



August 12, 2024

Christopher Yuen  
 Community Development Director  
 City of Essex Junction  
 2 Lincoln Street  
 Essex Junction, Vermont 05452

RE: Environmental Sound Monitoring – Wolfsgart 2024

Dear Mr. Yuen;

Vermont Air Testing Services (VATS) was retained by the City of Essex Junction to perform perimeter environmental sound monitoring at the Champlain Valley Exposition (CVE) for selected outdoor events held at the facility throughout the 2024 summer outdoor event season. Sound monitoring was performed using Quest Technologies Sound Pro DL Type II integrating/logging sound level meter (SLM) setup to collect broadband sound level readings. The SLM used for the monitoring was configured to log average sound pressure levels every 5 seconds in the broadband or A-weighted scale. The SLM microphone was fitted with a windscreen to minimize wind disturbance. The SLM was calibrated to a 114 decibel (dB) tone prior to and following the sound monitoring event.

One SLM was deployed overnight for each the Wolfsgart event held at the CVE starting on the evening of July 25<sup>th</sup> through the morning July 28<sup>th</sup> with three nights of overnight monitoring. A single SLM was used to monitor each night of the event and the SLM was placed along the eastern boundary fence line approximately 50 feet south of the Green Gate entrance. The Wolfsgart event was an overnight camping event with activities held throughout the evening primarily in the parking and RV camping areas at the fairgrounds. The weather for the event started with cloudy skies changing over to fair skies with winds out of the northwest up to 10 mph changing over to winds out of the east up to 5 mph. The skies remained fair throughout the remainder of the event. The temperatures ranged from the low 80's to the mid 60's. There was a period of light rain during the overnight at approximately 2 am on July 27<sup>th</sup>. Sound monitoring began at approximately 7:00 pm each evening and concluded the following morning at 7:00 am. The sound monitoring data is presented in the attached charts and a summary of the monitoring data is provided below.

The maximum hourly average sound level from 7 pm to midnight, which correlates to Hours 1 through 5, was 78 dBA with the maximum 5-minute average sound level defined at 83 dBA. Hour 6 maximum hourly decibel level was 55dBA with a 5-minute maximum of 65 dBA. Hours 7 through 12, 1 am to 7 am, were limited to a 50 dBA hourly average with 60 dBA. The table below presents the Thursday night SLM property line hourly average sound data, the maximum sound levels and the time duration of sound levels above maximum allowable sound level in minutes.

	Hour											
	1	2	3	4	5	6	7	8	9	10	11	12
Hourly Average (dBA)	55.3	51.3	50.8	51.1	47.3	43.9	43.5	43.8	43.8	44.4	45.8	46.7
Max Sound Level (dBA)	74.3	59.1	58.0	59.8	58.7	55.4	47.8	45.8	47.6	52.9	59.3	63.8
Time Above Max Level (min)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4

The data presented above indicates the hourly average sound limits were not exceeded at any time during the monitoring event. The maximum sound level was exceeded along the east property boundary during Hour 12, the 6 am to 7 am time. The maximum sound limit was exceeded for 0.4 minutes or approximately 25 seconds. The sound level did not violate the sound agreement as the maximum sound level in the agreement is defined as a sustained maximum five-minute average in the established sound criteria limits.

The Friday night monitoring data is presented in the following table:

	Hour											
	1	2	3	4	5	6	7	8	9	10	11	12
Hourly Average (dBA)	49.9	50.8	49.8	48.9	48.2	46.0	44.0	43.1	43.3	42.4	42.7	43.2
Max Sound Level (dBA)	56.9	61.0	58.8	56.0	57.5	57.1	52.1	47.4	61.2	50.5	53.5	56.7
Time Above Max Level (min)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0

Again, the data presented above indicates the hourly average sound limits were not exceeded at any time during the monitoring event. The maximum sound level was exceeded along the east property boundary during Hour 9, the 3 am to 4 am time. The maximum sound limit was exceeded for 0.3 minutes or approximately 20 seconds. The sound level did not violate the sound agreement as the maximum sound level in the agreement is defined as a sustained maximum five-minute average in the established sound criteria limits.

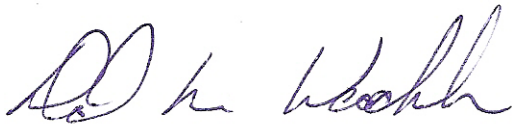
The Saturday night monitoring data is presented in the following table:

	Hour											
	1	2	3	4	5	6	7	8	9	10	11	12
Hourly Average (dBA)	50.4	49.6	54.9	52.6	48.5	46.4	43.2	41.9	41.5	41.5	42.6	41.8
Max Sound Level (dBA)	68.0	62.6	69.8	67.1	75.2	55.0	54.1	46.2	46.9	45.0	52.2	52.9
Time Above Max Level (min)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

As with the other overnight data, the sound level data presented above indicates the hourly average sound limits were not exceeded at any time during the monitoring event. The maximum sound level was also not exceeded per the definition of Max Sound Level along the east property boundary throughout the Saturday night into Sunday morning event.

The sound level data is presented in attached charts for the SLM used during the Wolfsgart monitoring event held on July 25<sup>th</sup> through July 28<sup>th</sup>, 2024. The sound levels measured throughout the event did not exceed the established sound level criteria without exception. The established sound level criteria used for monitoring outdoor events held at the Champlain Valley Exposition are defined in the Sound Indemnification Agreement between the Champlain Valley Exposition and the City of Essex Junction.

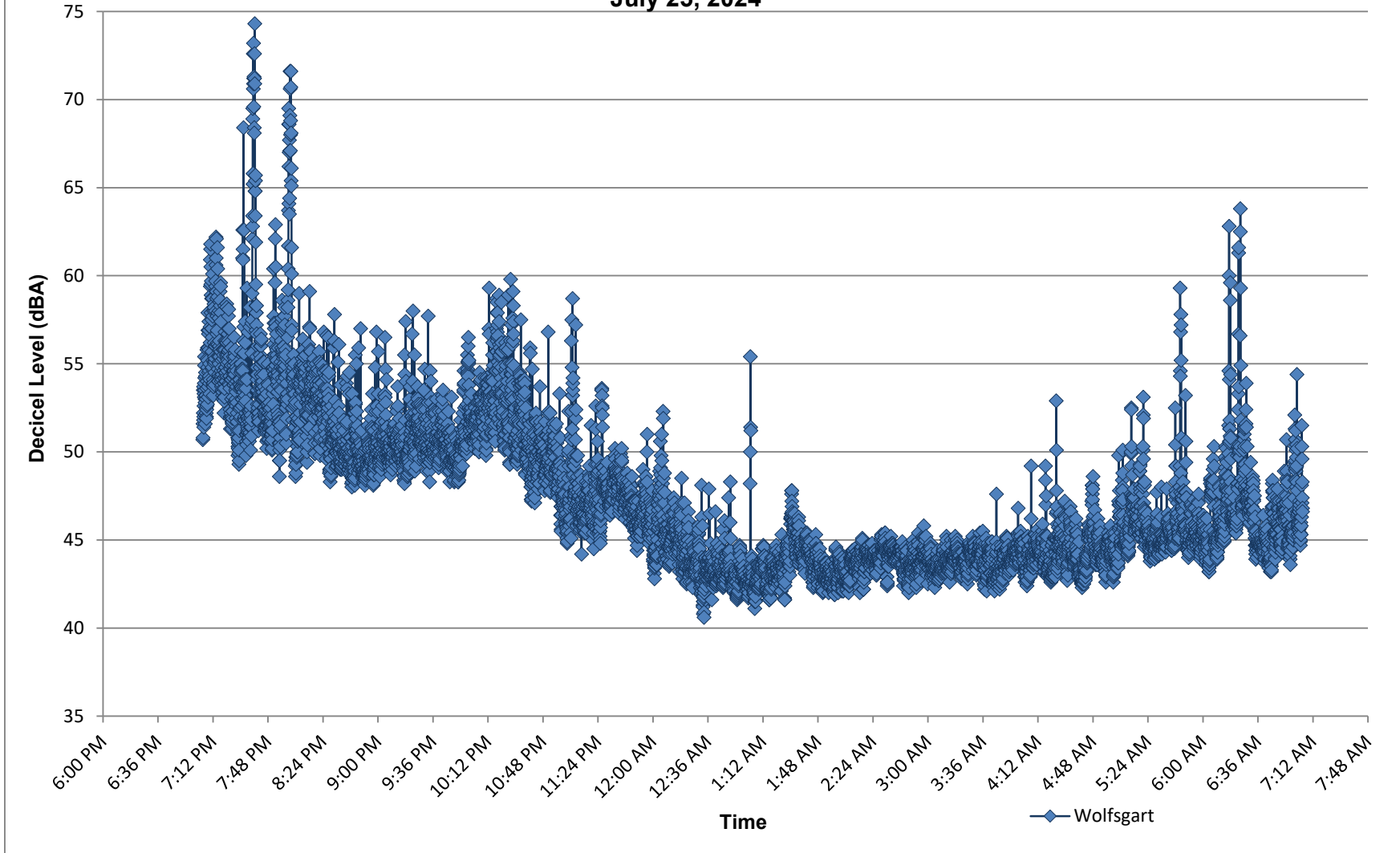
Best regards,

A handwritten signature in black ink, appearing to read "Dave", written in a cursive style.

Principal

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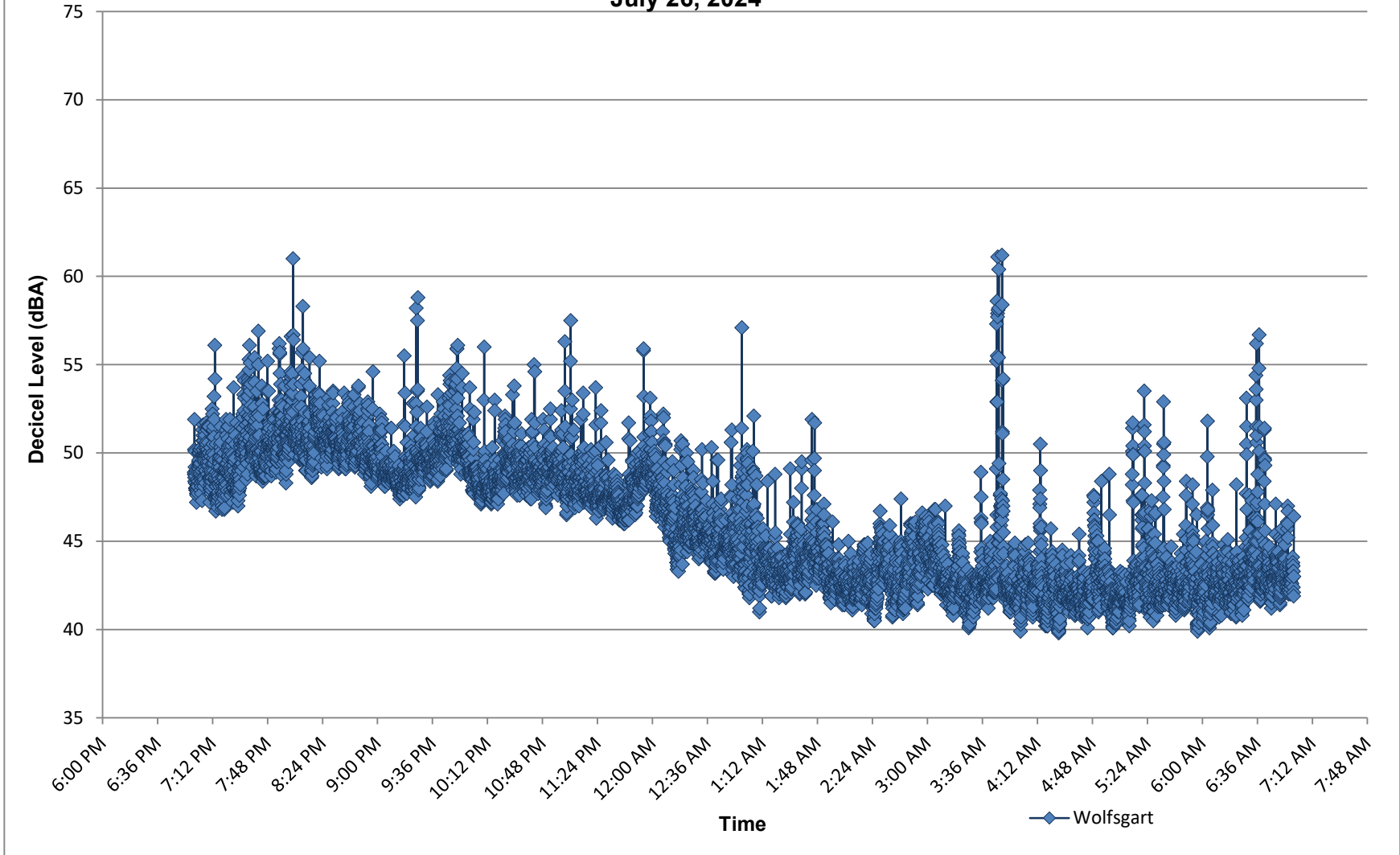
**Champlain Valley Exposition  
 Wolfsgart - East Boundary Noise Monitoring  
 July 25, 2024**



	Hour 1	Hour 2	Hour 3	Hour 4	Hour 5	Hour 6	Hour 7	Hour 8	Hour 9	Hour 10	Hour 11	Hour 12
Hourly Avg	55.3	51.3	50.8	51.1	47.3	43.9	43.5	43.8	43.8	44.4	45.8	46.7
Max Levels	74.3	59.1	58.0	59.8	58.7	55.4	47.8	45.8	47.6	52.9	59.3	63.8
Exceeding Limit (min)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4

	Hour 1 to Hour 5	Hour 6	Hour 7 to Hour 12	Hour 1 to Hour 5: 7 pm to 12 am
Max Hourly Averages:	78 dBA	55 dBA	50 dBA	Hour 6: 12 am to 1 am
Max Levels (5 min average):	83 dBA	65 dBA	60 dBA	Hour 7 to Hour 12: 1 am to 7 am

**Champlain Valley Exposition  
 Wolfsgart - East Boundary Noise Monitoring  
 July 26, 2024**

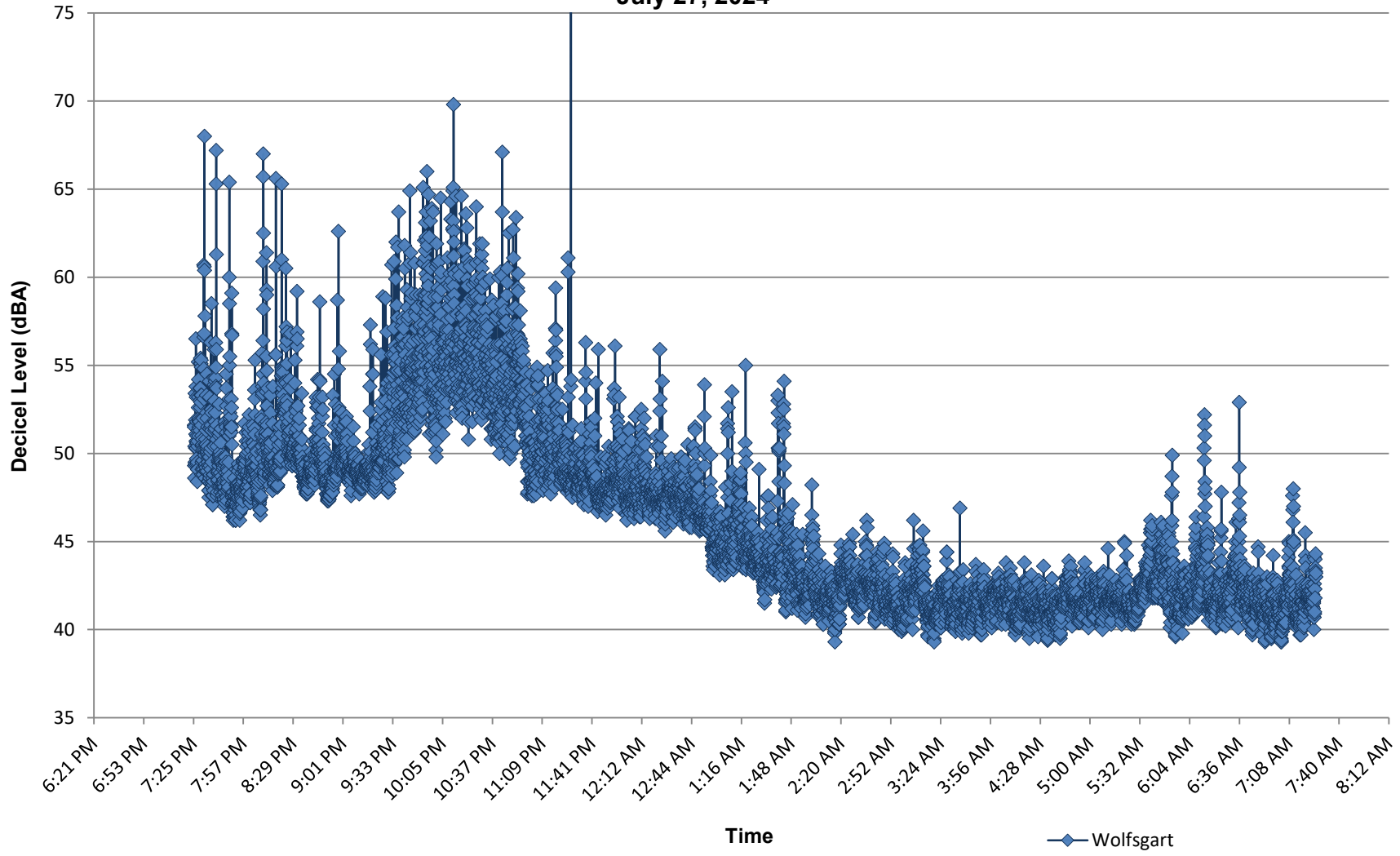


	Hour 1	Hour 2	Hour 3	Hour 4	Hour 5	Hour 6	Hour 7	Hour 8	Hour 9	Hour 10	Hour 11	Hour 12
Hourly Avg	49.9	50.8	49.8	48.9	48.2	46.0	44.0	43.1	43.3	42.4	42.7	43.2
Max Levels	56.9	61.0	58.8	56.0	57.5	57.1	52.1	47.4	61.2	50.5	53.5	56.7
Exceeding Limit (min)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0

Max Hourly Averages:	Hour 1 to Hour 5	Hour 6	Hour 7 to Hour 12	Hour 1 to Hour 5: 7 pm to 12 am
Max Levels (5 min average):	78 dBA	55 dBA	50 dBA	Hour 6: 12 am to 1 am
	83 dBA	65 dBA	60 dBA	Hour 7 to Hour 12: 1 am to 7 am

**Champlain Valley Exposition  
 Wolfsgart - East Boundary Noise Monitoring  
 July 27, 2024**



	Hour 1	Hour 2	Hour 3	Hour 4	Hour 5	Hour 6	Hour 7	Hour 8	Hour 9	Hour 10	Hour 11	Hour 12
Hourly Avg	50.4	49.6	54.9	52.6	48.5	46.4	43.2	41.9	41.5	41.5	42.6	41.8
Max Levels	68.0	62.6	69.8	67.1	75.2	55.0	54.1	46.2	46.9	45.0	52.2	52.9
Exceeding Limit (min)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Max Hourly Averages:	Hour 1 to Hour 5	Hour 6	Hour 7 to Hour 12	Hour 1 to Hour 5: 7 pm to 12 am
Max Levels (5 min average):	83 dBA	65 dBA	60 dBA	Hour 6: 12 am to 1 am
				Hour 7 to Hour 12: 1 am to 7 am