

**AIR, NOISE AND VIBRATION  
MONTHLY MONITORING REPORT  
Number 009**

Prepared By:  
Gramercy  
Group Inc.

<b>DDC. Project ID:</b>	BBJ M DSS	<b>Period Start:</b> 4/01/23 <b>End</b> 4/30/23
<b>Project Name:</b>	NYC Borough Based Jails System – Manhattan Dismantle and Swing Space	
<b>DDC Pin No.:</b>	8502021CR0004P-06P	

**1) Community Air Monitoring Monthly Status Summary**

TWA – Time Weighted Average  
ug/m<sup>3</sup>- micrograms per cubic meter

Number of Workdays in a Month	Number of Air Monitoring Days in a Month	Number of Days with Dust Concentrations above Action Concentrations by Month (100 ug/m <sup>3</sup> 15 minute TWA)	Comments
20	30	2	A key factor is that this monitor was added to the project after our initial plan was approved. This monitor resides within the jobsite and is not monitoring the air immediately outside of the jobsite, but rather inside the site fencing. This data does not represent the air outside of the jobsite where the public is exposed. We are under the process of moving this monitor outside the fence on Baxter St., where we can accurately measure the air quality at the proper location.

**Community Air Monitoring Excursions and Corrective Actions**

Action Concentration = 100 ug/m<sup>3</sup> 15 minute TWA above background concentration  
Stop Work Concentration = 150 ug/m<sup>3</sup> 15 minute TWA above background concentration

Date: Time	Maximum Dust Reading Before Corrective Action 15 Minute TWA (ug/m <sup>3</sup> )	Maximum Dust Reading After Corrective Action 15 Minute TWA (ug/m <sup>3</sup> )	Corrective Action
4/19/23 @ 1:15PM	150 (ug/m <sup>3</sup> )	20.721 (ug/m <sup>3</sup> )	The first instance on 4/19 at 1:15 PM occurred when saw cutting began. Saw cutting occurred in close proximity to the monitor located inside the construction fencing, resulting in a sudden elevated reading. We stopped

			work and added additional water misters, which reduced the particle concentration and work restarted. Only the monitor near the saw cutting recorded an elevated reading; all other monitors recorded dust concentrations below the action level during this time, indicating that there were no overall air quality issues or risks to the community.
4/21/23 @ 1:30PM	175 (ug/m <sup>3</sup> )	6.687 (ug/m <sup>3</sup> )	The second instance on 4/21 at 1:30 PM was again due to saw cutting in close proximity to the monitor located inside the construction fencing, resulting in a sudden elevated reading. We stopped work and added additional water misters, which reduced the particle concentration and work restarted. Only the monitor near the saw cutting recorded an elevated reading; all other monitors recorded dust concentrations below the action level during this time, indicating that there were no overall air quality issues or risks to the community

**Narrative Summary of Air Monitoring, Excursions and Corrective Actions:**

*In April 2023, construction-related levels of Particulate Matter (PM) PM10 did not surpass Daily Permissible Exposure Limits (PEL) as set by federal standards for the 24-hour Time Weighted Average (TWA), or daily value, and did not cause air quality concerns to the public or on-site workers.*

The contractor, Gramercy Group Inc, in conjunction with the contractor’s environmental specialist, has successfully implemented mitigation techniques at Action Level as well as Permissible Exposure Limits (15-Minute TWA) to suppress construction activity effects on air quality throughout the project work-zone. The two exceedances were due to saw cutting at the North Tower gym walls. The two spikes in the chart were from 2 different days. Both times, we topped work and implemented mitigation techniques. For both instances we applied more water for dust suppression in this area during the saw cutting activity. After corrective action, the limit was well below the threshold and there was no need for any more corrective action at this time.

**2) Community Noise Monitoring Monthly Summary**

Weighted decibels (dBA) level

Number of Workdays in a Month	Number of Noise Monitoring Days in a Month	Number of Days with Noise Levels above Action Levels by Month (dBA)	Comments
20	30	30	Noise monitoring for the month of April had 30 days that had readings greater than the threshold. AQS #998, located within our site positioned on Baxter Street. This monitor was able to determine that the baseline noise for this street is well above the threshold naturally without any construction activity. On the graphs below you will see screen shots of noise levels during the weekends of the month of April are well above the threshold. This is noise exceeding limits at times when there are zero construction activities being performed. Con Edison has filled the trench and the road plates are no longer an issue contributing to the noise exceedances. With that being said, we are still getting alerts for noise levels that are greater than the threshold from AQS #998 only, which is located within our construction site fence. It seems that the monitor is placed in a location along Baxter Street where there is an abundance of noise created from community activity as stated with traffic, horns, and sirens. We are still taking every alarm we get from AQS #998 seriously and investigate the cause and make sure it was not due to our construction procedures and operations. Noise monitoring was continued throughout every day of the month including weekends even when not working. No further construction related exceedances were noted.

**Community Noise Monitoring Excursions and Corrective Actions**

Action Level = 80 dBA  
Stop Work Level = 90 dBA

Date: Time	Maximum Noise Reading before Corrective Action (dBA)	Maximum Noise Reading after Corrective Action (dBA)	Corrective Action
4/01/23 @ 12:35 PM	129.9 dBA	N/A	No corrective action feasible as this noise is unrelated to construction activity.
4/02/23 @ 2:21 PM	122 dBA	N/A	No corrective action feasible as this noise is unrelated to construction activity.
4/8/23 @ 8:34 PM	124.4 dBA	N/A	No corrective action feasible as this noise is unrelated to construction activity.
4/09/23 @ 4:31 PM	126.5 dBA	N/A	No corrective action feasible as this noise is unrelated to construction activity.
4/15/23 @ 2:08 PM	121.9 dBA	N/A	No corrective action feasible as this noise is unrelated to construction activity.
4/23/23 @ 11:28 AM	131 dBA	N/A	No corrective action feasible as this noise is unrelated to construction activity.

**Narrative Summary of Noise Monitoring, Excursions and Corrective Actions:**

*During the month of April, we experienced noise levels greater than the alert threshold AQS monitor #998 as we did in the month of March. After investigation of the cause of these spikes in noise in this area it was noted that all these alerts were not caused by construction activity. This monitor is located within our site fence on Baxter Street. Unfortunately, this area has a ton of traffic throughout the day including police sirens and horns from cars. It was found that the alerts were from sirens from emergency service vehicles. Since Con Edison has finished filing the trench and the road plates are gone the alerts have been lessened. Because of how often the community activity along with the Con Edison work was setting off this monitor last month, we continued to make sure to watch this extra carefully to ensure that we were not the cause of these exceedances. As stated, every time we got an alert for this monitor, we made sure to go investigate and confirm that the alarm was not set off by any of our ongoing construction activities. You will see examples below of weekend noise exceedances during non-working hours to show that this area is exceeding noise levels while ZERO construction activity is being performed. Above are the most notable exceedances that were immediately investigated and found to be unrelated to our work. All construction-related activities for the month of April stayed below the warning limit of 80 dBA. No corrective actions needed to be taken as the noise levels did not exceed the limit.*

**3) Community Vibration Monitoring Monthly Summary**

Inches per second (in/sec)

Number of Workdays in a Month	Number of Vibration Monitoring Days in a Month	Number of Days with Vibration Levels above Action Levels by Month (in/sec)	Comments
20	30	1	All Vibration alerts were unrelated to construction activity.

**Community Vibration Monitoring Excursions and Corrective Actions**

Action Level = 0.5 in/sec  
Stop Work Level = 1.0 in/sec

Date: Time	Maximum Vibration Level before Corrective Action (in/sec)	Maximum Vibration Level after Corrective Action (in/sec)	Corrective Action
4/28/23 @ 6:25 AM	2.978 (in/sec)	0.005 (in/sec)	Reminded NYPD of the location of the monitor and asked to be diligent and aware of trying to not set it off when walking past it.

*Narrative Summary of Vibration Monitoring, Excursions and Corrective Actions:*

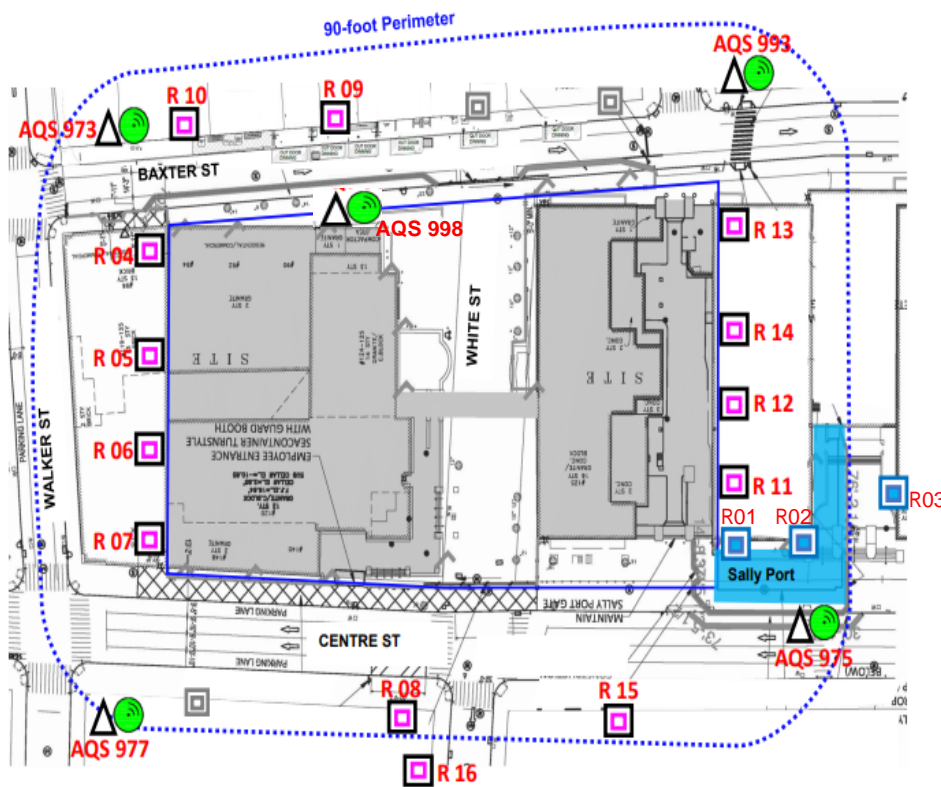
*During the Month of April 2023, there were 3 vibration warning/exceedances (Monitor R14). As stated in the monthly summary, this was a false alarm and NYPD officers were kindly reminded to be aware of the monitor near their work area. All other monitors showed results of vibration being under the warning limit of 0.5(in/sec) / stop work limit of 1.0(in/sec), so there was no need for corrective action at this time.*

**ATTACHMENTS:**

- 1 – Include one map of monitoring station/locations
- 2 – Include Data Plots
- 3 – Include Baseline Reference

**Map of Monitoring Locations:**  
Vibration Monitors R01 – R16  
Air Quality System (AQS) # 933, 973, 975, 977, & 998.

# Environmental Monitoring Manhattan

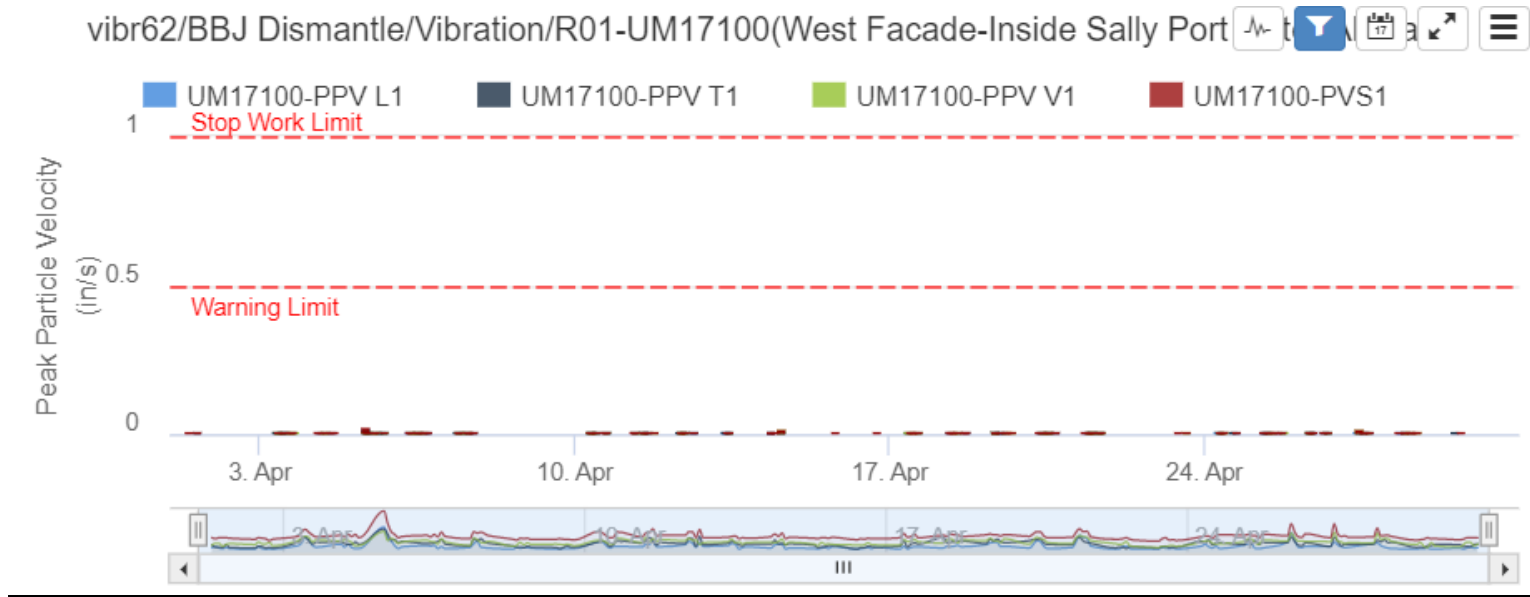


\* Dismantle project vibration, air and noise monitoring devices are installed by Design-Build team in Phase 2, after sally port construction. A vibration monitoring station was installed in the DCTV Fire house at 87 Lafayette St.

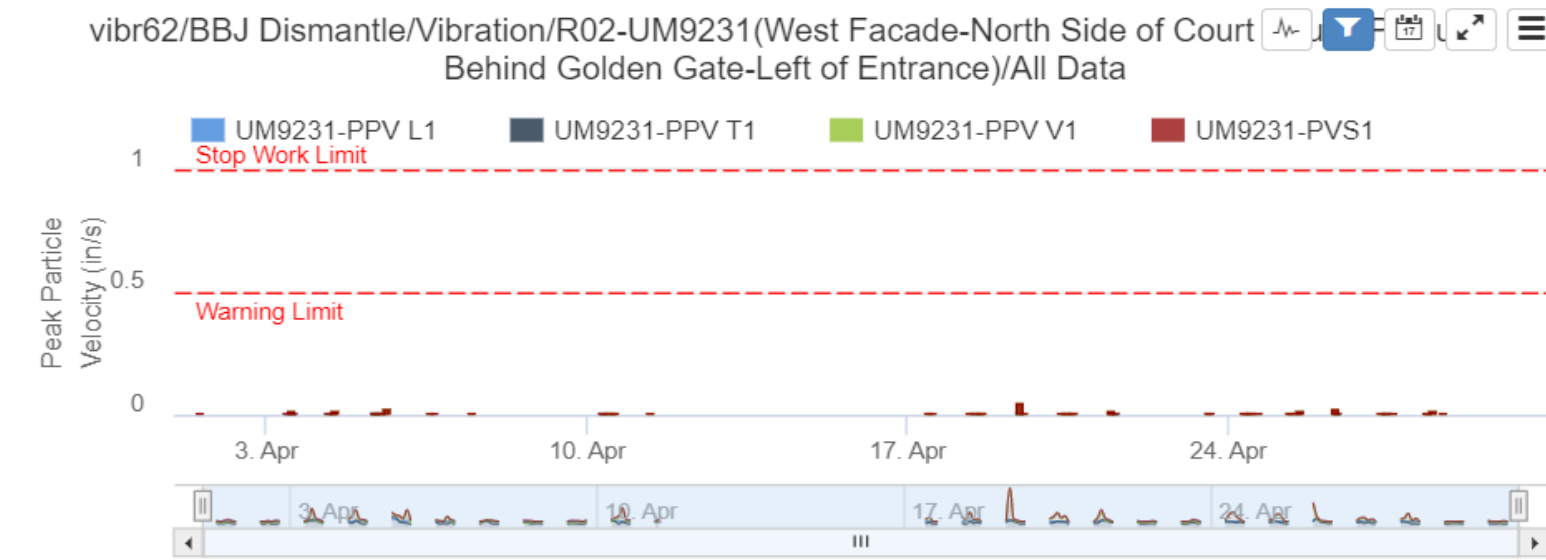
\* The location of monitoring stations presented is referential. Air/Noise Monitoring station located in Sally Port area will be relocated in Phase 2.

	Vibration Monitoring Dismantle
	Air Monitoring Station Dismantle
	Noise Monitoring Station Dismantle
	Vibration Monitoring Sallyport construction (Installed)
	Vibration Monitoring Not installed

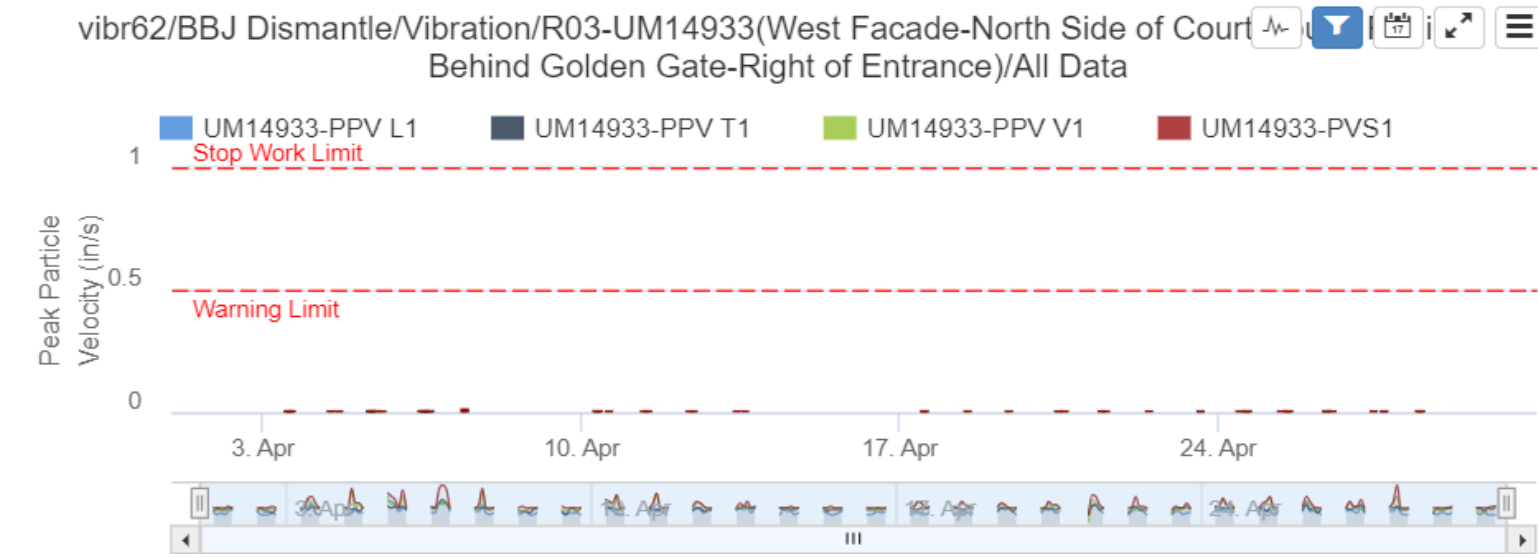
**Vibration Monitor – (R01) April 23:**



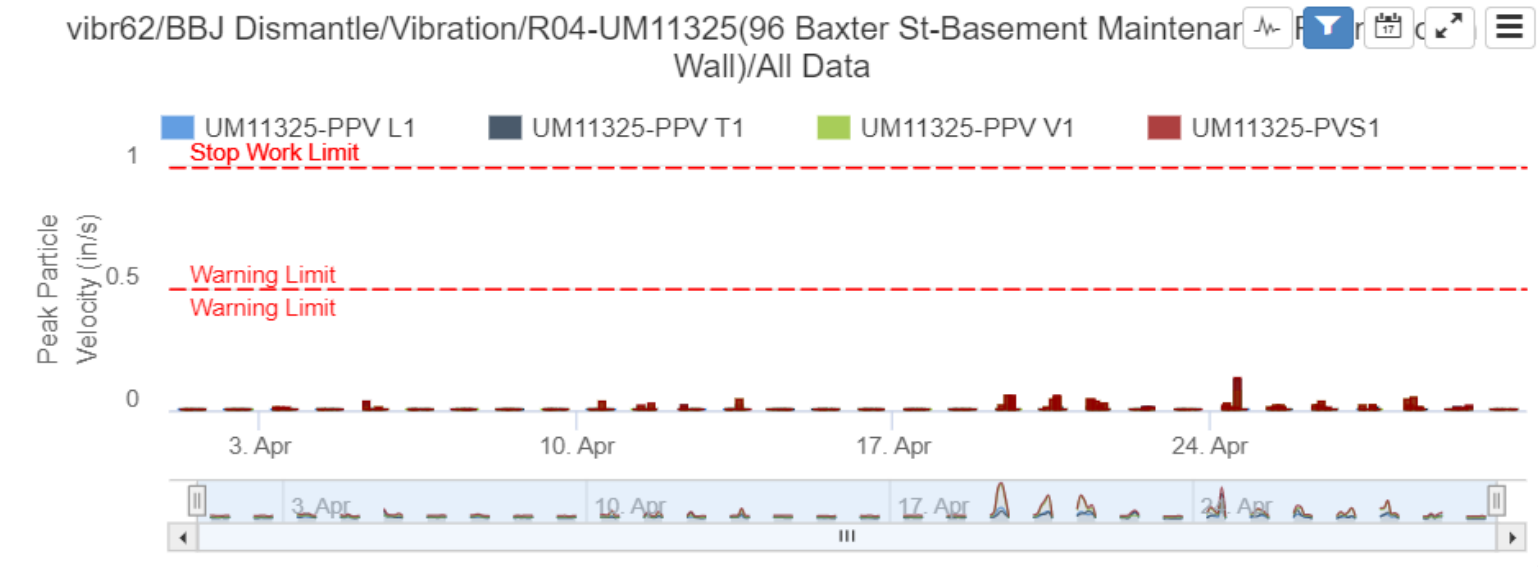
**Vibration Monitor – (R02) April 23:**



**Vibration Monitor – (R03) April 23:**

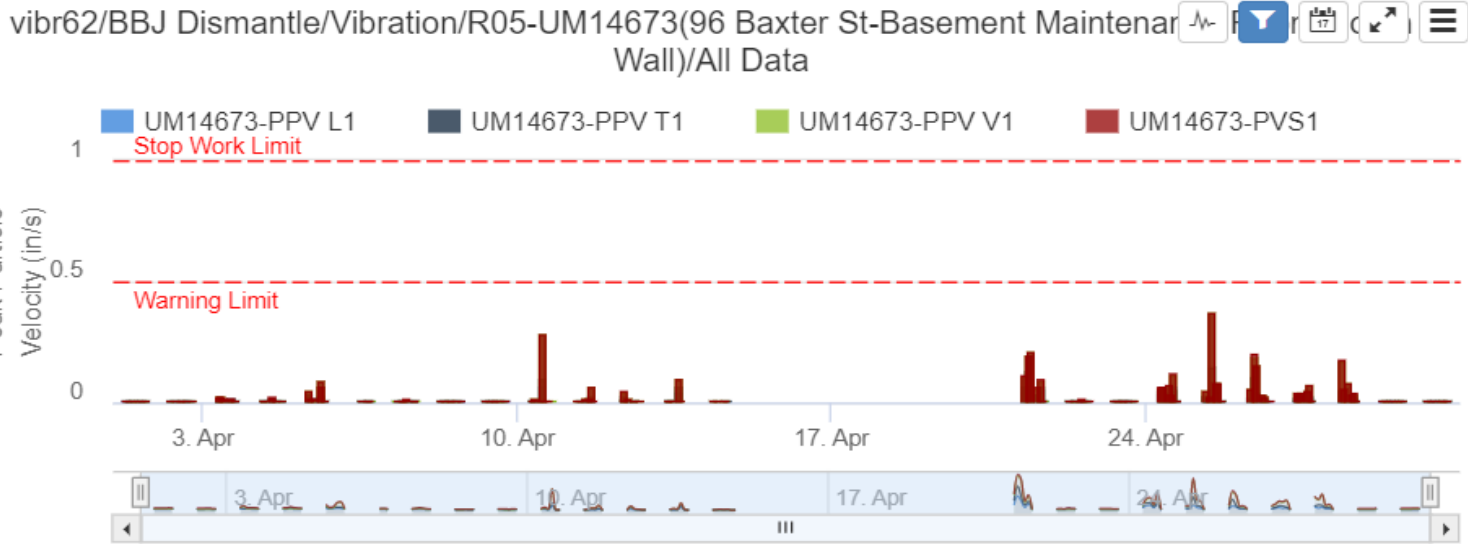


**Vibration Monitor – (R04) April 23:**

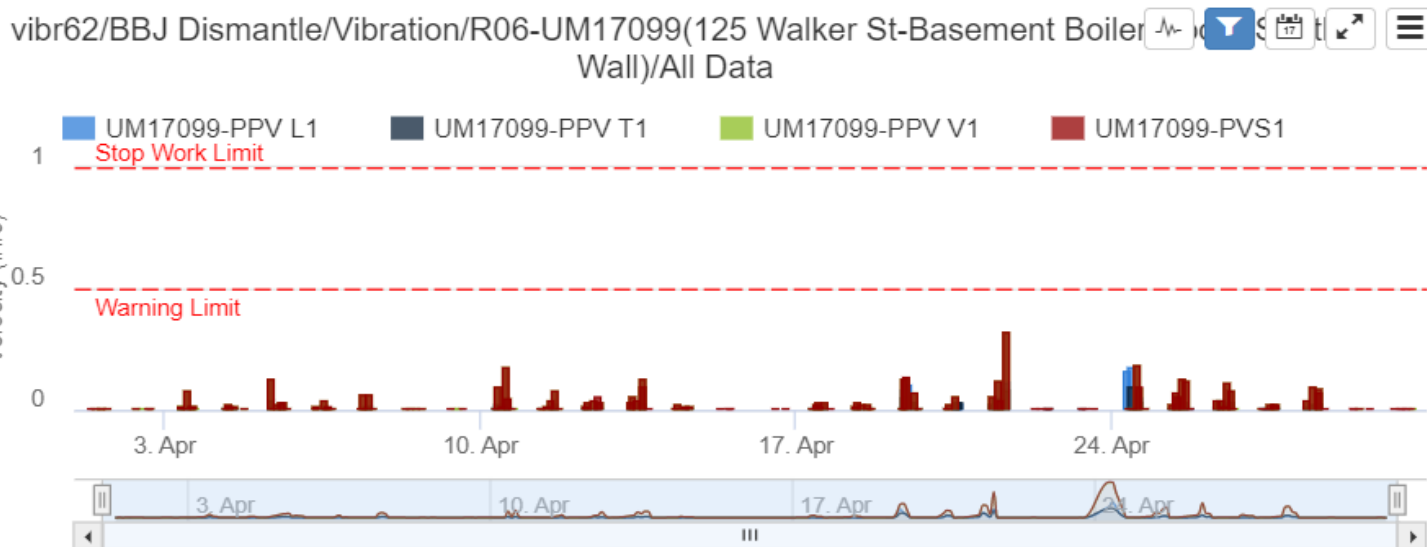




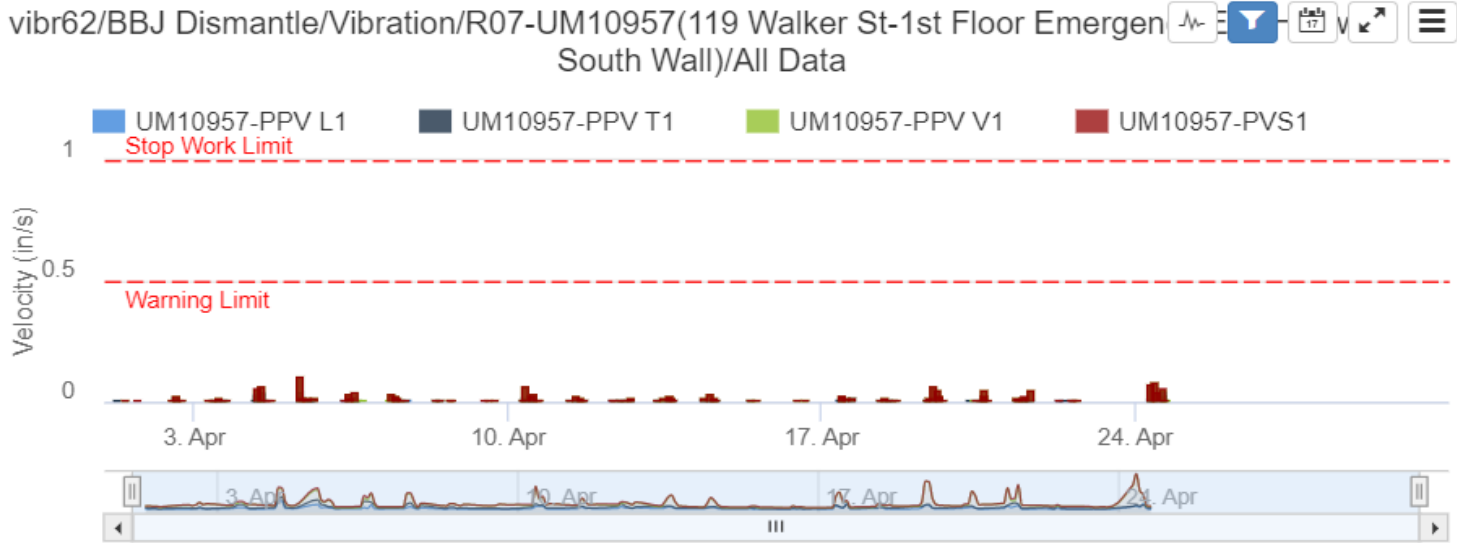
**Vibration Monitor – (R05) April 23:**



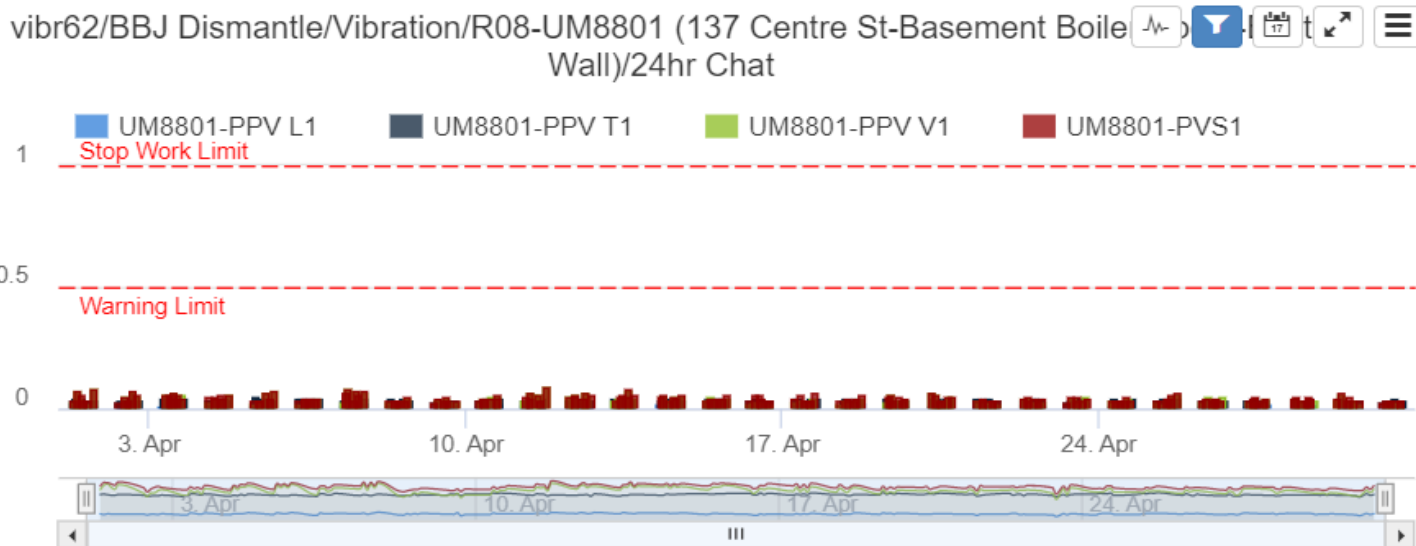
**Vibration Monitor – (R06) April 23:**



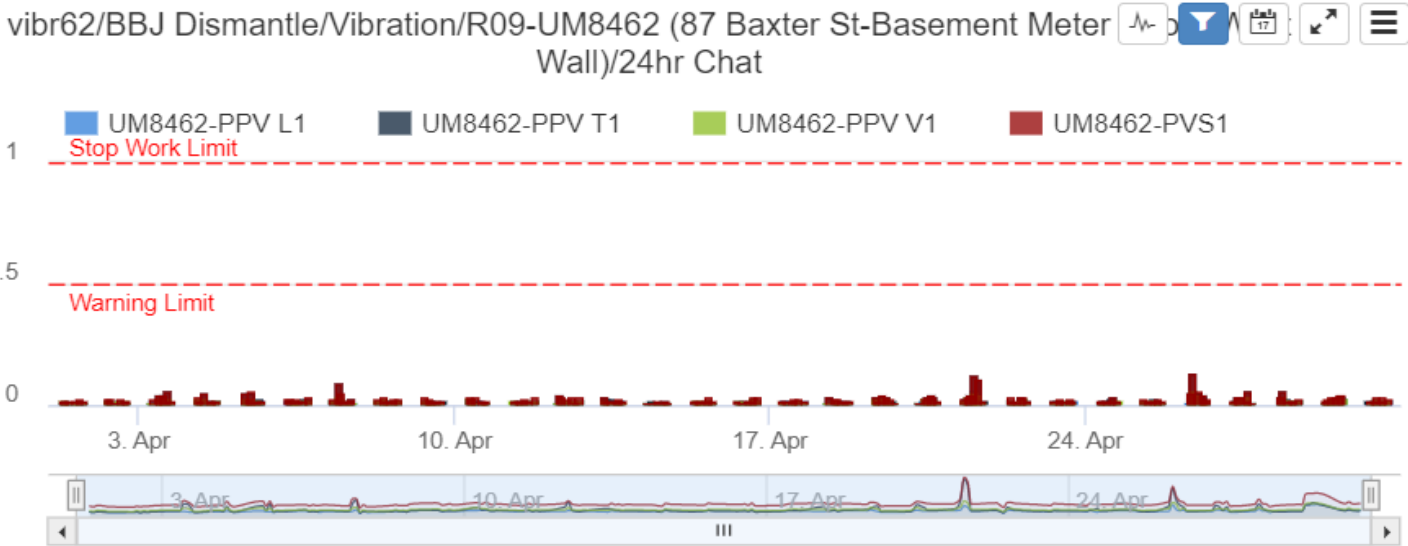
**Vibration Monitor – (R07) April 23:**



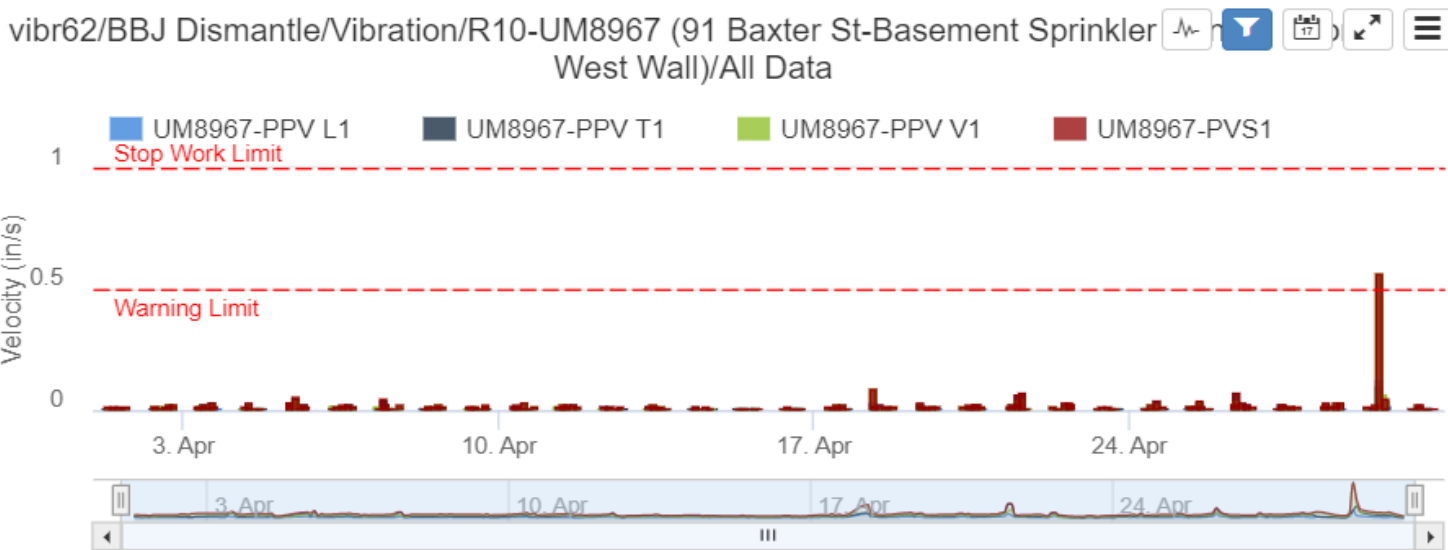
**Vibration Monitor – (R08) April 23:**



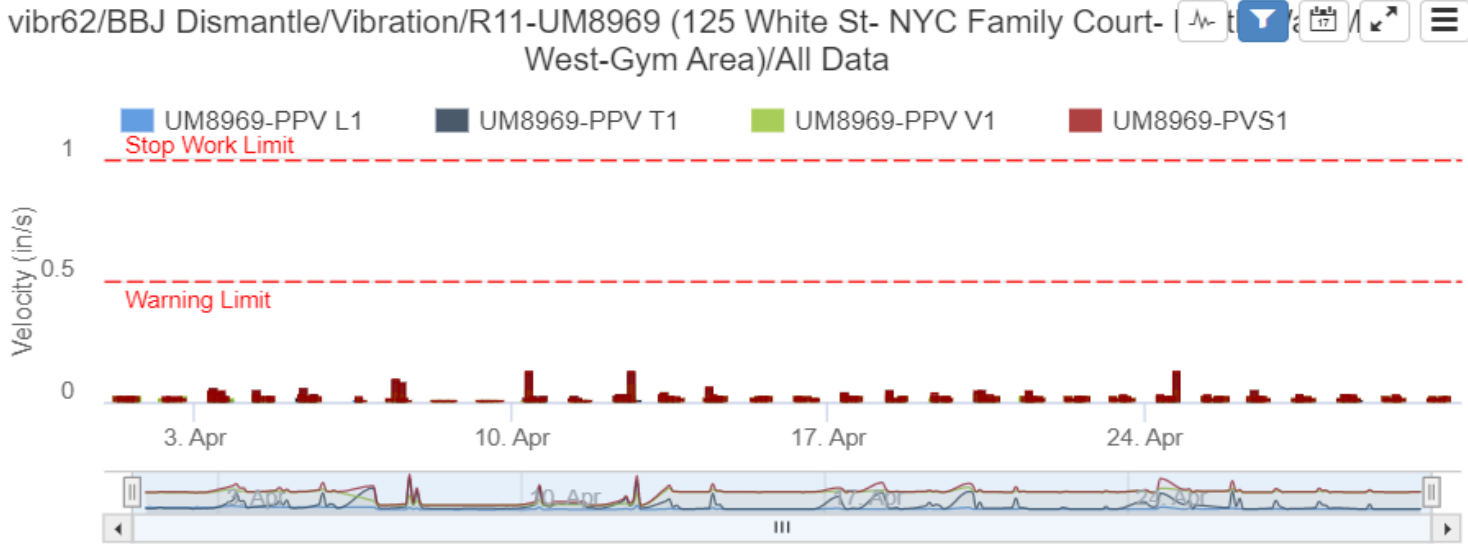
**Vibration Monitor – (R09) April 23:**



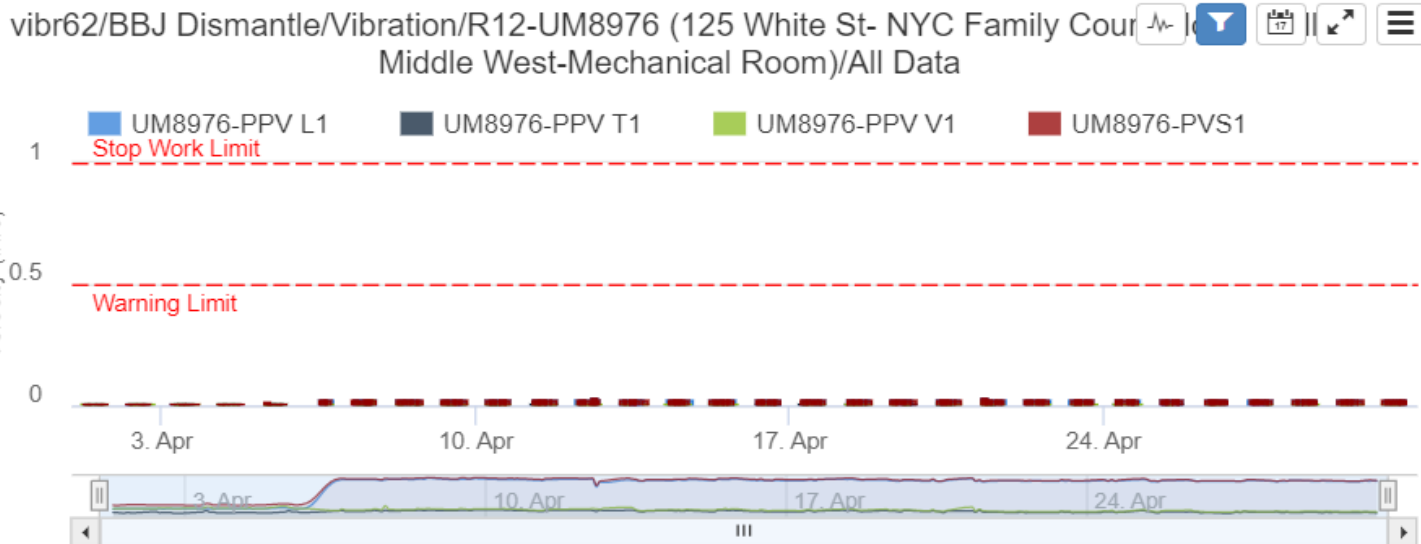
**Vibration Monitor – (R10) April 23:**



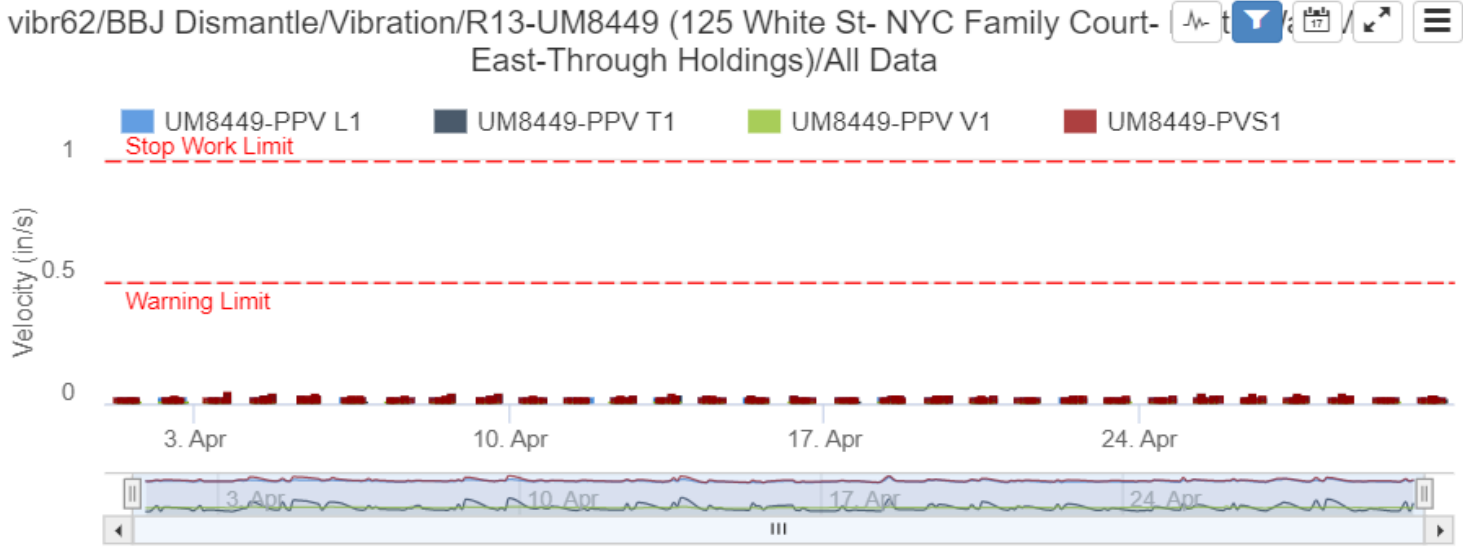
**Vibration Monitor – (R11) April 23:**



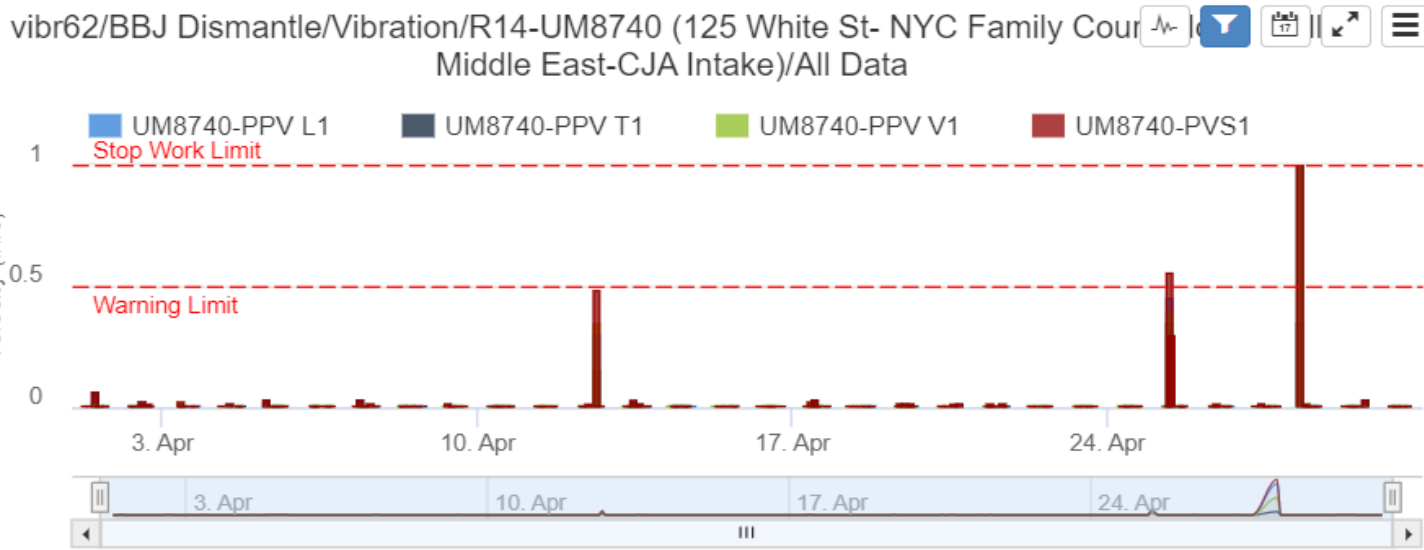
**Vibration Monitor – (R12) April 23:**



**Vibration Monitor – (R13) April 23:**

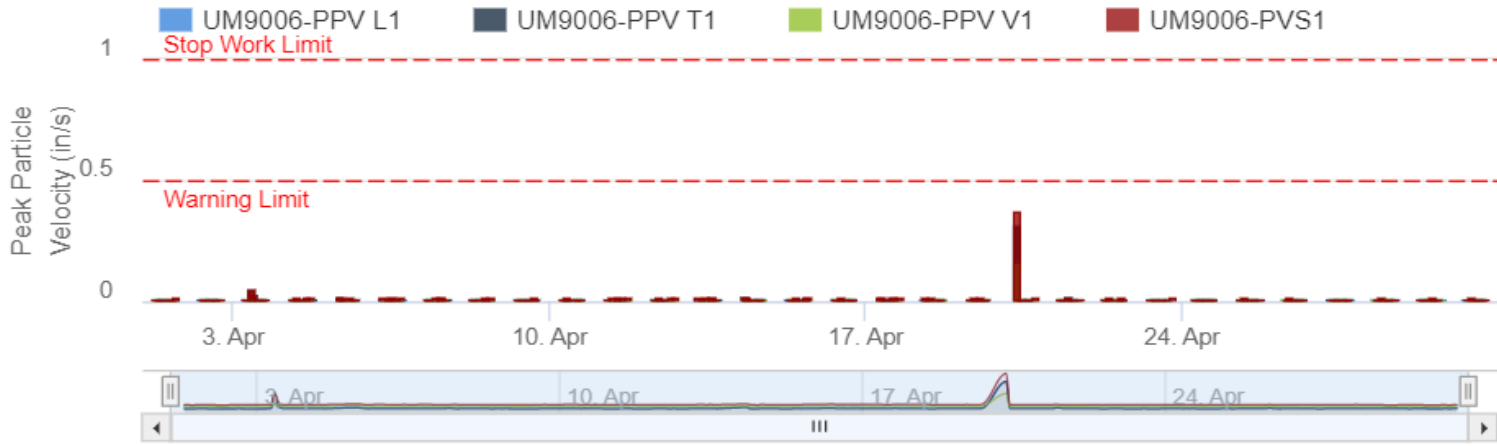


**Vibration Monitor – (R14) April 23:**



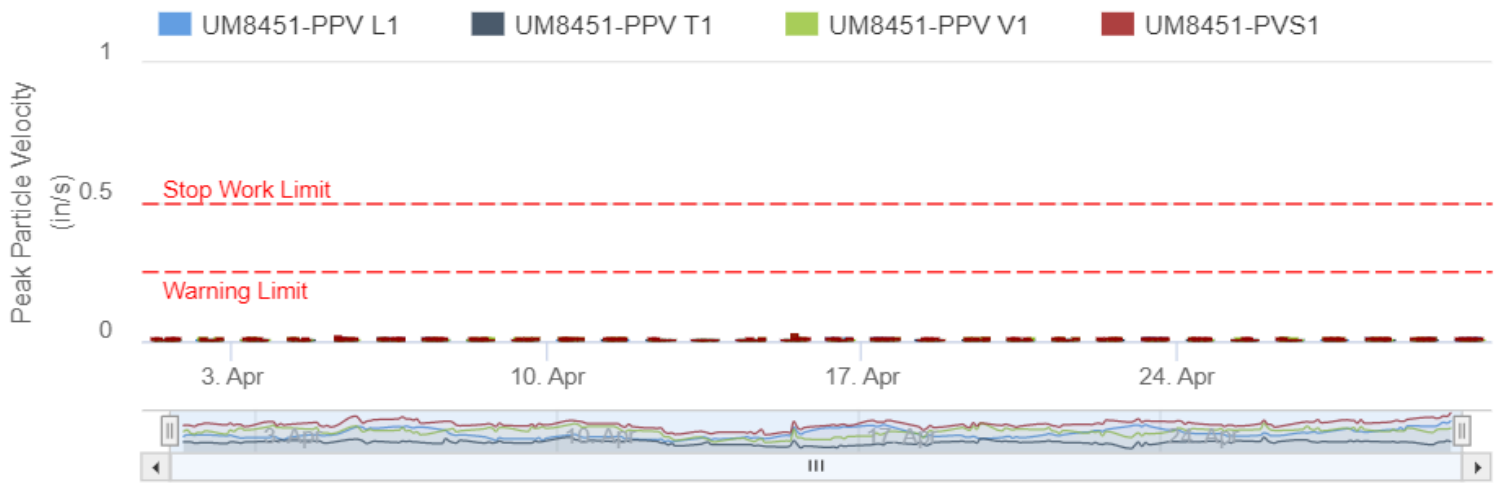
**Vibration Monitor – (R15) April 23:**

vibr62/BBJ Dismantle/Vibration/R15-UM9006 (111 Center St NYC Civil Court-E Chat

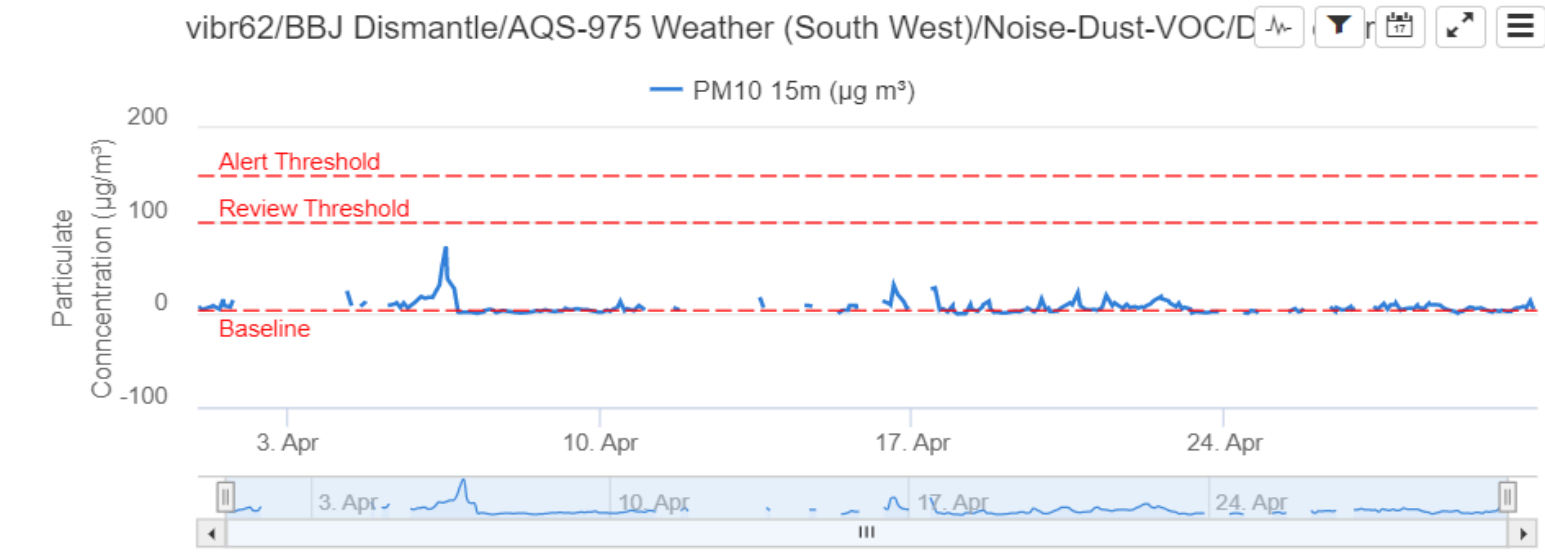


**Vibration Monitor – (R16) April 23:**

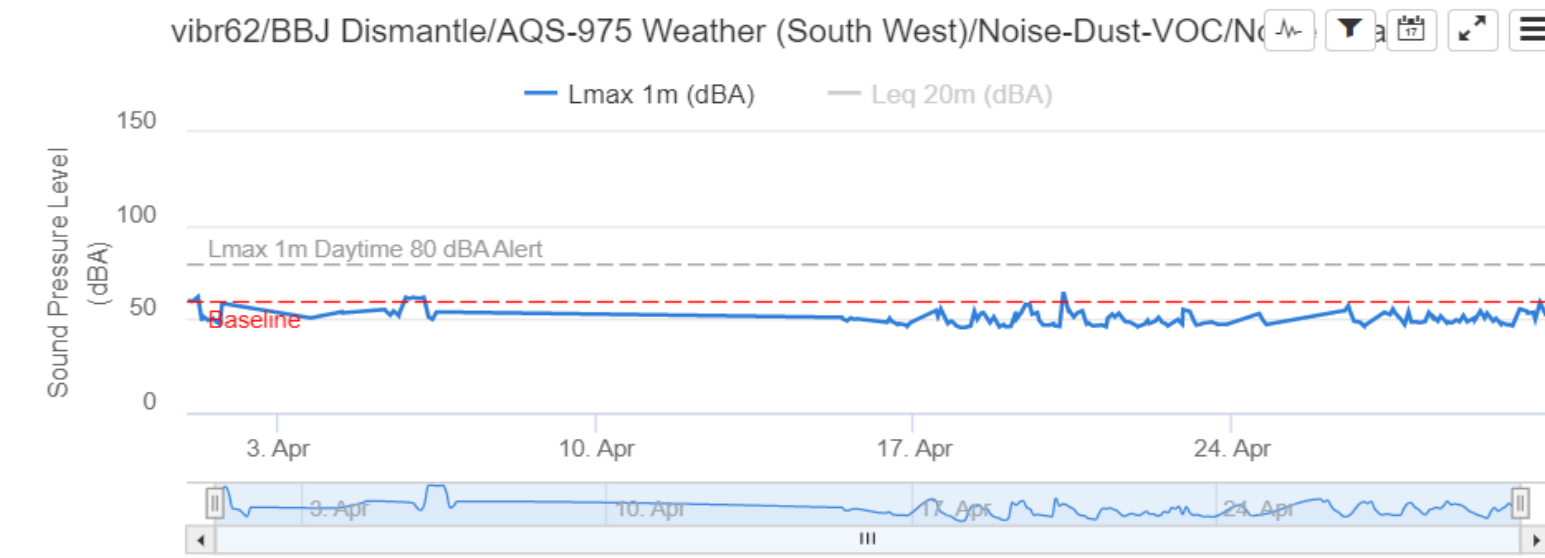
vibr62/BBJ Dismantle/Vibration/R16-UM8451 (87 Lafayette St Fire House



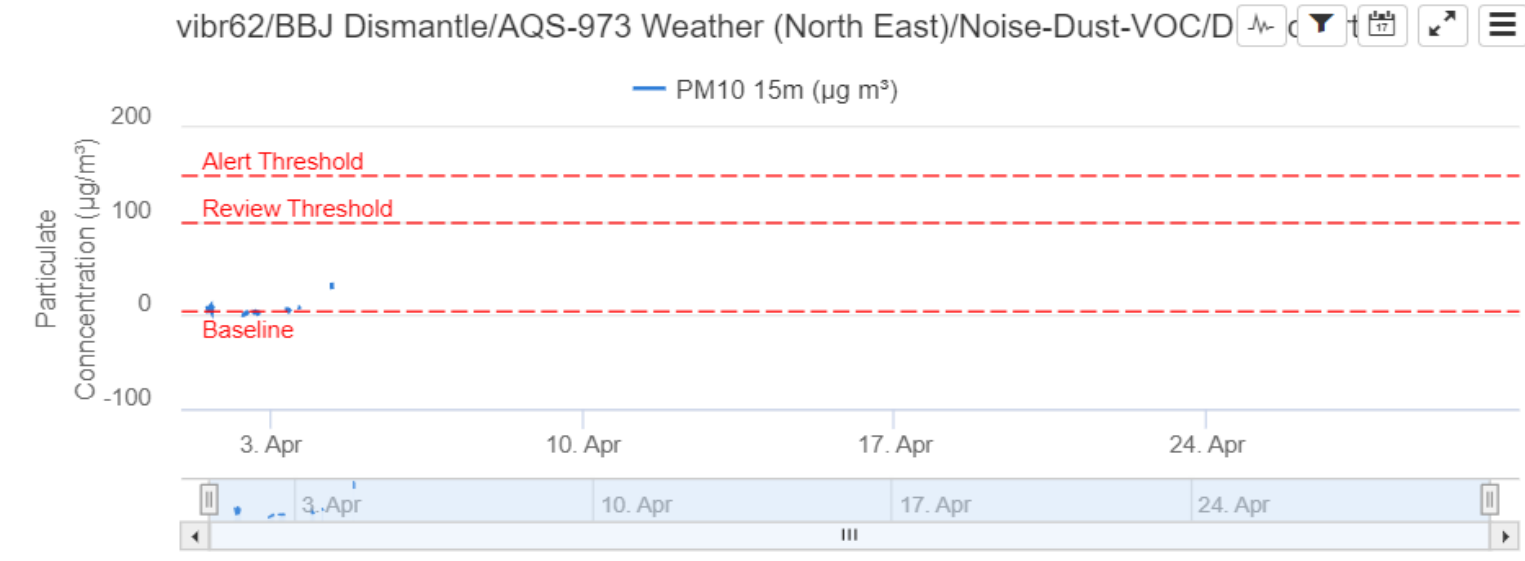
**Air Quality Systems #975 – Dust Monitoring Station – April 23:**



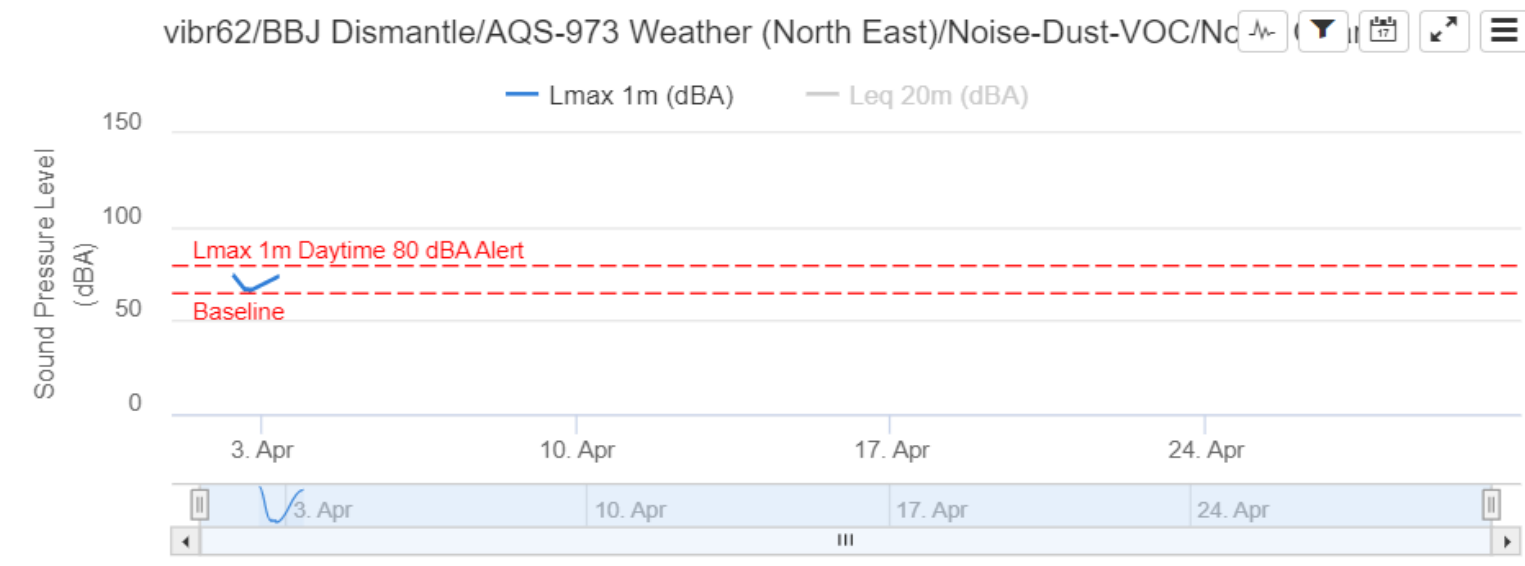
**Air Quality Systems #975 – Noise Monitoring Station – April 23:**



**Air Quality Systems #973 – Dust Monitoring Station – April 23:**

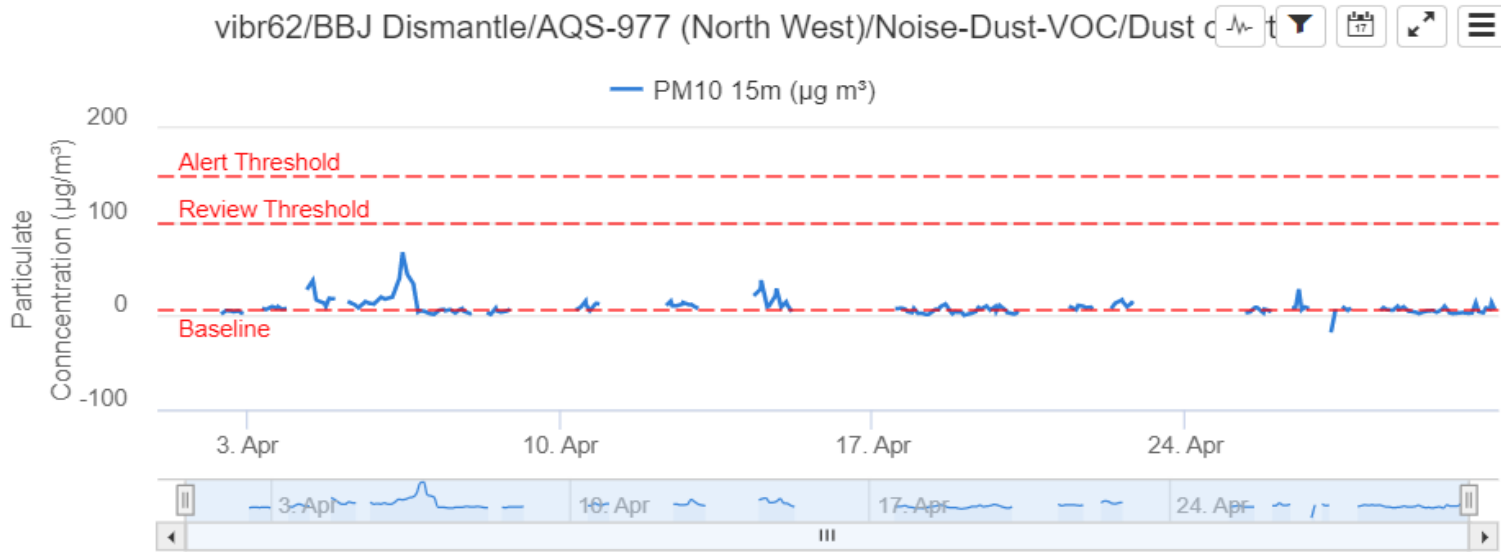


**Air Quality Systems #973 – Noise Monitoring Station – April 23:**

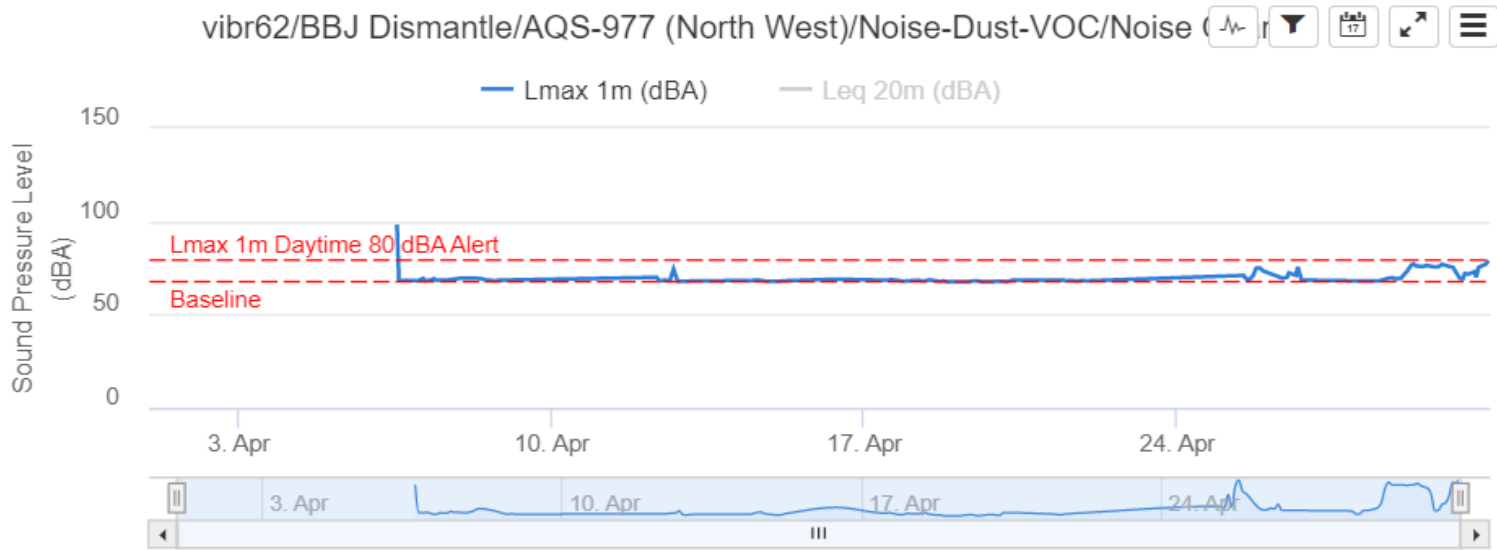




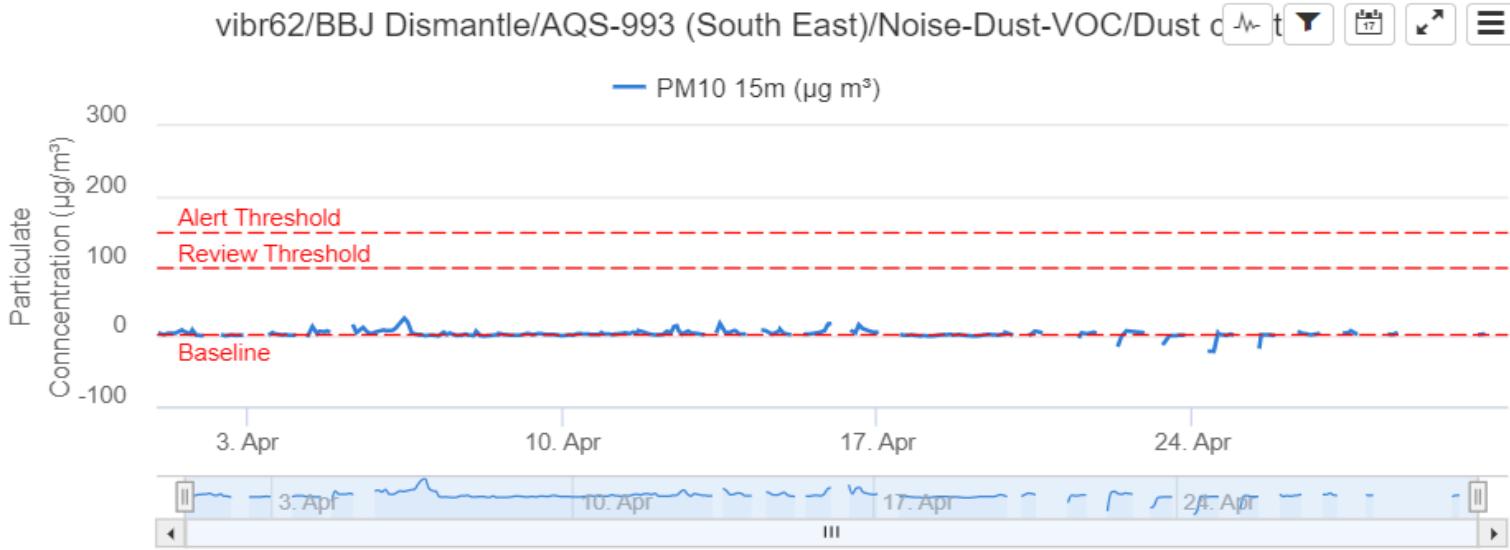
**Air Quality Systems #977 – Dust Monitoring Station – April 23:**



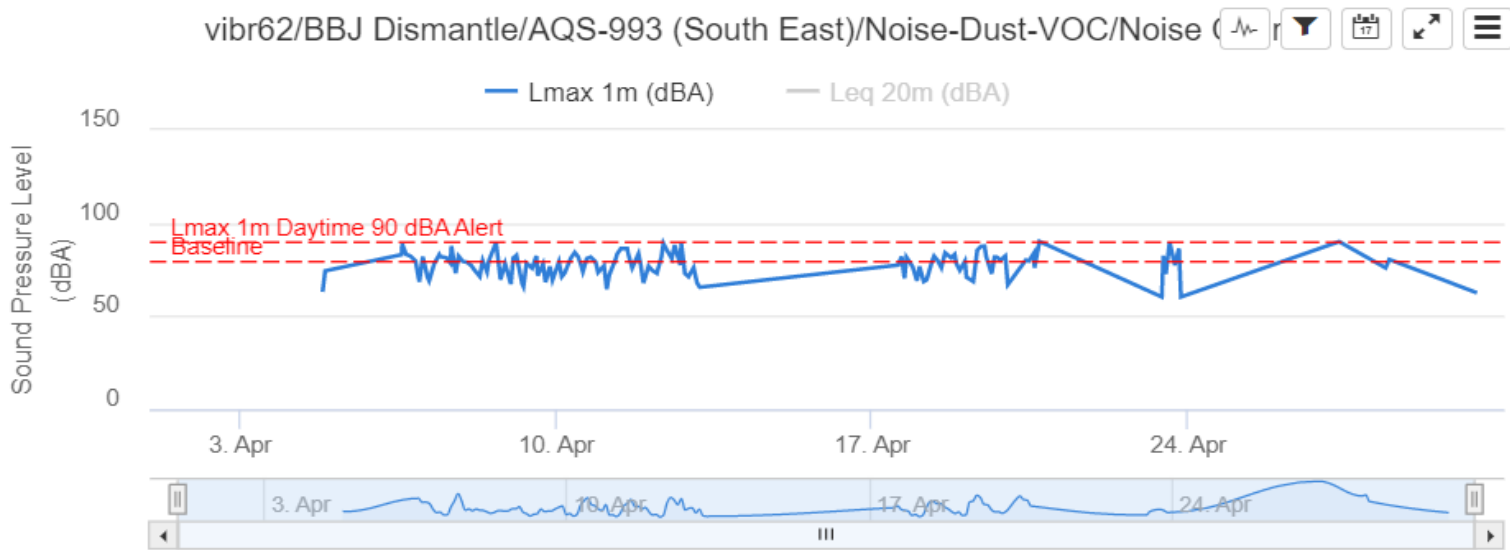
**Air Quality Systems #977 – Noise Monitoring Station – April 23:**



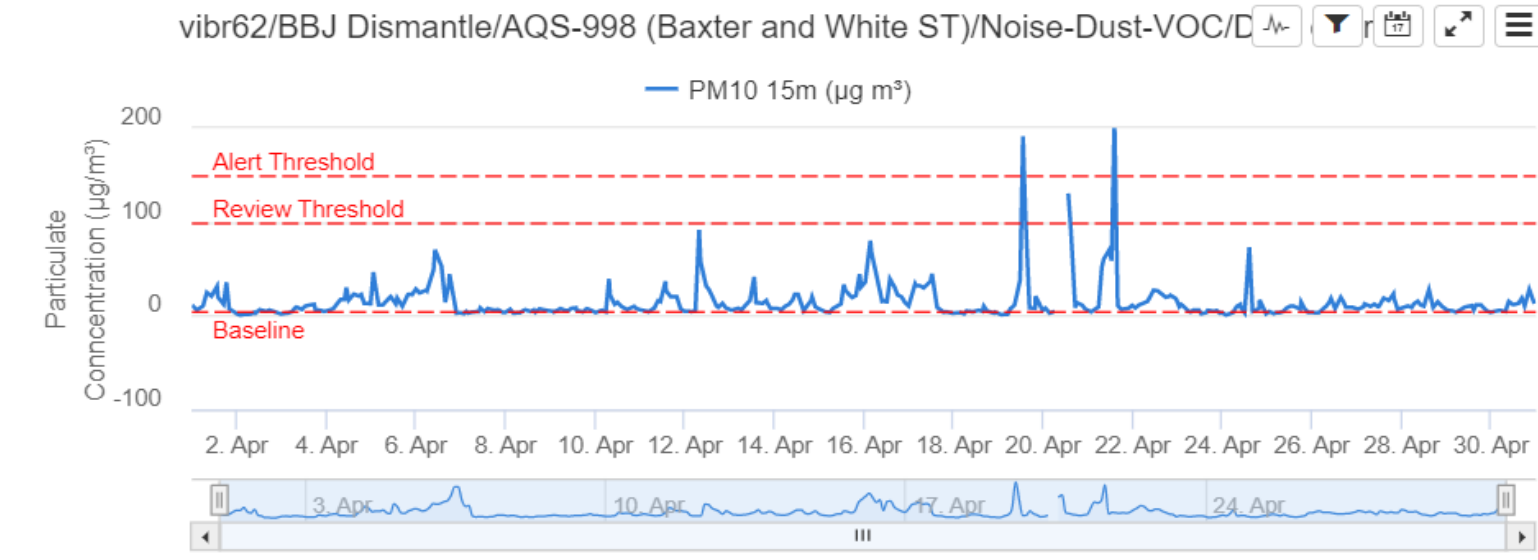
**Air Quality Systems #993 – Dust Monitoring Station – April 23:**



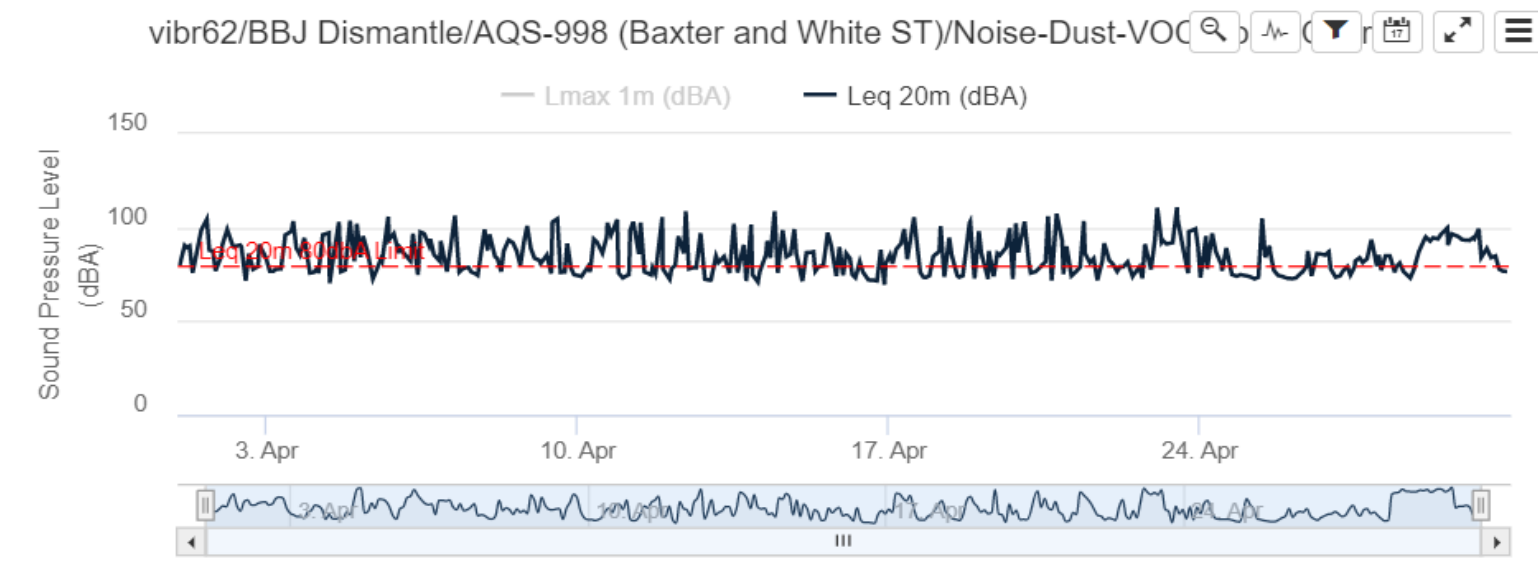
**Air Quality Systems #993 – Noise Monitoring Station – April 23:**



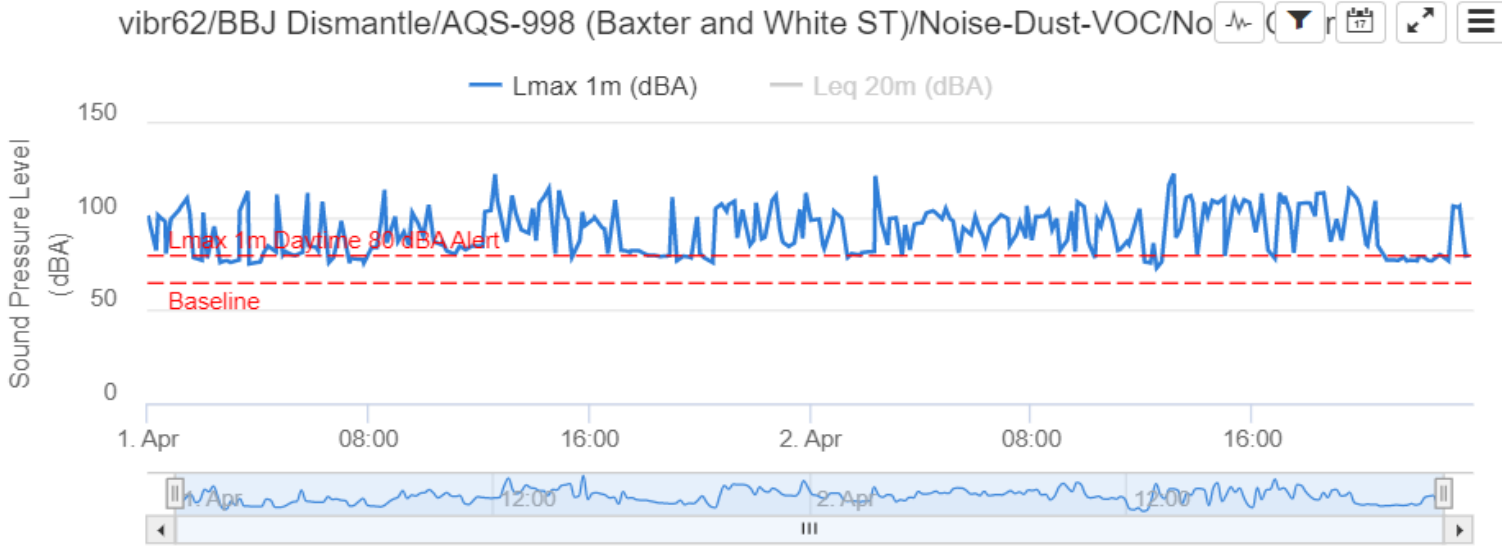
**Air Quality Systems #998 – Dust Monitoring Station – April 23:**



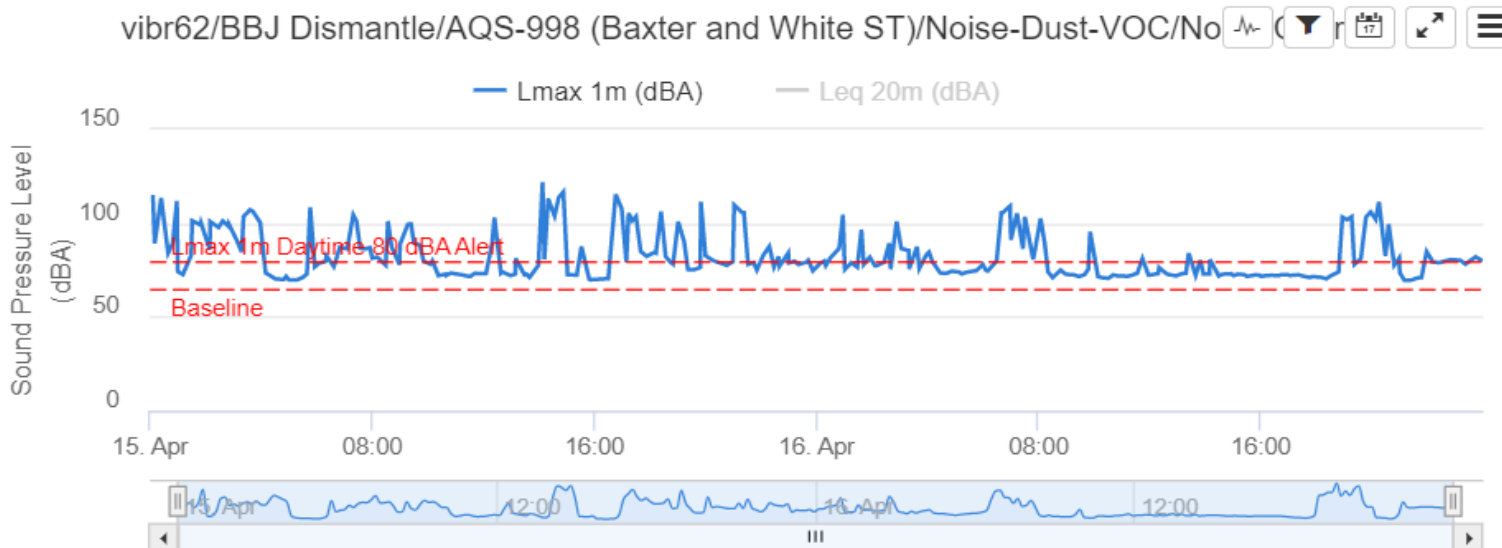
**Air Quality Systems #998 – Noise Monitoring Station – April 23:**



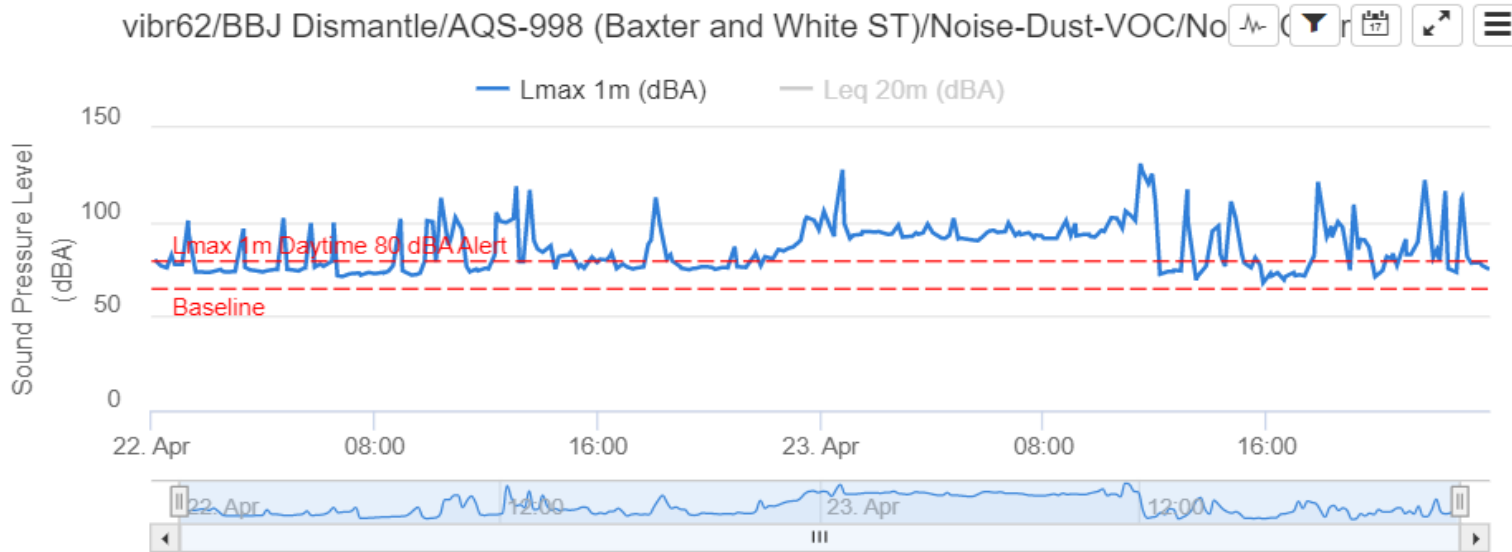
**Air Quality Systems #998 – Noise Monitoring Station – April 1<sup>st</sup> – 2<sup>nd</sup> Weekend Noise Levels (NO CONSTRUCTION ACTIVITY):**



**Air Quality Systems #998 – Noise Monitoring Station – April 8<sup>th</sup> – 9<sup>th</sup> Weekend Noise Levels (NO CONSTRUCTION ACTIVITY):**



**Air Quality Systems #998 – Noise Monitoring Station – April 15<sup>th</sup> – 16<sup>th</sup> Weekend Noise Levels (NO CONSTRUCTION ACTIVITY):**



**Air Quality Systems #998 – Noise Monitoring Station – April 29<sup>th</sup> – 30<sup>th</sup> Weekend Noise Levels (NO CONSTRUCTION ACTIVITY):**

