.0	37	1.0	320				23.4		
8/03/23 21:00	22.6	38	0.8	238				27.7		
8/03/23 22:00	21.4	43	1.0	156				25.5		
8/03/23 23:00	19.8	49	0.4	188				24.4		
8/04/23 0:00	18.1	54	0.2	221				23.6		
8/04/23 1:00	17.7	56	0.4	204				27.3		
8/04/23 2:00	16.2	70	0.6	247				29.4		
8/04/23 3:00	15.8	68	0.4	265				28.9		
8/04/23 4:00	15.5	66	0.0	91				29.4		
8/04/23 5:00	15.1	68	0.8	98				31.9		
8/04/23 6:00	15.4	67	0.6	104				30.3		
8/04/23 7:00	18.3	59	0.2	195				31.0		
8/04/23 8:00	20.3	55	0.9	207				26.1		
8/04/23 9:00	22.2	43	1.8	211				28.1		
8/04/23 10:00	22.7	38	2.6	218				31.7		
8/04/23 11:00	23.8	33	4.3	219				-		
8/04/23 12:00	24.3	30	4.8	213				-		
8/04/23 13:00	24.5	32	5.1	217				-		
8/04/23 14:00	25.2	31	5.2	236				-		
8/04/23 15:00	25.7	31	4.2	241				-		

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R7	R8	R9	R10	R11	R12
8/04/23 16:00	26.8	27	3.7	262				32.1		
8/04/23 17:00	26.7	27	3.9	261				33.8		
8/04/23 18:00	26.3	29	4.5	260				-		
8/04/23 19:00	25.4	32	4.3	269				-		
8/04/23 20:00	23.7	42	3.7	307				29.9		
8/04/23 21:00	21.9	50	3.5	307				31.5		
8/04/23 22:00	20.3	58	3.1	308				31.0		
8/04/23 23:00	18.8	70	1.0	347				30.2		
8/05/23 0:00	17.9	77	0.8	6				33.1		
8/05/23 1:00	16.9	82	1.3	69				33.6		
8/05/23 2:00	16.1	87	2.3	68				29.1		
8/05/23 3:00	15.7	93	1.2	317				31.2		
8/05/23 4:00	15.0	94	1.2	49				33.9		
8/05/23 5:00	14.5	96	1.9	63				29.4		
8/05/23 6:00	14.3	96	1.7	67				31.7		
8/05/23 7:00	14.1	95	1.9	60				32.1		
8/05/23 8:00	13.8	94	1.5	58				35.8		
8/05/23 9:00	13.6	94	2.0	62				39.3		
8/05/23 10:00	13.3	94	2.2	62				37.1		
8/05/23 11:00	12.9	93	2.3	62				37.2		
8/05/23 12:00	12.8	92	2.4	61				-		
8/17/23 15:00	13.1	55	1.7	319		-				
8/17/23 16:00	13.1	56	2.5	303		21.3	-			
8/17/23 17:00	13.5	54	1.5	317		18.7	22.0			
8/17/23 18:00	13.2	55	1.2	318		18.1	26.8			
8/17/23 19:00	13.0	55	1.3	311		19.0	19.4			
8/17/23 20:00	12.6	56	1.7	316		18.2	18.5			
8/17/23 21:00	12.1	57	0.9	41		29.9	20.7			
8/17/23 22:00	11.6	59	2.1	64		16.7	25.7			
8/17/23 23:00	11.3	60	1.7	59		16.5	23.3			
8/18/23 0:00	10.7	66	1.9	83		16.5	28.7			
8/18/23 1:00	10.5	66	1.7	101		18.5	29.7			
8/18/23 2:00	10.2	66	1.7	98		18.1	31.8			
8/18/23 3:00	9.9	69	1.7	84		21.3	34.5			
8/18/23 4:00	9.6	72	2.3	87		23.7	34.8			
8/18/23 5:00	9.6	75	1.8	115		20.0	33.7			
8/18/23 6:00	9.4	79	2.1	126		26.1	31.4			
8/18/23 7:00	9.5	80	4.1	136		24.0	35.6			

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R7	R8	R9	R10	R11	R12
8/18/23 8:00	9.9	79	1.9	92		25.5	35.0			
8/18/23 9:00	10.8	77	3.5	126		23.5	33.9			
8/18/23 10:00	12.2	66	3.5	139		24.8	31.5			
8/18/23 11:00	13.2	59	3.2	141		23.1	30.5			
8/18/23 12:00	13.5	57	2.8	142		19.0	26.9			
8/18/23 13:00	13.4	56	2.3	151		18.6	24.5			
8/18/23 14:00	13.6	54	1.3	99		19.4	29.9			
8/18/23 15:00	14.3	51	1.3	124		22.8	25.8			
8/18/23 16:00	14.1	60	1.8	232		17.8	22.7			
8/18/23 17:00	13.5	58	1.0	89		22.3	22.8			
8/18/23 18:00	13.5	57	1.1	82		22.8	22.8			
8/18/23 19:00	13.1	61	1.5	60		25.4	22.0			
8/18/23 20:00	12.8	62	1.5	54		19.3	20.4			
8/18/23 21:00	12.4	65	2.0	62		(rain)	(rain)			
8/18/23 22:00	12.0	69	1.8	69		(rain)	(rain)			
8/18/23 23:00	11.4	77	1.8	198		(rain)	(rain)			
8/19/23 0:00	10.4	87	2.1	267		(rain)	(rain)			
8/19/23 1:00	9.9	89	2.2	278		(rain)	(rain)			
8/19/23 2:00	9.6	90	2.1	261		(rain)	(rain)			
8/19/23 3:00	9.7	93	2.9	250		(rain)	(rain)			
8/19/23 4:00	9.8	94	2.4	241		(rain)	(rain)			
8/19/23 5:00	9.6	95	3.0	219		(rain)	(rain)			
8/19/23 6:00	9.5	96	3.5	269		(rain)	(rain)			
8/19/23 7:00	9.3	94	2.9	270		(rain)	(rain)			
8/19/23 8:00	9.8	87	1.5	257			(rain)			
8/19/23 9:00	10.3	90	2.4	229			(rain)			
8/19/23 10:00	10.6	89	2.9	220			(rain)			
8/19/23 11:00	10.9	87	2.8	197			(rain)			
8/19/23 12:00	11.5	84	3.3	201			(rain)			
8/19/23 13:00	11.7	80	3.7	189			(rain)			
8/19/23 14:00	10.5	84	4.3	209			-			
8/19/23 15:00	9.9	87	3.1	229			(rain)			
8/24/23 16:00	12.9	68	2.6	308					-	
8/24/23 17:00	12.9	66	4.1	308					39.8	
8/24/23 18:00	12.5	67	3.7	312					40.9	
8/24/23 19:00	11.4	74	4.3	308					-	
8/24/23 20:00	10.9	76	3.4	304					33.3	
8/24/23 21:00	10.5	78	2.2	304					25.3	

Date and Time	Avg. Air Temperature (°C)	Avg. Relative Humidity (%)	Avg. Wind Speed (m/s)	Avg. Wind Direction (°)	L_{eq} 1 h (dBA)					
					R7	R8	R9	R10	R11	R12
8/24/23 22:00	9.7	87	3.4	303					33.3	
8/24/23 23:00	9.3	93	3.8	299					46.4	
8/25/23 0:00	8.5	93	4.7	305					-	
8/25/23 1:00	7.6	92	4.3	304					-	
8/25/23 2:00	7.6	94	3.4	305					42.0	
8/25/23 3:00	7.5	94	3.8	309					39.8	
8/25/23 4:00	7.1	94	3.5	308					38.2	
8/25/23 5:00	6.7	95	4.4	300					-	
8/25/23 6:00	6.4	92	3.4	299					19.3	
8/25/23 7:00	6.4	91	2.4	290					35.2	
8/25/23 8:00	6.4	95	2.9	300					30.2	
8/25/23 9:00	6.2	95	2.6	307					33.2	
8/25/23 10:00	6.6	92	3.1	296					27.9	
8/25/23 11:00	6.5	92	2.7	293					24.4	
8/25/23 12:00	7.8	83	3.2	255					28.5	
8/25/23 13:00	7.9	83	3.8	233					31.9	
8/25/23 14:00	7.3	87	4.2	196					-	
8/25/23 15:00	7.2	90	5.8	179					-	
8/25/23 16:00	7.6	89	6.2	198					-	
8/25/23 17:00	7.9	93	6.2	199					-	
8/25/23 18:00	8.0	94	5.4	213					-	
8/25/23 19:00	8.5	96	3.6	244					26.4	
8/25/23 20:00	9.7	96	3.3	271					45.2	
8/25/23 21:00	9.8	95	5.8	298					-	
8/25/23 22:00	8.8	95	6.4	303					-	
8/25/23 23:00	8.2	91	4.3	303					-	
8/26/23 0:00	7.7	92	4.3	305					-	
8/26/23 1:00	7.1	94	4.3	302					-	
8/26/23 2:00	6.8	95	3.8	303					23.7	
8/26/23 3:00	6.8	94	1.4	295					34.6	
8/26/23 4:00	6.8	95	1.3	249					35.1	
8/26/23 5:00	6.7	96	1.4	284					38.0	
8/26/23 6:00	6.1	95	0.4	7					42.0	
8/26/23 7:00	5.4	95	0.7	322					45.1	
8/26/23 8:00	4.8	92	1.5	291					-	

APPENDIX C

Field Logs

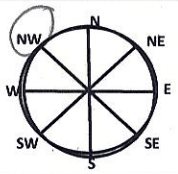
MONITORING STARTS

Operator: Felix Q. Kathleen N	Location: R1 - EMR
Date: 2023-06-27	Noise Meter Start Time: 8:40
Calibration complete ?: Yes	Sensitivity: 51.92
Deviation: 0.03	Time of Calibration: 8:30
Battery Power Check: Y - full	Check available disk memory (Y/N) Y
Photographs of Setup (Y/N) Y	Photographs of Surrounding (Y/N) Y

Cloud cover:	cloudy	partly cloudy	(sunny)
Height of cloud (feet):	0-10,000	(10,000-25,000)	25,000 +

Air Temperature (C): 7°C	Wind Speed (km/hr): 20 km/h

Wind Direction: NW



Barometric Pressure (kPa): 100.6	Relative Humidity (%) 67%.

Precipitation:	(none)	drizzle	rain

GENERAL SITE DESCRIPTION

GPS Location	Latitude	Longitude	Altitude
14W	0636152	7217337	531

Type of Ground Surface:
Acoustic Environment:
- Traffic: AWAR traffic + EMR road.
- Human activities: Lake
- Animal
- Other noise sources: helicopter → Explo.

MONITORING ENDS

Operator:	Total Monitoring Period 63 Hours.
Date: 2023-06-30	Noise Meter End Time: 2023-06-29 11:40 PM.
Calibration complete ?: Yes at the office.	Sensitivity: 51.76.
Deviation -0.03	Time of Calibration: 2023-07-01 8:00

Cloud cover:	cloudy	partly cloudy	sunny
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 17.	Wind Speed (km/hr): 2

Wind Direction:

Barometric Pressure (kPa): 100.8	Relative Humidity (%) 71.8

Precipitation:	(none)	drizzle	rain

Comments: When we arrived, the noise device was dead. No more batteries so calibrated back at the office the next day.

MONITORING STARTS

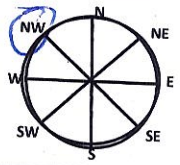
Operator: KN, TD	Location: R#1
Date: 2023-08-02.	Noise Meter Start Time: 13:30
Calibration complete ?: Y	Sensitivity: 51.72
Deviation: -0.02.	Time of Calibration: 13:22
Battery Power Check: Y.	Check available disk memory (Y/N) Y
Photographs of Setup (Y/N) Y	Photographs of Surrounding (Y/N) Y

Cloud cover: cloudy | partly cloudy | (sunny)

Height of cloud (feet): clear sky | 0-10,000 | 10,000-25,000 | 25,000 +

Air Temperature (C): 25	Wind Speed (km/hr): 10

Wind Direction:



Barometric Pressure (kPa): 101.3	Relative Humidity (%) 39

Precipitation: (none) | drizzle | rain

GENERAL SITE DESCRIPTION

GPS Location	Latitude	Longitude	Altitude
14W	641121	7214417	

Type of Ground Surface:

Acoustic Environment: Lake

- Traffic: AWAR traffic
- Human activities: helicopter
- Animal: EMR traffic
- Other noise sources

MONITORING ENDS

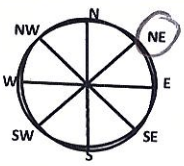
Operator: KN	Total Monitoring Period 68:02
Date: 2023-08-05	Noise Meter End Time: 9:32 AM.
Calibration complete ?: Yes	Sensitivity: 51.93
Deviation 0.04	Time of Calibration: 9:35

Cloud cover: (cloudy) | partly cloudy | sunny

Height of cloud (feet): (0-10,000) | 10,000-25,000 | 25,000 +

Air Temperature (C): 22	Wind Speed (km/hr): 18

Wind Direction:



Barometric Pressure (kPa): 101.5	Relative Humidity (%) 59

Precipitation: none | (drizzle) | rain

Comments: mistake in recording → said we are at R3 but we were at R1 → close to EMR.

MONITORING STARTS

Operator: TD BJ	Location: R1
Date: SEPT. 6/23	Noise Meter Start Time: 10:45
Calibration complete ?: (Y)	Sensitivity: -.02
Deviation: 51.02	Time of Calibration: 10:40
Battery Power Check: Y	Check available disk memory (Y/N)
Photographs of Setup (Y/N)	Photographs of Surrounding (Y/N)

Cloud cover:	(cloudy)	partly cloudy	sunny
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 7°	Wind Speed (km/hr): 10 KM/hr
Wind Direction: 6 KM	
Barometric Pressure (kPa): 95.2	Relative Humidity (%) 100.49

Precipitation:	(none)	drizzle	rain

GENERAL SITE DESCRIPTION

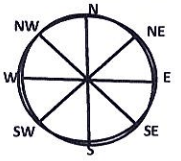
GPS Location	Latitude	Longitude	Altitude
	6836151	7217333	

Type of Ground Surface:
Acoustic Environment: LAKES
- Traffic TRAFFIC
- Human activities
- Animal WILDLIFE
- Other noise sources

MONITORING ENDS

Operator: TD BJ	Total Monitoring Period
Date: SEPT. 8/23	Noise Meter End Time: 16:50
Calibration complete ?:	Sensitivity:
Deviation	Time of Calibration:

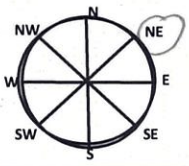
Cloud cover:	(cloudy)	partly cloudy	sunny
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 8°	Wind Speed (km/hr): 12
Wind Direction: NE	
Barometric Pressure (kPa): 98.6	Relative Humidity (%) 59.4

Precipitation:	(none)	drizzle	rain

Comments:

MONITORING STARTS

Operator: KN TD		Location: R2	
Date: July 9/23		Noise Meter Start Time:	
Calibration complete ?: YES		Sensitivity: ~~5~~ 51.6 ~~0.05~~	
Deviation: 0.05		Time of Calibration: 12:14	
Battery Power Check: YES		Check available disk memory (Y/N)	
Photographs of Setup (Y/N)		Photographs of Surrounding (Y/N)	
Cloud cover:	cloudy	partly cloudy	sunny
Height of cloud (feet):	0-10,000	~~10,000-25,000~~	25,000 +
Air Temperature (C): 11.5		Wind Speed (km/hr): 17.8	
Wind Direction:			
Barometric Pressure (kPa): 99.91		Relative Humidity (%) ~~YES~~ 56.2	
Precipitation:	none	drizzle	rain

GENERAL SITE DESCRIPTION

GPS Location	Latitude	Longitude	Altitude

Type of Ground Surface:

Acoustic Environment:

- Traffic
- Human activities
- Animal
- Other noise sources Helicopter, fan

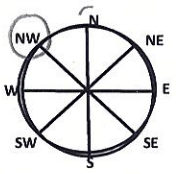
MONITORING ENDS

Operator: TD, BL		Total Monitoring Period	
Date: July 11/23		Noise Meter End Time: ~~15:32~~ 15:35	
Calibration complete ?:		Sensitivity:	
Deviation		Time of Calibration:	
Cloud cover:	cloudy	partly cloudy	sunny
Height of cloud (feet):	0-10,000	10,000-25,000	25,000 +
Air Temperature (C): 12°C		Wind Speed (km/hr): 10KM	
Wind Direction: NE			
Barometric Pressure (kPa): 100.02		Relative Humidity (%) 29.7	
Precipitation:	none	drizzle	rain

Comments: little rain while setting up but stoped right away

NO CALIBRATION DONE ON PICKUP

MONITORING STARTS

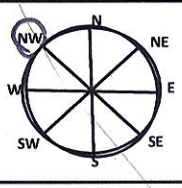
Operator: KN		Location: R2 - Fresh water Barge.	
Date: 2023-08-08		Noise Meter Start Time: 10:46	
Calibration complete ?: Y		Sensitivity: 50.98	
Deviation: -0.08		Time of Calibration: 10:33	
Battery Power Check: Y		Check available disk memory (Y/N) Y	
Photographs of Setup (Y/N) Y		Photographs of Surrounding (Y/N) Y	
Cloud cover:	cloudy	partly cloudy	(sunny)
Height of cloud (feet): clear sky.	0-10,000	10,000-25,000	25,000 +
Air Temperature (C): 22.5		Wind Speed (km/hr): none.	
Wind Direction:			
Barometric Pressure (kPa): 100.72.		Relative Humidity (%) 52	
Precipitation:	(none)	drizzle	rain

GENERAL SITE DESCRIPTION

	Latitude	Longitude	Altitude
GPS Location			

Type of Ground Surface:
Acoustic Environment:
- Traffic: AWAR plane helicopter. Boat.
- Human activities: NONE
- Animal
- Other noise sources

MONITORING ENDS

Operator: LJ FQS		Total Monitoring Period	
Date: 2023-08-10		Noise Meter End Time: 8:23	
Calibration complete ?: Y		Sensitivity: 51.21	
Deviation 0.04		Time of Calibration: 8:23	
Cloud cover:	(cloudy)	partly cloudy	sunny
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +
Air Temperature (C): 15		Wind Speed (km/hr): 11 km	
Wind Direction: NW			
Barometric Pressure (kPa): 100.7		Relative Humidity (%) 78 ~~89~~ %	
Precipitation:	(none)	drizzle	rain

Comments: AWAR plane Helicopter

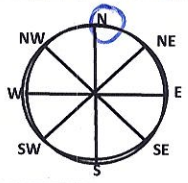
MONITORING STARTS

Operator: R.W. ON	Location: R3 Round 1
Date: 2023-07-25	Noise Meter Start Time: 13:50
Calibration complete ?: Yes	Sensitivity: 51.76
Deviation: 0.06	Time of Calibration: 13:40
Battery Power Check: Y	Check available disk memory (Y/N) Y
Photographs of Setup (Y/N) Y	Photographs of Surrounding (Y/N) Y

Cloud cover:	cloudy	(partly cloudy)	sunny
Height of cloud (feet):	0-10,000	10,000-25,000	(25,000 +)

Air Temperature (C): 17.5	Wind Speed (km/hr): ~~7.6~~ 7.6

Wind Direction:



Barometric Pressure (kPa): 101.63	Relative Humidity (%) 54.5

Precipitation:	(none)	drizzle	rain

GENERAL SITE DESCRIPTION

GPS Location	Latitude	Longitude	Altitude
14 W	641121	7214417	

Type of Ground Surface: Heath tundra

Acoustic Environment:
- Traffic: Animals, water because of waves, airplane, helicopter.
- Human activities
- Animal
- Other noise sources

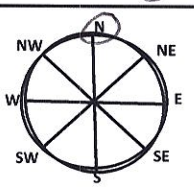
MONITORING ENDS

Operator: KN, TMD	Total Monitoring Period 45 h 22 min
Date: July 27th 2023	Noise Meter End Time: 11:12
Calibration complete ?: Yes	Sensitivity: 51.99
Deviation 0.04	Time of Calibration: 11:17

Cloud cover:	cloudy	partly cloudy	(sunny)
Height of cloud (feet):	0-10,000	(10,000-25,000)	25,000 +

Air Temperature (C): 18.0	Wind Speed (km/hr): 30.0

Wind Direction:



Barometric Pressure (kPa): 101.7	Relative Humidity (%) 54.0

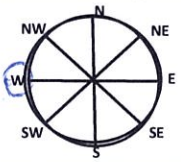
Precipitation:	(none)	drizzle	rain

Comments:

MONITORING STARTS

Operator: Felix Ouessy, Brandon	Location: R3 Round 2
Date: 2023/08/15	Noise Meter Start Time:
Calibration complete ?: Y	Sensitivity: 52.09
Deviation: 0.06	Time of Calibration: 10:25
Battery Power Check: Y	Check available disk memory (Y/N)
Photographs of Setup (Y/N) Y	Photographs of Surrounding (Y/N)

Cloud cover:	cloudy	partly cloudy	(sunny)
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 13	Wind Speed (km/hr): 20km/h
Wind Direction: 20km/h	

Barometric Pressure (kPa): 100.0		Relative Humidity (%) 50.9	
Precipitation:	(none)	drizzle	rain

GENERAL SITE DESCRIPTION

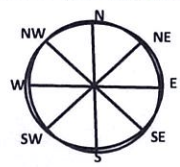
	Latitude	Longitude	Altitude
GPS Location			

Type of Ground Surface:
Acoustic Environment: Bugs
Traffic
Human activities Air plane
Animal
Other noise sources

MONITORING ENDS

Operator: LJ FOS	Total Monitoring Period
Date: 2023-08-17	Noise Meter End Time: 8:12
Calibration complete ?: Y	Sensitivity: 51.94
Deviation -0.03	Time of Calibration: 8:14

Cloud cover:	cloudy	(partly cloudy)	sunny
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 17.4	Wind Speed (km/hr): 0
Wind Direction: E	

Barometric Pressure (kPa): 100.1		Relative Humidity (%) 53.8	
Precipitation:	(none)	drizzle	rain

Comments:

MONITORING STARTS

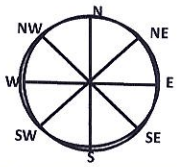
Operator: TD BI	Location: R3
Date: SEPT. 6/23	Noise Meter Start Time: 16:40
Calibration complete ?: (Y)	Sensitivity: -.02
Deviation: 59.28	Time of Calibration: 16:35
Battery Power Check: ✓	Check available disk memory (Y/N)
Photographs of Setup (Y/N)	Photographs of Surrounding (Y/N)

Cloud cover: (cloudy) partly cloudy sunny

Height of cloud (feet): (0-10,000) 10,000-25,000 25,000 +

Air Temperature (C): 7°	Wind Speed (km/hr): 10 km/h

Wind Direction: NW



Barometric Pressure (kPa): 100.49	Relative Humidity (%) 95.2

Precipitation: none drizzle rain

GENERAL SITE DESCRIPTION

GPS Location	Latitude	Longitude	Altitude
	6941120.98	7214416	

Type of Ground Surface:
Acoustic Environment:
- Traffic: LAKES CHOPPER TRAFFIC
- Human activities:
- Animal: WILDLIFE
- Other noise sources:

MONITORING ENDS

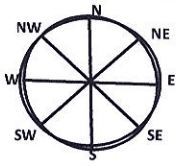
Operator: TD	Total Monitoring Period
Date: 8 SEPT. 11/23	Noise Meter End Time: 18h15
Calibration complete ?: Y	Sensitivity:
Deviation	Time of Calibration:

Cloud cover: (cloudy) partly cloudy sunny

Height of cloud (feet): (0-10,000) 10,000-25,000 25,000 +

Air Temperature (C): 8°C	Wind Speed (km/hr): 25 km/h

Wind Direction: SW



Barometric Pressure (kPa): 98.95	Relative Humidity (%) 92.8

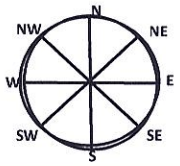
Precipitation: (none) drizzle rain

Comments:

MONITORING STARTS

Operator: TD BI	Location: R4 Round 2
Date: 2023/07/17	Noise Meter Start Time: 10:33
Calibration complete ?: Yes	Sensitivity: 51.62
Deviation: -0.02	Time of Calibration: 10:24
Battery Power Check: OK	Check available disk memory (Y/N)
Photographs of Setup (Y/N)	Photographs of Surrounding (Y/N)

Cloud cover:	cloudy	(partly cloudy)	sunny
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 2.2	Wind Speed (km/hr): 5.6
Wind Direction: NW	
Barometric Pressure (kPa): 100.06	Relative Humidity (%) 56.7

Precipitation:	(none)	drizzle	rain

GENERAL SITE DESCRIPTION

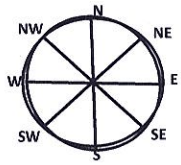
	Latitude	Longitude	Altitude
GPS Location			

Type of Ground Surface:
Acoustic Environment: Lake
- Traffic
- Human activities
- Animal: Birds, Wildlife (Ducks)
- Other noise sources

MONITORING ENDS

Operator: RW / DN / BI	Total Monitoring Period 73H 2min
Date: 2023-07-20	Noise Meter End Time: 11:36
Calibration complete ?: Yes	Sensitivity: 51.58
Deviation -0.04	Time of Calibration: 11:40

Cloud cover:	cloudy	partly cloudy	(sunny)
Height of cloud (feet):	0-10,000	10,000-25,000	(25,000 +)

Air Temperature (C): 20.6	Wind Speed (km/hr): 21.6
Wind Direction: SE	
Barometric Pressure (kPa): 101.1	Relative Humidity (%) 49.7

Precipitation:	(none)	drizzle	rain

Comments:

MONITORING STARTS

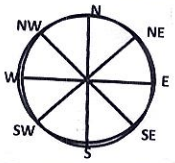
Operator: FQS, BJ	Location: R4 Round 2
Date: 2023/08/11	Noise Meter Start Time: 10:43
Calibration complete ?:	Sensitivity: 51.06
Deviation: -0.03	Time of Calibration: 10:37
Battery Power Check: Yes	Check available disk memory (Y/N)
Photographs of Setup (Y/N)	Photographs of Surrounding (Y/N)

Cloud cover: cloudy | (partly cloudy) | sunny

Height of cloud (feet): 0-10,000 | (10,000-25,000) | 25,000 +

Air Temperature (C): 21	Wind Speed (km/hr): 0

Wind Direction:



Barometric Pressure (kPa): 100.1	Relative Humidity (%) 57

Precipitation: (none) | drizzle | rain

GENERAL SITE DESCRIPTION

GPS Location	Latitude	Longitude	Altitude

Type of Ground Surface:

Acoustic Environment:
- Traffic: water
- Human activities: traffic
- Animal
- Other noise sources: machine

MONITORING ENDS

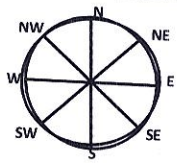
Operator: Lili / Felix	Total Monitoring Period
Date: 2023-08-13	Noise Meter End Time: 11:22
Calibration complete ?: Y	Sensitivity: 51.09
Deviation 0.00	Time of Calibration: 11h25

Cloud cover: cloudy | (partly cloudy) | sunny

Height of cloud (feet): (0-10,000) | 10,000-25,000 | 25,000 +

Air Temperature (C): 24.1	Wind Speed (km/hr): 4.2 KM/h

Wind Direction: W



Barometric Pressure (kPa): 100.9	Relative Humidity (%) 46.9

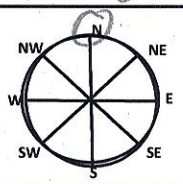
Precipitation: (none) | drizzle | rain

Comments: Rain and wind at night August 11

MONITORING STARTS

Operator: Derek Nateela, K. Newberry	Location: R5
Date: 2023-07-01	Noise Meter Start Time: 11:35
Calibration complete ?: Yes.	Sensitivity: 52.02
Deviation: 0.04	Time of Calibration: 11:25
Battery Power Check: Y	Check available disk memory (Y/N) Y
Photographs of Setup (Y/N) Y	Photographs of Surrounding (Y/N) Y

Cloud cover:	cloudy	partly cloudy	(sunny)
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 17	Wind Speed (km/hr): 20
Wind Direction: N.	
Barometric Pressure (kPa): 100.6 * to validate	Relative Humidity (%) 44.5

Precipitation:	(none)	drizzle	rain

GENERAL SITE DESCRIPTION

GPS Location	Latitude	Longitude	Altitude
14W	633779	7214494	479.

Type of Ground Surface:
Acoustic Environment:
- Traffic: AWAR Traffic
- Human activities: water → waves
- Animal
- Other noise sources: helicopter

MONITORING ENDS

Operator: Kathleen Newberry	Total Monitoring Period 52:58.
Date: 2023-07-03	Noise Meter End Time: 16:33
Calibration complete ?: Yes	Sensitivity: 51-32.
Deviation -0.12	Time of Calibration: 16:40

Cloud cover:	cloudy	partly cloudy	(sunny)
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 16°C	Wind Speed (km/hr): 20.
Wind Direction: NE	
Barometric Pressure (kPa): 101.3	Relative Humidity (%) 32.4

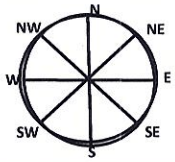
Precipitation:	(none)	drizzle	rain

Comments:

MONITORING STARTS

Operator: THOMAS DAHM	Location: R7 R5
Date: AUG 8/23	Noise Meter Start Time: ~~10:40~~ 10:20
Calibration complete ?: Y	Sensitivity: -.02
Deviation: 5.79	Time of Calibration: 10:15
Battery Power Check: (Y)	Check available disk memory (Y/N)
Photographs of Setup (Y/N) (Y)	Photographs of Surrounding (Y/N) (Y)

Cloud cover: CLEAR SKY	cloudy	partly cloudy	(sunny)
Height of cloud (feet):	0-10,000	10,000-25,000	25,000 +

Air Temperature (C): 23.8	Wind Speed (km/hr):
Wind Direction: NW	
Barometric Pressure (kPa): 100.72	Relative Humidity (%) 52.4

Precipitation:	(none)	drizzle	rain

GENERAL SITE DESCRIPTION

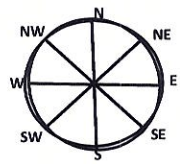
	Latitude	Longitude	Altitude
GPS Location			

Type of Ground Surface:
Acoustic Environment: LAKE
Traffic AWAR - CHOPPER - EXPLO
Human activities
Animal
Other noise sources

MONITORING ENDS

Operator: LJ RQS	Total Monitoring Period 48:20
Date: 2023-08-10	Noise Meter End Time: 10:40
Calibration complete ?: Y	Sensitivity: 51.94
Deviation 0.103	Time of Calibration: 10:40

Cloud cover:	(cloudy)	partly cloudy	sunny
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 18.5	Wind Speed (km/hr): 15 km
Wind Direction: NW	
Barometric Pressure (kPa):	Relative Humidity (%) 54.5

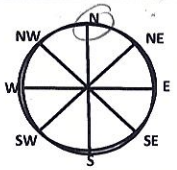
Precipitation:	(none)	drizzle	rain

Comments:

MONITORING STARTS

Operator: Rowan Woodall, Taylor Dwyer	Location: R6
Date: July 24th 2023	Noise Meter Start Time: 14:12
Calibration complete ?: Yes	Sensitivity: 51.49
Deviation: 0.00	Time of Calibration: 14:05
Battery Power Check: Yes	Check available disk memory (Y/N) Y
Photographs of Setup (Y/N) Y	Photographs of Surrounding (Y/N) Y

Cloud cover:	cloudy	(partly cloudy)	sunny
Height of cloud (feet):	0-10,000	(10,000-25,000)	25,000 +

Air Temperature (C): 20.0	Wind Speed (km/hr): 20.0
Wind Direction:	

Barometric Pressure (kPa): 100.69	Relative Humidity (%) 46.5

Precipitation:	(none)	drizzle	rain

GENERAL SITE DESCRIPTION

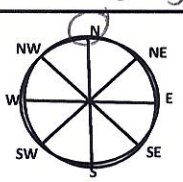
GPS Location	Latitude	Longitude	Altitude
14W	640708	7221964	

Type of Ground Surface: Heath tundra
Acoustic Environment:
Traffic
Human activities — Animals, traffic
Animal
Other noise sources

MONITORING ENDS

Operator: TMD, DN	Total Monitoring Period 73 hours, 40 minutes
Date: July 27th 2023	Noise Meter End Time: 15:52
Calibration complete ?: Y	Sensitivity: 51.30
Deviation 0.01	Time of Calibration: 15:56

Cloud cover:	cloudy	partly cloudy	(sunny)
Height of cloud (feet):	0-10,000	(10,000-25,000)	25,000 +

Air Temperature (C): 22.8	Wind Speed (km/hr): 23.8
Wind Direction:	

Barometric Pressure (kPa): 101.6	Relative Humidity (%) 40.6

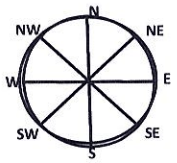
Precipitation:	(none)	drizzle	rain

Comments:

MONITORING STARTS

Operator: Lili / Felix	Location: R6
Date: 2023-08-11	Noise Meter Start Time: 15:30
Calibration complete ?: Y	Sensitivity: 51.65
Deviation: -0.05	Time of Calibration: 15h25
Battery Power Check: Y	Check available disk memory (Y/N) Y
Photographs of Setup (Y/N) Y	Photographs of Surrounding (Y/N) Y

Cloud cover:	(cloudy)	partly cloudy	sunny
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 26.4	Wind Speed (km/hr): 2 KM/h
Wind Direction: NW	
Barometric Pressure (kPa): 100.7	Relative Humidity (%) 45.6

Precipitation:	(none)	drizzle	rain

GENERAL SITE DESCRIPTION

	Latitude	Longitude	Altitude
GPS Location			

Type of Ground Surface:
Acoustic Environment:
- Traffic: Trafic Birds
- Human activities
- Animal: Insects
- Other noise sources

MONITORING ENDS

Operator: FAS BI	Total Monitoring Period
Date: 2023/08/13	Noise Meter End Time: 15:20
Calibration complete ?: Y	Sensitivity: 51.73
Deviation 0.01	Time of Calibration: 15:23

Cloud cover: 1006	(cloudy)	partly cloudy	sunny
Height of cloud (feet):	0-10,000	(10,000-25,000)	25,000 +

Air Temperature (C): 23.4	Wind Speed (km/hr): 30 km/h
Wind Direction: South west	
Barometric Pressure (kPa):	Relative Humidity (%) 48.2

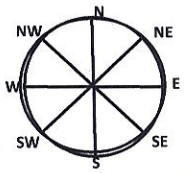
Precipitation:	(none)	drizzle	rain

Comments: Rain During the night August 11

MONITORING STARTS

Operator: RW CJ	Location: R7 Round 1
Date: 2023-07-19	Noise Meter Start Time: 16:21
Calibration complete ?: ~~XXXX~~ Yes	Sensitivity: 51.83
Deviation: 0.01	Time of Calibration: 16:11 ~~XXXX~~
Battery Power Check: Y	Check available disk memory (Y/N)
Photographs of Setup (Y/N)	Photographs of Surrounding (Y/N)

Cloud cover:	cloudy	partly cloudy	sunny
Height of cloud (feet):	0-10,000	10,000-25,000	25,000 +

Air Temperature (C): 20.3	Wind Speed (km/hr): 3.3 Avg 1.9
Wind Direction: NW	
Barometric Pressure (kPa): 101.4	Relative Humidity (%) 57.5 Average

Precipitation:	none	drizzle	rain

GENERAL SITE DESCRIPTION

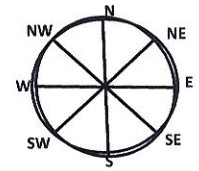
	Latitude	Longitude	Altitude
GPS Location	14W 620194	~~XXX~~ 7239038	

Type of Ground Surface:
Acoustic Environment:
- Traffic
- Human activities
- Animal
- Other noise sources

MONITORING ENDS

Operator: RW	Total Monitoring Period 43H 23min
Date: 2023-07-21	Noise Meter End Time: 11:44
Calibration complete ?: Y	Sensitivity: 52.06
Deviation 0.04	Time of Calibration: 11:47

Cloud cover:	cloudy	partly cloudy	sunny
Height of cloud (feet):	0-10,000	10,000-25,000	25,000 +

Air Temperature (C): 11.4	Wind Speed (km/hr): 23.8
Wind Direction: NW	
Barometric Pressure (kPa): 100.7	Relative Humidity (%) 59.8

Precipitation:	none	drizzle	rain

Comments:

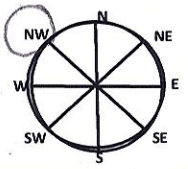
MONITORING STARTS

Operator: Isabelle Couture, Taylor Dwire	Location: R7
Date: 2023-07-29	Noise Meter Start Time: 8:00
Calibration complete ?: Y	Sensitivity: 51.71
Deviation: -0.05 db	Time of Calibration: 7:55 am
Battery Power Check: Y	Check available disk memory (Y/N) Y
Photographs of Setup (Y/N) Y	Photographs of Surrounding (Y/N) Y

Cloud cover:	cloudy	(partly cloudy)	sunny
Height of cloud (feet):	0-10,000	(10,000-25,000)	25,000 +

Air Temperature (C): 18.8°C	Wind Speed (km/hr): 6.3

Wind Direction:



Barometric Pressure (kPa): 101.27	Relative Humidity (%) 52.0

Precipitation:	(none)	drizzle	rain

GENERAL SITE DESCRIPTION

GPS Location	Latitude	Longitude	Altitude
	14W	0620195	7239021

Type of Ground Surface:
Acoustic Environment:
- Traffic
- Human activities
- Animal
- Other noise sources

We came in Helicopter.
Road (WHR) NOT THAT far.
Mosquitos Noise

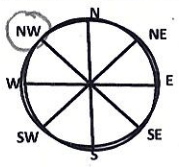
MONITORING ENDS

Operator: KN	Total Monitoring Period 55 h, 52 min
Date: 2023-07-31	Noise Meter End Time: 15:52.
Calibration complete ?: Yes	Sensitivity: 51.80
Deviation 0.02.	Time of Calibration: 15:55

Cloud cover:	cloudy	partly cloudy	(sunny)
Height of cloud (feet): none. —	0-10,000	10,000-25,000	25,000 +

Air Temperature (C): 26.1	Wind Speed (km/hr): 12

Wind Direction:



Barometric Pressure (kPa): 101.3	Relative Humidity (%) 32

Precipitation:	(none)	drizzle	rain

Comments:

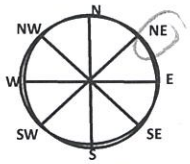
MONITORING STARTS

Operator: GB, EL, TD	Location: R8
Date: 28/06/23	Noise Meter Start Time: 16:25
Calibration complete ?: Yes	Sensitivity: 51.77
Deviation: 0.06	Time of Calibration: 4:15
Battery Power Check: Yes	Check available disk memory (Y/N) Yes
Photographs of Setup (Y/N) Yes	Photographs of Surrounding (Y/N) Yes

Cloud cover:	cloudy	partly cloudy	(sunny)
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 16	Wind Speed (km/hr): 2.3

Wind Direction: NE



Barometric Pressure (kPa): 100.9	Relative Humidity (%) 50

Precipitation:	(none)	drizzle	rain

GENERAL SITE DESCRIPTION

	Latitude	Longitude	Altitude
GPS Location 14W	612408	7256916	

Type of Ground Surface: Tundra

Acoustic Environment:

- Traffic None
- Human activities None
- Animal None during deployment
- Other noise sources Helicopter traff. C / Mine blasts

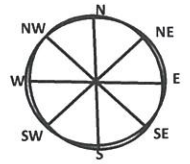
MONITORING ENDS

Operator: GB/EL	Total Monitoring Period 70h
Date: 2023/07/10	Noise Meter End Time: 14:43
Calibration complete ?: Yes	Sensitivity: 52.12
Deviation 0.32	Time of Calibration: 14:43

Cloud cover:	cloudy	partly cloudy	(sunny)
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 21°	Wind Speed (km/hr): 14

Wind Direction: NNW



Barometric Pressure (kPa): 100.9	Relative Humidity (%) 27

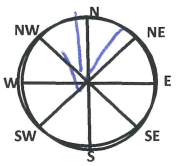
Precipitation:	(none)	drizzle	rain

Comments:

MONITORING STARTS

Operator: GB KH	Location: R8
Date: 23-08-17	Noise Meter Start Time:
Calibration complete ?: ✓	Sensitivity: 51.84
Deviation: -0.02	Time of Calibration: 3:45 am
Battery Power Check:	Check available disk memory (Y/N) ✓
Photographs of Setup (Y/N)	Photographs of Surrounding (Y/N) ✓

Cloud cover:	(cloudy)	partly cloudy	sunny
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 15°C	Wind Speed (km/hr): 9km/hr
Wind Direction: N	
Barometric Pressure (kPa):	Relative Humidity (%)

Precipitation:	none	drizzle	rain

GENERAL SITE DESCRIPTION

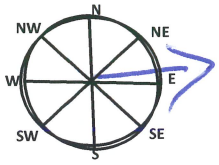
GPS Location R8	Latitude	Longitude	Altitude

Type of Ground Surface:
Acoustic Environment:
- Traffic
- Human activities
- Animal
- Other noise sources

MONITORING ENDS

Operator: KH GB	Total Monitoring Period ~~48~~ 41
Date: Aug 18 2023	Noise Meter End Time: ~~8:20~~ 8:22 am
Calibration complete ?: Battery dead	Sensitivity: —
Deviation —	Time of Calibration: —

Cloud cover:	(cloudy)	partly cloudy	sunny
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C):	Wind Speed (km/hr): 20 km/h
Wind Direction: E	
Barometric Pressure (kPa):	Relative Humidity (%)

Precipitation:	none	drizzle	(rain)

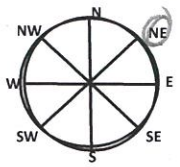
Comments: Heavy rain at the time of retrieval of the noise monitor

4.27
GB

MONITORING STARTS

Operator: EL/LA	Location: R9
Date: 2023/07/09	Noise Meter Start Time: 15:00
Calibration complete ?: Yes	Sensitivity: 52.46
Deviation: 0.06	Time of Calibration: 14:58
Battery Power Check: Yes	Check available disk memory (Y/N)
Photographs of Setup (Y/N)	Photographs of Surrounding (Y/N)

Cloud cover:	(cloudy)	partly cloudy	sunny
Height of cloud (feet):	0-10,000	(10,000-25,000)	25,000 +

Air Temperature (C): 12°	Wind Speed (km/hr): 28
Wind Direction: NE	
Barometric Pressure (kPa): 101.3	Relative Humidity (%) 54.5

Precipitation:	none	(drizzle)	rain

GENERAL SITE DESCRIPTION

	Latitude	Longitude	Altitude
GPS Location 14W	0603301	7256750	

Type of Ground Surface: Tundra & boulders

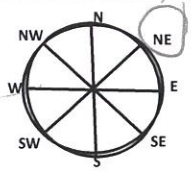
Acoustic Environment:

- Traffic: chopper
- Human activities
- (Animal)
- Other noise sources: lake

MONITORING ENDS

Operator: EL	Total Monitoring Period 48 hrs
Date: 2023/07/11	Noise Meter End Time: 13:54
Calibration complete ?: Yes	Sensitivity: 51.69
Deviation -0.13	Time of Calibration: 13:57

Cloud cover:	cloudy	partly cloudy	(sunny)
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 18°	Wind Speed (km/hr): 11 Km/h
Wind Direction: NE	
Barometric Pressure (kPa): 101.3	Relative Humidity (%) 37

Precipitation:	(none)	drizzle	rain

Comments: Due to a lost swivel mount, the mic (+cover) were taped directly to a leg of the tripod
*The swivel mount was later found upon return to site

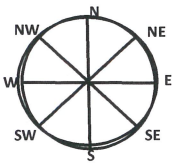
MONITORING STARTS

Operator: KELLY HABIB / Gui Bazic	Location: R9
Date: 23-08-17	Noise Meter Start Time: 16:23
Calibration complete ?: ✓	Sensitivity: 51.5
Deviation: 0.07	Time of Calibration: 16:15
Battery Power Check: ✓	Check available disk memory (Y/N) ✓
Photographs of Setup (Y/N) Y	Photographs of Surrounding (Y/N) ✓

Cloud cover:	(cloudy)	partly cloudy	sunny
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 15 °C	Wind Speed (km/hr): 4

Wind Direction: N



Barometric Pressure (kPa):	Relative Humidity (%)

Precipitation:	(none)	drizzle	rain

GENERAL SITE DESCRIPTION

GPS Location	Latitude	Longitude	Altitude

Type of Ground Surface:
Acoustic Environment:
- Traffic
- Human activities
- Animal
- Other noise sources

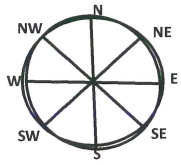
MONITORING ENDS

Operator: KELLY HABIB / Gui Bazic	Total Monitoring Period 48h
Date: 23-08-19	Noise Meter End Time: 15:43
Calibration complete ?: YES	Sensitivity: 51.71
Deviation 0.04	Time of Calibration: 15:45

Cloud cover:	(cloudy)	partly cloudy	sunny
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C):	Wind Speed (km/hr): 20 Km/H

Wind Direction: E



Barometric Pressure (kPa):	Relative Humidity (%)

Precipitation:	none	drizzle	(rain)

Comments: Heavy Rain when retrieving the noise monitor.

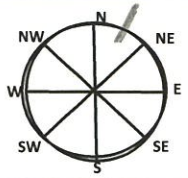
5.1 GB

FIRST ROUND

MONITORING STARTS

Operator: Alice & Sam	Location: R/O
Date: 2023-07-14	Noise Meter Start Time: 15:20
Calibration complete ?: Yes	Sensitivity: 52.18 deviation: 0.08dB
Deviation: 1.08	Time of Calibration: 15:18
Battery Power Check: OK	Check available disk memory (Y/N) Yes
Photographs of Setup (Y/N) Yes	Photographs of Surrounding (Y/N) Yes

Cloud cover:	cloudy	(partly cloudy)	sunny
Height of cloud (feet):	0-10,000	(10,000-25,000)	25,000 +

Air Temperature (C): 19.7	Wind Speed (km/hr): 10.46
Wind Direction: 10.46 NNE	
Barometric Pressure (kPa): 101.3	Relative Humidity (%) 51

Precipitation:	(none)	drizzle	rain

GENERAL SITE DESCRIPTION

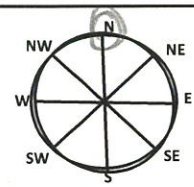
	Latitude	Longitude	Altitude
GPS Location 14W	608154	7250529	

Type of Ground Surface:
Acoustic Environment:
- Traffic
- Human activities
- Animal
- Other noise sources

MONITORING ENDS

Operator: Sam & Alice	Total Monitoring Period 48 hrs
Date: 2023-07-16	Noise Meter End Time: 14:08
Calibration complete ?: YES	Sensitivity: 52.02
Deviation -0.03	Time of Calibration: 14:15

Cloud cover:	cloudy	partly cloudy	(sunny)
Height of cloud (feet): 101.3	0-10,000	10,000-25,000	(25,000 +)

Air Temperature (C): 20.2	Wind Speed (km/hr): 11.5
Wind Direction: N	
Barometric Pressure (kPa): 101.3	Relative Humidity (%) 46.6

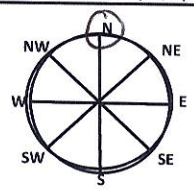
Precipitation:	(none)	drizzle	rain

Comments:

MONITORING STARTS

Operator: KN	Location: R10
Date: 2023-08-03	Noise Meter Start Time: 14:37
Calibration complete ?: Yes	Sensitivity: 51.00
Deviation: -0.16.	Time of Calibration: 14:26.
Battery Power Check: Yes	Check available disk memory (Y/N) Yes.
Photographs of Setup (Y/N) Yes	Photographs of Surrounding (Y/N) Yes

Cloud cover:	cloudy	partly cloudy	(sunny)
Height of cloud (feet):	0-10,000	(10,000-25,000)	25,000 +

Air Temperature (C): 26	Wind Speed (km/hr): 6km/h.
Wind Direction:	
Barometric Pressure (kPa): 101.7.	Relative Humidity (%)

Precipitation:	(none)	drizzle	rain

GENERAL SITE DESCRIPTION

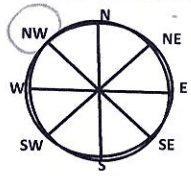
GPS Location	Latitude	Longitude	Altitude
14W	608154	7250529.	

Type of Ground Surface:
Acoustic Environment: helicopter
Traffic
Human activities WTtR. → pretty far.
Animal
Other noise sources

MONITORING ENDS

Operator: KN	Total Monitoring Period 46.08
Date: 2023-08-05	Noise Meter End Time: 12:46
Calibration complete ?: Y	Sensitivity: 51.42
Deviation 0.07	Time of Calibration: 12:52.

Cloud cover:	(cloudy)	partly cloudy	sunny
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 16	Wind Speed (km/hr): 10
Wind Direction:	
Barometric Pressure (kPa): 101.5	Relative Humidity (%) 65.9

Precipitation:	none	(drizzle)	rain

Comments:

FIRST ROUND

MONITORING STARTS

Operator: Alice + Sam	Location: R11
Date: 2023-07-14	Noise Meter Start Time: 16:05
Calibration complete ?: YES	Sensitivity: 51.67
Deviation: 0.01	Time of Calibration: 16:00
Battery Power Check: OK	Check available disk memory (Y/N) YES
Photographs of Setup (Y/N) Y	Photographs of Surrounding (Y/N) Y

Cloud cover:	cloudy	partly cloudy	sunny
Height of cloud (feet):	0-10,000	10,000-25,000	25,000 +

Air Temperature (C): 18.1	Wind Speed (km/hr): 4.9
Wind Direction: NNE	
Barometric Pressure (kPa): 101.3	Relative Humidity (%) 58.7

Precipitation:	none	drizzle	rain

GENERAL SITE DESCRIPTION

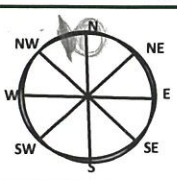
GPS Location 14W	Latitude	Longitude	Altitude
	606756	7258558	

Type of Ground Surface:
Acoustic Environment:
- Traffic
- Human activities
- Animal
- Other noise sources

MONITORING ENDS

Operator: Alice + Sam	Total Monitoring Period 48 hrs
Date: 2023-07-16	Noise Meter End Time: 14:58
Calibration complete ?: YES	Sensitivity: 51.72
Deviation 0.01	Time of Calibration: 14:50

Cloud cover:	cloudy	partly cloudy	sunny
Height of cloud (feet):	0-10,000	10,000-25,000	25,000 +

Air Temperature (C): 18.5	Wind Speed (km/hr): 4.5
Wind Direction: NNW	
Barometric Pressure (kPa): 101.3	Relative Humidity (%) 56

Precipitation:	none	drizzle	rain

Comments:

FIRST ROUND

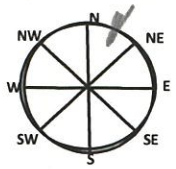
MONITORING STARTS

Operator: Alice + Sam	Location: R11
Date: 2023-07-14	Noise Meter Start Time: 16:05
Calibration complete ?: YES	Sensitivity: 51.67
Deviation: 0.01	Time of Calibration: 16:00
Battery Power Check: OK	Check available disk memory (Y/N) YES
Photographs of Setup (Y/N) Y	Photographs of Surrounding (Y/N) Y

Cloud cover:	cloudy	(partly cloudy)	sunny
Height of cloud (feet):	0-10,000	(10,000-25,000)	25,000 +

Air Temperature (C): 18.1	Wind Speed (km/hr): 4.9

Wind Direction: NNE



Barometric Pressure (kPa): 101.3	Relative Humidity (%) 58.7

Precipitation:	(none)	drizzle	rain

GENERAL SITE DESCRIPTION

GPS Location	Latitude	Longitude	Altitude
14W	6006756	7258558	

Type of Ground Surface:
Acoustic Environment:
- Traffic
- Human activities
- Animal
- Other noise sources

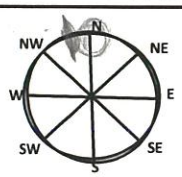
MONITORING ENDS

Operator: Alice + Sam	Total Monitoring Period 48 hrs
Date: 2023-07-16	Noise Meter End Time: 14:58
Calibration complete ?: YES	Sensitivity: 51.72
Deviation 0.01	Time of Calibration: 14:50

Cloud cover:	cloudy	partly cloudy	(sunny)
Height of cloud (feet): #	0-10,000	10,000-25,000	(25,000 +)

Air Temperature (C): 18.5	Wind Speed (km/hr): 4.5

Wind Direction: NNW



Barometric Pressure (kPa): 101.3	Relative Humidity (%) 56

Precipitation:	(none)	drizzle	rain

Comments:

Round #2

MONITORING STARTS

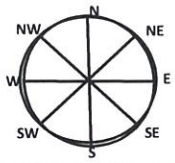
Operator: Eric. L	Location: R11
Date: 2023/08/24	Noise Meter Start Time: 4:54 pm
Calibration complete ?: Y	Sensitivity: 51.98
Deviation: 0.05 db	Time of Calibration: 4:44 pm
Battery Power Check: Y	Check available disk memory (Y/N) Y
Photographs of Setup (Y/N) Y	Photographs of Surrounding (Y/N) Y

Cloud cover: (cloudy) | partly cloudy | sunny

Height of cloud (feet): (0-10,000) | 10,000-25,000 | 25,000 +

Air Temperature (C): 14.1	Wind Speed (km/hr): 10.8 Kmh avg

Wind Direction: NW



Barometric Pressure (kPa): 101.3	Relative Humidity (%) 57%

Precipitation: (none) | drizzle | rain

GENERAL SITE DESCRIPTION

GPS Location	Latitude	Longitude	Altitude
	65° 25' 55.4" N	-96° 41' 54.6" E	

Type of Ground Surface: Tundra & Rock

Acoustic Environment:
- Traffic
- Human activities
- Animal
- Other noise sources

} None

MONITORING ENDS

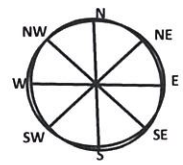
Operator: Eric. L	Total Monitoring Period 39.55 hrs
Date: 2023/08/26.	Noise Meter End Time: 8:27 am
Calibration complete ?: Yes	Sensitivity: 52.52
Deviation 0.09 db	Time of Calibration: 8:32 am

Cloud cover: (cloudy) | partly cloudy | sunny

Height of cloud (feet): (0-10,000) | 10,000-25,000 | 25,000 +

Air Temperature (C): 8°	Wind Speed (km/hr): 23 Kmh

Wind Direction: N



Barometric Pressure (kPa): 99.8	Relative Humidity (%) 97

Precipitation: none | drizzle | (rain)

Comments: Significant amounts of wind & rain during the last 24 hrs of monitoring

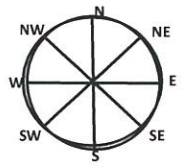
MONITORING STARTS

Operator: EL / GB	Location: R Max
Date: 2023/07/01	Noise Meter Start Time: 9:30
Calibration complete ?: Yes	Sensitivity: 52.53
Deviation: 0.39.	Time of Calibration: 9:27 am
Battery Power Check: Yes	Check available disk memory (Y/N) Yes
Photographs of Setup (Y/N) Yes	Photographs of Surrounding (Y/N) Yes

Cloud cover:	cloudy	(partly cloudy)	sunny
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 14°	Wind Speed (km/hr): 10

Wind Direction: NW



Barometric Pressure (kPa): 101	Relative Humidity (%) 73

Precipitation:	(none)	drizzle	rain

GENERAL SITE DESCRIPTION

GPS Location	Latitude	Longitude	Altitude

Type of Ground Surface:
Acoustic Environment:
- Traffic
- Human activities
- Animal
- Other noise sources: Bird whistling nearby

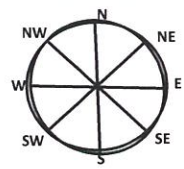
MONITORING ENDS

Operator: EL / GB	Total Monitoring Period 48H
Date: July 4th 2023	Noise Meter End Time: 15:08 (MEMORY FULL)
Calibration complete ?: YES	Sensitivity: 52.12
Deviation 0.32	Time of Calibration: 15:10

Cloud cover:	(cloudy)	partly cloudy	sunny
Height of cloud (feet):	(0-10,000)	10,000-25,000	25,000 +

Air Temperature (C): 14°	Wind Speed (km/hr): 11 Km/h

Wind Direction: SW



Barometric Pressure (kPa): 100.7	Relative Humidity (%) 41

Precipitation:	(none)	drizzle	rain

Comments: