

## AIR, NOISE AND VIBRATION MONTHLY MONITORING REPORT

Prepared By:  
Hajeong Lim (HRCG)

<b>DDC Project No.:</b> BBJ Q DSS			<b>Period Start:</b> 01/01/24 <b>End</b> 01/31/24		
<b>DDC Pin No.:</b> 8502020CR0046P					
<b>Project Name:</b> NYC Borough Based Jails System - Queens Dismantle and Swing Space					
<b>1) Community Air Monitoring Monthly Status Summary</b>					
TWA – Time Weighted Average mg/m <sup>3</sup> - milligrams 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 (0.1 mg/m <sup>3</sup> 15 minute TWA)	Comments		
25	23	None	Daily air monitoring was not performed on Jan 25 due to weather.		
<b>Community Air Monitoring Monthly Excursions and Corrective Actions</b>					
Action Concentration = 0.100 mg/m <sup>3</sup> 15 minute TWA above background concentration*					
Stop Work Concentration = 0.150 mg/m <sup>3</sup> 15 minute TWA above background concentration*					
* Background concentration values vary daily. See Prestart/Background Condition Level in the attached graphs.					
Date: Time	Maximum Dust Reading Before Corrective Action 15 Minute TWA (mg/m <sup>3</sup> )	Maximum Dust Reading After Corrective Action 15 Minute TWA (mg/m <sup>3</sup> )	Corrective Action		
1/8/24 10:07 AM	1.4	N/A	No corrective actions were necessary. The elevated dust levels reported by the downwind DCP station from approximately 10:07 to 11:00 were not representative of actual downwind air conditions and were attributed to a malfunction of the fixed downwind dust monitor. No visible dust was observed in the area during this period. A handheld roving meter was utilized this day to confirm that downwind dust levels were below the action levels.		
<b>Narrative Summary of Air Monitoring, Excursions and Corrective Actions:</b>					
<p><i>In January 2024, dismantle 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.</i></p> <p><i>The Design Builder, Hunter Roberts Construction Group, in conjunction with the Design Builder'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.</i></p>					

## 2) Community Noise Monitoring Monthly Summary

Units to be a 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	Comments
26	4	0	According to the monitoring plan for the site, the number of days performing noise monitoring (4) is above the requirement of (2) days

### Community Noise Monitoring Monthly Excursions and Corrective Actions

Noise Monitoring Location 1 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 75 / NA

Noise Monitoring Location 2 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 75 / NA

Noise Monitoring Location 3 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 69 / 68

Noise Monitoring Location 4 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 65 / 55

Noise Monitoring Location 5 Action Level (Day – 7 am to 5 pm / Night – 5 pm to 7 am): 68 / 67

Date Time	Location	Maximum Noise Reading before Corrective Action (dBA)	Maximum Noise Reading after Corrective Action (dBA)	Baseline Noise Level Day/Night (dBA)	Corrective Action

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

*Throughout January 2024, noise levels remained below the set thresholds at all five locations. Dismantle-related activities in the month stayed within or below the warning limit at various locations. No corrective actions were required as noise levels didn't surpass the limits due to ongoing dismantle activities.*

*Nighttime Action Levels are established for three residential location, location #3, #4, and #5, in case dismantling activities are performed between 5 pm and 7 am.*

### 3) Community Vibration Monitoring Monthly Summary

Units (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	Comments
26	26	3	

### Community Vibration Monitoring Monthly Excursions and Corrective Actions

Alert / Action Level = 0.3 in/s

Stop Work Level = 0.5 in/s

Date: Time	Maximum Vibration Level before Corrective Action (in/s)	Exceedance Duration	Maximum Vibration Level Followed Exceedance without Corrective Action (in/s)	Corrective Action
Jan 3 11:08 am at VM1 by Family Justice Center	0.3	< 30 sec	< 0.1	N/A. There was no active demolition work at this time. The exceedance lasted for less than 30 seconds and were preceded and followed by a PPV less than 0.1 in/sec.
Jan 19 1:20 pm at VM1 by Family Justice Center	0.35	< 30 sec	< 0.1	N/A. There was no active demolition work at this time. Debris removal and backfilling activities were on going this day. This event did not exceed the stop work level. The exceedance lasted for less than 30 seconds and were preceded and followed by a PPV less than 0.1 in/sec.
Jan 25 12:57 pm at VM1 by Family Justice Center	0.81	< 30 sec	< 0.1	N/A. There was no active demolition work at this time. Debris removal and backfilling and compacting activities were on going this day. The exceedance lasted for less than 30 seconds and were followed by a PPV less than 0.1 in/sec. No exceedance was recorded before or after this one time event.

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

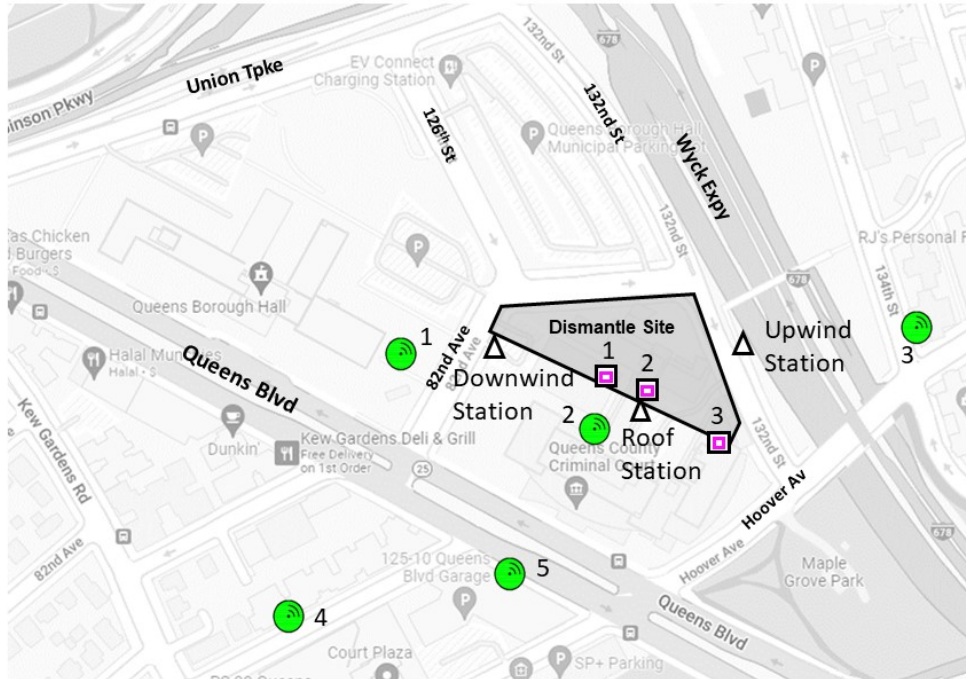
*During the Month of January 2024, there was one vibration monitor exceedance caused by site backfilling activities at the vibration monitor location VM1 by Family Justice Center. This exceedance event lasted less than 30 seconds and the level returned to below the alert level threshold. No corrective action was necessary, as this event was instantaneous and did not repeat.*

*All other monitors showed results of vibration did not exceed the warning threshold of 0.3(in/sec) / stop work threshold of 0.5 (in/sec).*

### **ATTACHMENTS:**

- 1 – Map of Monitoring Station/Locations
- 2 – Baseline Reference
- 3 – Data Plots

## Environmental Monitoring Queens – 01/05/24



On 12/23/2023 per DDC/PMC's request, Upwind Station was relocated to Roof Station at DA Wing.

As of 01/05/2024 Roof Station is no longer utilized as Upwind Station. Upwind Station is restored at the sidewalk level.

- Vibration Monitor (VM)
- △ Air Monitoring Station (DM)
- Noise Monitoring Station (NM)

### Noise Threshold Limits in dBA – Baseline Survey April 2022

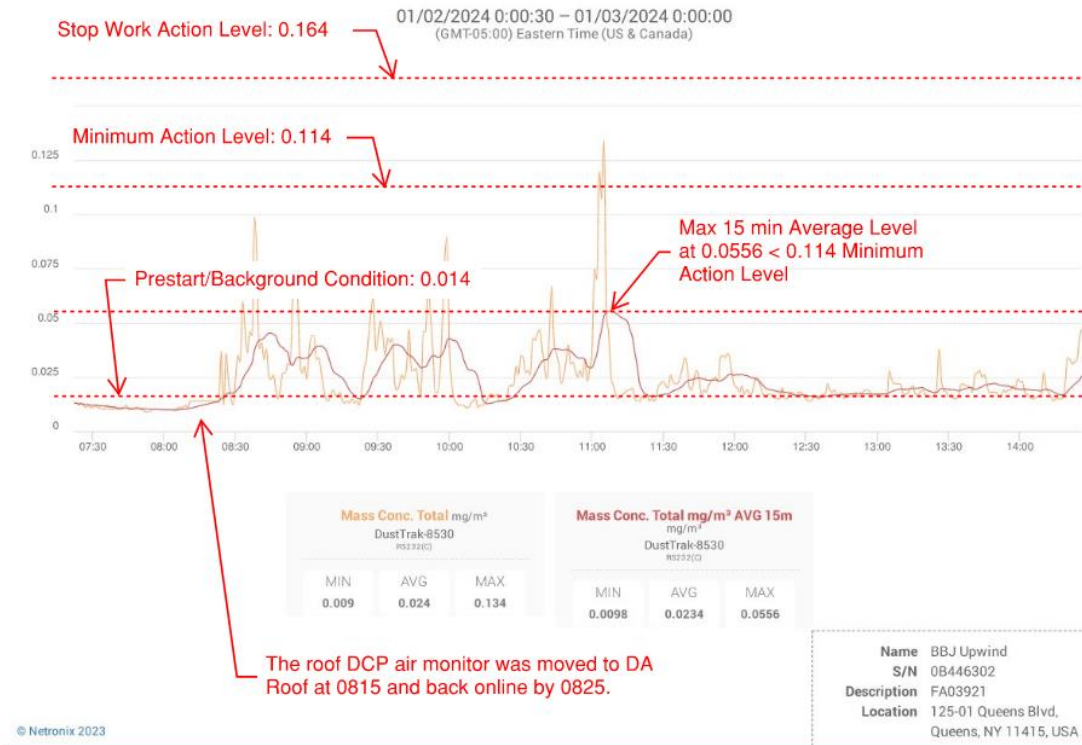
#### Construction Noise Threshold Limits in dBA

Location	Daytime Leq	Nighttime Leq
Adjacent to the easternmost façade of Queens Borough Hall	75	N/A
At the southwestern corner of the DA Wing	75	N/A
At the residences along 134th Street between 82nd Avenue and Hoover Avenue	69	68
At the residences on 82nd Road between Kew Gardens Road and Queens Boulevard, approximately 200 feet from Kew Gardens Road	65	55
At the residences on Queens Boulevard between 82nd Road and Lefferts Boulevard	68	67

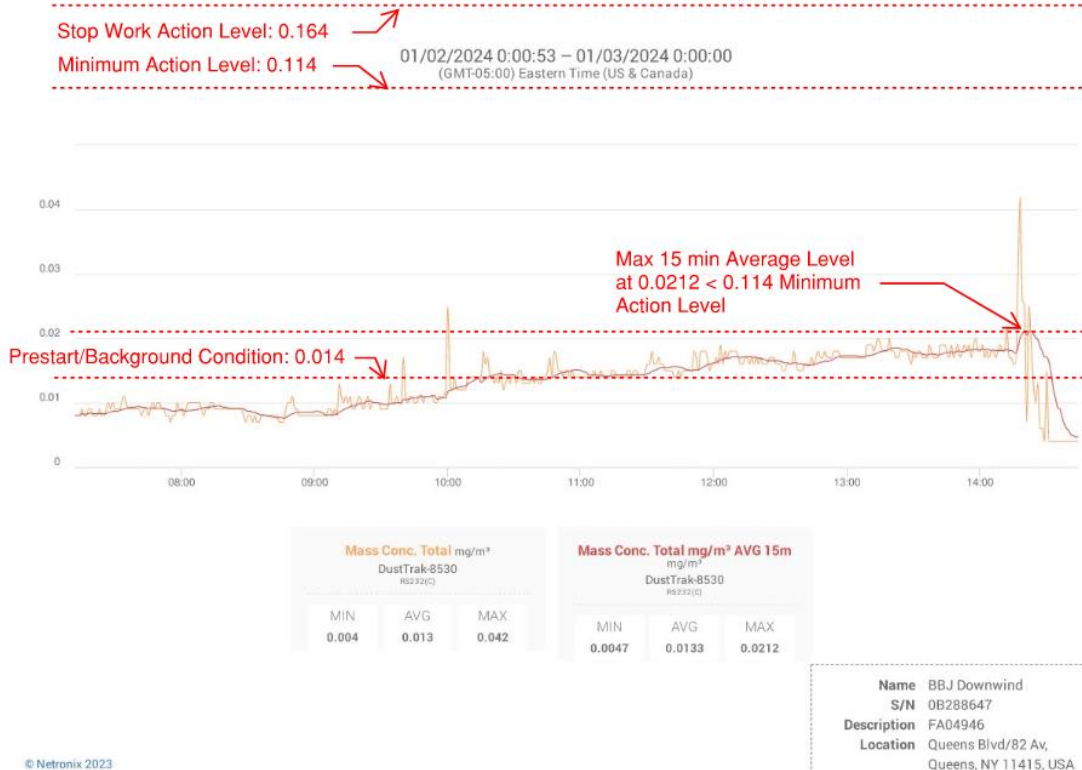


**Dismantle Activity Daily Air Monitoring on January 02, 2024**

**Roof Station Data Charts (PM<sub>10</sub>)**

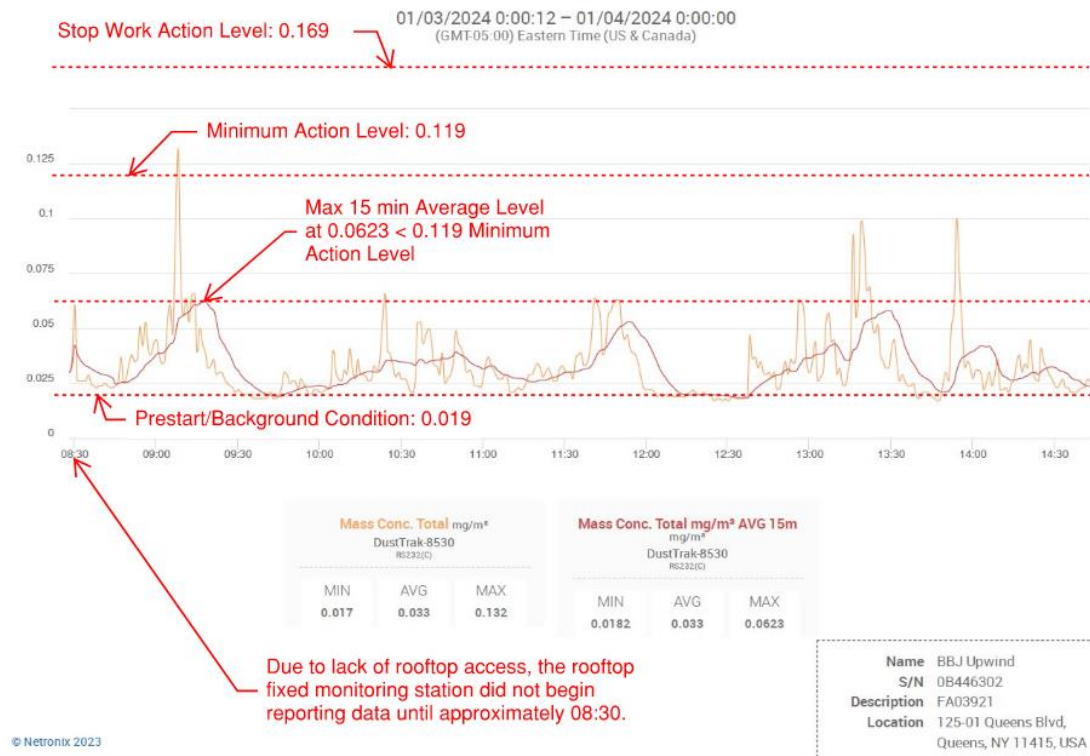


**Downwind Station Data Charts (PM<sub>10</sub>)**



**Dismantle Activity Air Daily Monitoring on January 03, 2024**

**Roof Station Data Charts (PM<sub>10</sub>)**

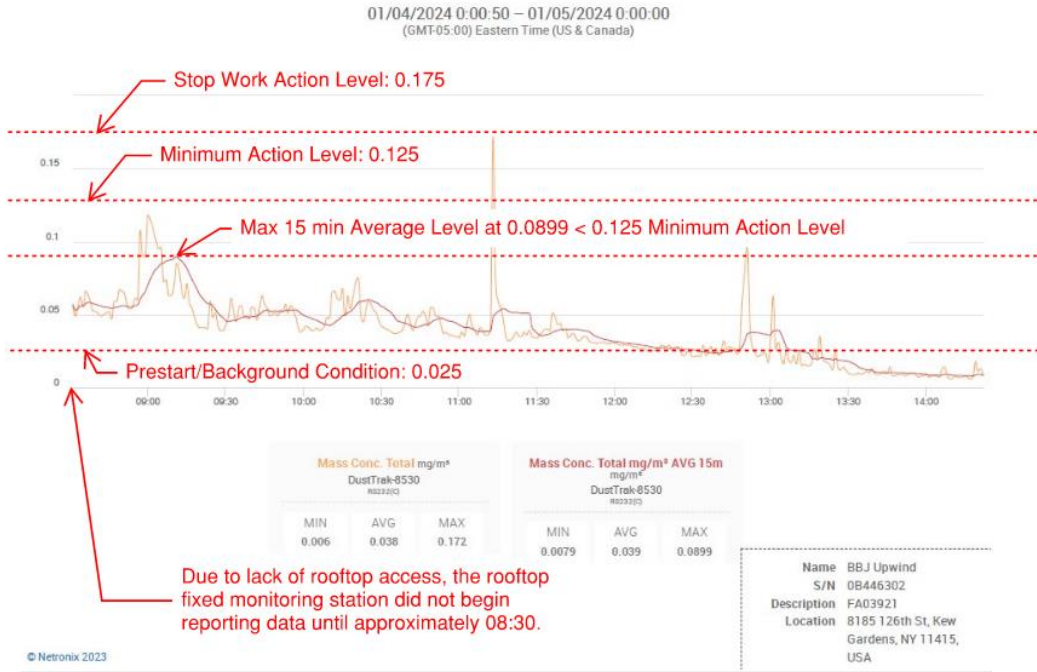


**Downwind Station Data Charts (PM<sub>10</sub>)**



**Dismantle Activity Daily Air Monitoring on January 04, 2024**

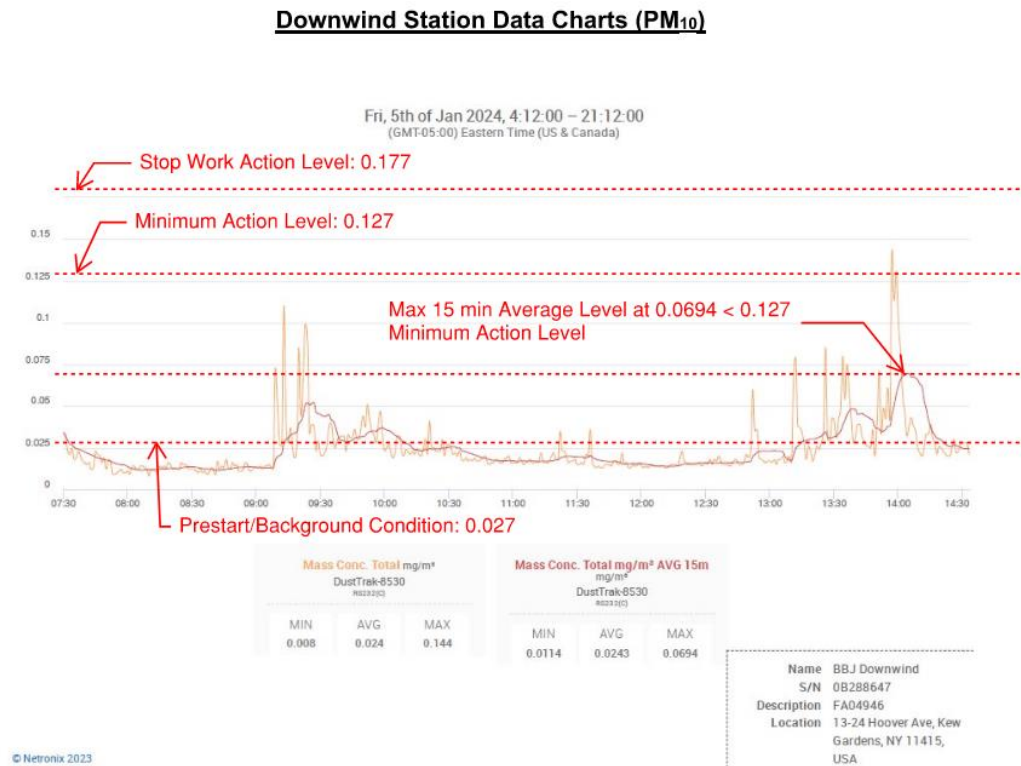
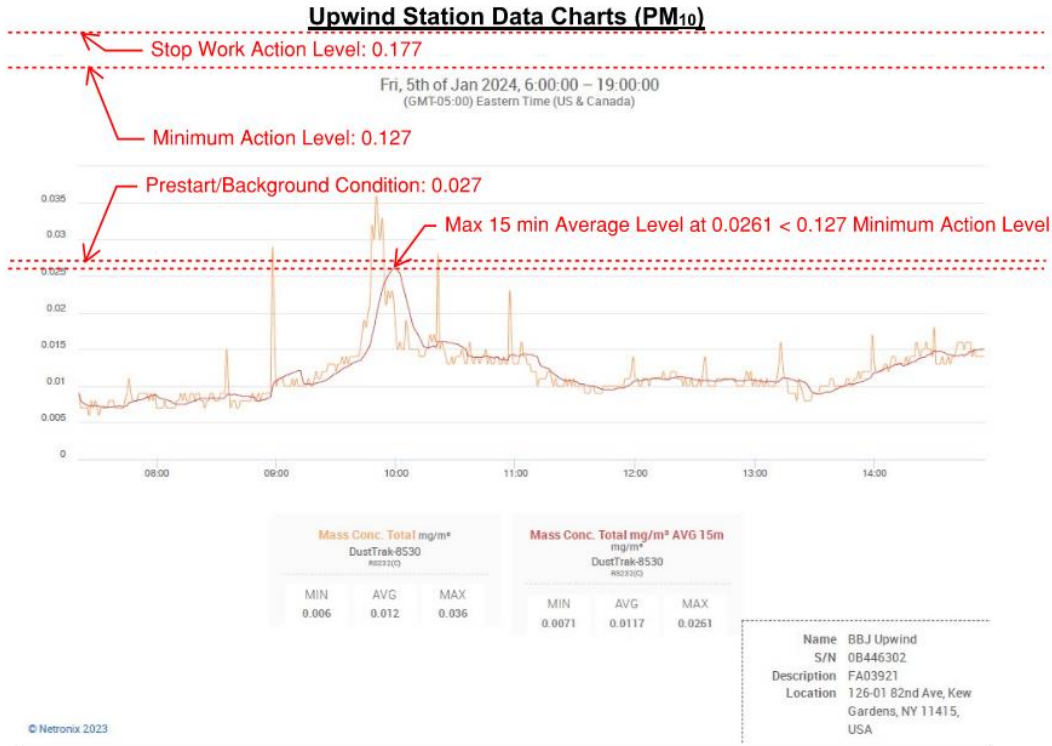
**Roof Station Data Charts (PM<sub>10</sub>)**



**Downwind Station Data Charts (PM<sub>10</sub>)**



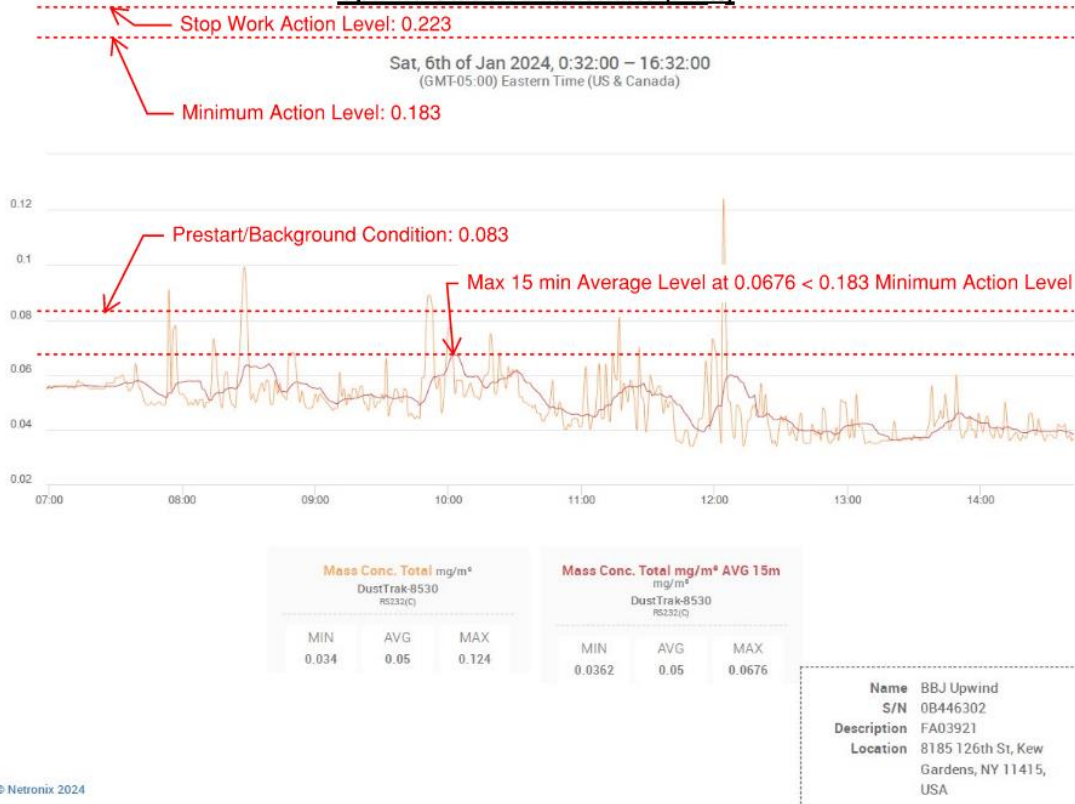
**Dismantle Activity Daily Air Monitoring on January 05, 2024**



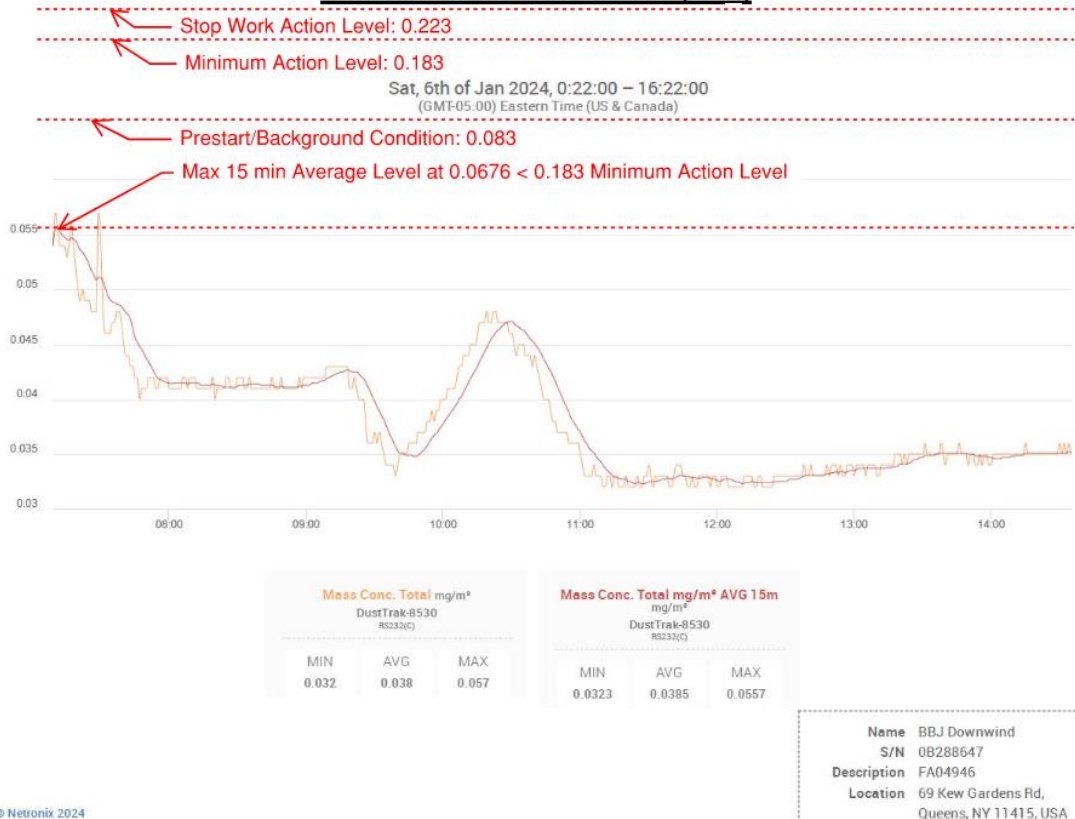


**Dismantle Activity Daily Air Monitoring on January 06, 2024**

**Upwind Station Data Charts (PM<sub>10</sub>)**

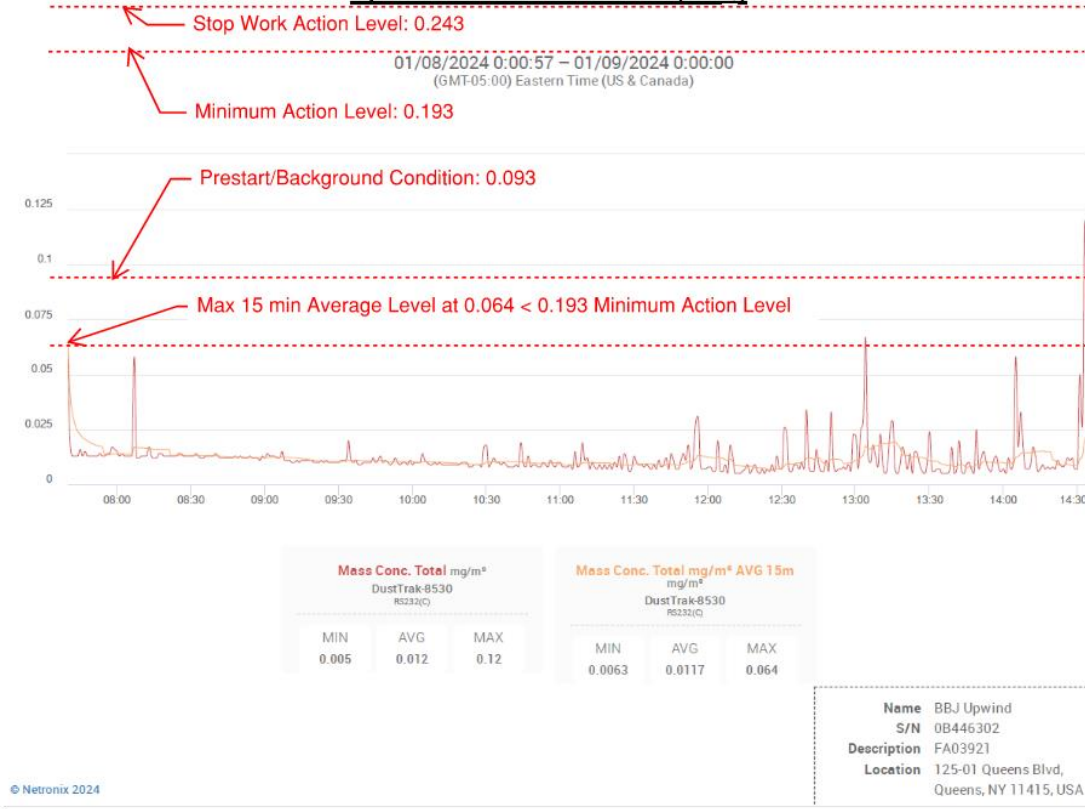


**Downwind Station Data Charts (PM<sub>10</sub>)**

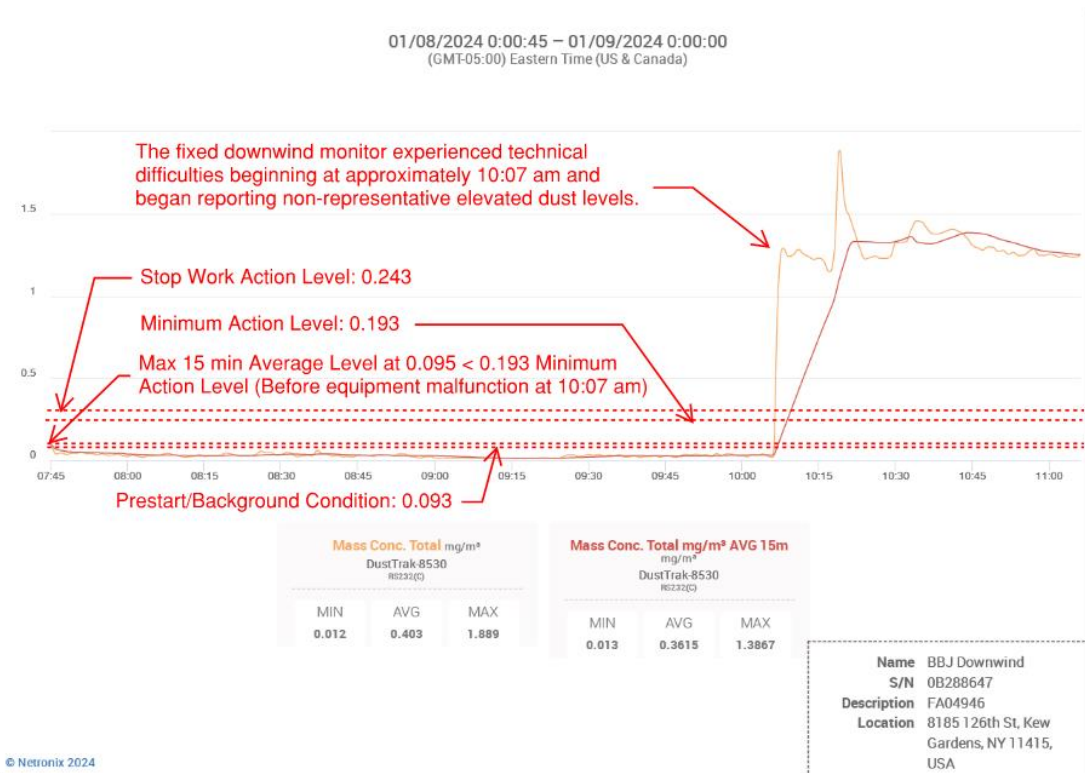


**Dismantle Activity Daily Air Monitoring on January 08, 2024**

**Upwind Station Data Charts (PM<sub>10</sub>)**



**Downwind Station Data Charts (PM<sub>10</sub>)**



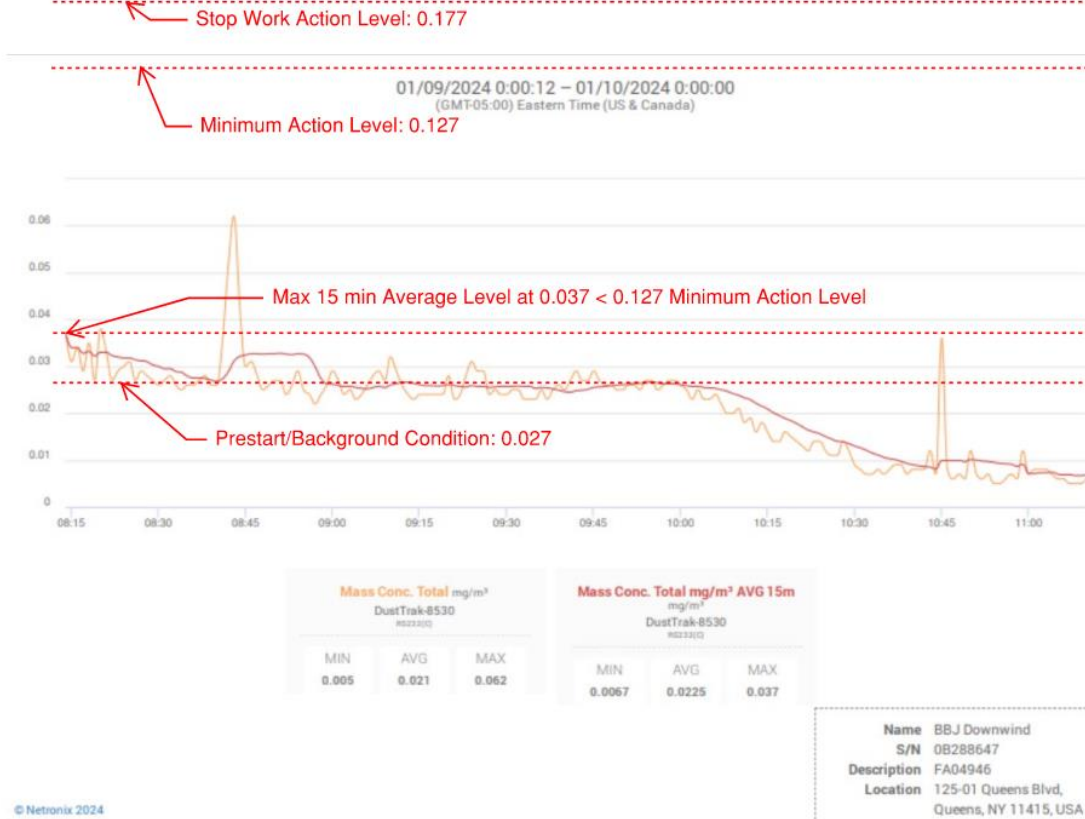


## Dismantle Activity Daily Air Monitoring on January 09, 2024

### Upwind Station Data Charts (PM<sub>10</sub>)

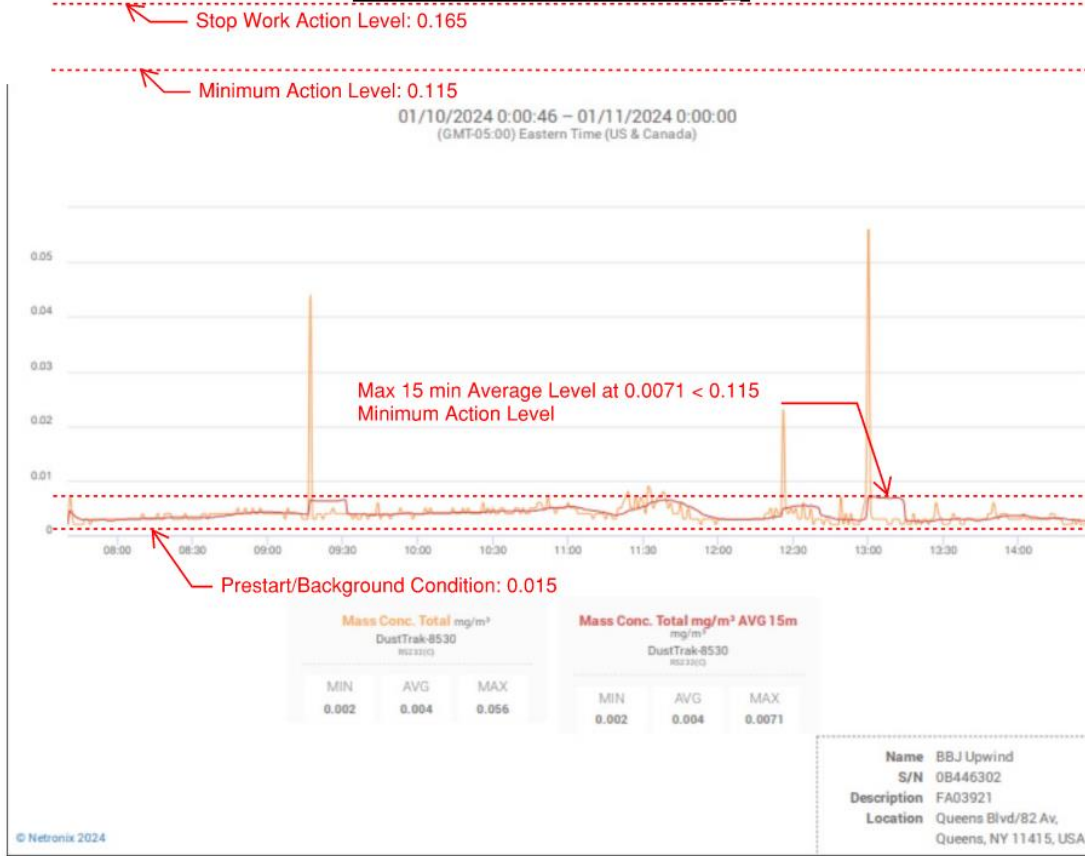


### Downwind Station Data Charts (PM<sub>10</sub>)



## Dismantle Activity Daily Air Monitoring on January 10, 2024

### Upwind Station Data Charts (PM<sub>10</sub>)

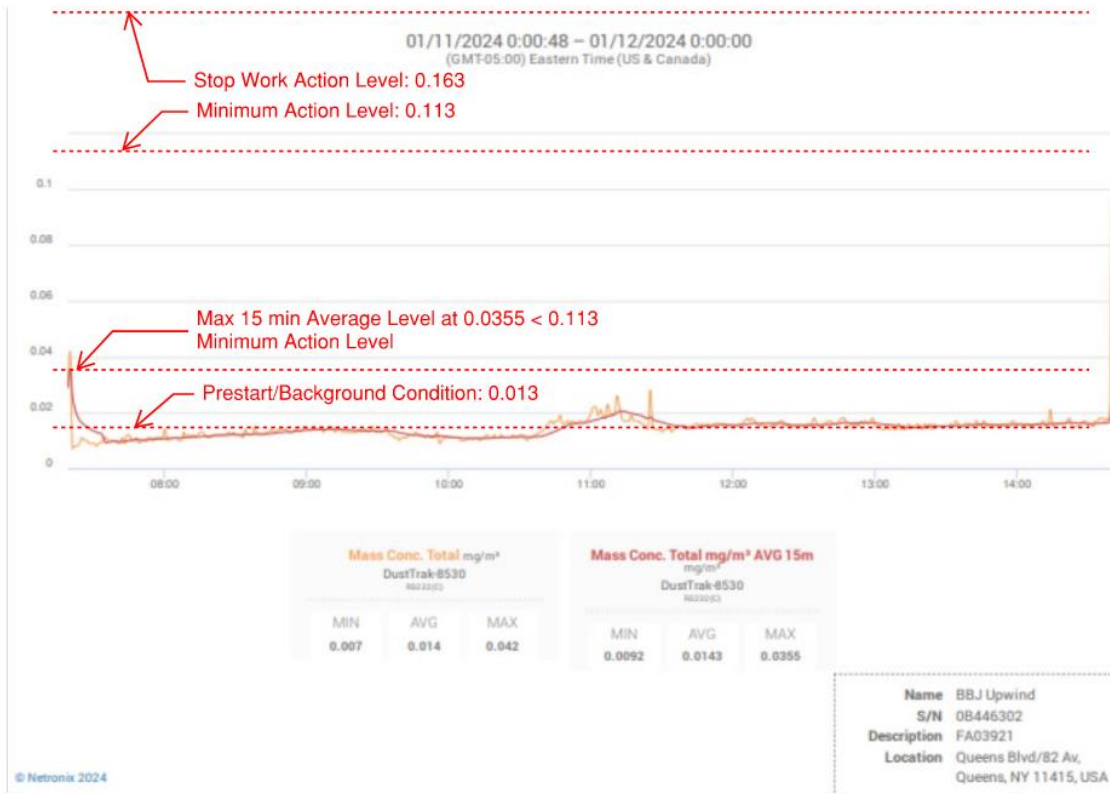


### Downwind Station Data Charts (PM<sub>10</sub>)

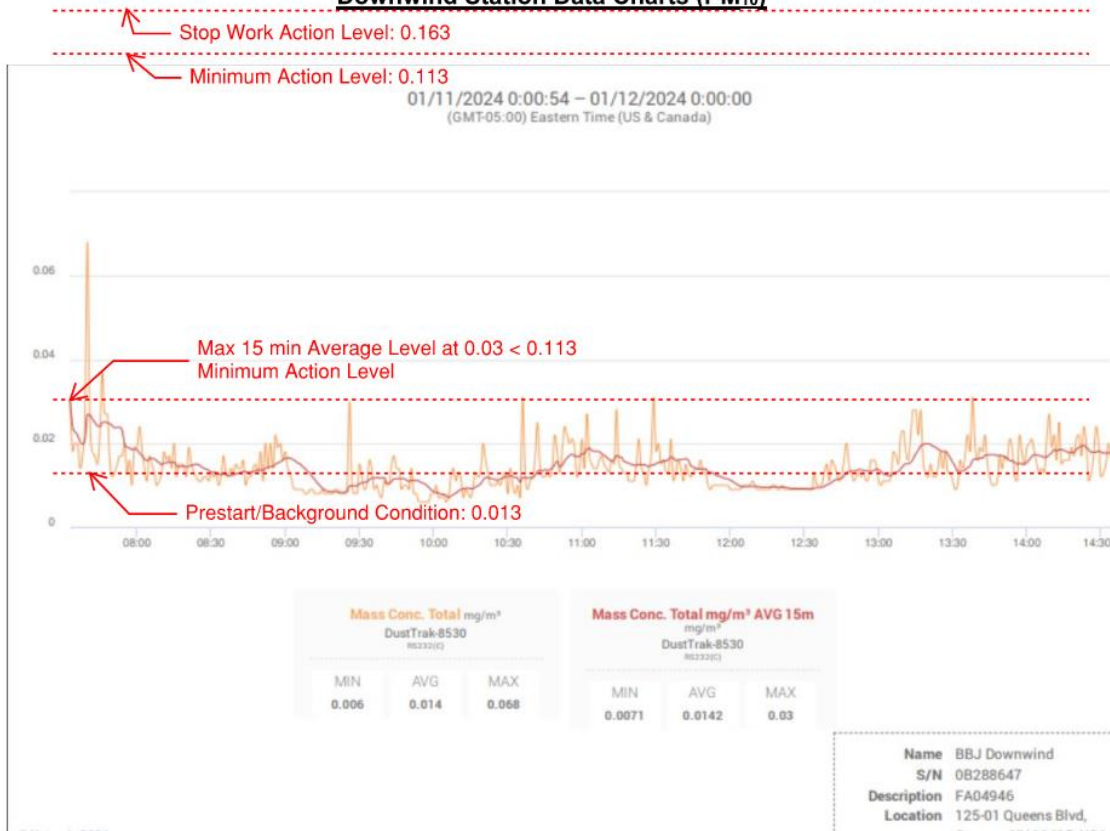


**Dismantle Activity Daily Air Monitoring on January 11, 2024**

**Upwind Station Data Charts (PM<sub>10</sub>)**

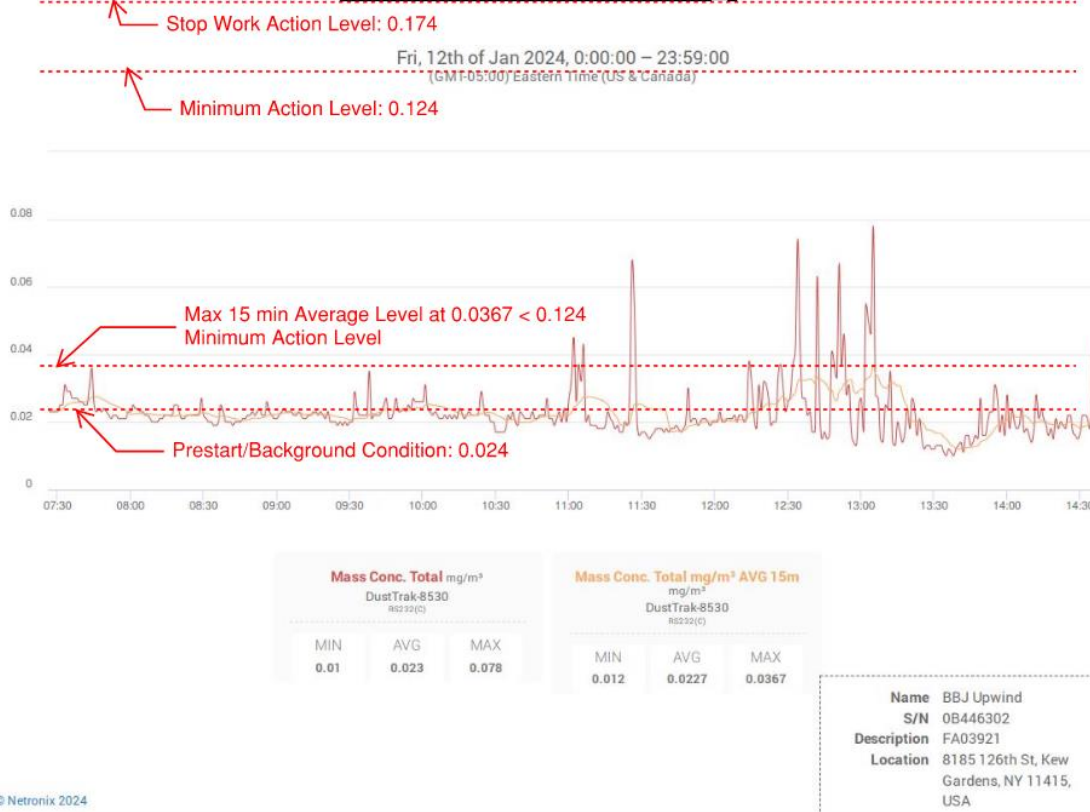


**Downwind Station Data Charts (PM<sub>10</sub>)**



**Dismantle Activity Daily Air Monitoring on January 12, 2024**

**Upwind Station Data Charts (PM<sub>10</sub>)**



**Downwind Station Data Charts (PM<sub>10</sub>)**



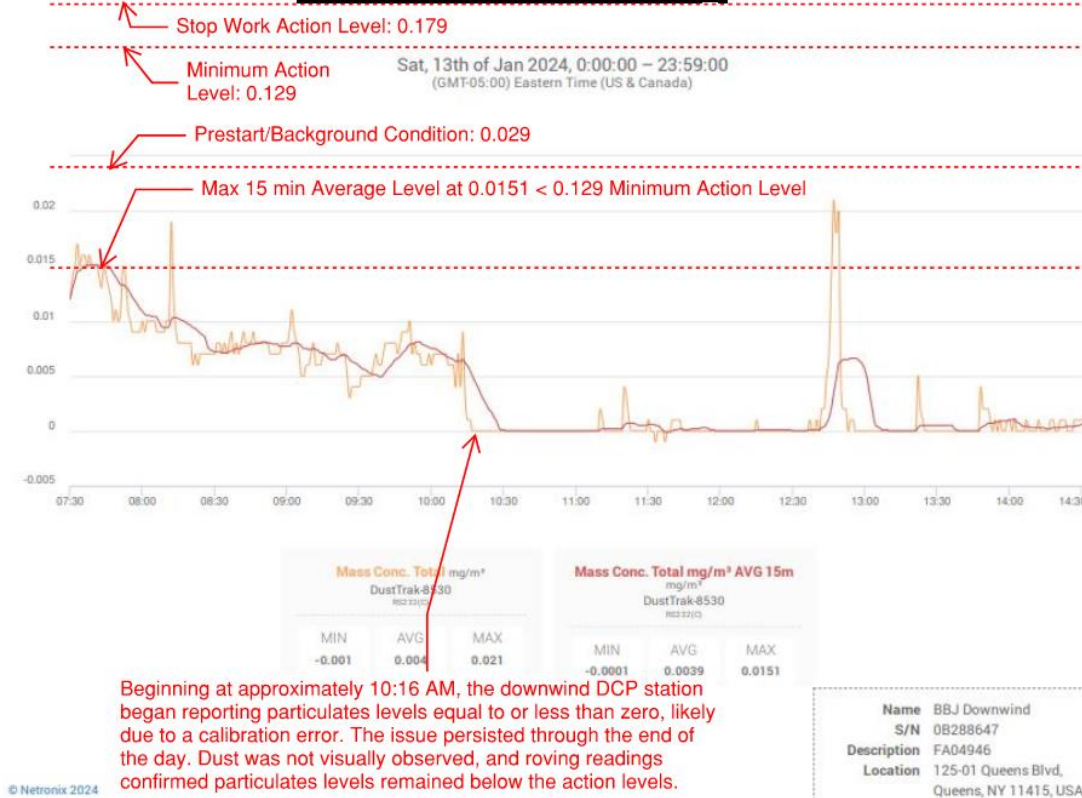


**Dismantle Activity Daily Air Monitoring on January 13, 2024**

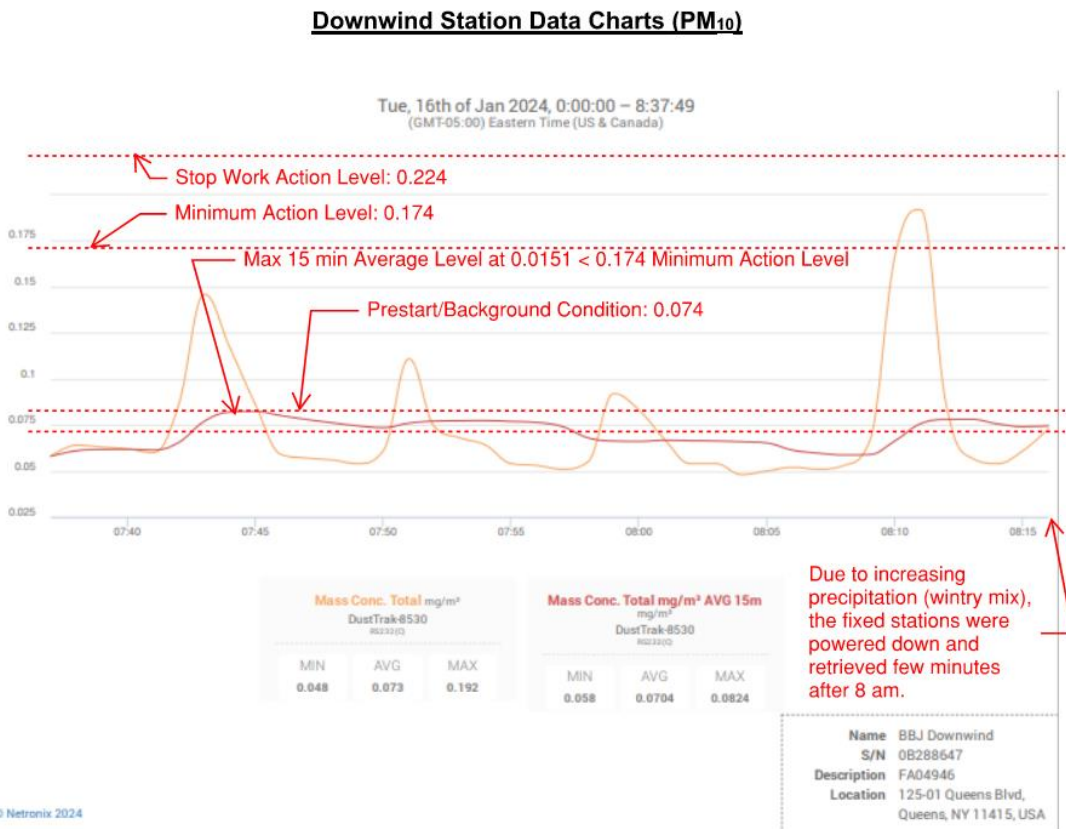
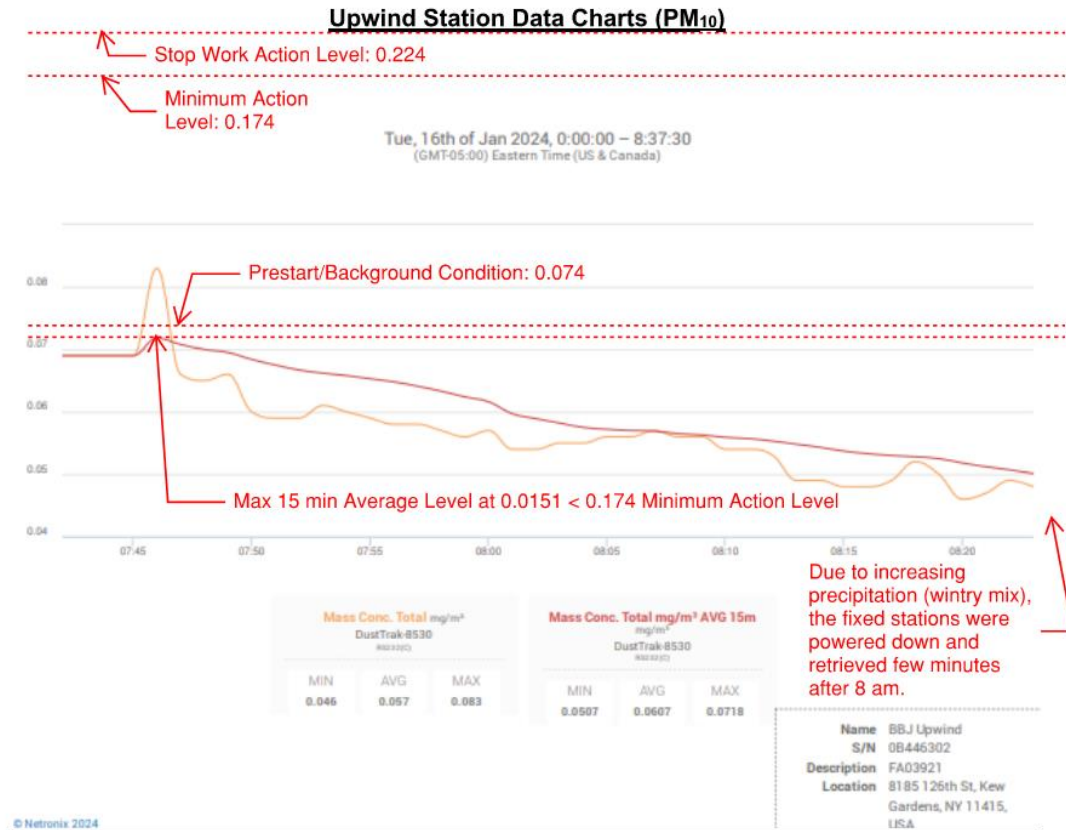
**Upwind Station Data Charts (PM<sub>10</sub>)**



**Downwind Station Data Charts (PM<sub>10</sub>)**

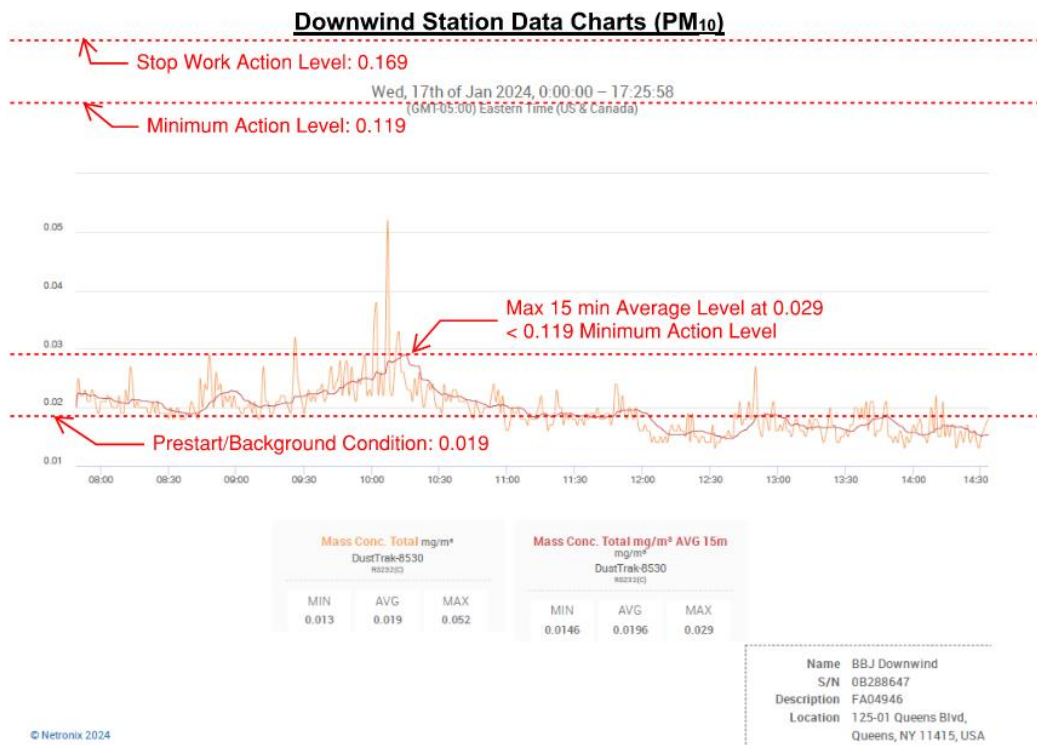
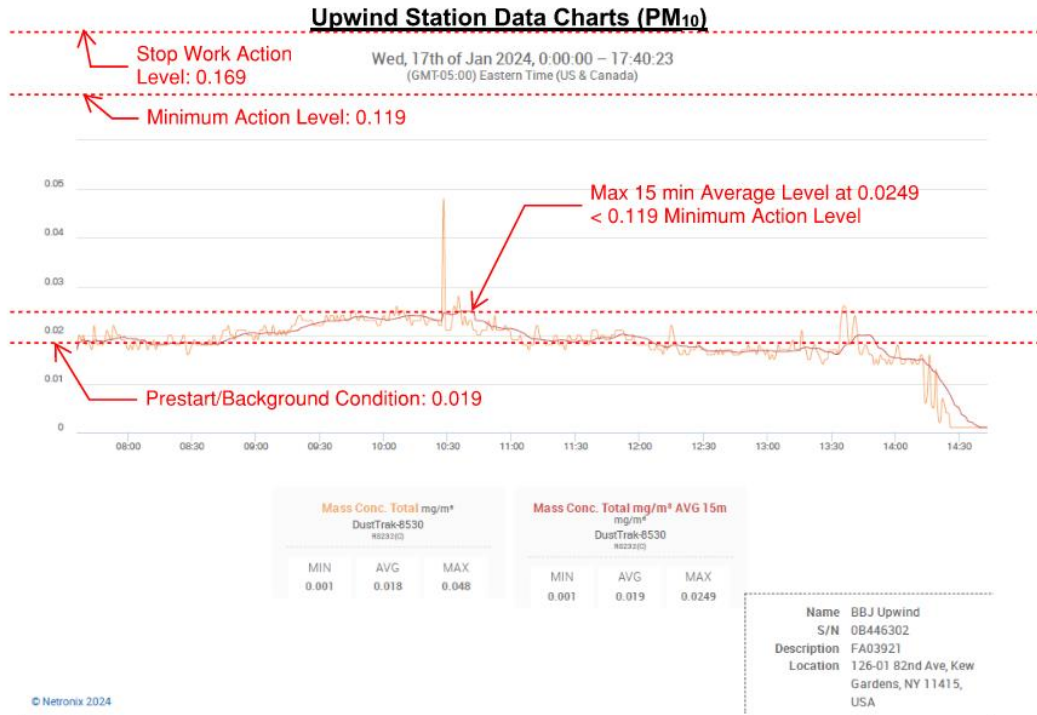


**Dismantle Activity Daily Air Monitoring on January 16, 2024**





**Dismantle Activity Daily Air Monitoring on January 17, 2024**

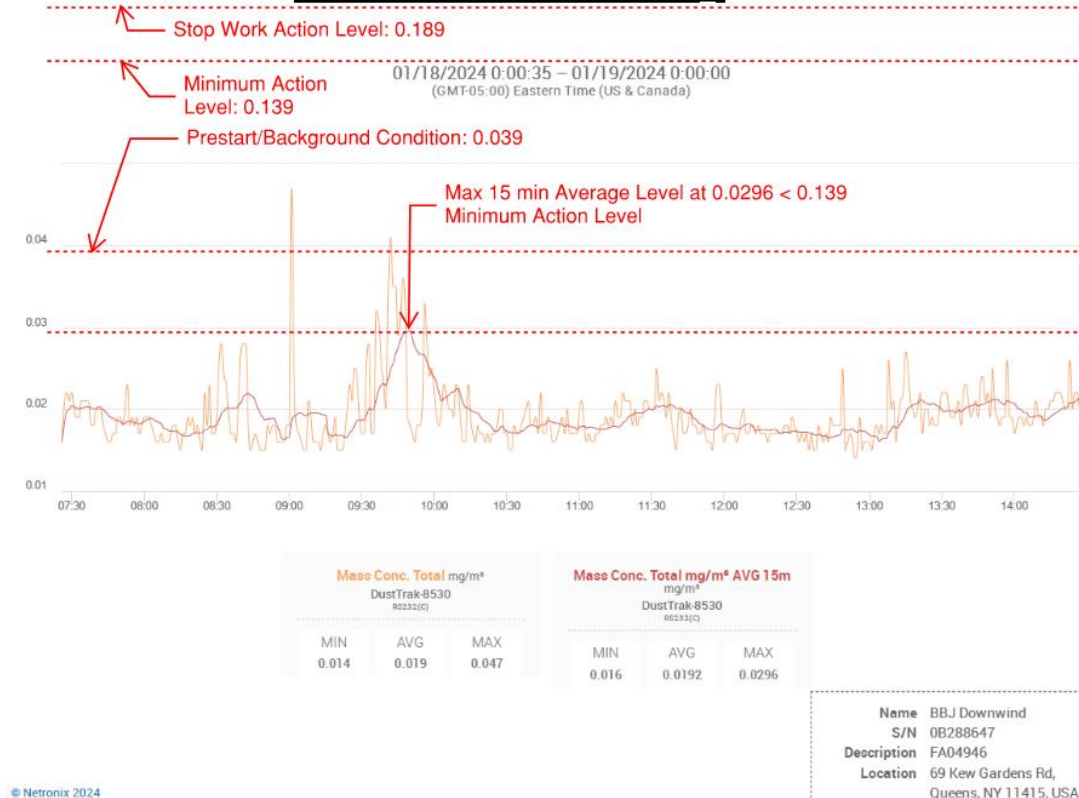


**Dismantle Activity Daily Air Monitoring on January 18, 2024**

**Upwind Station Data Charts (PM<sub>10</sub>)**

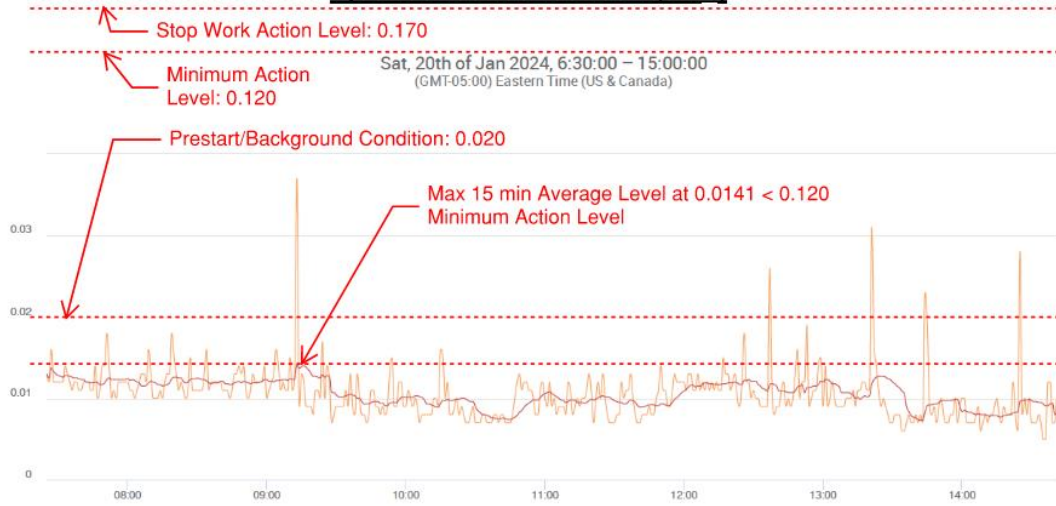


**Downwind Station Data Charts (PM<sub>10</sub>)**



**Dismantle Activity Daily Air Monitoring on January 20, 2024**

**Upwind Station Data Charts (PM<sub>10</sub>)**



Mass Conc. Total mg/m <sup>3</sup>			Mass Conc. Total mg/m <sup>3</sup> AVG 15m		
DustTrak-8530			DustTrak-8530		
R5232(C)			R5232(C)		
MIN	AVG	MAX	MIN	AVG	MAX
0.005	0.011	0.037	0.0073	0.0106	0.0141

Name BBJ Upwind  
S/N 0B446302  
Description FA03921  
Location 126-01 82nd Ave, Kew  
Gardens, NY 11415,  
USA

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**Downwind Station Data Charts (PM<sub>10</sub>)**



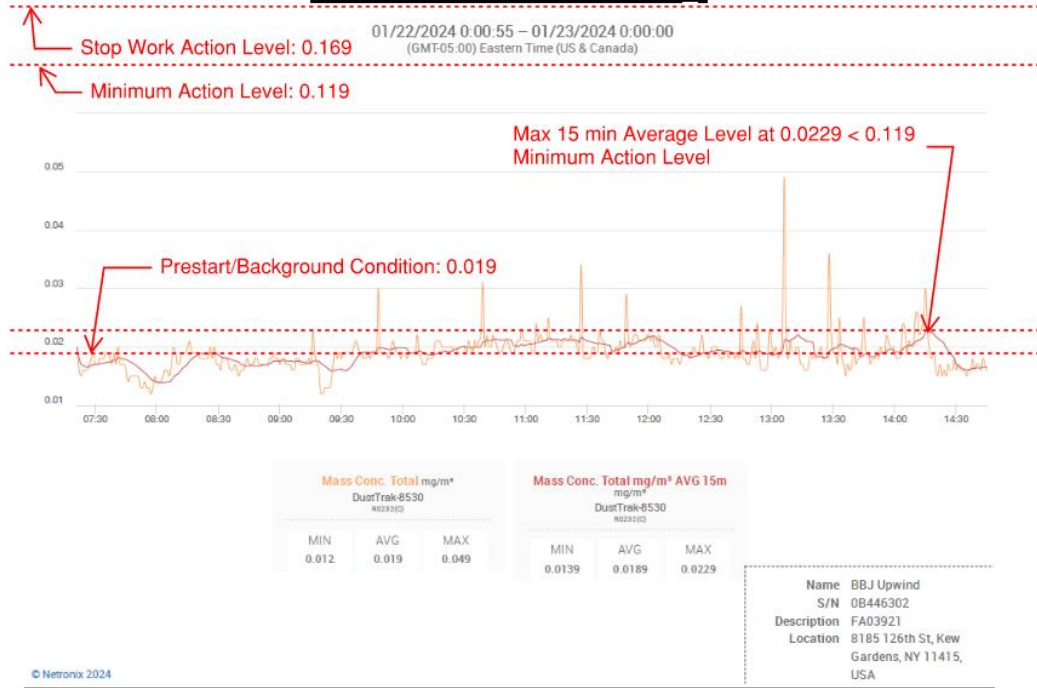
Mass Conc. Total mg/m <sup>3</sup>			Mass Conc. Total mg/m <sup>3</sup> AVG 15m		
DustTrak-8530			DustTrak-8530		
R5232(C)			R5232(C)		
MIN	AVG	MAX	MIN	AVG	MAX
0.001	0.011	0.115	0.001	0.012	0.0198

Name BBJ Downwind  
S/N 0B288647  
Description FA04946  
Location 125-01 Queens Blvd,  
Queens, NY 11415, USA

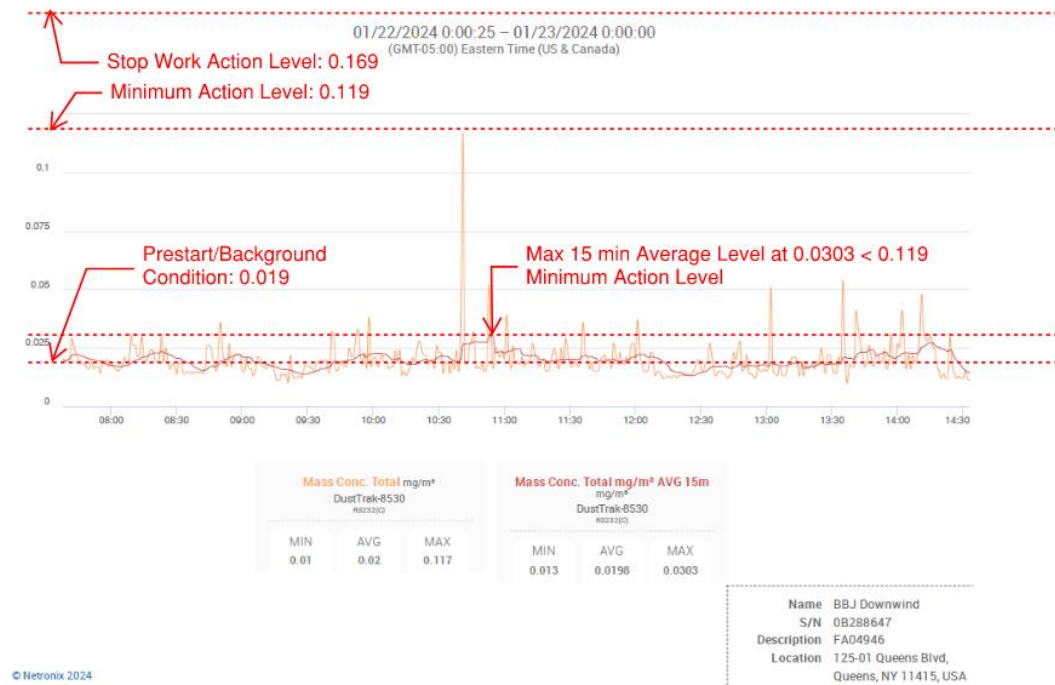
© Netronix 2024

**Dismantle Activity Daily Air Monitoring on January 22, 2024**

**Upwind Station Data Charts (PM<sub>10</sub>)**



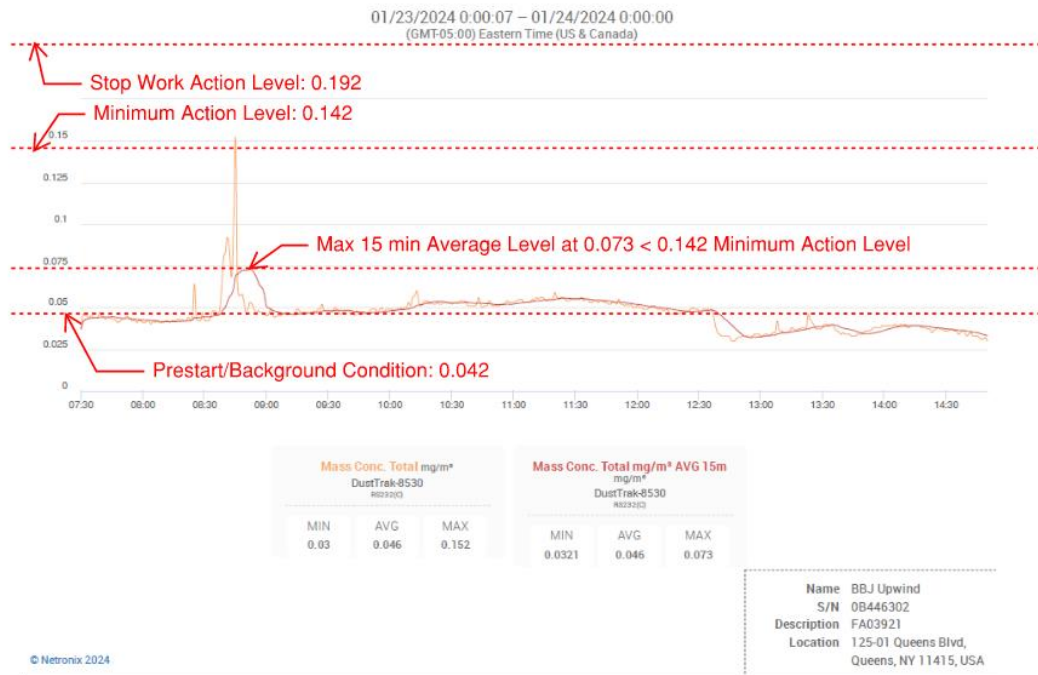
**Downwind Station Data Charts (PM<sub>10</sub>)**





**Dismantle Activity Daily Air Monitoring on January 23, 2024**

**Upwind Station Data Charts (PM<sub>10</sub>)**

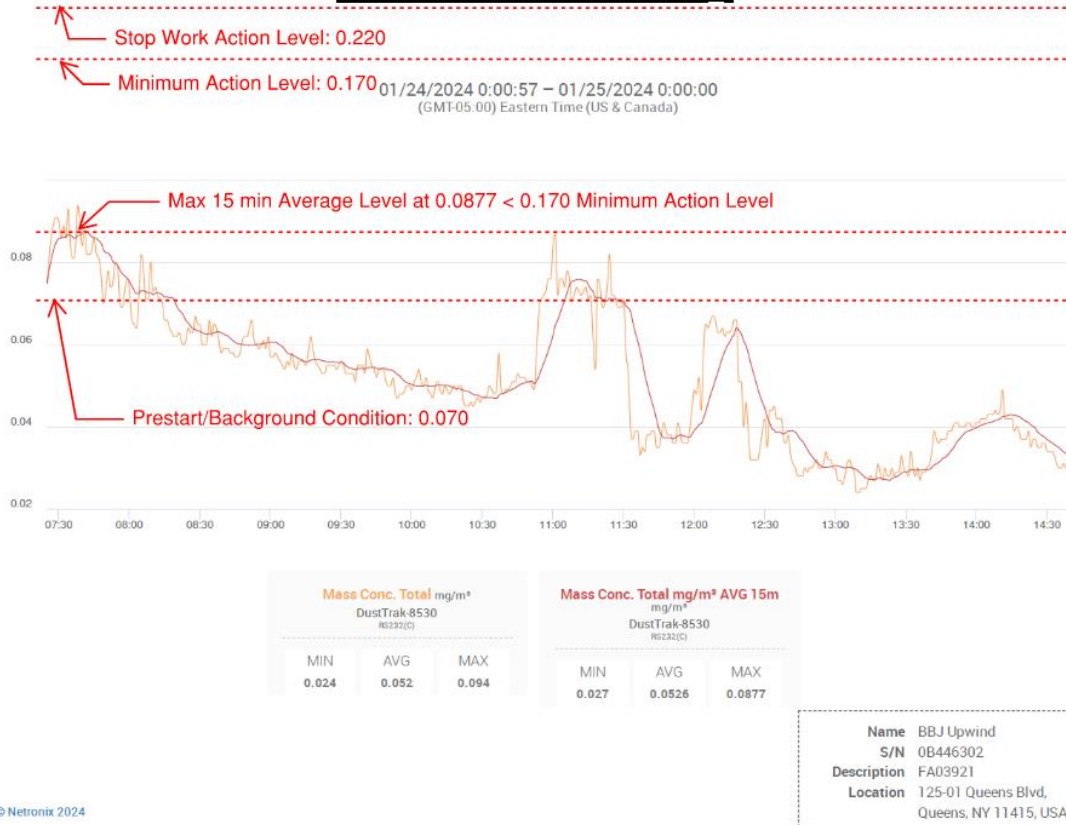


**Downwind Station Data Charts (PM<sub>10</sub>)**

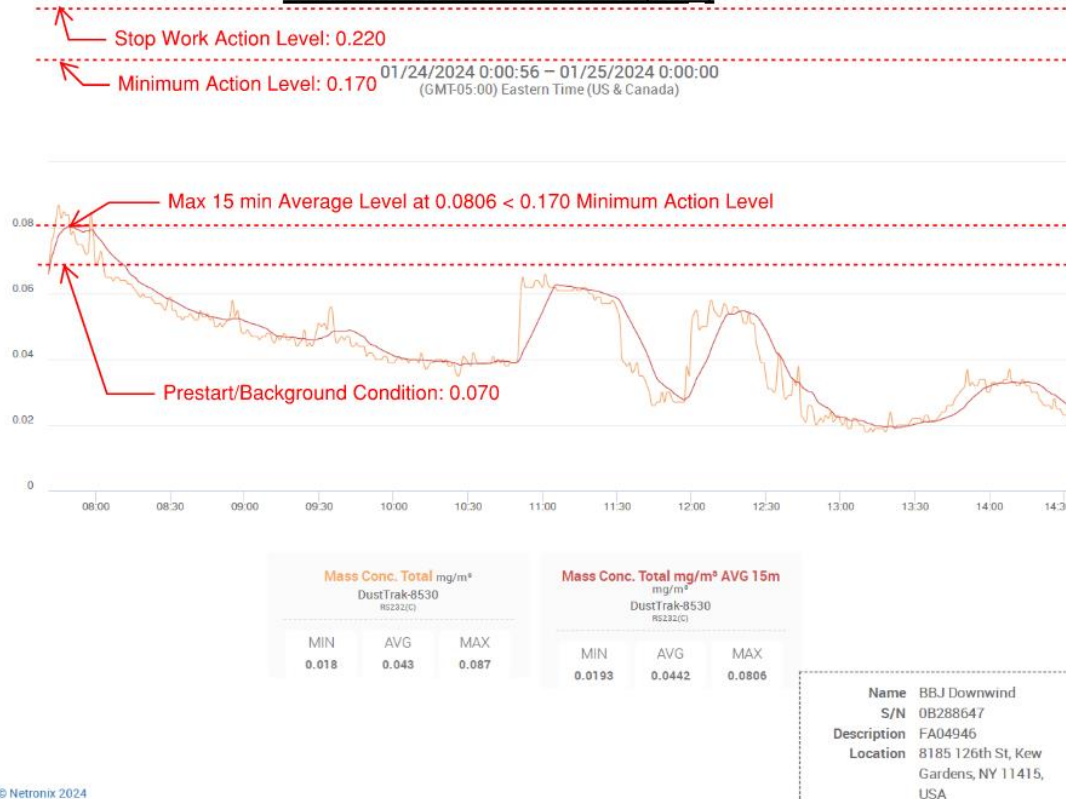


**Dismantle Activity Daily Air Monitoring on January 24, 2024**

**Upwind Station Data Charts (PM<sub>10</sub>)**



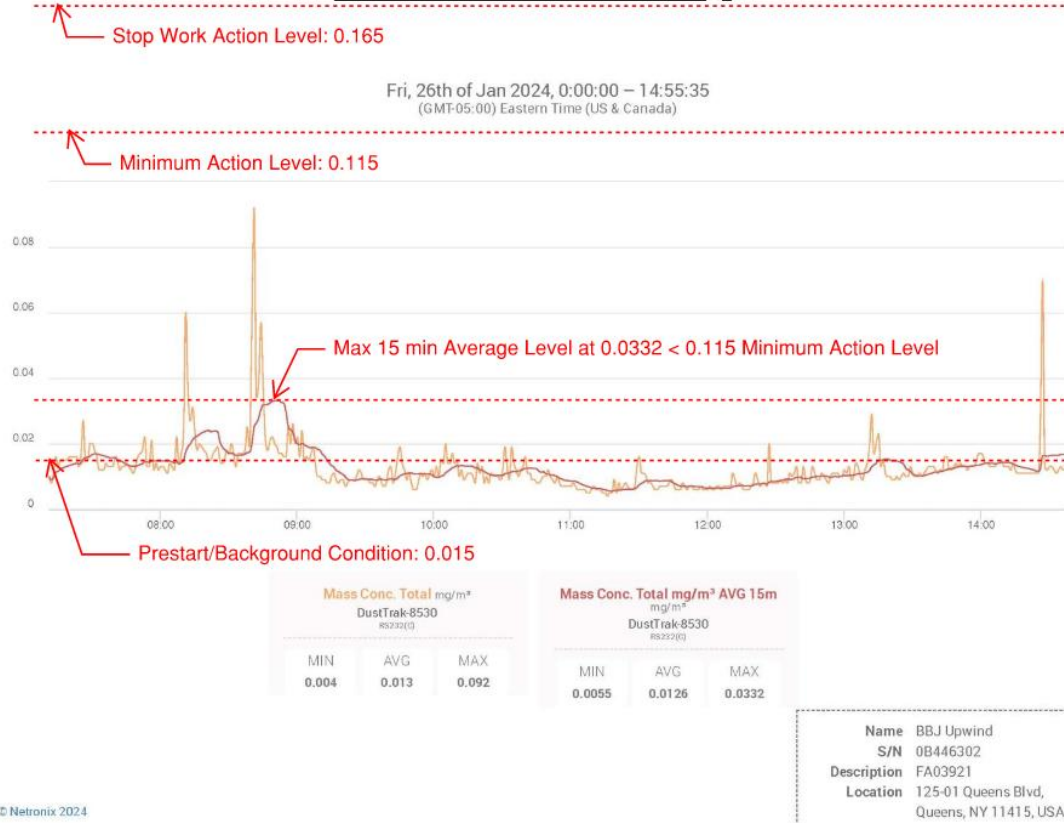
**Downwind Station Data Charts (PM<sub>10</sub>)**



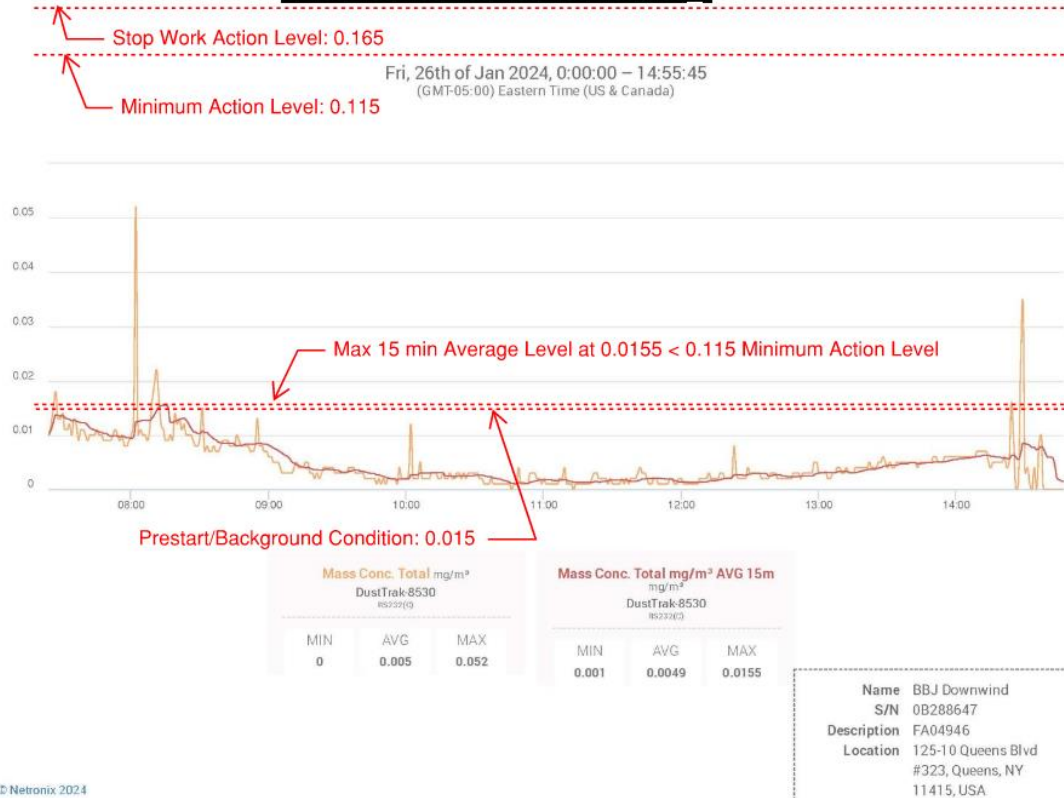


**Dismantle Activity Daily Air Monitoring on January 26, 2024**

**Upwind Station Data Charts (PM<sub>10</sub>)**

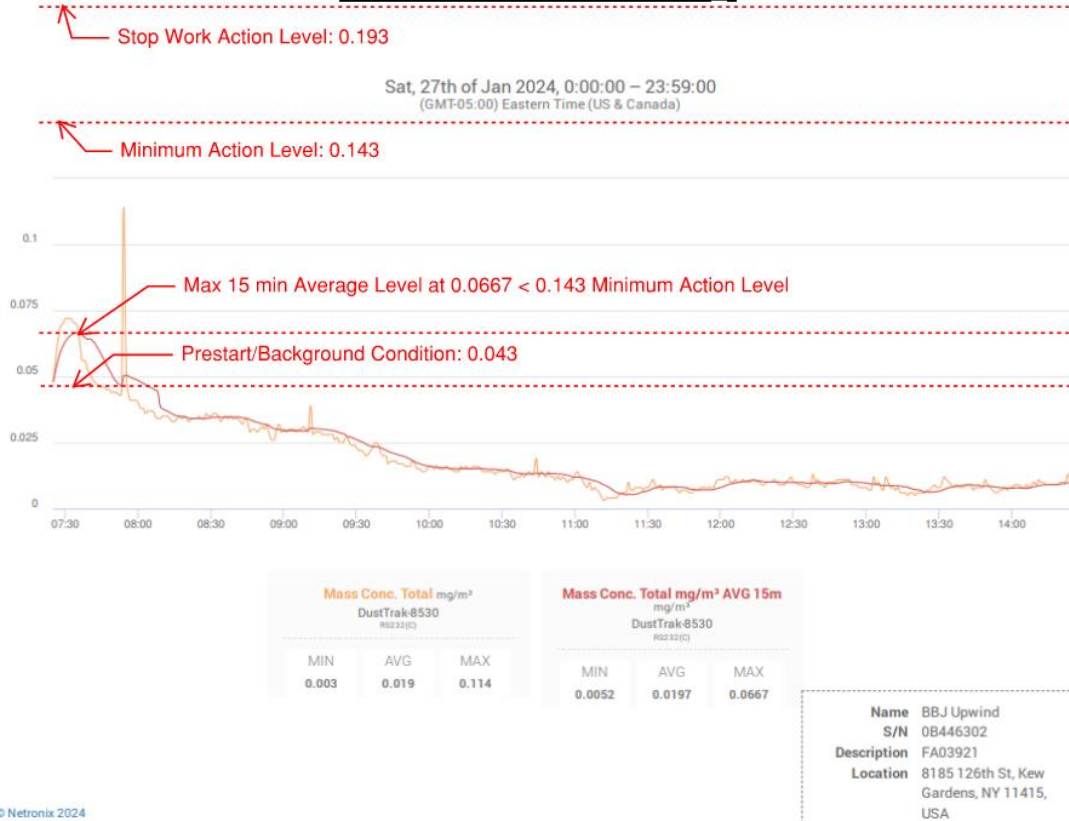


**Downwind Station Data Charts (PM<sub>10</sub>)**

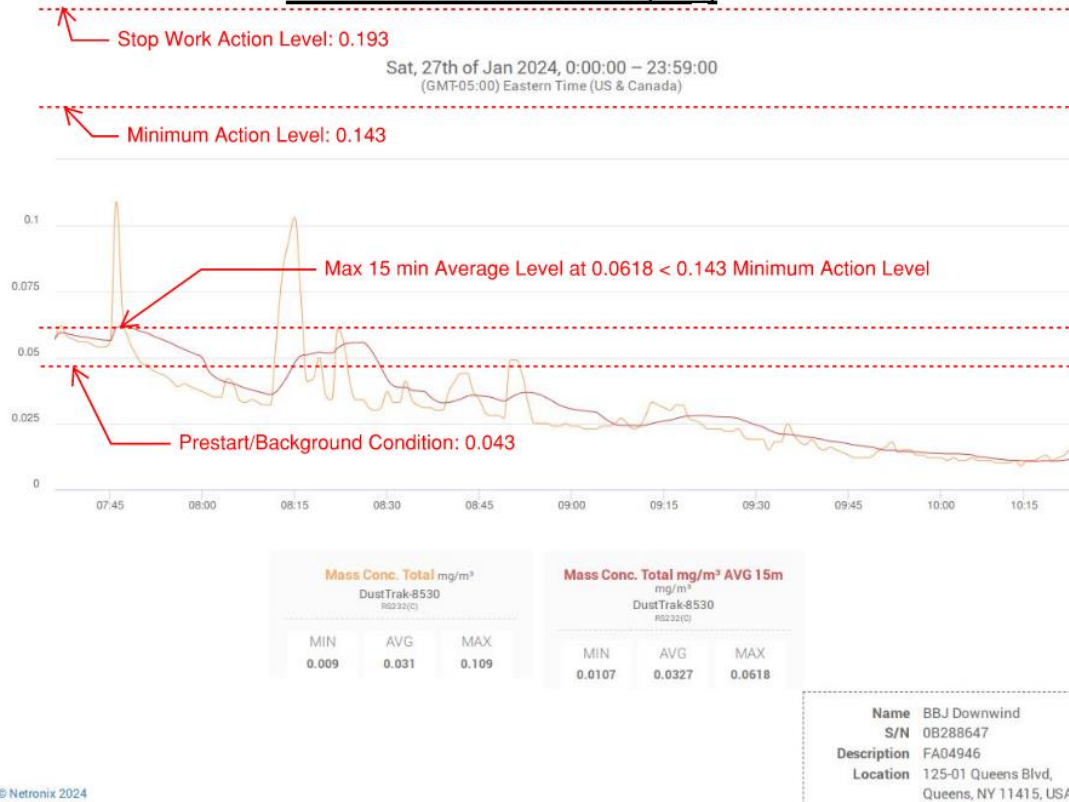


**Dismantle Activity Daily Air Monitoring on January 27, 2024**

**Upwind Station Data Charts (PM<sub>10</sub>)**



**Downwind Station Data Charts (PM<sub>10</sub>)**

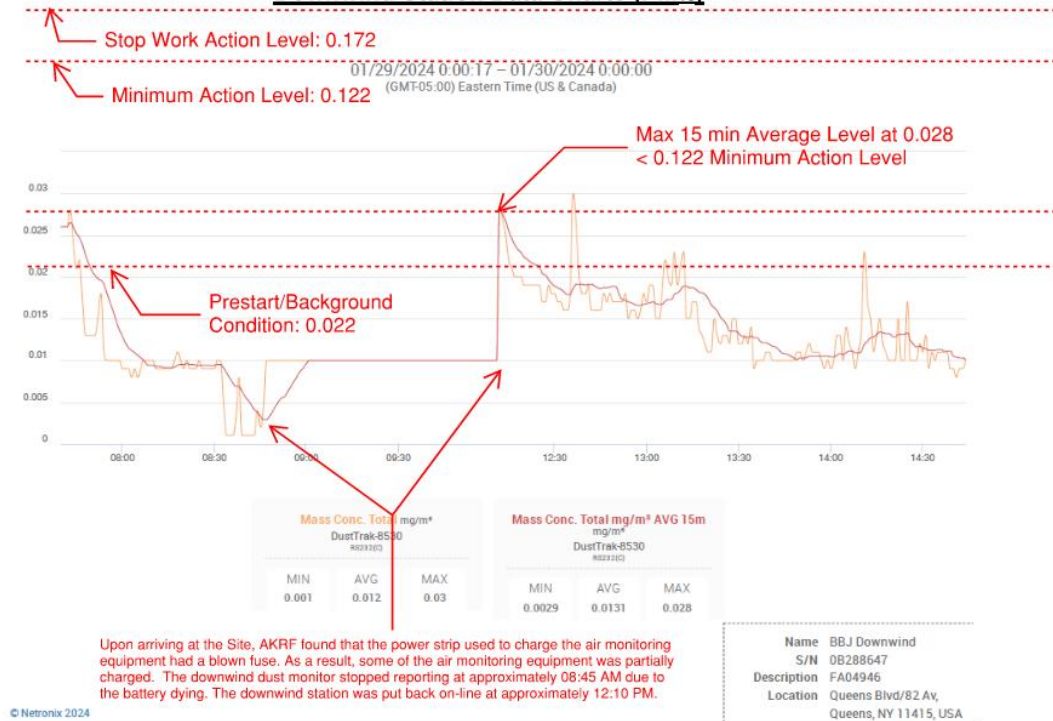


**Dismantle Activity Daily Air Monitoring on January 29, 2024**

**Upwind Station Data Charts (PM<sub>10</sub>)**

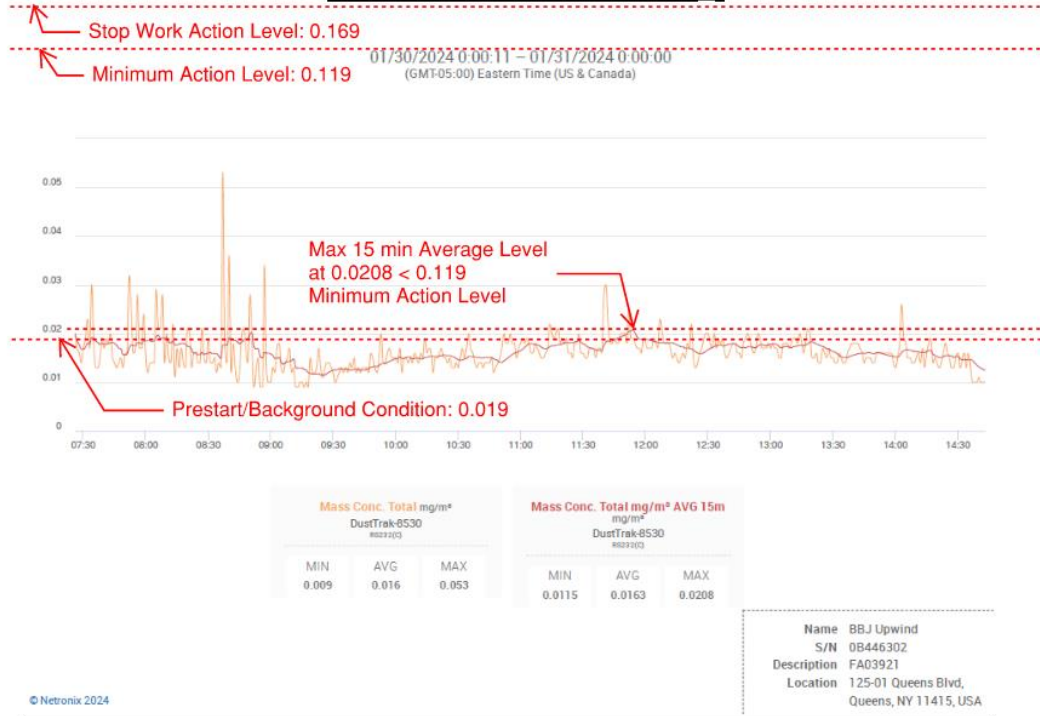


**Downwind Station Data Charts (PM<sub>10</sub>)**

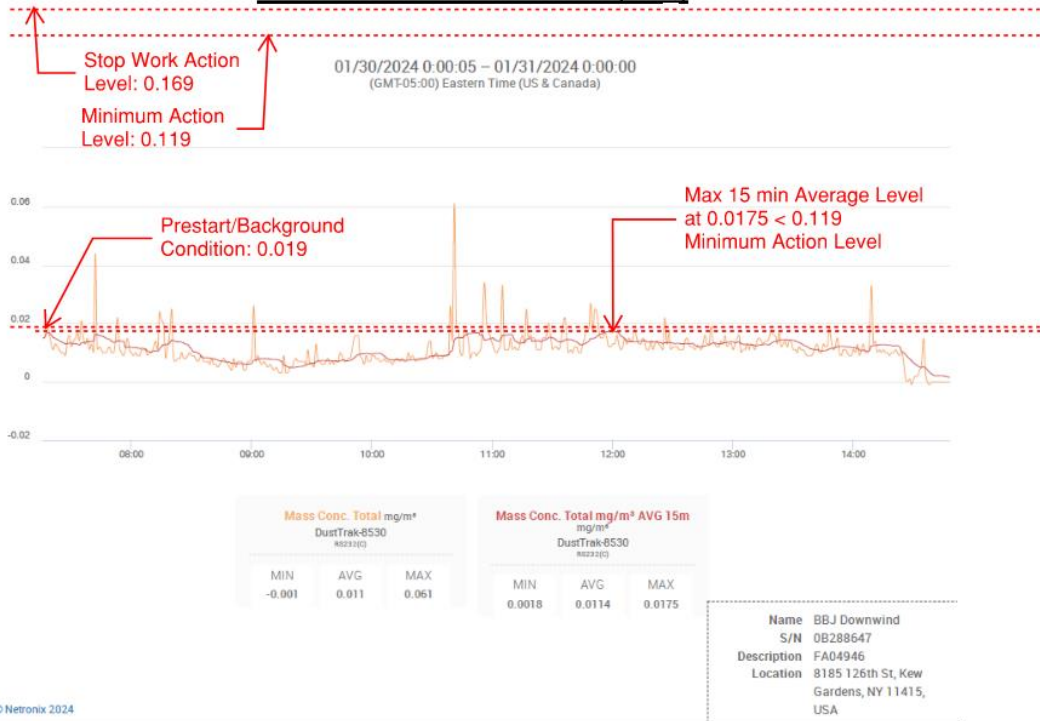


**Dismantle Activity Daily Air Monitoring on January 30, 2024**

**Upwind Station Data Charts (PM<sub>10</sub>)**



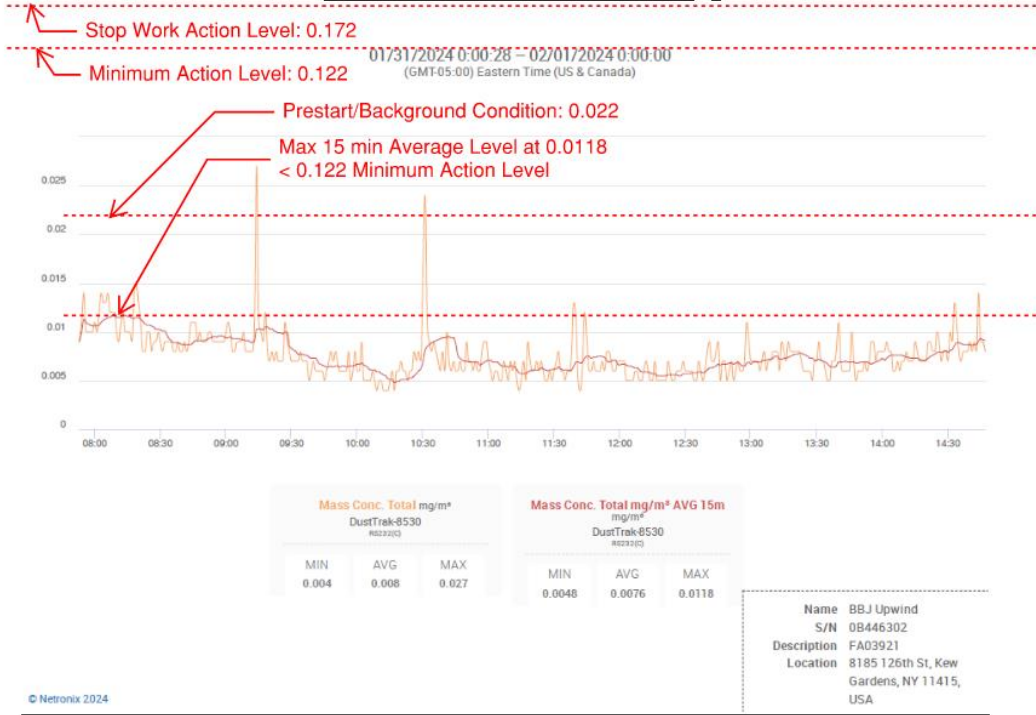
**Downwind Station Data Charts (PM<sub>10</sub>)**



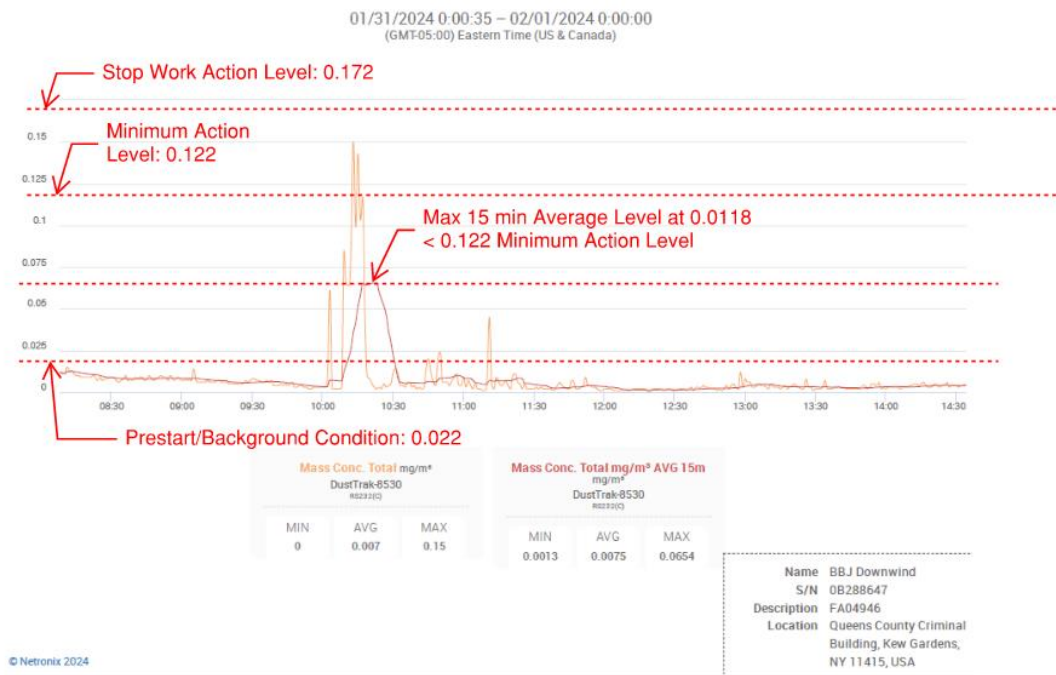


**Dismantle Activity Daily Air Monitoring on January 31, 2024**

**Upwind Station Data Charts (PM<sub>10</sub>)**



**Downwind Station Data Charts (PM<sub>10</sub>)**



**Noise Monitoring – Initial Five Days of Dismantle Phase V Continued in January 2024**

Project: DDC Queens Dismantle & Swing Space

Date: 1-2-24 Tue Weather: Sunny 29°F.

Work Activities: full mech Demo.

Prepared by: Yao

NO.	Location	Time	Noise (dBA)	Noise Action Threshold (Day/Night)	Note
1	Queens Borough Hall	9:54	63	< 75 dBA	Daytime noise action threshold not exceeded.
2	Southwest corner of DA wing	9:31	64	< 75 dBA	Daytime noise action threshold not exceeded.
3	Corner of 134 <sup>th</sup> ST and Hoover Ave.	11:06	68.2	69 dBA/ <del>68 dBA</del> NA	Daytime noise action threshold not exceeded.
4	200 ft away from Kew Garden Road on 82 <sup>nd</sup> Road	10:21	63	< 65 dBA/ <del>55 dBA</del> NA	Daytime noise action threshold not exceeded.
5	Between 82 <sup>nd</sup> road and 83 <sup>rd</sup> Ave on Queens Blvd	10:44	66	< 68 dBA/ <del>67 dBA</del> NA	Daytime noise action threshold not exceeded.
Corrective Action: <u>N/A</u>					

Project: DDC Queens Dismantle & Swing Space

Date: 1-3-24 Wed Weather: 40°F Sunny.

Work Activities: full mech Demo

Prepared by: Yao

NO.	Location	Time	Noise (dBA)	Noise Action Threshold (Day/Night)	Note
1	Queens Borough Hall	10:25	63.2	< 75 dBA	Daytime noise action threshold not exceeded.
2	Southwest corner of DA wing	10:02	61	< 75 dBA	Daytime noise action threshold not exceeded.
3	Corner of 134 <sup>th</sup> ST and Hoover Ave.	12:35	68	69 dBA/ <del>68 dBA</del> NA	Daytime noise action threshold not exceeded.
4	200 ft away from Kew Garden Road on 82 <sup>nd</sup> Road	12:58	63	< 65 dBA/ <del>55 dBA</del> NA	Daytime noise action threshold not exceeded.
5	Between 82 <sup>nd</sup> road and 83 <sup>rd</sup> Ave on Queens Blvd	1:21	67	< 68 dBA/ <del>67 dBA</del> NA	Daytime noise action threshold not exceeded.
Corrective Action: <u>N/A.</u>					



**Noise Monitoring – Biweekly Follow Up during Dismantle Phase V**

Project: DDC Queens Dismantle & Swing Space

Date: 1-10-24 Wed Weather: 54°F Sunny

Work Activities: Demo walls at Sally port.

Prepared by: Yao

NO.	Location	Time	Noise (dBA)	Noise Action Threshold (Day/Night)	Note
1	Queens Borough Hall	1:01	60	< 75 dBA	Daytime noise action threshold not exceeded.
2	Southwest corner of DA wing	12:38	62	< 75 dBA	Daytime noise action threshold not exceeded.
3	Corner of 134 <sup>th</sup> ST and Hoover Ave.	1:28	68	< 69 dBA/ <del>68 dBA</del> NA	Daytime noise action threshold not exceeded.
4	200 ft away from Kew Garden Road on 82 <sup>nd</sup> Road			65 dBA/ 55 dBA	
5	Between 82 <sup>nd</sup> road and 83 <sup>rd</sup> Ave on Queens Blvd			68 dBA/ 67 dBA	
Corrective Action: <u>N/A.</u>					

Project: DDC Queens Dismantle & Swing Space

Date: 1-18-2024 Thurs Weather: 30°F cloudy

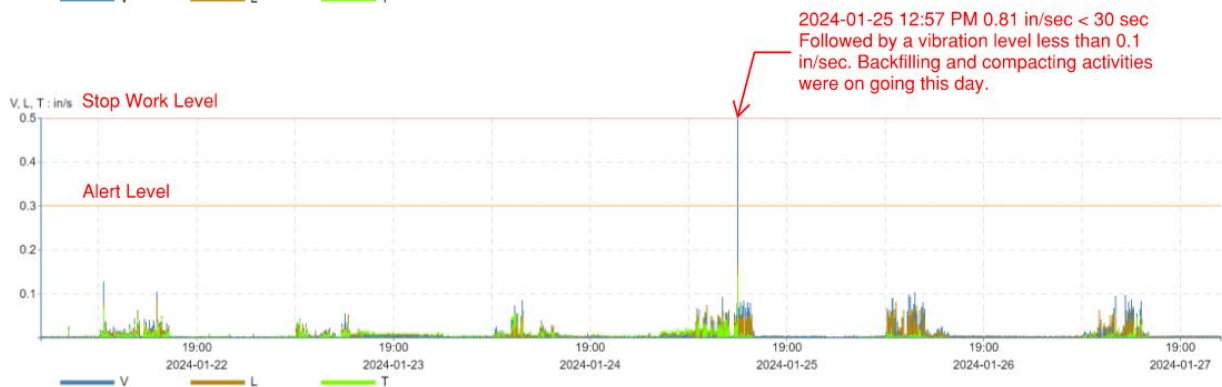
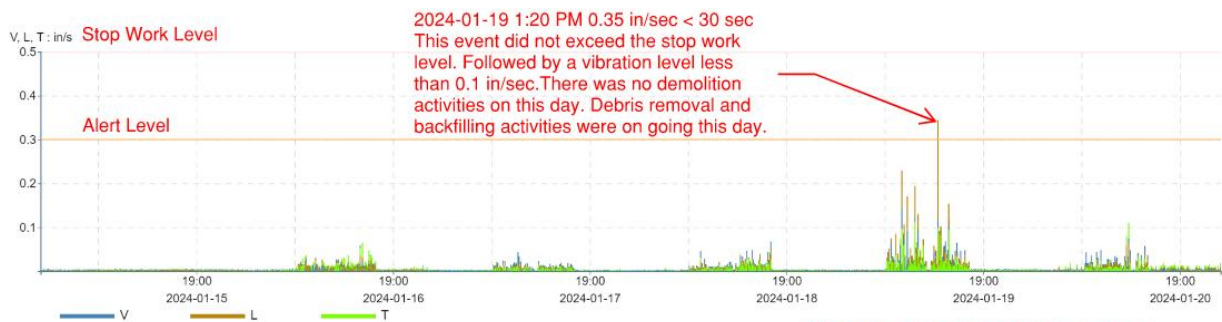
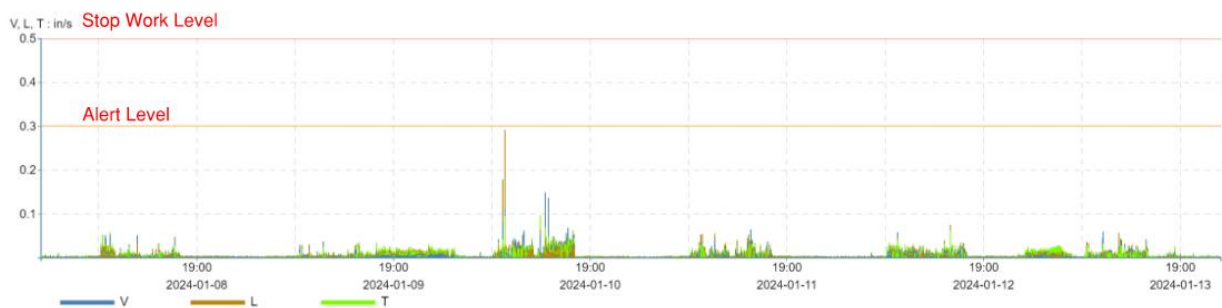
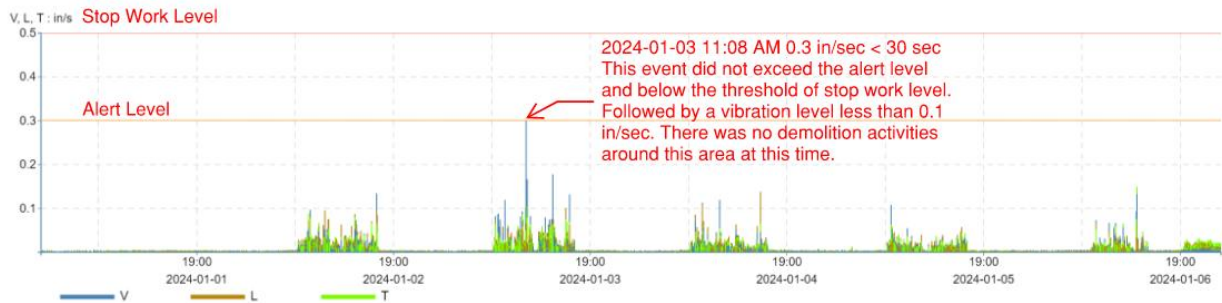
Work Activities: backfill & Remove debris

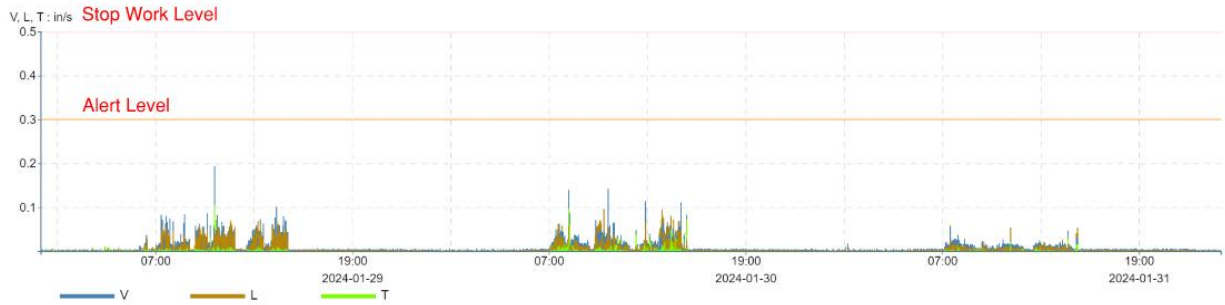
Prepared by: Yao

NO.	Location	Time	Noise (dBA)	Noise Action Threshold (Day/Night)	Note
1	Queens Borough Hall	10:26	63	< 75 dBA	Daytime noise action threshold not exceeded.
2	Southwest corner of DA wing	10:03	62	< 75 dBA	Daytime noise action threshold not exceeded.
3	Corner of 134 <sup>th</sup> ST and Hoover Ave.	10:53	68	< 69 dBA/ <del>68 dBA</del> NA	Daytime noise action threshold not exceeded.
4	200 ft away from Kew Garden Road on 82 <sup>nd</sup> Road	11:21	64	< 65 dBA/ <del>55 dBA</del> NA	Daytime noise action threshold not exceeded.
5	Between 82 <sup>nd</sup> road and 83 <sup>rd</sup> Ave on Queens Blvd	11:45	67	< 68 dBA/ <del>67 dBA</del> NA	Daytime noise action threshold not exceeded.
Corrective Action: <u>N/A.</u>					

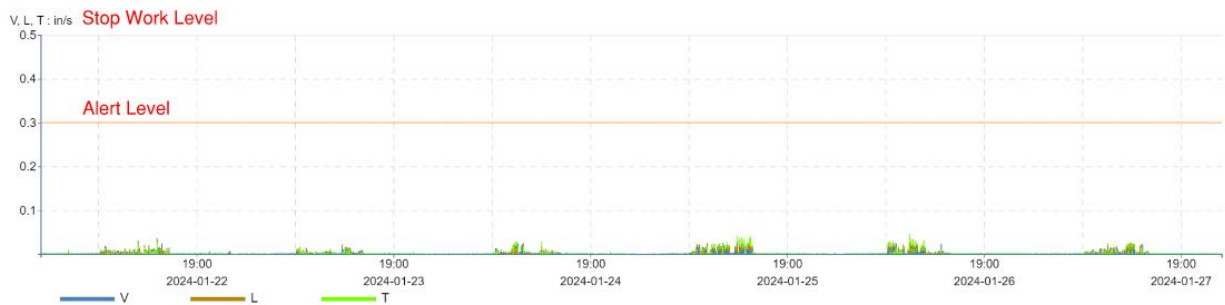
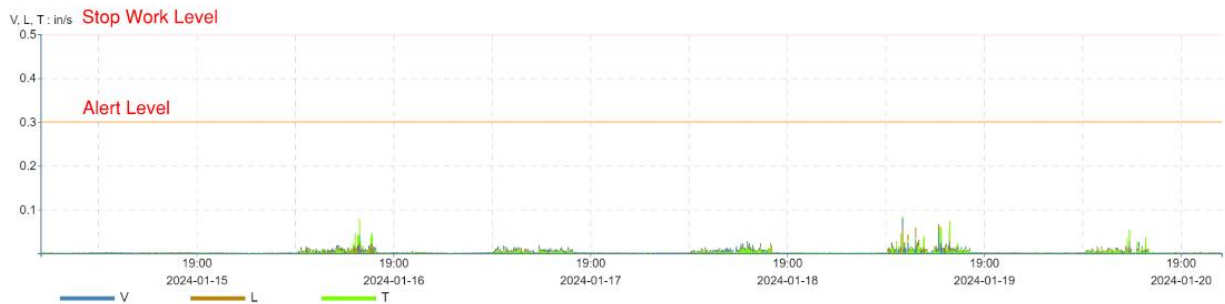
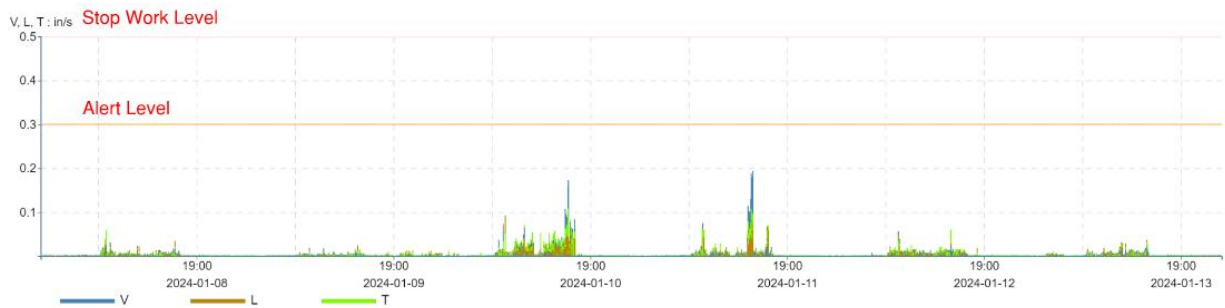
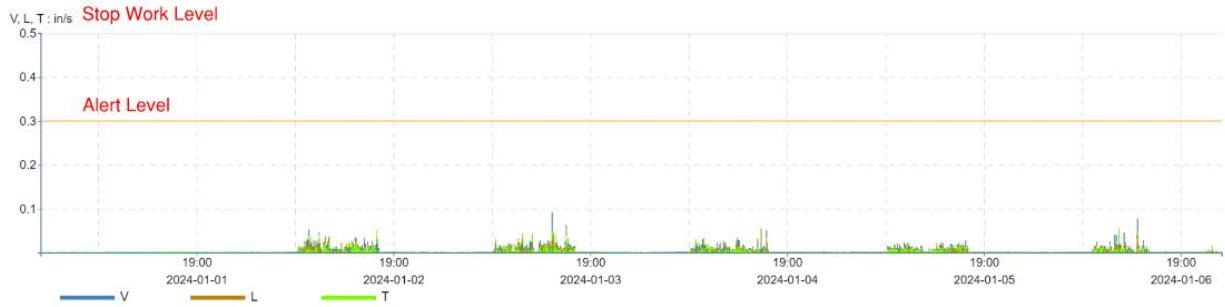
## Vibration Monitor – VM1 January 2024

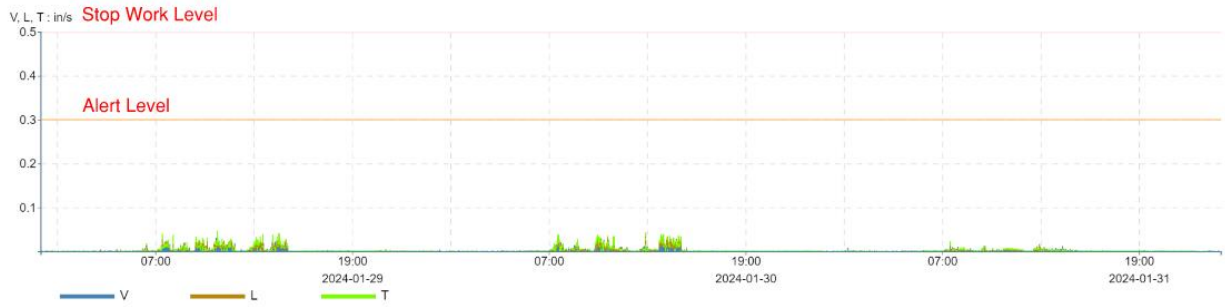
### *FAMILY JUSTICE CENTER – NORTHEAST CORNER*





## Vibration Monitor – VM2 January 2024





## **Vibration Monitor – VM3 January 2024**

*ANNEX – BASEMENT FIRE PUMP ROOM*

