



20-21 Wagaraw Road – Bldg. 35E, Fair Lawn, NJ 07410  
PH (973) 636-9145 / FAX (973) 636-9144  
Email: [envirovision@optonline.net](mailto:envirovision@optonline.net)

Project No.: 17-434

December 5, 2017

**Mr. Steve Kepnes, Business Administrator  
Vernon Township School District  
P.O. Box 99  
Vernon, NJ 07462**

**Re: Limited Basic Post Fire Indoor Air Quality evaluation @ Vernon High School, 1832  
County Road 565, Vernon, NJ 07462 (Regarding Fire in Room #201)**

Dear Mr. Kepnes;

As per your request and direction, On December 4, 2017 EnviroVision's environmental specialist performed some basic indoor air quality (IAQ) evaluation/measurements that allowed for quick on-site result availability.

The findings presented herein are subject to the limitations indicated at the end of this report.

1. 4-Gas QRAE meter was used for continuous exposure monitoring of oxygen, hydrogen sulfide, carbon monoxide and combustible gases. It gives real time measurements and activates alarm signals whenever the exposure exceeds preset limits or oxygen is depleted. An on-site reading did not indicate the presence of hydrogen sulfide, carbon monoxide, nor combustible gases and confirmed a normal oxygen concentration (20.9%) throughout several areas of the Vernon High School in proximity to and pertaining to the area of concern (Room 201) (See attached data sheet).
2. Direct reading of air quality parameter, VOC (Volatile Organic Compounds) was performed via MSA Passport PID (Photoionization Detector) Organic Vapor Monitor and at no time did the device alarm nor did it indicate levels requiring action or concern (See attached data sheet).
3. Sampling for fibrous particulates present in the air was performed via Phase Contrast Microscopy (PCM) utilizing NIOSH 7400 methodology for immediate analysis. This method measures the fibrous concentrations of particulates in the air thought to be of respirable size and morphology. This method is often used to screen for asbestos fibers in the air but can be used for other fibrous particulates as well. All of the PCM results indicated fibrous particulates below OSHA, NIOSH and ACGIH requirements/recommendations. The only sample that indicated fiber levels elevated above the other areas sampled was collected in Room 201, the actual room in which the fire started (See attached data sheet).

Project No.: 17-434 (Vernon High School)

## **OBSERVANCES ON 12-04-2017**

- On the day of the evaluation very faint odor indicative of fire was perceived by our technician throughout the school; however odor was strongest and considerable in Room 201.
- Visually only sealed off room 201 and sealed off adjacent corridor (s), indicated visual evidence of fire damage. Other interior areas of the school did not indicate significant visual damage from the fire.

## **IN CONCLUSION**

Basic on site IAQ screening, analysis and readings did not trigger actionable levels or exceedances for the parameters that were evaluated on December 4, 2017. The actual room in which the fire happened did indicate higher fibrous particulates, but was still within standards for that parameter.

Screening and observances performed during our site visit to the Vernon High School prompted following recommendations by EnviroVision's representative:

- Continue to cordon/seal off all openings/entrances to Room 201 and adjacent applicable corridors.
- It may be helpful to have remediation contractor install and operate air filtration device (s) (AFDs) exhausting to exterior of building in the area of concern (Room 201). This will continue filtration of air and should be engineered to create gentle negative pressure within work area. Negative pressure in area of concern can help to minimize odor and particulate transference to other areas of school.
- Area of concern should be kept cordoned off until further cleanup and renovations are completed.
- After complete remediation in Room 201, and to document the conditions of Room 201, EnviroVision recommends a follow up IAQ screen, with a fire related test "combustible-by-products" (CBP). CBP testing and analysis is designed for fire residues of interest, specifically char, soot and ash. CBP is often used for cleaning assessment and or insurance.

## **LIMITATIONS**

The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services. Conclusions contained in this report are based on limited environmental testing, and were arrived at in accordance with generally accepted IAQ standards parameters with immediate availability. The testing conducted at the site was limited in scope, and cannot be considered representative of areas not tested, nor of time periods other than during the testing period.



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If you have any questions, or if we could be of any further assistance, please feel free to contact our office. EnviroVision looks forward to providing you with the service and attention to detail that you have come to expect from us.

Sincerely,  
EnviroVision Consultants, Inc.

A handwritten signature in blue ink that reads "Frederick Larson". The signature is written in a cursive style and is positioned above a horizontal line.

Frederick Larson, Vice President

Attached: PCM Air sample data sheets analytical results  
QRAE 4-gas, and PID measurements with certificate



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## Limited IAQ Testing

**Client:** Vernon Twp BOE  
625 County Rd 517,  
Vernon, NJ 07462

**Proj. No.** 17-434

**Site:** Vernon High School  
1832 County Rd 565,  
Vernon, NJ 07462

**Technician:** P. Shchutkaia **Date:** December 04, 2017

**Sampling Devices Used:** Multigas QRae

### 4 Gas Meter

TIME	O2 %	LEL	CO	H2S	Location
15:15	20.9	0	0	0	Outside fresh air – by main entrance
15:20	20.9	0	0	0	1 <sup>st</sup> Fl Hallway by main office
15:30	20.9	0	0	0	1 <sup>st</sup> Fl main office
15:40	20.9	0	0	0	1 <sup>st</sup> Fl Auditorium
15:43	20.9	0	0	0	1 <sup>st</sup> Fl Cafeteria
15:58	20.9	0	0	0	1 <sup>st</sup> Fl Hallway by Room #014
16:20	20.9	0	0	0	2 <sup>nd</sup> Fl Hallway by Room # 228
16:23	20.9	0	0	0	2 <sup>nd</sup> Fl Room #201
16:40	20.9	0	0	0	2 <sup>nd</sup> Fl Hallway by Room #208
16:42	20.9	0	0	0	2 <sup>nd</sup> Fl Room #202
16:45	20.9	0	0	0	2 <sup>nd</sup> Fl Room #203
16:50	20.9	0	0	0	2 <sup>nd</sup> Fl Upper Library
17:05	20.9	0	0	0	Outside fresh air - by main entrance

**Note:** device was running the entire time, above select times were recorded for documentation.

O2 – Oxygen, LEL- Lower Explosive Limit, CO – Carbon Monoxide,  
H2S-Hydrogen Sulfide



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CLIENT: Vernon Twp BOE  
625 County Rd 517,  
Vernon, NJ 07462

PROJECT: Vernon High School  
1832 County Rd 565,  
Vernon, NJ 07462

PROJECT No.: 17-434

DATE OF MEASUREMENTS: 12-04-2017

METHOD OF MEASUREMENT: QRAE PID Organic Vapor Monitor (Photoionization Detector)

CALIBRATED: by Environmental Equipment Repair

## *PID Measurement*

Location & Time	Reading	Note/Info
Outside by main entrance – 15:15	0.0	Outside fresh air calibration
1 <sup>st</sup> Fl Hallway by main office – 15:20	0.0	
1 <sup>st</sup> Fl main office – 15:30	0.0	
1 <sup>st</sup> Fl Auditorium – 15:40	0.0	
1 <sup>st</sup> Fl Cafeteria – 15:43	0.0	
1 <sup>st</sup> Fl Hallway by Room #014 – 15:58	0.0	
2 <sup>nd</sup> Fl Hallway by Room # 228 – 16:20	0.0	
2 <sup>nd</sup> Fl Room #201 – 16:23	0.1	
2 <sup>nd</sup> Fl Hallway by Room #208 – 16:40	0.1	
2 <sup>nd</sup> Fl Room #202 – 16:42	0.3	
2 <sup>nd</sup> Fl Room #203 – 16: 45	0.2	
2 <sup>nd</sup> Fl Upper Library – 16:50	0.0	
Outside by main entrance – 17:05	0.0	Outside fresh air calibration

**Note: device was running the entire time, the above select times were recorded for documentation, at no time did the device alarm or indicate levels of concern.**

TECHNICIAN: Polina Shchutckaia  
EnviroVision Consultants, Inc.

SIGNATURE: P. Shchutckaia



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CLIENT: Vernon BOE  
625 County Rd 517,  
Vernon, New Jersey 07462

PROJECT: Vernon High School  
1832 County Rd 565,  
Vernon, New Jersey 07462

PROJECT No.: 17-434

DATE of Sampling: 12-04-17

DATE of Analysis: 12-04-17

TYPE of Sampling: PCM (NIOSH 7400 Method)

Lab No.: 17-434LB

## Certificate of Analysis

SAMPLE NUMBER	VOLUME (LITERS)	FLOW RATE (LPM)	TIME (MIN)	FIELDS COUNTED	FIBERS FOUND	RESULTS [F/CC]
434-1	1485	15.0	99	100	5.5/100	0.002
434-2	1485	15.0	99	100	2.5/100	<0.002
434-3	1340	20.0	67	100	2.0/100	<0.002
434-4	1368	18.0	76	100	17.5/100	0.006
434-5	1350	15.0	90	100	1.5/100	<0.002
434-6	1746	18.0	97	100	3.5/100	<0.002
434-7	1920	20.0	96	100	3.0/100	0.001

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 F/CC = Fibers per cubic centimeters of air sampled, which are at least 3 times longer than wide, and not less than 5 microns in length, in accordance with NIOSH 7400 Method.

PCM = Phase Contrast Microscopy.

LOD- Limit of detection (LOD=0.002 f/cc for 1200 liters)

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 EnviroVision is American Industrial Hygiene Association (AIHA) IHPAT Lab ID # 100154

ANALYST: Polina Shchutckaia

MICROSCOPE: Olympus CH-2/No.1

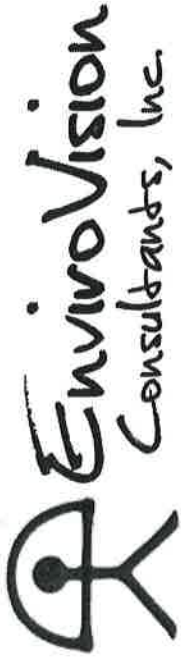
SIGNATURE: See air sample data sheet

METHOD: NIOSH 7400 - PCM

LABORATORY DIRECTOR: G.M. MORALES

SIGNATURE: 





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CLIENT	Vernon Twp BOE	ADDRESS	625 County Road 517, Vernon, NJ 07462
PROJECT	Vernon Twp High School	ADDRESS	1832 County Rd 565, Vernon, NJ 07462
TECH	Polina Shevutckaia	SAMPLING DATE	12/04/2017
		CALIBRATION DATE	12/04/2017
		PROJ #	17-434

### AIR MONITORING DATA SHEET

Sample No.	Sample Location	Time on	Time off	Elapse Time	Flow Rate (LPM)		Volume Liters	Fibers/100 fld	f/cc
					Pre	Post			
434-1	1st Fl Main office	14:31	16:10	99	15	15	1485	5.5	0.002
434-2	1st Fl Hallway by Rm 014	14:32	16:11	99	15	15	1485	2.5	<0.002
434-3	1st Fl Cafeteria	14:43	15:50	67	20	20	1340	2.0	<0.002
434-4	2nd Fl Room 201	14:51	16:07	76	18	18	1368	17.5	0.006
434-5	1st Fl Auditorium	15:06	16:36	90	15	15	1350	1.5	<0.002
434-6	2nd Fl Hallway by	16:00	17:37	97	18	18	1746	3.5	<0.002
434-7	2nd Fl Library	16:02	17:38	96	20	20	1920	3.0	<0.002

### CHAIN OF CUSTODY

CASSETTE TYPE  25mm 0.8 micron MCE (PCM)  
 25mm 0.45 micron MCE (TEM)

ANALYSIS  Phase Contrast Microscopy (PCM) via NIOSH 7400 Method

TURNAROUND TIME ASAP

FAX RESULTS TO: (973) 636-9144

LABORATORY SUBMITTED TO: EnviroVision (TECH EMAIL)

Relinquished By: P. Shevutckaia

Received By:

Date & Time: 12/04/2017

Analyst: Polina Shevutckaia Analyst Signature: P. Shevutckaia Date: 12/04/2017

Name printed