AHERA Consultants INCORPORATED

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INDOOR AIR QUALITY EVALUATION REPORT

Roofing Project – Roofing Cap and Mastic Installation

Pinelands Regional High School

Pinelands Regional School District
520 Nugentown Road
Little Egg Harbor, NJ 08087

Survey date: 08/28/2017
Inspection performed by: Eric Clarkson

Section I — Introduction

AHERA Consultants Inc. was retained by the Pineland Regional School District to conduct indoor air quality analysis and testing utilizing TO-15 canisters in specified areas of the Pinelands Regional High School located in Little Egg Harbor, New Jersey. This study was performed at the request of the District in response to concerns by school staff of possible indoor air quality issues associated with the summer roofing project.

Section II — Physical Inspection

Existing Conditions

On August 28, 2017 I, Environmental Technician Eric Clarkson, arrived at the Pinelands High School and met with Mr. Robert Sannino, from New Road Construction Management. He escorted me to the third floor into the 313-319 hallway and main entrance concourse balcony areas where active roof replacement activities were being performed. Installation of the roofing cap was being accomplished on this date.

I conducted a cursory visual inspection of each space. One of the drop ceiling tiles was open in the 313-319 hallway. (See fig's 1 & 2) I noted a corrugated metal ceiling deck exists in this area above the drop ceiling. No objectionable odors were detected upon entrance into this area. The balcony area likewise has an exposed corrugated metal ceiling deck supported by steel trusses above the central entrance concourse below. Fixed windows and skylights exist in this area. (See fig's 3 & 4) Roof replacement activities were being performed and observed. At the time of sampling, occupant activities to the areas tested had been restricted and most of the buildings HVAC systems were not operating due to the construction activities.

Ambient air sampling was conducted utilizing TO-15 canisters for detection of Volatile Organic Compounds (VOC's) for compounds that may be associated with the roofing activities. In addition to TO-15 sampling, an IAQ-Calc Indoor Air Quality Meter (Model 7545) was utilized to assess current air quality conditions with respect to temperature, humidity, carbon dioxide CO2 and carbon monoxide CO in both areas sampled and an ambient control sample was collected outside the High School – Main Entrance.

Section III — Sampling Procedures

- ◊ Laboratory calibrated TO-15 canisters were utilized and field verified. The following areas within the High School were tested:

  3rd Floor 313 – 319 hallway and 3rd Floor center balcony area above main entrance concourse

- ◊ The sampling media was submitted to EMSL Analytical Laboratories in Cinnaminson, NJ for analysis. Air samples were analyzed within a 3-day turnaround period.

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◊ Indoor air quality measurements for temperature, humidity, CO2 and CO were taken utilizing a Model 7545 IAQ-Calc Indoor Air Quality Meter in both 3rd floor areas as well as an outside control sample test.

Section V — Interpretation of Results

At this time, there are no governmental standards regarding Indoor Air Quality. The Occupational Safety and Health Association (OSHA) and the National Institute of Occupational Safety and Health (NIOSH), as well as other occupational health related associations, have permissible exposure levels (PELs), recommended exposure limits (RELs), or other limit values for many but not all Volatile Organic Compounds. For the purposes of this report USEPA Residential Air Generic Screening Levels were utilized since this would be a comprehensive comparison standard. (See EMSL TO-15 Report) provided herein for comparative levels. NIOSH and OSHA exposure limit comparisons are provided as well.

Under the Public Employees Occupational Safety and Health Program there is currently an indoor air quality standard for the state of New Jersey (NJAC 12:100-13). Additionally, there are recommendations under ASHRAE "The American Society of Heating, Refrigeration, and Air Conditioning Engineers for the Indoor Environment.

Under NJAC 12:100-13 a range of 68 to 79 degrees Fahrenheit is the desired temperature range to maintain with Carbon Dioxide (CO^2) not exceeding 1000 ppm. If Carbon Dioxide (CO^2) exceeds 1000 PPM the HVAC system should be evaluated for proper operation.

ASHRAE recommends that a relative humidity between 30% and 60% are acceptable, readings in excess of 70% is considered a friendly environment to microorganisms such as mold.

Carbon Monoxide (CO) levels based on OSHA limits long-term workplace exposure levels to 50 ppm over an 8-hour time weighted average. The Threshold Limit Value or TLV for carbon monoxide is 25 ppm.

Section VI — Observations/Recommended Response Actions

Overall Observations: Results of the air testing conducted within this facility at the time of testing detected the following compounds:

3rd Floor Balcony area: *Ethanol, Acetone, Ethyl acetate and 1,2,4 Trimethylbenzene. (Possible background sources of these materials are listed in the attached laboratory report)*

All of the aforementioned compounds were detected at levels well below the USEPA Residential and Industrial Screening levels and NIOSH & OSHA exposure limits.

3rd Floor 313-319 Hallway: *Butane, Ethanol, Isopropyl alcohol, Acetone, Ethyl acetate, Ethyltoluene, Trimethylbenzene (Possible background sources of these materials are listed in the attached laboratory report)*

All of the aforementioned compounds were detected at levels well below the USEPA Residential and Industrial Screening levels and NIOSH & OSHA exposure limits.

IAQ Testing: Temperature, humidity, carbon dioxide and carbon monoxide CO readings collected in both areas tested were all within acceptable levels at time of testing. (See IAQ Investigation Logs 1 to 3 attached to this report)

Recommendations:

On this date, at the time of testing no objectionable odors were detected or regulatory levels exceeded within any of the areas tested for the compounds identified. Efforts to minimize vapor infiltration in to the building interior spaces appear to be effective at this time. Limiting open doors, windows and shutting down and / or sealing any rooftop HVAC units during roofing activities should help in limiting undesirable indoor air quality conditions.

Relocating / restricting staff away from active construction areas should continue to be employed when possible. Combustion type equipment when utilized should be positioned down wind of potential intake pathways when feasible.

Finally, when required increasing fresh air exchanges within any affected areas would help ameliorate and/or maintain acceptable indoor air quality.

High School Third (3rd) Floor Photos

Fig – 1

Fig – 2

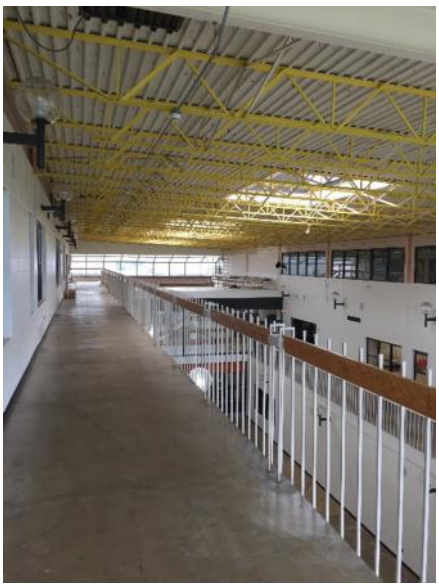

Fig-3

Fig – 4

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EMSL laboratory report(s) - (see attachments)

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200 Route 130 North, Cinnaminson, NJ 08077
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http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491700878**
Customer ID: **AHER50**
Customer PO: **Not Available**

Attn: **Eric Clarkson**
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Oceanville, NJ 08231-0385

Phone: **609-652-1833**
Fax: **609-652-1140**

Project: **Pinelands Regional H.S.**

Date Collected: **8/28/2017**
Date Received: **8/28/2017**

Laboratory Report- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
491700878-0001	3rd Floor Balcony	8/28/2017	11:31 AM
491700878-0002	313-319 Hallway	8/28/2017	11:25 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date:	Report Revision	Revision Comments
8/31/2017	R0	Initial Report

Marjorie Howley, Laboratory Manager
or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.

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Laboratory Conformance/ Non-Conformance Summary

For the following Samples: 491700878-0001 491700878-0002

Samples met criteria as listed unless otherwise noted.

Sample Pressures/ Vacuums **- S**amples were received within acceptable range.

Holding Times (30 days) **-** Samples were analyzed within holding times.

BFB Tune **-** Samples were analyzed within 24 hours of an acceptable instrument tuning standard.

Surrogate Recoveries **-** Samples met surrogate recovery criteria.

Internal Standards **-** Samples met internal standard area/retention time criteria.

Initial Calibration- Initial Calibration criteria met method specification.

Initial Calibration Verification Standard (ICVS)- Second Source- ICVS met method specification with 90% of compounds within the established recovery range.
Individual compounds outside of the established recovery range may be listed below.

Continuing Calibration Verification Standard (CCVS)- CCVS met method specification with all compounds within 30% deviation.

Ending Calibration Verification Standard (ECVS)- ECVS met method specification with all compounds within 30% deviation.

Method Blanks (MB)- Method Blank met method specification with no compounds reported.

Instrument Blanks (IB)- No Instrument Blanks were analyzed.

Reporting Limit Laboratory Control Samples (RLLCS)- RLLCS didn't meet method specification with 90% of compounds within the 60-140% recovery range. TBA, Allyl Cl
Individual compounds outside of the recovery range may be listed below.
TBA, Allyl Chloride, MTBE, Hexane, Vinyl Acetate, Tetrahydrofuran, Cyclohexane, Heptane, Methyl Methacylate, 1,4-Dioxane, 2-Hexanone, Ortho-xylene, Cumene, 4-Ethyltoluene, 1,2,4-Trimethylbenzene, Benzyl Chloride, 1,2,4-Trichlorobenzene and Naphthalene. Information only: A new canister was prepared for the RLLCS standard, 90% recoveries were acceptable. However this was analyzed after the ECVS due to 24 hour sequence constraints.

Additional Comments:

The following data qualifiers that may have been reported with the data,

ND- Non Detect. This notation would be used in the results column in lieu of a "U" qualifier.

U- Compound was analyzed for but not detected at a listed and appropriately adjusted reporting level.

J- Estimated value reported below adjusted reporting limit for target compounds or estimating a concentration for TICs where a 1:1 response is assumed.

B- Compound found in associated method blank as well as in the sample.

E- Estimated value exceeding upper calibration range of instrument. Ethanol and isopropyl alcohol are not specifically targeted to dilute within calibration range.

D- Compound reported from additional diluted analysis.

N- indicates presumptive evidence of a compound based on library search match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

Marjorie Howley, Laboratory Manager
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EMSL Sample #: **491700878-1**
Customer ID: **AHER50**
Customer PO: **Not Available**

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Date Collected: **8/28/2017**
Date Received: **8/28/2017**

Project: **Pinelands Regional H.S.**

Sample ID: 3rd Floor Balcony

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/31/2017	mth	L0638.D	E0424	250 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	ND	0.50		ND	1.0	
n-Butane	106-97-8	58.12	ND	0.50		ND	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	**2.0**	0.50		**3.8**	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	ND	0.50		ND	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	**3.4**	0.50		**8.2**	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	ND	0.50		ND	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	ND	0.50		ND	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	ND	0.50		ND	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	**0.83**	0.50		**3.0**	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

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EMSL Sample #: **491700878-1**
Customer ID: **AHER50**
Customer PO: **Not Available**

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Date Collected: **8/28/2017**
Date Received: **8/28/2017**

Project: **Pinelands Regional H.S.**
Sample ID: 3rd Floor Balcony

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/31/2017	mth	L0638.D	E0424	250 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	ND	0.50		ND	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	**0.51**	0.50		**2.5**	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**6.7**	**ppbv**		**18**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	11	10	110%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

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Date Collected: **8/28/2017**
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Project: **Pinelands Regional H.S.**

Sample ID: 3rd Floor Balcony

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/31/2017	mth	L0638.D	E0424	250 cc	1

Tentatively Identified Compound Results Summary

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv	Q	Result ug/m3	Retention Time	Comments
Pentane	000109-66-0	72	**27**	JN	**81**	8.99	
Unknown		92	**1.5**	JN	**5.5**	24.71	
Unknown		92	**1.3**	JN	**5.0**	28.07	
Total TIC Concentrations:			**30**	**ppbv**	**92**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

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EMSL Order #: **491700878**
EMSL Sample #: **491700878-2**
Customer ID: **AHER50**
Customer PO: **Not Available**

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Date Collected: **8/28/2017**
Date Received: **8/28/2017**

Project: **Pinelands Regional H.S.**

Sample ID: 313-319 Hallway

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/31/2017	mth	L0640.D	E12301	250 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	ND	0.50		ND	1.0	
n-Butane	106-97-8	58.12	**1.3**	0.50		**3.1**	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	**13**	0.50		**25**	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**2.6**	0.50		**6.4**	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	**5.9**	0.50		**14**	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	ND	0.50		ND	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	ND	0.50		ND	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	ND	0.50		ND	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	**0.89**	0.50		**3.2**	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	

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EMSL Order #: **491700878**
EMSL Sample #: **491700878-2**
Customer ID: **AHER50**
Customer PO: **Not Available**

Attn: **Eric Clarkson**
Ahera Consultants, Inc.
PO Box 385
Oceanville, NJ 08231-0385

Phone: **609-652-1833**
Fax: **609-652-1140**
Date Collected: **8/28/2017**
Date Received: **8/28/2017**

Project: **Pinelands Regional H.S.**
Sample ID: 313-319 Hallway

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/31/2017	mth	L0640.D	E12301	250 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	ND	0.50		ND	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	**0.50**	0.50		**2.5**	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	**0.70**	0.50		**3.4**	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			**25**	**ppbv**		**58**	**ug/m3**	

Surrogate	Result	Spike	Recovery
4-Bromofluorobenzene	11	10	110%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

NJDEP Certification #: 03036

EMSL Analytical
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EMSL Order #: **491700878**
EMSL Sample #: **491700878-2**
Customer ID: **AHER50**
Customer PO: **Not Available**

Attn: **Eric Clarkson**
Ahera Consultants, Inc.
PO Box 385
Oceanville, NJ 08231-0385

Phone: **609-652-1833**
Fax: **609-652-1140**
Date Collected: **8/28/2017**
Date Received: **8/28/2017**

Project: **Pinelands Regional H.S.**
Sample ID: 313-319 Hallway

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/31/2017	mth	L0640.D	E12301	250 cc	1

Tentatively Identified Compound Results Summary

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv	Q	Result ug/m3	Retention Time	Comments
Unknown		92	**2.4**	JN	**8.9**	5.6	
Butane, 2-methyl-	000078-78-4	72	**2.9**	JN	**8.7**	8.18	
Pentane	000109-66-0	72	**170**	JN	**500**	9.00	
1,1-Dichloro-1-fluoroethane	001717-00-6	116	**2.6**	JN	**12**	9.75	
Nonane	000111-84-2	128	**1.3**	JN	**6.6**	23.04	
Unknown		92	**1.8**	JN	**6.7**	24.71	
Unknown		92	**1.9**	JN	**7.2**	28.07	
Total TIC Concentrations:			**180**	**ppbv**	**550**	**ug/m3**	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air…" Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

NJDEP Certification #: 03036

IAQ Investigation Log		
Test ID:	**Pinelands Regional High School**	**3rd Floor 313-319 Hallway area**
Model Number:	IAQ Calc 7545	
Serial Number:	T75450953002	
Test ID:	1	
Test Abbreviation:	Test 001	
Start Date:	8/28/2017	
Start Time:	11:48:33	
Duration (dd:hh:mm:ss):	0:00:00:52	
Log Interval (mm:ss):	0:05	
Number of points:	5	
Notes:	Test 001	

Statistics	**Channel:**	**CO2 - Carbon Dioxide**	**T - Temperature**	**H - Humidity**	**CO - Carbon Monoxide**
	Units:	**ppm**	**deg F**	**%rh**	**ppm**
	Average:	430	75.9	49.6	0
	Minimum:	419	75.5	49.4	0
	Time of Minimum:	11:49:14	11:49:25	11:48:49	11:49:03
	Date of Minimum:	8/28/2017	8/28/2017	8/28/2017	8/28/2017
	Maximum:	442	76.3	49.9	0.1
	Time of Maximum:	11:48:38	11:48:38	11:49:25	11:48:38
	Date of Maximum:	8/28/2017	8/28/2017	8/28/2017	8/28/2017

Calibration	**Meter:**	2/7/2017			
Calibration	**Sensor:**	**CO2 - Carbon Dioxide**	**T-Temperature**	**H-Humidity**	**CO - Carbon Monoxide**
	Cal. Date	2/7/2017	2/7/2017	2/7/2017	2/7/2017

Date	**Time**	**CO2 - Carbon Dioxide**	**T-Temperature**	**H-Humidity**	**CO - Carbon Monoxide**
MM/DD/YYYY	**hh:mm:ss**	**ppm**	**deg F**	**%rh**	**ppm**
8/28/2017	11:48:38	442	76.3	49.5	0.1
8/28/2017	11:48:49	439	76.1	49.4	0
8/28/2017	11:49:03	426	75.8	49.6	0
8/28/2017	11:49:14	419	75.6	49.8	0
8/28/2017	11:49:25	424	75.5	49.9	0

IAQ Investigation Log		
Test ID:	**Pinelands Regional High School**	**3rd Floor balcony area**
Model Number:	IAQ Calc 7545	
Serial Number:	T75450953002	
Test ID:	2	
Test Abbreviation:	Test 002	
Start Date:	8/28/2017	
Start Time:	11:50:20	
Duration (dd:hh:mm:ss):	0:00:01:16	
Log Interval (mm:ss):	0:05	
Number of points:	5	
Notes:	Test 002	

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Statistics	**Channel:**	**CO2 - Carbon Dioxide**	**T - Temperature**	**H - Humidity**	**CO - Carbon Monoxide**
	Units:	**ppm**	**deg F**	**%rh**	**ppm**
	Average:	396	77.2	47.2	0
	Minimum:	394	76.8	46.1	0
	Time of Minimum:	11:51:13	11:50:25	11:51:36	11:50:42
	Date of Minimum:	8/28/2017	8/28/2017	8/28/2017	8/28/2017
	Maximum:	398	77.7	48.2	0
	Time of Maximum:	11:50:42	11:51:36	11:50:25	11:50:25
	Date of Maximum:	8/28/2017	8/28/2017	8/28/2017	8/28/2017

Calibration	**Meter:**	2/7/2017			
Calibration	**Sensor:**	**CO2 - Carbon Dioxide**	**T-Temperature**	**H-Humidity**	**CO - Carbon Monoxide**
	Cal. Date	2/7/2017	2/7/2017	2/7/2017	2/7/2017

Date	**Time**	**CO2 - Carbon Dioxide**	**T-Temperature**	**H-Humidity**	**CO - Carbon Monoxide**
MM/DD/YYYY	**hh:mm:ss**	**ppm**	**deg F**	**%rh**	**ppm**
8/28/2017	11:50:25	398	76.8	48.2	0
8/28/2017	11:50:42	398	76.9	47.9	0
8/28/2017	11:50:58	395	77.2	47.2	0
8/28/2017	11:51:13	394	77.4	46.6	0
8/28/2017	11:51:36	394	77.7	46.1	0

IAQ Investigation Log		
Test ID:	**Pinelands Regional High School**	**Outdoor Control Sample**
Model Number:	IAQ Calc 7545	
Serial Number:	T75450953002	
Test ID:	3	
Test Abbreviation:	Test 003	
Start Date:	8/28/2017	
Start Time:	14:05:11	
Duration (dd:hh:mm:ss):	0:00:01:00	
Log Interval (mm:ss):	0:05	
Number of points:	5	
Notes:	Test 003	

Statistics	**Channel:**	**CO2 - Carbon Dioxide**	**T - Temperature**	**H - Humidity**	**CO - Carbon Monoxide**
	Units:	**ppm**	**deg F**	**%rh**	**ppm**
	Average:	389	78	49.8	0
	Minimum:	384	77.1	48	0
	Time of Minimum:	14:06:11	14:05:55	14:05:55	14:05:55
	Date of Minimum:	8/28/2017	8/28/2017	8/28/2017	8/28/2017
	Maximum:	392	78.8	51.8	0.1
	Time of Maximum:	14:05:16	14:05:39	14:05:16	14:05:16
	Date of Maximum:	8/28/2017	8/28/2017	8/28/2017	8/28/2017

Calibration	**Meter:**	2/7/2017			
Calibration	**Sensor:**	**CO2 - Carbon Dioxide**	**T-Temperature**	**H-Humidity**	**CO - Carbon Monoxide**
	Cal. Date	2/7/2017	2/7/2017	2/7/2017	2/7/2017

Date	**Time**	**CO2 - Carbon Dioxide**	**T-Temperature**	**H-Humidity**	**CO - Carbon Monoxide**
MM/DD/YYYY	**hh:mm:ss**	**ppm**	**deg F**	**%rh**	**ppm**
8/28/2017	14:05:16	392	78.2	51.8	0.1
8/28/2017	14:05:29	392	78.4	50.4	0
8/28/2017	14:05:39	391	78.8	49.5	0
8/28/2017	14:05:55	386	77.1	48	0
8/28/2017	14:06:11	384	77.4	49.1	0

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EMSL Order #: **491700878**
EMSL Sample #: **491700878-1**
Customer ID: **AHER50**
Customer PO: **Not Available**

Attn: **Eric Clarkson**
Ahera Consultants, Inc.
PO Box 385
Oceanville, NJ 08231-0385

Phone: **609-652-1833**
Fax: **609-652-1140**
Date Collected: **8/28/2017**
Date Received: **8/28/2017**

Project: **Pinelands Regional H.S.**

Sample ID: 3rd Floor Balcony

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/31/2017	mth	L0638.D	E0424	250 cc	1

USEPA Generic Air Screening Level Summary Table

Target Compounds	CAS#	MW	Result ppbv	Q	Result ug/m3	Residential ug/m3	>	Industrial ug/m3	>
Propylene	115-07-1	42.08	ND		ND	3100		13000	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.90	ND		ND	100		440	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.90	ND		ND	N.E.		N.E.	
Chloromethane	74-87-3	50.49	ND		ND	94.0		390	
n-Butane	106-97-8	58.12	ND		ND	N.E.		N.E.	
Vinyl chloride	75-01-4	62.50	ND		ND	0.170		2.80	
1,3-Butadiene	106-99-0	54.09	ND		ND	0.0940		0.410	
Bromomethane	74-83-9	94.94	ND		ND	5.20		22.0	
Chloroethane	75-00-3	64.52	ND		ND	10000		44000	
Ethanol	64-17-5	46.07	**2.0**		**3.8**	N.E.		N.E.	
Bromoethene(Vinyl bromide)	593-60-2	106.90	ND		ND	0.0880		0.380	
Freon 11(Trichlorofluoromethane)	75-69-4	137.40	ND		ND	N.E.		N.E.	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	ND		ND	210		880	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.40	ND		ND	31000		130000	
Acetone	67-64-1	58.08	**3.4**		**8.2**	32000		140000	
1,1-Dichloroethene	75-35-4	96.94	ND		ND	210		880	
Acetonitrile	75-05-8	41.00	ND		ND	63.0		260	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND		ND	N.E.		N.E.	
Bromoethane(Ethyl bromide)	74-96-4	108.00	ND		ND	N.E.		N.E.	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND		ND	0.470		2.00	
Carbon disulfide	75-15-0	76.14	ND		ND	730		3100	
Methylene chloride	75-09-2	84.94	ND		ND	100		1200	
Acrylonitrile	107-13-1	53.00	ND		ND	0.0410		0.180	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND		ND	11.0		47.0	
trans-1,2-Dichloroethene	156-60-5	96.94	ND		ND	N.E.		N.E.	
n-Hexane	110-54-3	86.17	ND		ND	730		3100	
1,1-Dichloroethane	75-34-3	98.96	ND		ND	1.80		7.70	
Vinyl acetate	108-05-4	86.00	ND		ND	210		880	
2-Butanone(MEK)	78-93-3	72.10	ND		ND	5200		22000	
cis-1,2-Dichloroethene	156-59-2	96.94	ND		ND	N.E.		N.E.	
Ethyl acetate	141-78-6	88.10	**0.83**		**3.0**	73.0		310	
Chloroform	67-66-3	119.40	ND		ND	0.120		0.530	
Tetrahydrofuran	109-99-9	72.11	ND		ND	2100		8800	
1,1,1-Trichloroethane	71-55-6	133.40	ND		ND	5200		22000	
Cyclohexane	110-82-7	84.16	ND		ND	6300		26000	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.20	ND		ND	N.E.		N.E.	
Carbon tetrachloride	56-23-5	153.80	ND		ND	0.470		2.00	
n-Heptane	142-82-5	100.20	ND		ND	N.E.		N.E.	
1,2-Dichloroethane	107-06-2	98.96	ND		ND	0.110		0.470	
Benzene	71-43-2	78.11	ND		ND	0.360		1.60	
Trichloroethene	79-01-6	131.40	ND		ND	0.480		3.00	
1,2-Dichloropropane	78-87-5	113.00	ND		ND	0.280		1.20	
Methyl Methacrylate	80-62-6	100.12	ND		ND	730		3100	
Bromodichloromethane	75-27-4	163.80	ND		ND	0.0760		0.330	
1,4-Dioxane	123-91-1	88.12	ND		ND	0.560		2.50	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.20	ND		ND	3100		13000	

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EMSL Order #: **491700878**
EMSL Sample #: **491700878-1**
Customer ID: **AHER50**
Customer PO: **Not Available**

Attn: **Eric Clarkson**
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PO Box 385
Oceanville, NJ 08231-0385

Phone: **609-652-1833**
Fax: **609-652-1140**
Date Collected: **8/28/2017**
Date Received: **8/28/2017**

Project: **Pinelands Regional H.S.**
Sample ID: 3rd Floor Balcony

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/31/2017	mth	L0638.D	E0424	250 cc	1

USEPA Generic Air Screening Level Summary Table

Target Compounds	CAS#	MW	Result ppbv	Q	Result ug/m3	Residential ug/m3	>	Industrial ug/m3	>
cis-1,3-Dichloropropene**	10061-01-5	111.00	ND		ND	N.E.		N.E.	
Toluene	108-88-3	92.14	ND		ND	5200		22000	
trans-1,3-Dichloropropene**	10061-02-6	111.00	ND		ND	N.E.		N.E.	
1,1,2-Trichloroethane	79-00-5	133.40	ND		ND	0.180		0.770	
2-Hexanone(MBK)	591-78-6	100.10	ND		ND	31.0		130	
Tetrachloroethene	127-18-4	165.80	ND		ND	11.0		47.0	
Dibromochloromethane	124-48-1	208.30	ND		ND	N.E.		N.E.	
1,2-Dibromoethane	106-93-4	187.80	ND		ND	0.00470		0.0200	
Chlorobenzene	108-90-7	112.60	ND		ND	52.0		220	
Ethylbenzene	100-41-4	106.20	ND		ND	1.10		4.90	
Xylene (p,m)	1330-20-7	106.20	ND		ND	100		440	
Xylene (Ortho)	95-47-6	106.20	ND		ND	100		440	
Styrene	100-42-5	104.10	ND		ND	1000		4400	
Isopropylbenzene (cumene)	98-82-8	120.19	ND		ND	420		1800	
Bromoform	75-25-2	252.80	ND		ND	2.60		11.0	
1,1,2,2-Tetrachloroethane	79-34-5	167.90	ND		ND	0.0480		0.210	
4-Ethyltoluene	622-96-8	120.20	ND		ND	N.E.		N.E.	
1,3,5-Trimethylbenzene	108-67-8	120.20	ND		ND	N.E.		N.E.	
2-Chlorotoluene	95-49-8	126.60	ND		ND	N.E.		N.E.	
1,2,4-Trimethylbenzene	95-63-6	120.20	**0.51**		**2.5**	7.30		31.0	
1,3-Dichlorobenzene	541-73-1	147.00	ND		ND	N.E.		N.E.	
1,4-Dichlorobenzene	106-46-7	147.00	ND		ND	0.260		1.10	
Benzyl chloride	100-44-7	126.00	ND		ND	0.0570		0.250	
1,2-Dichlorobenzene	95-50-1	147.00	ND		ND	210		880	
1,2,4-Trichlorobenzene	120-82-1	181.50	ND		ND	2.10		8.80	
Hexachloro-1,3-butadiene	87-68-3	260.80	ND		ND	0.130		0.560	
Naphthalene	91-20-3	128.17	ND		ND	0.0830		0.360	

**The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

The > column is used to flag exceedences as marked

Exposure Limit Definitions
RSL= Regional Screening Level {Target Hazard Quotient (THQ) =0.1 if available, otherwise THQ = 1}

Agency Definitions
United States Environmental Protection Agency

Reference
EPA Regional Screening Levels (RSLs), May 2016

Compound Exposure Definitions
NE= No Limit Established
LFC= Lowest Feasible Concentration
NS= No Sscreening Value

Regional Screening Level Definition
Target Hazard Quotients (THQ)=0.1 is used for screening when multiple contaminants of concern are

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EMSL Analytical
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EMSL Order #: **491700878**
EMSL Sample #: **491700878-2**
Customer ID: **AHER50**
Customer PO: **Not Available**

Attn: **Eric Clarkson**
Ahera Consultants, Inc.
PO Box 385
Oceanville, NJ 08231-0385

Phone: **609-652-1833**
Fax: **609-652-1140**
Date Collected: **8/28/2017**
Date Received: **8/28/2017**

Project: **Pinelands Regional H.S.**

Sample ID: 313-319 Hallway

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/31/2017	mth	L0640.D	E12301	250 cc	1

USEPA Generic Air Screening Level Summary Table

Target Compounds	CAS#	MW	Result ppbv	Q	Result ug/m3	Residential ug/m3	>	Industrial ug/m3	>
Propylene	115-07-1	42.08	ND		ND	3100		13000	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.90	ND		ND	100		440	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.90	ND		ND	N.E.		N.E.	
Chloromethane	74-87-3	50.49	ND		ND	94.0		390	
n-Butane	106-97-8	58.12	**1.3**		**3.1**	N.E.		N.E.	
Vinyl chloride	75-01-4	62.50	ND		ND	0.170		2.80	
1,3-Butadiene	106-99-0	54.09	ND		ND	0.0940		0.410	
Bromomethane	74-83-9	94.94	ND		ND	5.20		22.0	
Chloroethane	75-00-3	64.52	ND		ND	10000		44000	
Ethanol	64-17-5	46.07	**13**		**25**	N.E.		N.E.	
Bromoethene(Vinyl bromide)	593-60-2	106.90	ND		ND	0.0880		0.380	
Freon 11(Trichlorofluoromethane)	75-69-4	137.40	ND		ND	N.E.		N.E.	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**2.6**		**6.4**	210		880	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.40	ND		ND	31000		130000	
Acetone	67-64-1	58.08	**5.9**		**14**	32000		140000	
1,1-Dichloroethene	75-35-4	96.94	ND		ND	210		880	
Acetonitrile	75-05-8	41.00	ND		ND	63.0		260	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND		ND	N.E.		N.E.	
Bromoethane(Ethyl bromide)	74-96-4	108.00	ND		ND	N.E.		N.E.	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND		ND	0.470		2.00	
Carbon disulfide	75-15-0	76.14	ND		ND	730		3100	
Methylene chloride	75-09-2	84.94	ND		ND	100		1200	
Acrylonitrile	107-13-1	53.00	ND		ND	0.0410		0.180	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND		ND	11.0		47.0	
trans-1,2-Dichloroethene	156-60-5	96.94	ND		ND	N.E.		N.E.	
n-Hexane	110-54-3	86.17	ND		ND	730		3100	
1,1-Dichloroethane	75-34-3	98.96	ND		ND	1.80		7.70	
Vinyl acetate	108-05-4	86.00	ND		ND	210		880	
2-Butanone(MEK)	78-93-3	72.10	ND		ND	5200		22000	
cis-1,2-Dichloroethene	156-59-2	96.94	ND		ND	N.E.		N.E.	
Ethyl acetate	141-78-6	88.10	**0.89**		**3.2**	73.0		310	
Chloroform	67-66-3	119.40	ND		ND	0.120		0.530	
Tetrahydrofuran	109-99-9	72.11	ND		ND	2100		8800	
1,1,1-Trichloroethane	71-55-6	133.40	ND		ND	5200		22000	
Cyclohexane	110-82-7	84.16	ND		ND	6300		26000	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.20	ND		ND	N.E.		N.E.	
Carbon tetrachloride	56-23-5	153.80	ND		ND	0.470		2.00	
n-Heptane	142-82-5	100.20	ND		ND	N.E.		N.E.	
1,2-Dichloroethane	107-06-2	98.96	ND		ND	0.110		0.470	
Benzene	71-43-2	78.11	ND		ND	0.360		1.60	
Trichloroethene	79-01-6	131.40	ND		ND	0.480		3.00	
1,2-Dichloropropane	78-87-5	113.00	ND		ND	0.280		1.20	
Methyl Methacrylate	80-62-6	100.12	ND		ND	730		3100	
Bromodichloromethane	75-27-4	163.80	ND		ND	0.0760		0.330	
1,4-Dioxane	123-91-1	88.12	ND		ND	0.560		2.50	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.20	ND		ND	3100		13000	

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Date Collected: **8/28/2017**
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Project: **Pinelands Regional H.S.**

Sample ID: 313-319 Hallway

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/31/2017	mth	L0640.D	E12301	250 cc	1

USEPA Generic Air Screening Level Summary Table

Target Compounds	CAS#	MW	Result ppbv	Q	Result ug/m3	Residential ug/m3	>	Industrial ug/m3	>
cis-1,3-Dichloropropene**	10061-01-5	111.00	ND		ND	N.E.		N.E.	
Toluene	108-88-3	92.14	ND		ND	5200		22000	
trans-1,3-Dichloropropene**	10061-02-6	111.00	ND		ND	N.E.		N.E.	
1,1,2-Trichloroethane	79-00-5	133.40	ND		ND	0.180		0.770	
2-Hexanone(MBK)	591-78-6	100.10	ND		ND	31.0		130	
Tetrachloroethene	127-18-4	165.80	ND		ND	11.0		47.0	
Dibromochloromethane	124-48-1	208.30	ND		ND	N.E.		N.E.	
1,2-Dibromoethane	106-93-4	187.80	ND		ND	0.00470		0.0200	
Chlorobenzene	108-90-7	112.60	ND		ND	52.0		220	
Ethylbenzene	100-41-4	106.20	ND		ND	1.10		4.90	
Xylene (p,m)	1330-20-7	106.20	ND		ND	100		440	
Xylene (Ortho)	95-47-6	106.20	ND		ND	100		440	
Styrene	100-42-5	104.10	ND		ND	1000		4400	
Isopropylbenzene (cumene)	98-82-8	120.19	ND		ND	420		1800	
Bromoform	75-25-2	252.80	ND		ND	2.60		11.0	
1,1,2,2-Tetrachloroethane	79-34-5	167.90	ND		ND	0.0480		0.210	
4-Ethyltoluene	622-96-8	120.20	**0.50**		**2.5**	N.E.		N.E.	
1,3,5-Trimethylbenzene	108-67-8	120.20	ND		ND	N.E.		N.E.	
2-Chlorotoluene	95-49-8	126.60	ND		ND	N.E.		N.E.	
1,2,4-Trimethylbenzene	95-63-6	120.20	**0.70**		**3.4**	7.30		31.0	
1,3-Dichlorobenzene	541-73-1	147.00	ND		ND	N.E.		N.E.	
1,4-Dichlorobenzene	106-46-7	147.00	ND		ND	0.260		1.10	
Benzyl chloride	100-44-7	126.00	ND		ND	0.0570		0.250	
1,2-Dichlorobenzene	95-50-1	147.00	ND		ND	210		880	
1,2,4-Trichlorobenzene	120-82-1	181.50	ND		ND	2.10		8.80	
Hexachloro-1,3-butadiene	87-68-3	260.80	ND		ND	0.130		0.560	
Naphthalene	91-20-3	128.17	ND		ND	0.0830		0.360	

**The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

The > column is used to flag exceedences as marked

Exposure Limit Definitions
RSL= Regional Screening Level {Target Hazard Quotient (THQ) =0.1 if available, otherwise THQ = 1}

Agency Definitions
United States Environmental Protection Agency

Reference
EPA Regional Screening Levels (RSLs), May 2016

Compound Exposure Definitions
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Regional Screening Level Definition
Target Hazard Quotients (THQ)=0.1 is used for screening when multiple contaminants of concern are

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EMSL Order #: **491700878**
EMSL Sample #: **491700878-1**
Customer ID: **AHER50**
Customer PO: **Not Available**

Attn: **Eric Clarkson**
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PO Box 385
Oceanville, NJ 08231-0385

Phone: **609-652-1833**
Fax: **609-652-1140**
Date Collected: **8/28/2017**
Date Received: **8/28/2017**

Project: **Pinelands Regional H.S.**

Sample ID: 3rd Floor Balcony

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/31/2017	mth	L0638.D	E0424	250 cc	1

NIOSH and OSHA Exposure Limit Comparisons

Target Compounds	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
Propylene	115-07-1	42.08	ND		ND	N.E.		N.E.	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.90	ND		ND	4900000		4900000	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.90	ND		ND	7000000		7000000	
Chloromethane	74-87-3	50.49	ND		ND	LFC		210000	
n-Butane	106-97-8	58.12	ND		ND	1900000		1900000	
Vinyl chloride	75-01-4	62.50	ND		ND	LFC		2600	
1,3-Butadiene	106-99-0	54.09	ND		ND	LFC		2200	
Bromomethane	74-83-9	94.94	ND		ND	LFC		78000	
Chloroethane	75-00-3	64.52	ND		ND	LFC		2600000	
Ethanol	64-17-5	46.07	**2.0**		**3.8**	1900000		1900000	
Bromoethene(Vinyl bromide)	593-60-2	106.90	ND		ND	LFC		N.E.	
Freon 11(Trichlorofluoromethane)	75-69-4	137.40	ND		ND	5600000		5600000	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	ND		ND	980000		980000	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.40	ND		ND	7700000		7700000	
Acetone	67-64-1	58.08	**3.4**		**8.2**	590000		2400000	
1,1-Dichloroethene	75-35-4	96.94	ND		ND	790000		790000	
Acetonitrile	75-05-8	41.00	ND		ND	34000		67000	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND		ND	300000		300000	
Bromoethane(Ethyl bromide)	74-96-4	108.00	ND		ND	880000		880000	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND		ND	3100		3100	
Carbon disulfide	75-15-0	76.14	ND		ND	3100		62000	
Methylene chloride	75-09-2	84.94	ND		ND	LFC		87000	
Acrylonitrile	107-13-1	53.00	ND		ND	2200		4300	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND		ND	N.E.		N.E.	
trans-1,2-Dichloroethene	156-60-5	96.94	ND		ND	790000		790000	
n-Hexane	110-54-3	86.17	ND		ND	180000		1800000	
1,1-Dichloroethane	75-34-3	98.96	ND		ND	400000		400000	
Vinyl acetate	108-05-4	86.00	ND		ND	14000		N.E.	
2-Butanone(MEK)	78-93-3	72.10	ND		ND	590000		590000	
cis-1,2-Dichloroethene	156-59-2	96.94	ND		ND	790000		790000	
Ethyl acetate	141-78-6	88.10	**0.83**		**3.0**	1400000		1400000	
Chloroform	67-66-3	119.40	ND		ND	9800		240000	
Tetrahydrofuran	109-99-9	72.11	ND		ND	590000		590000	
1,1,1-Trichloroethane	71-55-6	133.40	ND		ND	1900000		1900000	
Cyclohexane	110-82-7	84.16	ND		ND	1000000		1000000	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.20	ND		ND	N.E.		N.E.	
Carbon tetrachloride	56-23-5	153.80	ND		ND	13000		63000	
n-Heptane	142-82-5	100.20	ND		ND	350000		2000000	
1,2-Dichloroethane	107-06-2	98.96	ND		ND	4000		200000	
Benzene	71-43-2	78.11	ND		ND	320		3200	
Trichloroethene	79-01-6	131.40	ND		ND	130000		540000	
1,2-Dichloropropane	78-87-5	113.00	ND		ND	LFC		350000	
Methyl Methacrylate	80-62-6	100.12	ND		ND	410000		410000	
Bromodichloromethane	75-27-4	163.80	ND		ND	N.E.		N.E.	
1,4-Dioxane	123-91-1	88.12	ND		ND	3600		360000	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.20	ND		ND	200000		410000	

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EMSL Sample #: **491700878-1**
Customer ID: **AHER50**
Customer PO: **Not Available**

Attn: **Eric Clarkson**
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PO Box 385
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Phone: **609-652-1833**
Fax: **609-652-1140**
Date Collected: **8/28/2017**
Date Received: **8/28/2017**

Project: **Pinelands Regional H.S.**
Sample ID: 3rd Floor Balcony

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/31/2017	mth	L0638.D	E0424	250 cc	1

NIOSH and OSHA Exposure Limit Comparisons

Target Compounds	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
cis-1,3-Dichloropropene**	10061-01-5	111.00	ND		ND	4500		N.E.	
Toluene	108-88-3	92.14	ND		ND	380000		750000	
trans-1,3-Dichloropropene**	10061-02-6	111.00	ND		ND	4500		N.E.	
1,1,2-Trichloroethane	79-00-5	133.40	ND		ND	55000		55000	
2-Hexanone(MBK)	591-78-6	100.10	ND		ND	4100		410000	
Tetrachloroethene	127-18-4	165.80	ND		ND	LFC		680000	
Dibromochloromethane	124-48-1	208.30	ND		ND	N.E.		N.E.	
1,2-Dibromoethane	106-93-4	187.80	ND		ND	350		150000	
Chlorobenzene	108-90-7	112.60	ND		ND	N.E.		350000	
Ethylbenzene	100-41-4	106.20	ND		ND	430000		430000	
Xylene (p,m)	1330-20-7	106.20	ND		ND	430000		430000	
Xylene (Ortho)	95-47-6	106.20	ND		ND	430000		430000	
Styrene	100-42-5	104.10	ND		ND	210000		430000	
Isopropylbenzene (cumene)	98-82-8	120.19	ND		ND	250000		250000	
Bromoform	75-25-2	252.80	ND		ND	5200		5200	
1,1,2,2-Tetrachloroethane	79-34-5	167.90	ND		ND	6900		34000	
4-Ethyltoluene	622-96-8	120.20	ND		ND	N.E.		N.E.	
1,3,5-Trimethylbenzene	108-67-8	120.20	ND		ND	120000		120000	
2-Chlorotoluene	95-49-8	126.60	ND		ND	260000		N.E.	
1,2,4-Trimethylbenzene	95-63-6	120.20	**0.51**		**2.5**	120000		120000	
1,3-Dichlorobenzene	541-73-1	147.00	ND		ND	N.E.		N.E.	
1,4-Dichlorobenzene	106-46-7	147.00	ND		ND	LFC		450000	
Benzyl chloride	100-44-7	126.00	ND		ND	5200		5200	
1,2-Dichlorobenzene	95-50-1	147.00	ND		ND	300000		300000	
1,2,4-Trichlorobenzene	120-82-1	181.50	ND		ND	37000		N.E.	
Hexachloro-1,3-butadiene	87-68-3	260.80	ND		ND	210		N.E.	
Naphthalene	91-20-3	128.17	ND		ND	52000		52000	

**The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

The > column is used to flag exceedences as marked

Exposure Limit Definitions
REL= Recommended Exposure Limit, PEL= Permissable Exposure Limit

Agency Definitions
NIOSH= The National Institute for Occupational Safety and Health

Compound Exposure Definitions
NE= No Limit Established
LFC= Lowest Feasible Concentration
NS= No Sscreening Value

Reference
Occupational Safety and Health Administration (OSHA) General Industry Air Contaminants Standard (29 CFR 1910.1000)

NJDEP Certification #: 03036

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Date Collected: **8/28/2017**
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Project: **Pinelands Regional H.S.**
Sample ID: 3rd Floor Balcony

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/31/2017	mth	L0638.D	E0424	250 cc	1

Possible Background Sources of Contaminants

Target Compounds	CAS#	Result ppbv	Q	Result ug/m3	Use and Possible Sources
Ethanol	64-17-5	**2.0**		**3.8**	Hand sanitizers, disinfecting wipes. Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray. [2]
Acetone	67-64-1	**3.4**		**8.2**	Rubber cement, cleaning fluids, scented candles and nail polish remover.[1]
Ethyl acetate	141-78-6	**0.83**		**3.0**	Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray.[2]
1,2,4-Trimethylbenzene	95-63-6	**0.51**		**2.5**	Gasoline additive and automobile exhaust.[1]

Qualifier Definitions
ND = Non Detect
B = Compound also found in method blank.
E= Estimated concentration exceeding upper calibration range.
D= Result reported from diluted analysis.

Sources References
(1) NJDEP "Common Household Sources of Background Indoor Air Contamination". June 26, 2012
(2) NYSDOH "Volatile Organic Compounds (VOCs) in Commonly Used Products", 2007
(3) EPA, Air & Radiation, TTN Web - Technology Transfer NetworkAir Toxics Web site, various years.
(4) Agency for Toxic Substances and Disease Registry (ATSDR). U.S. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1998.
(5) OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. ENVIRONMENTAL PROTECTION AGENCY, August 1994, EPA 749-F-94-012a
(6) U.S. Environmental Protection Agency, Office of Research and Development, Cincinnati, OH. 1985.
(7) World Health Organization,
(8) Product Safety Assessment, Revised: November 19, 2010 The Dow Chemical Company
(9) California Office of Environmental Health Hazard Assessment, PROPOSED ACTION LEVEL FOR 2-CHLOROTOLUENE
(10) Delaware Health and Social Services, Division of Public Health, Revised: 01/2010
(11) USEPA, Envirofacts Master Chemical Integrator (EMCI), Scorecard, 4/10/2009

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Attn: **Eric Clarkson**
Ahera Consultants, Inc.
PO Box 385
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Phone: **609-652-1833**
Fax: **609-652-1140**
Date Collected: **8/28/2017**
Date Received: **8/28/2017**

Project: **Pinelands Regional H.S.**

Sample ID: 313-319 Hallway

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/31/2017	mth	L0640.D	E12301	250 cc	1

NIOSH and OSHA Exposure Limit Comparisons

Target Compounds	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
Propylene	115-07-1	42.08	ND		ND	N.E.		N.E.	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.90	ND		ND	4900000		4900000	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.90	ND		ND	7000000		7000000	
Chloromethane	74-87-3	50.49	ND		ND	LFC		210000	
n-Butane	106-97-8	58.12	**1.3**		**3.1**	1900000		1900000	
Vinyl chloride	75-01-4	62.50	ND		ND	LFC		2600	
1,3-Butadiene	106-99-0	54.09	ND		ND	LFC		2200	
Bromomethane	74-83-9	94.94	ND		ND	LFC		78000	
Chloroethane	75-00-3	64.52	ND		ND	LFC		2600000	
Ethanol	64-17-5	46.07	**13**		**25**	1900000		1900000	
Bromoethene(Vinyl bromide)	593-60-2	106.90	ND		ND	LFC		N.E.	
Freon 11(Trichlorofluoromethane)	75-69-4	137.40	ND		ND	5600000		5600000	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	**2.6**		**6.4**	980000		980000	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.40	ND		ND	7700000		7700000	
Acetone	67-64-1	58.08	**5.9**		**14**	590000		2400000	
1,1-Dichloroethene	75-35-4	96.94	ND		ND	790000		790000	
Acetonitrile	75-05-8	41.00	ND		ND	34000		67000	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND		ND	300000		300000	
Bromoethane(Ethyl bromide)	74-96-4	108.00	ND		ND	880000		880000	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND		ND	3100		3100	
Carbon disulfide	75-15-0	76.14	ND		ND	3100		62000	
Methylene chloride	75-09-2	84.94	ND		ND	LFC		87000	
Acrylonitrile	107-13-1	53.00	ND		ND	2200		4300	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND		ND	N.E.		N.E.	
trans-1,2-Dichloroethene	156-60-5	96.94	ND		ND	790000		790000	
n-Hexane	110-54-3	86.17	ND		ND	180000		1800000	
1,1-Dichloroethane	75-34-3	98.96	ND		ND	400000		400000	
Vinyl acetate	108-05-4	86.00	ND		ND	14000		N.E.	
2-Butanone(MEK)	78-93-3	72.10	ND		ND	590000		590000	
cis-1,2-Dichloroethene	156-59-2	96.94	ND		ND	790000		790000	
Ethyl acetate	141-78-6	88.10	**0.89**		**3.2**	1400000		1400000	
Chloroform	67-66-3	119.40	ND		ND	9800		240000	
Tetrahydrofuran	109-99-9	72.11	ND		ND	590000		590000	
1,1,1-Trichloroethane	71-55-6	133.40	ND		ND	1900000		1900000	
Cyclohexane	110-82-7	84.16	ND		ND	1000000		1000000	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.20	ND		ND	N.E.		N.E.	
Carbon tetrachloride	56-23-5	153.80	ND		ND	13000		63000	
n-Heptane	142-82-5	100.20	ND		ND	350000		2000000	
1,2-Dichloroethane	107-06-2	98.96	ND		ND	4000		200000	
Benzene	71-43-2	78.11	ND		ND	320		3200	
Trichloroethene	79-01-6	131.40	ND		ND	130000		540000	
1,2-Dichloropropane	78-87-5	113.00	ND		ND	LFC		350000	
Methyl Methacrylate	80-62-6	100.12	ND		ND	410000		410000	
Bromodichloromethane	75-27-4	163.80	ND		ND	N.E.		N.E.	
1,4-Dioxane	123-91-1	88.12	ND		ND	3600		360000	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.20	ND		ND	200000		410000	

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http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491700878**
EMSL Sample #: **491700878-2**
Customer ID: **AHER50**
Customer PO: **Not Available**

Attn: **Eric Clarkson**
Ahera Consultants, Inc.
PO Box 385
Oceanville, NJ 08231-0385

Phone: **609-652-1833**
Fax: **609-652-1140**
Date Collected: **8/28/2017**
Date Received: **8/28/2017**

Project: **Pinelands Regional H.S.**
Sample ID: 313-319 Hallway

Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/31/2017	mth	L0640.D	E12301	250 cc	1

NIOSH and OSHA Exposure Limit Comparisons

Target Compounds	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
cis-1,3-Dichloropropene**	10061-01-5	111.00	ND		ND	4500		N.E.	
Toluene	108-88-3	92.14	ND		ND	380000		750000	
trans-1,3-Dichloropropene**	10061-02-6	111.00	ND		ND	4500		N.E.	
1,1,2-Trichloroethane	79-00-5	133.40	ND		ND	55000		55000	
2-Hexanone(MBK)	591-78-6	100.10	ND		ND	4100		410000	
Tetrachloroethene	127-18-4	165.80	ND		ND	LFC		680000	
Dibromochloromethane	124-48-1	208.30	ND		ND	N.E.		N.E.	
1,2-Dibromoethane	106-93-4	187.80	ND		ND	350		150000	
Chlorobenzene	108-90-7	112.60	ND		ND	N.E.		350000	
Ethylbenzene	100-41-4	106.20	ND		ND	430000		430000	
Xylene (p,m)	1330-20-7	106.20	ND		ND	430000		430000	
Xylene (Ortho)	95-47-6	106.20	ND		ND	430000		430000	
Styrene	100-42-5	104.10	ND		ND	210000		430000	
Isopropylbenzene (cumene)	98-82-8	120.19	ND		ND	250000		250000	
Bromoform	75-25-2	252.80	ND		ND	5200		5200	
1,1,2,2-Tetrachloroethane	79-34-5	167.90	ND		ND	6900		34000	
4-Ethyltoluene	622-96-8	120.20	**0.50**		**2.5**	N.E.		N.E.	
1,3,5-Trimethylbenzene	108-67-8	120.20	ND		ND	120000		120000	
2-Chlorotoluene	95-49-8	126.60	ND		ND	260000		N.E.	
1,2,4-Trimethylbenzene	95-63-6	120.20	**0.70**		**3.4**	120000		120000	
1,3-Dichlorobenzene	541-73-1	147.00	ND		ND	N.E.		N.E.	
1,4-Dichlorobenzene	106-46-7	147.00	ND		ND	LFC		450000	
Benzyl chloride	100-44-7	126.00	ND		ND	5200		5200	
1,2-Dichlorobenzene	95-50-1	147.00	ND		ND	300000		300000	
1,2,4-Trichlorobenzene	120-82-1	181.50	ND		ND	37000		N.E.	
Hexachloro-1,3-butadiene	87-68-3	260.80	ND		ND	210		N.E.	
Naphthalene	91-20-3	128.17	ND		ND	52000		52000	

**The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

The > column is used to flag exceedences as marked

Exposure Limit Definitions
REL= Recommended Exposure Limit, PEL= Permissable Exposure Limit

Agency Definitions
NIOSH= The National Institute for Occupational Safety and Health

Compound Exposure Definitions
NE= No Limit Established
LFC= Lowest Feasible Concentration
NS= No Sscreening Value

Reference
Occupational Safety and Health Administration (OSHA) General Industry Air Contaminants Standard (29 CFR 1910.1000)

NJDEP Certification #: 03036

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Analysis	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	08/31/2017	mth	L0640.D	E12301	250 cc	1

Possible Background Sources of Contaminants

Target Compounds	CAS#	Result ppbv	Q	Result ug/m3	Use and Possible Sources
n-Butane	106-97-8	**1.3**		**3.1**	Aerosol spray products for some paints, cosmetics, automotive products, leather treatments, pesticides.[2]
Ethanol	64-17-5	**13**		**25**	Hand sanitizers, disinfecting wipes. Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray. [2]
Isopropyl alcohol(2-Propanol)	67-63-0	**2.6**		**6.4**	Eye Glass Cleaners. Disinfecting wipes. Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray.[2]
Acetone	67-64-1	**5.9**		**14**	Rubber cement, cleaning fluids, scented candles and nail polish remover.[1]
Ethyl acetate	141-78-6	**0.89**		**3.2**	Personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray.[2]
4-Ethyltoluene	622-96-8	**0.50**		**2.5**	Used in commercial products, building products, or wood office furnishings. Flat water thinned interior paints and tinting bases. Scatter rugs, bathmats, and sets.[11]
1,2,4-Trimethylbenzene	95-63-6	**0.70**		**3.4**	Gasoline additive and automobile exhaust.[1]

Qualifier Definitions
ND = Non Detect
B = Compound also found in method blank.
E= Estimated concentration exceeding upper calibration range.
D= Result reported from diluted analysis.

Sources References
(1) NJDEP "Common Household Sources of Background Indoor Air Contamination". June 26, 2012
(2) NYSDOH "Volatile Organic Compounds (VOCs) in Commonly Used Products", 2007
(3) EPA, Air & Radiation, TTN Web - Technology Transfer NetworkAir Toxics Web site, various years.
(4) Agency for Toxic Substances and Disease Registry (ATSDR). U.S. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1998.
(5) OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. ENVIRONMENTAL PROTECTION AGENCY, August 1994, EPA 749-F-94-012a
(6) U.S. Environmental Protection Agency, Office of Research and Development, Cincinnati, OH. 1985.
(7) World Health Organization,
(8) Product Safety Assessment, Revised: November 19, 2010 The Dow Chemical Company
(9) California Office of Environmental Health Hazard Assessment, PROPOSED ACTION LEVEL FOR 2-CHLOROTOLUENE
(10) Delaware Health and Social Services, Division of Public Health, Revised: 01/2010
(11) USEPA, Envirofacts Master Chemical Integrator (EMCI), Scorecard, 4/10/2009

NJDEP Certification #: 03036