



October 28, 2021

Robin Pierce  
Development Director  
Village of Essex Junction  
2 Lincoln Street  
Essex Junction, Vermont 05452

RE: Environmental Sound Monitoring – Demolition Derby

Dear Mr. Pierce;

Vermont Air Testing Services (VATS) was retained by the Village 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 2021 summer concert season. Sound monitoring was performed using Quest Technologies Sound Pro DL Type II integrating/logging sound level meters (SLM) setup to collect broadband sound level readings. Two SLMs used for the monitoring were configured to log average sound pressure levels every 5 seconds in the broadband or A-weighted scale. The meters' microphones were fitted with a windscreen to minimize wind disturbance. Each SLM meter was calibrated at a 114 decibel (dB) tone prior to, and the calibration was checked following the sound monitoring.

Two SLMs were deployed for the Demolition Derby event held at the CVE Grandstand infield on September 2, 2021. One SLM was placed on the east side boundary along the fence line approximately 50 feet south of the Green Gate entrance. The monitoring location was noted as the East Meter location. The second SLM, identified as the West Meter, was placed along the western property boundary on the berm along Weston Way in direct line of sight of the Grandstand sound system tower. Both SLMs began collecting sound data from the beginning of the show until its conclusion.

The Demolition Derby event began at 7:00 pm on the Grandstand stage during the 2-hour racing event. The weather during the event was cloudy skies with winds out of the northwest up to 10 mph and temperatures in the low-60's throughout the event.

Sound monitoring began at approximately 7:00 pm on September 2<sup>nd</sup> and concluded at approximately 9:30 pm that evening. Both sound level meters monitored the sound levels continuously throughout the event to its conclusion. The sound monitoring data is presented for both meters in the attached charts and a summary of the monitoring data is provided below.

The table below presents the SLM East 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	Hour 2	Hour 3
Area Average (dBA)	69.7	68.8	67.1
Maximum Sound Level (dBA)	75.6	73.4	73.4
Sustained Sound Level > 83 dBA, (minutes)	0.0	0.0	0.0

The data presented above indicates the hourly average sound limit of 78 dBA was not exceeded along the east property boundary during the 2-hour plus monitoring period at the CVE Grandstand on September 2, 2021. The maximum sound level above 83 dBA was not exceeded along the east property boundary without exception during the concert event. The maximum sound limit is defined as a sustained maximum five-minute average of 83 dBA in the established sound criteria limits.

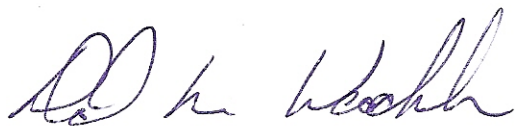
The West sound monitoring data presented below indicates the monitoring conducted along Weston Way during the concert event.

	Hour 1	Hour 2
Area Average (dBA)	57.6	58.2
Maximum Sound Level (dBA)	71.4	72.2
Sustained Sound Level > 83 dBA, (minutes)	0.0	0.0

The West monitoring intervals was conducted on the western property-line berm adjacent to Weston Way. The data listed above indicates the average area sound levels were all below the 78 dBA average limit during each monitoring segment along the property boundaries. The maximum sound levels were also maintained below the 83 dBA limit without exception.

The sound level data is presented in attached charts for the SLMs used during the Demolition Derby event held on September 2, 2021. 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 Village of Essex Junction.

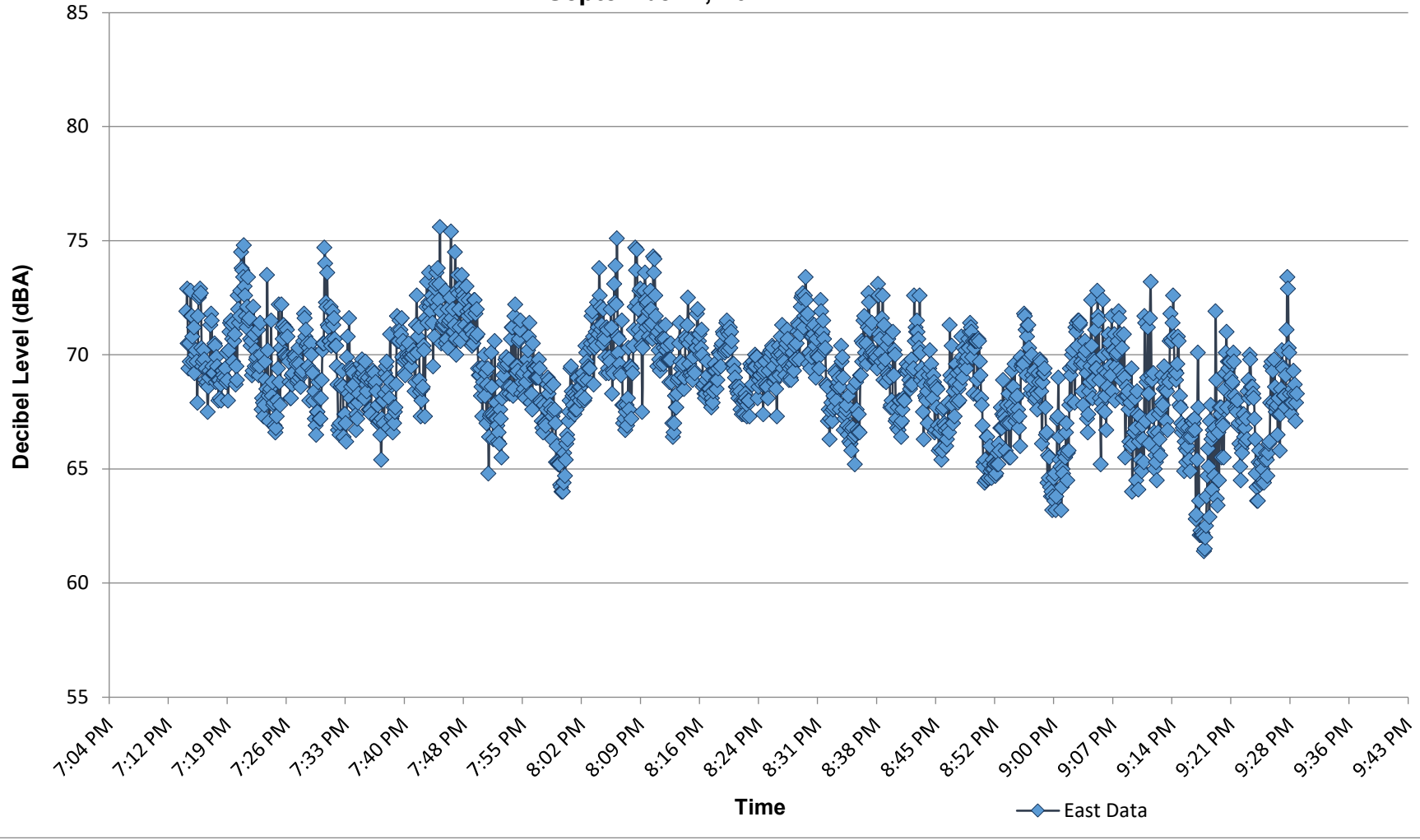
Best regards,



Principal

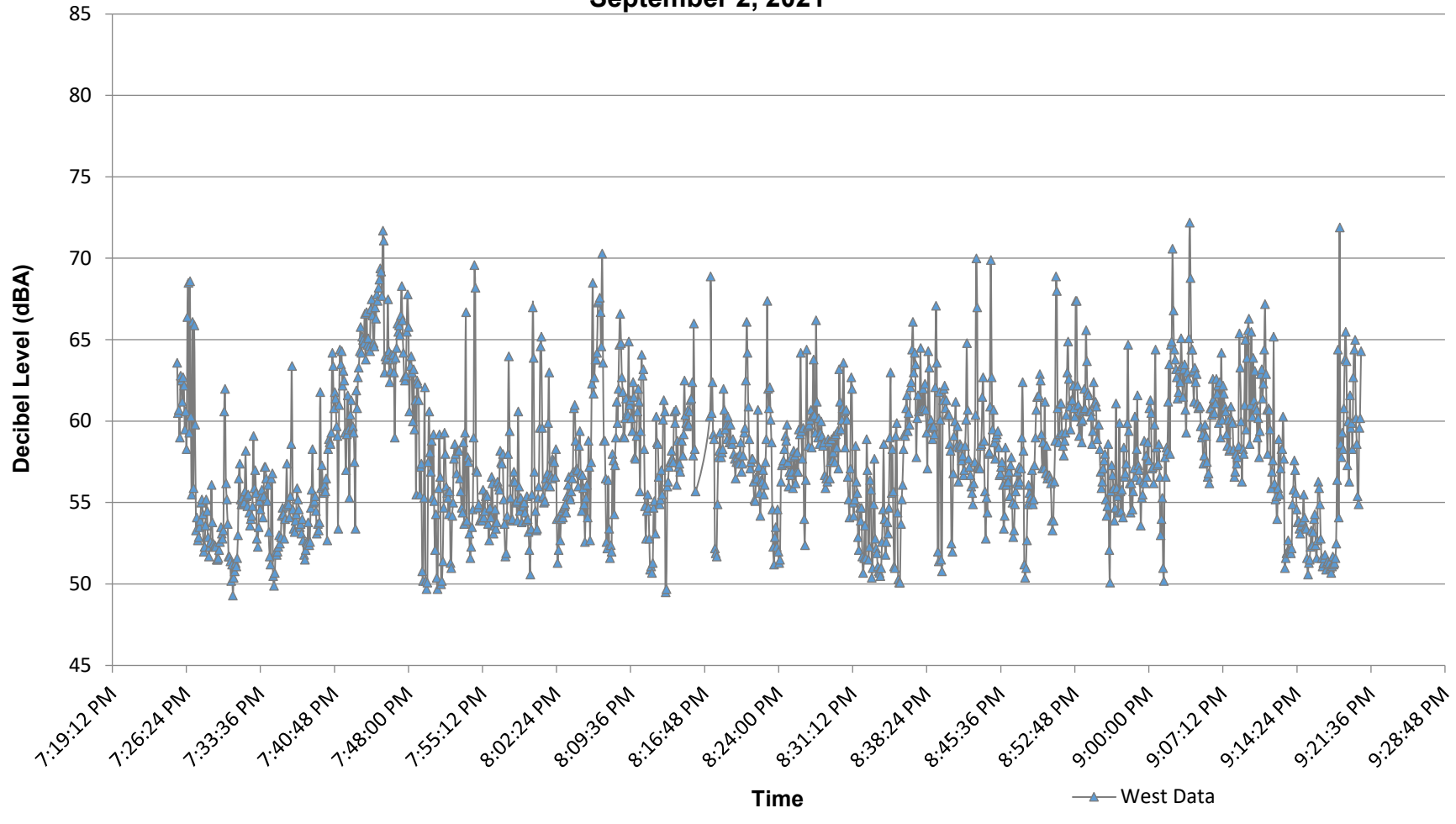
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**Champlain Valley Exposition  
Demolition Derby - East Boundary Noise Monitoring  
September 2, 2021**



	Hour 1	Hour 2	Hour 3
Hourly Avg	69.7	68.8	67.1
Max Levels	75.6	73.4	73.4
Exceeding Limit (min)	0.0	0.0	0.0

**Champlain Valley Exposition  
Demolition Derby - West Boundary Monitoring  
September 2, 2021**



	Hour 1	Hour 2
Hourly Avg	57.6	58.2
Max Levels	71.7	72.2
> 83 dBA (sustained time > 83 dB, in minutes)	0.0	0.0