Total Environmental Concepts, Inc.
Setting the Standard in Comprehensive Environmental Solutions

15 Park Avenue
Gaithersburg, MD 20877
PHONE: 301-548-0382
FAX: 301-527-0248

Learning to Live • Loving to Learn
ACPS
Alexandria City Public Schools

Indoor Air Quality Assessment Report

at

George Mason Elementary School

2601 Cameron Mills Road,
Alexandria, VA 22302

Report Prepared for:

John Contreras

Alexandria City Public Schools

2601 Cameron Mills Rd, Alexandria, VA 22302

Dated: September 22, 2021

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Abbreviations and Acronyms

AHU	Air-Handling Unit
AIHA	American Industrial Hygiene Association
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
ASTM	American Society for Testing and Materials
CO	Carbon Monoxide
CO2	Carbon Dioxide
EMLAP	Environmental Microbiology Laboratory Accreditation Program
HVAC	Heating, Ventilating, And Air-Conditioning
IAQ	Indoor Air Quality
NIST	National Institute for Standards and Technology
NVLAP	National Voluntary Laboratory Accreditation Program
RH	Relative Humidity

Abbreviations involving scientific volume and measurements involving media or water sampling

Spores/m3	Mold spores per cubic meter of air
LPM	Liters Per Minute
NTE	Not to exceed
°F	degree Fahrenheit
PPM	Parts Per Million

1. Executive Summary

Total Environmental Concepts (TEC) was contracted by Alexandria City Public Schools (ACPS) to perform Indoor Air Quality (IAQ) assessments at 19 schools. Douglas MacArthur Elementary was out of service and not assessed.The original list included:

- Alexandria City High School (AC)
- AC Satellie Campus, Central Offices (CO)
- Charles Barrett Elementary School (BC)
- Cora Kelly School for Math (CK)
- Frances C. Hammond Elementary School (FH)
- George Mason Elementary School (GM)
- **George Mason Elementary School (GW)**
- James Polk Elementary School (JP)
- John Adams Elementary School (JA)
- Lyles-Crouch Elementary School (LC)
- Minnie Howard High School (MH)
- Samuel Tucker Elementary School (ST)
- William Ramsey Elementary School (WR)
- Douglas MacAurthur Elementary School (Out of Service)
- Jefferson-Houston Elementary School (JH)
- Ferdinand T. Day Elementary School (FD)
- Patrick Henry Elementary School (PH)
- Mount Vernon Community School (MV)

This IAQ assessment was conducted at George Mason Elementary School on Friday, August 16, 2021. ACPS required that the testing to be based on the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) guidelines. ACPS provided site plans and fifteen (15) sampling locations per school. Sampling locations were chosen by ACPS based on internal review of facilities maintenance records, and a review of facilities maintenance related issues. These sampling locations were selected to collect representative IAQ data in these specific areas and to document any areas of potential concern observed during the site assessment. As such, ACPS required that TEC test for the following major indoor air pollutants:

- Radon
- Mold
- TO+15 (VOCs)
- 4-polycyclohexene (4-pch)
- Formaldehyde

In accordance with ASHRAE, TEC also took measurements of the following at each school:

- Carbon Monoxide
- Carbon Dioxide
- Humidity
- Temperature
- Oxygen

Summary of findings and recommendaitons during this limited IAQ investigation:

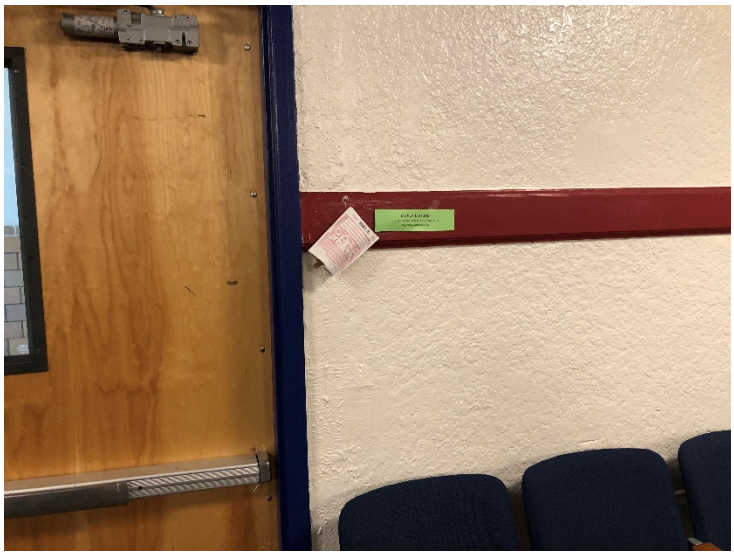
- **Radon** – levels recorded in all locations were less than 4pCi/L, as recommended by EPA and HUD.
- **Mold** – spore levels recorded in all locations were within acceptable ranges as compared to site-specific background mold spore counts.
    - Classroom A124 staff reported water issues. TEC observed staining on floors and ceiling tiles and other signs of water intrusion. TEC performed an additional mold sampling in this location. Results were normal when compared to site-specific baseline counts. TEC would recommend that ACPS investigate the source of the water intrusion.
    - TEC observed water stains on ceiling tiles in Classroom A 109. No evidence of active water intrusion was observed. TEC would recommend that ACPS investigate the source of the water staining.
- **VOCs** – The levels of volitile organic compounds (VOCs) recorded at each location were within acceptable ranges, when compared to EPA Regional Screening Levels (RSLs).
- **4-pch** – levels recorded during this investigation were within the LEED (Leadership of Energy and Environmental Design) IAQ guideline of 6.5 ug/m3.
- **Formaldehyde** – the levels of formaldehyde recorded at each location were within an acceptable range, compared to EPA Regional Screening Level (RSLs) of 1ug/m3.
- **Carbon monoxide** – concentrations in all areas were less than the EPA and ASHRAE recommended limit of 9 ppm.
- **Carbon dioxide** – concentrations in all tested spaces were less than the ASHRAE limit of 1,092 ppm.
- **RH** – the relative humidity in all tested spaces was within the ASHRAE guidelines of ≤ 67%, and for the purposes of this investigation ≤ 65%. None of the tested locations had a relative humidity greater than 65%.
- **Temperature** – none of the tested spaces had a temperatures greater than the ASHRAE recommended summer range of 75°F-80.5°F.

2. Assesment Methods

Under the direction of TEC Industrial Hygienist Nikki Satari; Margaret Stanger, Victoria Powers, and Channing Jackson, also of TEC, conducted IAQ inspections and air sampling on August 16, 2021. All air samples were collected three-six feet from floor level, the typical breathing zone for adults.

Mold air samples were collected with a field calibrated Environmental Monitoring Systems High Volume Sampling Pump on Allergenco-D Disposable IAQ Air Monitoring Cassettes at a flow rate of 10 liters per minute for a sample volume of 75 liters during the assessment (photograph below). The Hayes Microbial Consulting laboratory reports are included in Appendix A.

Radon gas samples were collected by securing Air Chek Radon Test Kits (photograph below). Samples were collected within the breathing zone (4-6ft from ground level) at each sample location. In accordance with Air Chek's Radon Test Kit Instructions, kits were secured to walls inside the building and away from, open windows, doors to the outside, or interior air ventilation systems. Sampling time was 72 hours. Radon analytical results can be found in Appendix B.



Formaldehyde gas air samples were collected using static Aldehyde TraceAir II Monitors (photograph below). Samples were secured to surrounding testing equipment to expose the full surface area of the sampling device for the full 4 hours of sampling time. Monitors were collected after 4 hours and processed for shipment to Phase Separation Science located in Catonsville, MD. Formaldehyde analytical results can be found in Appendix D. Photograph Below.

The 4-polycyclohexene (4-PCH) samples were collected in SKC's Anasorb CSC sorbent tubes through Gilian GilAir3 Air Sampling Pumps (photograph below). Pumps were placed within the breathing zone (4-6ft from ground level). Run times were 8 hours or time weighted 4 hour runs. 4-PCH analytical results can be found in Appendix E. Photograph Below.

TO+15 (VOCs) samples were collected using ENTECH Instruments 1.4L SUMMA canisters with an ENTECH regulator attachment (photograph below). Canisters were deployed at each location for a run time of 8 hours or a time weighted run time of 4 hours. Internal pressure readings were recorded at the start and end of each sample run time. TO+15 (VOCs) analytical results can be found in Appendix C. Photograph Below.

The temperature and relative humidity were taken with the AcuRite Digital Indoor Temperature and Humidity Monitor in the lobby of each school. Teperature and relative humidity readings can be found in Section 5 Mold Sampling Results, below.

Real-time measurements for oxygen, carbon dioxide, carbon monoxide, VOC, hydrogen sulfides were taken with multi-gas detector. These measurements can be found in Section 10 Multi-gas Detector (MSA Altair Multi-gas) Readings. Readings can be found below in Table 1. Photograph Below.

3. Visual Observations

Sample Location	August 16, 2021	Visual Observations
Hallway by Classroom 18	Classroom materials were observed being stored in the hallway by classroom 18 during sampling	
Classroom 3	Classroom 3.	

Hallway		
Classroom	Radon Kit	

4. Conditions for Human Occupancy

Conditions for Human Occupancy are addressed in ASHRAE Standard 55-2017. These standards are designed to provide comfort for an estimated 80% of occupants. The standard provides for a temperature range from between approximately 67 and 82 °F. A more specific range based on relative humidity, season, clothing worn, activity levels, and other factors can be determined. For example, the standard does not specify a lower humidity range, but notes that issues of comfort, skin irritation, dry mucous membranes, and static electricity may arise when the relative humidity is less than 30%. ASHRAE Standard 62.1-2016 does recommend an upper limit of 67% humidity to avoid conditions conducive to microbial growth. For the purposes of this investigation, TEC used a conservative upper limit of 65%. The recommended ASHRAE temperature range for schools and office spaces in summer is 75°F-80.5°F.

4.1 Temperature

The recommended ASHRAE temperature range for schools and office spaces in summer is 75°F-80.5°F. The recorded relative humidity in all locations was below 65% and average indoor temperature can be found in Table 2.

4.2 Relative Humidity

ASHRAE Standard 62.1-2016 recommends a relative humidity no greater than 67% to avoid conditions conducive to microbial growth. The relative humidity observed by TEC during this investigation was observed to be below 65% in all locations. Average relative humidity can be found in Table 2.

4.3 Carbon Dioxide

Carbon dioxide (CO2) is a byproduct of combustion burning engines. Generators, furnaces, boilers, idling automobile engines. High CO2 measurements may indictae engine maintenance issues. There were no exceedances in real-time during the IAQ investigation. Complete results can be found in Table 1.

4.4 Carbon Monoxide

Carbon monoxide (CO) is a byproduct of the combustion of fossil fuels. Generators, furnaces, boilers, idling automobile engines, may all produce CO. High CO measurements may indicate engine maintenance issues. There were no exceedances in real-time during the IAQ investigation. Complete results can be found in Table 1.

4.5 Multi-gas Detector Readings

Multi-gas readings were taken at each location to document current conditions at the time of the sampling efforts and to monitor the environment between sampling locations. There were no exceedances in real-time during the IAQ investigation. Complete results can be found in Table 1.

5. Mold Sampling Results

Mold is carried indoors through building entrances, open windows, loading docks, foot traffic into buildings and the HVAC system. To thrive indoors, mold requires a food source, proper temperature, and humidity to foster its growth.

Mold spores are also part of the natural environment. However, excess mold growth may arise as a result of excess moisture, i.e., high indoor humidity.

TEC conducted site-specific mold sampling outside to obtain a baseline spore count. This baseline was compared to inside mold spore counts at the designated sampling locations.

Interior spore counts above baseline readings, may indicate internal sources of mold. This would indicate a requirement for further investigation and potential mitigation.

None of the other results from the fourteen sampling locations at George Mason Elementary School were indicative of mold issues. Mold analytical results can be found in Appendix A.

6. Radon Gas Sampling Results

Radon forms as the result of the radioactive decay of uranium. Uranium is a naturally occurring radioactive by product that occurs when rock and soil breaks down. Some building materials, such as granite, may be a source of radon. Sampling areas were provided by ACPS. This did not allow for TEC to utilize the sampling protocol provided by Air Chek for performing a comprehensive survey. Air Chek Radon Test Kits collection times were a minimum of 72 hours. Test kits were then retrieved and shipped to Air Chek Inc. located in Mills River, NC. Air Chek laboratories are National Institute of Standards and Technology's (NIST) National Voluntary Laboratory Accreditation Program (NVLAP), and American Industrial Hygiene Association (AIHA) for Environmental Microbial Laboratory Accreditation Program (EMLAP) certified. Analytical results can be found in Appendix B.

7. Formaldehyde Gas Sampling Results

Sources of formaldehyde are similar to sources of carbon monoxide. They include gas-burning engines and space heaters. Other sources include smoking, household products, pressed wood products, and adhesives. Analytical results can be found in Appendix D.

8. TO+15 (VOC) Sampling Results

Volatile organic compounds (VOCs), are organic chemicals emitted as gases. Carpets, flooring materials, cleaning agents, disinfectants, air fresheners, and vinyl furnishings, may all be sources of VOCs in indoor air. Analytical results can be found in Appendix C.

9. 4-pch Sampling Results

4-polycyclohexene is a common indoor air contaminant most commonly associated with " new-carpet" smell complaints. 4-pch is a byproduct of carpet manufacturing and has been associated with adverse health effects. None of the areas investigated during this study indictated elevated levels of pch. Analytical results can be found in Appendix E.

10. Multi-Gas Detector (MSA Altair Multi-gas) Readings

Multi-gas readings were taken at each location to document current conditions at the time of the sampling efforts and to monitor the environment between sampling locations. There were no exceedances in real-time during the IAQ investigation. Multi-gas results can be found below in Table 1.

Table 1
Multi-Gas Detector Readings

Location	VOC	CO	OXYGEN	H2S
Cafeteria	0.0	0.0	20.8	0.0
Gym	0.0	0.0	20.8	0.0
Classroom 26	0.0	0.0	20.8	0.0
Classroom 22	0.0	0.0	20.8	0.0
Hall 18	0.0	0.0	20.8	0.0
Classroom 3	0.0	0.0	20.8	0.0
Classroom 17	0.0	0.0	20.8	0.0
Classroom 13	0.0	0.0	20.8	0.0
Reception Office	0.0	0.0	20.8	0.0
Classroom 8	0.0	0.0	20.8	0.0
Library	0.0	0.0	20.8	0.0
Band Room	0.0	0.0	20.8	0.0
Office Floor 2	0.0	0.0	20.8	0.0
Hall 3	0.0	0.0	20.8	0.0
Classroom 30	0.0	0.0	20.8	0.0

Table 2

Results of Analytes by Location						
Location	Radon	Mold		TO+15 VOCs	4PCH	Formaldehyde
		AVG: 81 F	AVG: 45 %			
Cafeteria	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Gym	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Classroom 26	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Classroom 22	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Hall 18	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Classroom 3	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Classroom 17	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Classroom 13	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Reception Office	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Classroom 8	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Library	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Band Room	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Office Floor 2	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Hall 3	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Classroom 30	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL

Appendix A: Mold Analytical Results

HAYES MICROBIAL CONSULTING

#21030239

Analysis Report prepared for

Total Environmental Concepts, Inc.

8382 Terminal Road
Suite B
Lorton, VA 22079

Phone: **(571) 289-2173**

Collected: **August 16, 2021**
Received: **August 17, 2021**
Reported: **August 17, 2021**

We would like to thank you for trusting Hayes Microbial for your analytical needs!
We received 16 samples by FedEx in good condition for this project on August 17th, 2021.

The results in this analysis pertain only to this job, collected on the stated date, and should not be used in the interpretation of any other job. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC..

This laboratory bears no responsibility for sample collection activities, analytical method limitations, or your use of the test results. Interpretation and use of test results are your responsibility. Any reference to health effects or interpretation of mold levels is strictly the opinion of Hayes Microbial. In no event, shall Hayes Microbial or any of its employees be liable for lost profits or any special, incidental or consequential damages arising out of the use of these test results.

Steve Hayes, BSMT(ASCP)
Laboratory Director
Hayes Microbial Consulting, LLC.

EPA Laboratory ID: VA01419

Lab ID: #188863

DPH License: #PH-0198

Maggie Stanger
Total Environmental Concepts, Inc.
8382 Terminal Road Suite B
Lorton, VA 22079
(571) 289-2173

#21030239

Spore Trap, Spore Trap Blank

SOP - HMC#101

Sample Number	1	GM4315311		2	FM4315306		3	GM4315316		4	GM4315302	
Sample Name	GM Cafeteria			GM Hallway 222/223			GM Classroom 26			GM Gym		
Sample Volume	75.00 liter			75.00 liter			75.00 liter			75.00 liter		
Reporting Limit	13 spores/m^3			13 spores/m^3			13 spores/m^3			13 spores/m^3		
Background	1			2			2			1		
Fragments	ND			ND			ND			ND		
Organism	**Raw Count**	**Count / m^3**	**% of Total**	**Raw Count**	**Count / m^3**	**% of Total**	**Raw Count**	**Count / m^3**	**% of Total**	**Raw Count**	**Count / m^3**	**% of Total**
Alternaria												
Ascospores	1	13	33.3%	1	13	50.0%	2	27	50.0%	1	13	100.0%
Aspergillus|Penicillium												
Basidiospores				1	13	50.0%	1	13	25.0%			
Bipolaris|Drechslera												
Chaetomium												
Cladosporium	2	27	66.7%				1	13	25.0%			
Curvularia												
Epicoccum												
Fusarium												
Memnoniella												
Myxomycetes												
Pithomyces												
Stachybotrys												
Stemphylium												
Torula												
Ulocladium												
Total	3	40	100%	2	26	100%	4	53	100%	1	13	100%

Water Damage Indicator | Common Allergen | Slightly Higher than Baseline | Significantly Higher than Baseline | Ratio Abnormality

Collected: **Aug 16, 2021** Received: **Aug 17, 2021** Reported: **Aug 17, 2021**

Project Analyst: Ramesh Poluri, PhD P. Ramesh Date: **08 - 17 - 2021**

Reviewed By: Steve Hayes, BSMT Stephen N. Hayes Date: **08 - 17 - 2021**

HAYES MICROBIAL CONSULTING
3005 East Boundary Terrace, Suite F. Midlothian, VA. 23112 (804) 562-3435 contact@hayesmicrobial.com

Maggie Stanger
Total Environmental Concepts, Inc.
8382 Terminal Road Suite B
Lorton, VA 22079
(571) 289-2173

#21030239

Spore Trap, Spore Trap Blank

SOP - HMC#101

Sample Number	5	GM4315307		6	GM4315317		7	GM4315312		8	GM4315305	
Sample Name	GM Classroom 30			GM Hallway L 18			GM Classroom 17			GM Library		
Sample Volume	75.00 liter			75.00 liter			75.00 liter			75.00 liter		
Reporting Limit	13 spores/m³			13 spores/m³			13 spores/m³			13 spores/m³		
Background	2			2			2			2		
Fragments	ND			ND			ND			ND		
Organism	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**
Alternaria												
Ascospores	2	27	66.7%	3	40	60.0%	2	27	100.0%	1	13	100.0%
Aspergillus|Penicillium												
Basidiospores	1	13	33.3%	2	27	40.0%						
Bipolaris|Drechslera												
Chaetomium												
Cladosporium												
Curvularia												
Epicoccum												
Fusarium												
Memnoniella												
Myxomycetes												
Pithomyces												
Stachybotrys												
Stemphylium												
Torula												
Ulocladium												
Total	3	40	100%	5	67	100%	2	27	100%	1	13	100%

Water Damage Indicator | Common Allergen | Slightly Higher than Baseline | Significantly Higher than Baseline | Ratio Abnormality

Collected: **Aug 16, 2021** Received: **Aug 17, 2021** Reported: **Aug 17, 2021**

Project Analyst: Ramesh Poluri, PhD P. Ramesh Date: **08 - 17 - 2021**

Reviewed By: Steve Hayes, BSMT Stephen N. Hayes Date: **08 - 17 - 2021**

HAYES MICROBIAL CONSULTING
3005 East Boundary Terrace, Suite F. Midlothian, VA. 23112 (804) 562-3435 contact@hayesmicrobial.com

Maggie Stanger
Total Environmental Concepts, Inc.
8382 Terminal Road Suite B
Lorton, VA 22079
(571) 289-2173

#21030239

Spore Trap, Spore Trap Blank

SOP - HMC#101

Sample Number	9	GM4315301		10	GM4315297		11	GM4315300		12	GM4315295	
Sample Name	GM Band			GM Office			GM Classroom 13			GM Hallway R13		
Sample Volume	75.00 liter			75.00 liter			75.00 liter			75.00 liter		
Reporting Limit	13 spores/m³			13 spores/m³			13 spores/m³			13 spores/m³		
Background	2			2			2			2		
Fragments	ND			ND			ND			ND		
Organism	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**
Alternaria				1	13	33.3%						
Ascospores	1	13	50.0%	2	27	66.7%	1	13	100.0%	1	13	50.0%
Aspergillus|Penicillium												
Basidiospores	1	13	50.0%							1	13	50.0%
Bipolaris|Drechslera												
Chaetomium												
Cladosporium												
Curvularia												
Epicoccum												
Fusarium												
Memnoniella												
Myxomycetes												
Pithomyces												
Stachybotrys												
Stemphylium												
Torula												
Ulocladium												
Total	2	26	100%	3	40	100%	1	13	100%	2	26	100%

Water Damage Indicator | Common Allergen | Slightly Higher than Baseline | Significantly Higher than Baseline | Ratio Abnormality

Collected: **Aug 16, 2021** Received: **Aug 17, 2021** Reported: **Aug 17, 2021**

Project Analyst: Ramesh Poluri, PhD P. Ramesh Date: **08 - 17 - 2021**

Reviewed By: Steve Hayes, BSMT Stephen N. Hayes Date: **08 - 17 - 2021**

HAYES MICROBIAL CONSULTING
3005 East Boundary Terrace, Suite F. Midlothian, VA. 23112 (804) 562-3435 contact@hayesmicrobial.com

Maggie Stanger
Total Environmental Concepts, Inc.
8382 Terminal Road Suite B
Lorton, VA 22079
(571) 289-2173

#21030239

Spore Trap, Spore Trap Blank

SOP - HMC#101

Sample Number	13	GM4315294		14	GM4315299		15	GM4315296		16	GM4315304	
Sample Name	GM Classroom 3			GM Classroom 8			GM Reception			GM Outside		
Sample Volume	75.00 liter			75.00 liter			75.00 liter			75.00 liter		
Reporting Limit	13 spores/m³			13 spores/m³			13 spores/m³			13 spores/m³		
Background	2			2			2			2		
Fragments	ND			ND			ND			ND		
Organism	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**
Alternaria												
Ascospores	2	27	66.7%	1	13	25.0%	1	13	50.0%	196	2613	59.4%
Aspergillus|Penicillium				3	40	75.0%				3	40	<1%
Basidiospores	1	13	33.3%				1	13	50.0%	120	1600	36.4%
Bipolaris|Drechslera												
Chaetomium												
Cladosporium										11	147	3.3%
Curvularia												
Epicoccum												
Fusarium												
Memnoniella												
Myxomycetes												
Pithomyces												
Stachybotrys												
Stemphylium												
Torula												
Ulocladium												
Total	3	40	100%	4	53	100%	2	26	100%	330	4400	100%

Water Damage Indicator | Common Allergen | Slightly Higher than Baseline | Significantly Higher than Baseline | Ratio Abnormality

Collected: **Aug 16, 2021** Received: **Aug 17, 2021** Reported: **Aug 17, 2021**

Project Analyst: Ramesh Poluri, PhD P. Ramesh Date: **08 - 17 - 2021**

Reviewed By: Steve Hayes, BSMT Stephen N. Hayes Date: **08 - 17 - 2021**

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Lorton, VA 22079
(571) 289-2173

#21030239

Spore Trap Information

Reporting Limit	The Reporting Limit is the lowest number of spores that can be detected based on the total volume of the sample collected and the percentage of the slide that is counted. At Hayes Microbial, 100% of the slide is read so the LOD is based solely on the total volume. Raw spore counts that exceed 500 spores will be estimated.
Blanks	Results have not been corrected for field or laboratory blanks.
Background	The Background is the amount of debris that is present in the sample. This debris consists of skin cells, dirt, dust, pollen, drywall dust and other organic and non-organic matter. As the background density increases, the likelihood of spores, especially small spores such as those of Aspergillus and Penicillium may be obscured. The background is rated on a scale of 1 to 5 and each level is determined as follows: **NBD:** No background detected due to possible pump or cassette malfunction. Recollect sample. (Field Blanks will display NBD) **1 :** <5% of field occluded. No spores will be uncountable. **2 :** 5-25% of field occluded. **3 :** 25-75% of field occluded. **4 :** 75-90% of field occluded. **5 :** >90% of field occluded. Suggested recollection of sample.
Fragments	Fragments are small pieces of fungal mycelium or spores. They are not identifiable as to type and when present in very large numbers, may indicate the presence of mold amplification.
Control Comparisons	There are no national standards for the numbers of fungal spores that may be present in the indoor environment. As a general rule and guideline that is widely accepted in the indoor air quality field, the numbers and types of spores that are present in the indoor environment should not exceed those that are present outdoors at any given time. There will always be some mold spores present in "normal" indoor environments. The purpose of sampling and counting spores is to help determine whether an abnormal condition exists within the indoor environment and if it does, to help pinpoint the area of contamination. Spore counts should not be used as the sole determining factor of mold contamination. There are many factors that can cause anomalies in the comparison of indoor and outdoor samples due to the dynamic nature of both of those environments.
Water Damage Indicator Common Allergen Slightly Higher than Baseline Significantly Higher than Baseline Ratio Abnormality	**Blue:** These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem. **Green:** Although all molds are potential allergens, these are the most common allergens that may be found indoors. **Orange:** The spore count is slightly higher than the outside count and may or may not indicate a source of contamination. **Red:** The spore count is significantly higher than the baseline count and probably indicates a source of contamination. **Violet:** The types of spores found indoors should be similar to the ones that were identified in the baseline sample. Significant increases (more than 25%) in the ratio of a particular spore type may indicate the presence of abnormal levels of mold, even if the total number of spores of that type is lower in the indoor environment than it was outdoors.
Color Coding	Fungi that are present in indoor samples at levels lower than 200 per cubic meter are not color coded on the report, unless they are one of the water damage indicators.

Maggie Stanger
Total Environmental Concepts, Inc.
8382 Terminal Road Suite B
Lorton, VA 22079
(571) 289-2173

#21030239

Organism Descriptions

Alternaria

Habitat: Commonly found outdoors in soil and decaying plants. Indoors, it is commonly found on window sills and other horizontal surfaces.

Effects: A common allergen and has been associated with hypersensitivity pneumonitis. Alternaria is capable of producing toxic metabolites which may be associated with disease in humans or animals. Occasionally an agent of onychomycosis, ulcerated cutaneous infection and chronic sinusitis, principally in the immunocompromised patient.

Ascospores

Habitat: A large group consisting of more than 3000 species of fungi. Common plant pathogens and outdoor numbers become very high following rain. Most of the genera are indistinguishable by spore trap analysis and are combined on the report.

Effects: Health affects are poorly studied, but many are likely to be allergenic.

Aspergillus|Penicillium

Habitat: The most common fungi isolated from the environment. Very common in soil and on decaying plant material. Are able to grow well indoors on a wide variety of substrates.

Effects: This group contains common allergens and many can cause hypersensitivity pneumonitis. They may cause extrinsic asthma, and many are opportunistic pathogens. Many species produce mycotoxins which may be associated with disease in humans and other animals. Toxin production is dependent on the species, the food source, competition with other organisms, and other environmental conditions.

Basidiospores

Habitat: A common group of Fungi that includes the mushrooms and bracket fungi. They are saprophytes and plant pathogens. In wet conditions they can cause structural damage to buildings.

Effects: Common allergens and are also associated with hypersensitivity pneumonitis.

Cladosporium

Habitat: One of the most common genera worldwide. Found in soil and plant debris and on the leaf surfaces of living plants. The outdoor numbers are lower in the winter and often relatively high in the summer, especially in high humidity. The outdoor numbers often spike in the late afternoon and evening. Indoors, it can be found growing on textiles, wood, sheetrock, moist window sills and in HVAC supply ducts.

Effects: A common allergen, producing more than 10 allergenic antigens and a common cause of hypersensitivity pneumonitis.

Total Environmental Concepts, Inc.

Placement Tech	Maggie S	Sample Type	Mold
Placement Date	8/16/21	Email	kford@tec1.pro
Address			

Sample #	Location/ room	Flow Rate	Sampling Time	Pump Start Time	Pump End Time	Comments
GM4315311	GM Cafeteria	10 l/m	10:03 am	10:03	10:10	
GM4315306	GM Hallway R22R23		10:17	10:18	10:26	
GM4315316	GM Classroom 26		10:22	10:24	10:31	
GM4315302	GM GYM		10:45	10:45	10:53	
GM4315307	GM Classroom 30		10:45	10:48	10:56	
GM4315317	GM Hallway R18		11:11	11:12	11:20	
GM4315312	GM Classroom 17		11:11	11:15	11:22	
GM4315305	GM Library		11:37	11:37	11:44	
GM4315301	GM Band		11:48	11:48	11:56	
GM4315297	GM Office		12:00	12:00	12:08	
GM4315300	GM Classroom 13		12:23	12:23	12:30	
GM4315295	GM Hallway R3		12:38	12:39	12:46	
GM4315294	GM Classroom 3		12:49	12:50	12:57	
GM4315299	GM Classroom 8		12:51	12:51	12:58	
GM4315296	GM Reception		12:59	1:00	1:07	
[redacted]GM4315304	[redacted]GW Blank		12:00	12:00	12:07	

Appendix B: Radon Analytical Results

Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723553 Result: < 0.3 pCi/l
Location:
Gm Es 3
,
Analysis Note :
Analyzed : 2021-08-23 at 12:00 pm
Started : 2021-08-16 at 10:00 am
Ended : 2021-08-19 at 11:00 am
Hours/MST% : 73 hours 8.7% 70°F

Kit #: 9723554 Result: < 0.3 pCi/l
Location:
Gm Es library
,
Analysis Note :
Analyzed : 2021-08-23 at 12:00 pm
Started : 2021-08-16 at 11:00 am
Ended : 2021-08-19 at 12:00 pm
Hours/MST% : 73 hours 18.2% 70°F

Kit #: 9723557 Result: < 0.3 pCi/l
Location:
Gm Es 13
,
Analysis Note :
Analyzed : 2021-08-23 at 12:00 pm
Started : 2021-08-16 at 10:00 am
Ended : 2021-08-19 at 11:00 am
Hours/MST% : 73 hours 8.0% 70°F

Kit #: 9723558 Result: < 0.3 pCi/l
Location:
Gm Es Band
,
Analysis Note :
Analyzed : 2021-08-23 at 12:00 pm
Started : 2021-08-16 at 10:00 am
Ended : 2021-08-19 at 12:00 pm
Hours/MST% : 74 hours 16.5% 70°F

Kit #: 9723563 Result: < 0.3 pCi/l
Location:
Gm Es office
,
Analysis Note :
Analyzed : 2021-08-23 at 12:00 pm
Started : 2021-08-16 at 11:00 am
Ended : 2021-08-19 at 12:00 pm
Hours/MST% : 73 hours 17.6% 70°F

Kit #: 9723564 Result: < 0.3 pCi/l
Location:
Gm Es hall 3a
,
Analysis Note :
Analyzed : 2021-08-23 at 12:00 pm
Started : 2021-08-16 at 10:00 am
Ended : 2021-08-19 at 11:00 am
Hours/MST% : 73 hours 11.5% 70°F

Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723569 Result: < 0.3 pCi/l
Location:
Gm Es 8
,
Analysis Note :
Analyzed : 2021-08-23 at 11:00 am
Started : 2021-08-16 at 10:00 am
Ended : 2021-08-19 at 11:00 am
Hours/MST% : 73 hours 10.2% 70°F

Kit #: 9723570 Result: < 0.3 pCi/l
Location:
Gm Es reception
,
Analysis Note :
Analyzed : 2021-08-23 at 11:00 am
Started : 2021-08-16 at 10:00 am
Ended : 2021-08-19 at 11:00 am
Hours/MST% : 73 hours 9.7% 70°F

Kit #: 9723571 Result: < 0.3 pCi/l
Location:
Gm Es hall 18
,
Analysis Note :
Analyzed : 2021-08-23 at 12:00 pm
Started : 2021-08-16 at 10:00 am
Ended : 2021-08-19 at 11:00 am
Hours/MST% : 73 hours 12.1% 70°F

Kit #: 9723572 Result: < 0.3 pCi/l
Location:
Gm Es 17
,
Analysis Note :
Analyzed : 2021-08-23 at 11:00 am
Started : 2021-08-16 at 10:00 am
Ended : 2021-08-19 at 11:00 am
Hours/MST% : 73 hours 9.4% 70°F

Kit #: 9723573 Result: < 0.3 pCi/l
Location:
Gm Es 26
,
Analysis Note :
Analyzed : 2021-08-23 at 11:00 am
Started : 2021-08-16 at 10:00 am
Ended : 2021-08-19 at 11:00 am
Hours/MST% : 73 hours 14.4% 70°F

Kit #: 9723574 Result: < 0.3 pCi/l
Location:
Gm Es 30
,
Analysis Note :
Analyzed : 2021-08-23 at 12:00 pm
Started : 2021-08-16 at 10:00 am
Ended : 2021-08-19 at 11:00 am
Hours/MST% : 73 hours 10.9% 70°F

Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723575 Result: < 0.3 pCi/l
Location:
Gm Es Gym 2
,
Analysis Note :
Analyzed : 2021-08-23 at 12:00 pm
Started : 2021-08-16 at 10:00 am
Ended : 2021-08-19 at 11:00 am
Hours/MST% : 73 hours 17.1% 70°F

Kit #: 9723576 Result: < 0.3 pCi/l
Location:
Gm Es Gym 1
,
Analysis Note :
Analyzed : 2021-08-23 at 12:00 pm
Started : 2021-08-16 at 10:00 am
Ended : 2021-08-19 at 11:00 am
Hours/MST% : 73 hours 17.0% 70°F

Kit #: 9723577 Result: < 0.3 pCi/l
Location:
Gm Es hall 22
,
Analysis Note :
Analyzed : 2021-08-23 at 12:00 pm
Started : 2021-08-16 at 10:00 am
Ended : 2021-08-19 at 10:00 am
Hours/MST% : 72 hours 13.8% 70°F

Kit #: 9723578 Result: < 0.3 pCi/l
Location:
Gm Es Cafe 2
,
Analysis Note :
Analyzed : 2021-08-23 at 12:00 pm
Started : 2021-08-16 at 9:00 am
Ended : 2021-08-19 at 10:00 am
Hours/MST% : 73 hours 19.3% 70°F

Kit #: 9723579 Result: < 0.3 pCi/l
Location:
Gm Es Cafe 1
,
Analysis Note :
Analyzed : 2021-08-23 at 12:00 pm
Started : 2021-08-16 at 9:00 am
Ended : 2021-08-19 at 10:00 am
Hours/MST% : 73 hours 17.1% 70°F

Kit #: 9723580 Result: ????
Location:
Gm Es Cafe D
,
Analysis Note : WI
Analyzed : 2021-08-23 at 12:00 pm
Started : 2021-08-16 at 9:00 am
Ended : 2021-08-19 at 10:00 am
Hours/MST% : 73 hours 20.8% 70°F

Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723581 Result: < 0.3 pCi/l
Location:

Gm Es Cafe B
,

Analysis Note :
Analyzed : 2021-08-23 at 12:00 pm
Started : 2021-08-16 at 9:00 am
Ended : 2021-08-19 at 10:00 am
Hours/MST% : 73 hours 6.6% 70°F

Kit #: 9723583 Result: < 0.3 pCi/l
Location:

Gm Es library 2
,

Analysis Note :
Analyzed : 2021-08-23 at 12:00 pm
Started : 2021-08-16 at 11:00 am
Ended : 2021-08-19 at 12:00 pm
Hours/MST% : 73 hours 17.0% 70°F

Total Environmental Concepts, Inc.

Placement Tech	Maggie S	Sample Type	Mold
Placement Date	8/6/21	Email	kford@tec1.pro
Address			

Sample #	Location/ room	Flow Rate	Sampling Time	Pump Start Time	Pump End Time	Comments
GM4315311	GM Cafeteria	10 l/m	10:03 am	10:03	10:10	
GM4315306	GM Hallway R22R23		10:17	10:18	10:26	
GM4315316	GM Classroom 26		10:22	10:24	10:31	
GM4315302	GM GYM		10:45	10:45	10:53	
GM4315307	GM Classroom 30		10:45	10:48	10:56	
GM4315317	GM Hallway R18		11:11	11:12	11:20	
GM4315312	GM Classroom 17		11:11	11:15	11:22	
GM4315305	GM Library		11:37	11:37	11:44	
GM4315301	GM Band		11:48	11:48	11:56	
GM4315297	GM Office		12:00	12:00	12:08	
GM4315300	GM Classroom 13		12:23	12:23	12:30	
GM4315295	GM Hallway R3		12:38	12:39	12:46	
GM4315294	GM Classroom 3		12:49	12:50	12:57	
GM4315299	GM Classroom 8		12:51	12:51	12:58	
GM4315296	GM Reception		12:59	1:00	1:07	
[redacted]GM4315304	[redacted]GW Blank		12:00	12:00	12:07	

N

SHIP: FEDEX - BOX 50
DATE: 08-17-2021

8169 3667 8272

MOLD

21030239

CRP 8/17/21

Appendix C: VOCs (TO+15) Analytical Results

PHASE SEPARATION SCIENCE

6630 Baltimore National Pike
Baltimore, MD 21228
410-747-8770
800-932-9047
www.phaseonline.com

Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

August 25, 2021

Karl Ford
Total Environmental Concepts - Lorton
8382 Terminal Road, Suite B
Lorton, VA 22079

Reference: PSS Project No: **21081828**
Project Name: ACPS IAQ Testing
Project Location: George Mason Elementary
Project ID.: 4920002

Dear Karl Ford:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) **21081828**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on September 22, 2021, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager

PHASE SEPARATION SCIENCE

6630 Baltimore National Pike
Baltimore, MD 21228
410-747-8770
800-932-9047
www.phaseonline.com

Explanation of Qualifiers

Project Name: ACPS IAQ Testing

PSS Project No.: 21081828

Project ID: 4920002

The following samples were received under chain of custody by Phase Separation Science (PSS) on 08/18/2021 at 03:00 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
21081828-001	GM - Class 3	AIR	08/16/21 20:24
21081828-002	GM - Hallway 3	AIR	08/16/21 20:27
21081828-003	GM - Reception	AIR	08/16/21 20:31
21081828-004	GM - Class 8	AIR	08/16/21 20:35
21081828-005	GM - Class 13	AIR	08/16/21 20:40
21081828-006	GM - Class 17	AIR	08/16/21 20:43
21081828-007	GM - Hallway 18	AIR	08/16/21 20:49
21081828-008	GM - Gym	AIR	08/16/21 20:54
21081828-009	GM - Class 30	AIR	08/16/21 20:56
21081828-010	GM - Class 26	AIR	08/16/21 21:03
21081828-011	GM - Hallway 22	AIR	08/16/21 21:07
21081828-012	GM - Cafeteria	AIR	08/16/21 20:31
21081828-013	GM - Library	AIR	08/16/21 20:19
21081828-014	GM - Band Room	AIR	08/16/21 20:15
21081828-015	GM - Office	AIR	08/16/21 21:15

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

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6630 Baltimore National Pike
Baltimore, MD 21228
410-747-8770
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Explanation of Qualifiers

Project Name: ACPS IAQ Testing

PSS Project No.: 21081828

Standard Flags/Abbreviations:

B	A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
C	Results Pending Final Confirmation.
E	The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
Fail	The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
J	The target analyte was positively identified below the reporting limit but greater than the MDL.
MDL	This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
ND	Not Detected at or above the reporting limit.
RL	PSS Reporting Limit.
U	Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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6630 Baltimore National Pike
Baltimore, MD 21228
410-747-8770
800-932-9047
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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Class 3 **Date/Time Sampled: 08/16/2021 20:24** **PSS Sample ID: 21081828-001**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS | Analytical Method: EPA TO-15 | Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	**25**	ug/M3	9.5		1	08/19/21	08/19/21 21:10	1014
Benzene	ND	ug/M3	0.32		1	08/19/21	08/19/21 21:10	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/19/21	08/19/21 21:10	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/19/21	08/19/21 21:10	1014
Bromoform	ND	ug/M3	2.1		1	08/19/21	08/19/21 21:10	1014
Bromomethane	ND	ug/M3	0.78		1	08/19/21	08/19/21 21:10	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/19/21	08/19/21 21:10	1014
2-Butanone (MEK)	**2.8**	ug/M3	1.5		1	08/19/21	08/19/21 21:10	1014
Carbon Disulfide	ND	ug/M3	12		1	08/19/21	08/19/21 21:10	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/19/21	08/19/21 21:10	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/19/21	08/19/21 21:10	1014
Chloroethane	ND	ug/M3	0.53		1	08/19/21	08/19/21 21:10	1014
Chloroform	ND	ug/M3	0.98		1	08/19/21	08/19/21 21:10	1014
Chloromethane	**0.87**	ug/M3	0.41		1	08/19/21	08/19/21 21:10	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/19/21	08/19/21 21:10	1014
Cyclohexane	ND	ug/M3	0.69		1	08/19/21	08/19/21 21:10	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/19/21	08/19/21 21:10	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/19/21	08/19/21 21:10	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/19/21 21:10	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/19/21 21:10	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/19/21 21:10	1014
Dichlorodifluoromethane	**1.3**	ug/M3	0.99		1	08/19/21	08/19/21 21:10	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/19/21 21:10	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/19/21 21:10	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/19/21 21:10	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/19/21 21:10	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/19/21 21:10	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/19/21	08/19/21 21:10	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/19/21 21:10	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/19/21 21:10	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/19/21	08/19/21 21:10	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/19/21	08/19/21 21:10	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/19/21	08/19/21 21:10	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/19/21	08/19/21 21:10	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/19/21	08/19/21 21:10	1014

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800-932-9047
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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Class 3 **Date/Time Sampled: 08/16/2021 20:24** **PSS Sample ID: 21081828-001**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS Analytical Method: EPA TO-15 Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/19/21	08/19/21 21:10	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/19/21	08/19/21 21:10	1014
n-Hexane	ND	ug/M3	14		1	08/19/21	08/19/21 21:10	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/19/21	08/19/21 21:10	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/19/21	08/19/21 21:10	1014
Methylene Chloride	ND	ug/M3	14		1	08/19/21	08/19/21 21:10	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/19/21	08/19/21 21:10	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/19/21	08/19/21 21:10	1014
Naphthalene	**1.4**	ug/M3	0.52		1	08/19/21	08/19/21 21:10	1014
Propylene	ND	ug/M3	1.7		1	08/19/21	08/19/21 21:10	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/19/21	08/19/21 21:10	1014
Styrene	ND	ug/M3	4.3		1	08/19/21	08/19/21 21:10	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/19/21	08/19/21 21:10	1014
Tetrachloroethene	**2.4**	ug/M3	1.4		1	08/19/21	08/19/21 21:10	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/19/21	08/19/21 21:10	1014
Toluene	**2.1**	ug/M3	0.38		1	08/19/21	08/19/21 21:10	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/19/21	08/19/21 21:10	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/19/21 21:10	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/19/21 21:10	1014
Trichloroethene	ND	ug/M3	1.1		1	08/19/21	08/19/21 21:10	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/19/21	08/19/21 21:10	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/19/21	08/19/21 21:10	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/19/21 21:10	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/19/21 21:10	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/19/21	08/19/21 21:10	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/19/21	08/19/21 21:10	1014
Bromoethene	ND	ug/M3	0.87		1	08/19/21	08/19/21 21:10	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/19/21	08/19/21 21:10	1014
m&p-Xylene	**0.87**	ug/M3	0.87		1	08/19/21	08/19/21 21:10	1014
o-Xylene	ND	ug/M3	0.43		1	08/19/21	08/19/21 21:10	1014

Surrogate(s)	*Recovery*		*Limits*				
4-Bromofluorobenzene	*101*	*%*	*87-120*		*1*	*08/19/21*	*08/19/21 21:10*	*1014*

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Hallway 3 **Date/Time Sampled: 08/16/2021 20:27** **PSS Sample ID: 21081828-002**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS Analytical Method: EPA TO-15 Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	**14**	ug/M3	9.5		1	08/19/21	08/19/21 22:04	1014
Benzene	ND	ug/M3	0.32		1	08/19/21	08/19/21 22:04	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/19/21	08/19/21 22:04	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/19/21	08/19/21 22:04	1014
Bromoform	ND	ug/M3	2.1		1	08/19/21	08/19/21 22:04	1014
Bromomethane	ND	ug/M3	0.78		1	08/19/21	08/19/21 22:04	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/19/21	08/19/21 22:04	1014
2-Butanone (MEK)	ND	ug/M3	1.5		1	08/19/21	08/19/21 22:04	1014
Carbon Disulfide	ND	ug/M3	12		1	08/19/21	08/19/21 22:04	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/19/21	08/19/21 22:04	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/19/21	08/19/21 22:04	1014
Chloroethane	ND	ug/M3	0.53		1	08/19/21	08/19/21 22:04	1014
Chloroform	ND	ug/M3	0.98		1	08/19/21	08/19/21 22:04	1014
Chloromethane	**0.83**	ug/M3	0.41		1	08/19/21	08/19/21 22:04	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/19/21	08/19/21 22:04	1014
Cyclohexane	ND	ug/M3	0.69		1	08/19/21	08/19/21 22:04	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/19/21	08/19/21 22:04	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/19/21	08/19/21 22:04	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/19/21 22:04	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/19/21 22:04	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/19/21 22:04	1014
Dichlorodifluoromethane	**1.4**	ug/M3	0.99		1	08/19/21	08/19/21 22:04	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/19/21 22:04	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/19/21 22:04	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/19/21 22:04	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/19/21 22:04	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/19/21 22:04	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/19/21	08/19/21 22:04	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/19/21 22:04	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/19/21 22:04	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/19/21	08/19/21 22:04	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/19/21	08/19/21 22:04	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/19/21	08/19/21 22:04	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/19/21	08/19/21 22:04	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/19/21	08/19/21 22:04	1014

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Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Hallway 3 **Date/Time Sampled: 08/16/2021 20:27** **PSS Sample ID: 21081828-002**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS | Analytical Method: EPA TO-15 | Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/19/21	08/19/21 22:04	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/19/21	08/19/21 22:04	1014
n-Hexane	ND	ug/M3	14		1	08/19/21	08/19/21 22:04	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/19/21	08/19/21 22:04	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/19/21	08/19/21 22:04	1014
Methylene Chloride	ND	ug/M3	14		1	08/19/21	08/19/21 22:04	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/19/21	08/19/21 22:04	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/19/21	08/19/21 22:04	1014
Naphthalene	**0.63**	ug/M3	0.52		1	08/19/21	08/19/21 22:04	1014
Propylene	ND	ug/M3	1.7		1	08/19/21	08/19/21 22:04	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/19/21	08/19/21 22:04	1014
Styrene	ND	ug/M3	4.3		1	08/19/21	08/19/21 22:04	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/19/21	08/19/21 22:04	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/19/21	08/19/21 22:04	1014
Tetrahydrofuran	**1.1**	ug/M3	0.59		1	08/19/21	08/19/21 22:04	1014
Toluene	**0.94**	ug/M3	0.38		1	08/19/21	08/19/21 22:04	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/19/21	08/19/21 22:04	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/19/21 22:04	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/19/21 22:04	1014
Trichloroethene	ND	ug/M3	1.1		1	08/19/21	08/19/21 22:04	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/19/21	08/19/21 22:04	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/19/21	08/19/21 22:04	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/19/21 22:04	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/19/21 22:04	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/19/21	08/19/21 22:04	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/19/21	08/19/21 22:04	1014
Bromoethene	ND	ug/M3	0.87		1	08/19/21	08/19/21 22:04	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/19/21	08/19/21 22:04	1014
m&p-Xylene	ND	ug/M3	0.87		1	08/19/21	08/19/21 22:04	1014
o-Xylene	ND	ug/M3	0.43		1	08/19/21	08/19/21 22:04	1014

Surrogate(s)	*Recovery*		*Limits*				
4-Bromofluorobenzene	*103*	*%*	*87-120*		*1*	*08/19/21*	*08/19/21 22:04*	*1014*

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Reception **Date/Time Sampled: 08/16/2021 20:31** **PSS Sample ID: 21081828-003**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS | Analytical Method: EPA TO-15 | Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	**20**	ug/M3	9.5		1	08/19/21	08/19/21 22:58	1014
Benzene	ND	ug/M3	0.32		1	08/19/21	08/19/21 22:58	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/19/21	08/19/21 22:58	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/19/21	08/19/21 22:58	1014
Bromoform	ND	ug/M3	2.1		1	08/19/21	08/19/21 22:58	1014
Bromomethane	ND	ug/M3	0.78		1	08/19/21	08/19/21 22:58	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/19/21	08/19/21 22:58	1014
2-Butanone (MEK)	**1.6**	ug/M3	1.5		1	08/19/21	08/19/21 22:58	1014
Carbon Disulfide	ND	ug/M3	12		1	08/19/21	08/19/21 22:58	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/19/21	08/19/21 22:58	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/19/21	08/19/21 22:58	1014
Chloroethane	ND	ug/M3	0.53		1	08/19/21	08/19/21 22:58	1014
Chloroform	ND	ug/M3	0.98		1	08/19/21	08/19/21 22:58	1014
Chloromethane	**0.72**	ug/M3	0.41		1	08/19/21	08/19/21 22:58	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/19/21	08/19/21 22:58	1014
Cyclohexane	ND	ug/M3	0.69		1	08/19/21	08/19/21 22:58	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/19/21	08/19/21 22:58	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/19/21	08/19/21 22:58	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/19/21 22:58	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/19/21 22:58	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/19/21 22:58	1014
Dichlorodifluoromethane	**1.2**	ug/M3	0.99		1	08/19/21	08/19/21 22:58	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/19/21 22:58	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/19/21 22:58	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/19/21 22:58	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/19/21 22:58	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/19/21 22:58	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/19/21	08/19/21 22:58	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/19/21 22:58	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/19/21 22:58	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/19/21	08/19/21 22:58	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/19/21	08/19/21 22:58	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/19/21	08/19/21 22:58	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/19/21	08/19/21 22:58	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/19/21	08/19/21 22:58	1014

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Reception **Date/Time Sampled: 08/16/2021 20:31** **PSS Sample ID: 21081828-003**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS | Analytical Method: EPA TO-15 | Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/19/21	08/19/21 22:58	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/19/21	08/19/21 22:58	1014
n-Hexane	ND	ug/M3	14		1	08/19/21	08/19/21 22:58	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/19/21	08/19/21 22:58	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/19/21	08/19/21 22:58	1014
Methylene Chloride	ND	ug/M3	14		1	08/19/21	08/19/21 22:58	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/19/21	08/19/21 22:58	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/19/21	08/19/21 22:58	1014
Naphthalene	ND	ug/M3	0.52		1	08/19/21	08/19/21 22:58	1014
Propylene	ND	ug/M3	1.7		1	08/19/21	08/19/21 22:58	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/19/21	08/19/21 22:58	1014
Styrene	ND	ug/M3	4.3		1	08/19/21	08/19/21 22:58	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/19/21	08/19/21 22:58	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/19/21	08/19/21 22:58	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/19/21	08/19/21 22:58	1014
Toluene	**1.4**	ug/M3	0.38		1	08/19/21	08/19/21 22:58	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/19/21	08/19/21 22:58	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/19/21 22:58	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/19/21 22:58	1014
Trichloroethene	ND	ug/M3	1.1		1	08/19/21	08/19/21 22:58	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/19/21	08/19/21 22:58	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/19/21	08/19/21 22:58	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/19/21 22:58	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/19/21 22:58	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/19/21	08/19/21 22:58	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/19/21	08/19/21 22:58	1014
Bromoethene	ND	ug/M3	0.87		1	08/19/21	08/19/21 22:58	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/19/21	08/19/21 22:58	1014
m&p-Xylene	**1.0**	ug/M3	0.87		1	08/19/21	08/19/21 22:58	1014
o-Xylene	ND	ug/M3	0.43		1	08/19/21	08/19/21 22:58	1014

Surrogate(s)	*Recovery*		*Limits*				
4-Bromofluorobenzene	*103*	*%*	*87-120*		*1*	*08/19/21*	*08/19/21 22:58*	*1014*

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Class 8 **Date/Time Sampled: 08/16/2021 20:35** **PSS Sample ID: 21081828-004**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS | Analytical Method: EPA TO-15 | Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	**80**	ug/M3	24		2.5	08/19/21	08/20/21 18:24	1014
Benzene	ND	ug/M3	0.32		1	08/19/21	08/19/21 23:52	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/19/21	08/19/21 23:52	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/19/21	08/19/21 23:52	1014
Bromoform	ND	ug/M3	2.1		1	08/19/21	08/19/21 23:52	1014
Bromomethane	ND	ug/M3	0.78		1	08/19/21	08/19/21 23:52	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/19/21	08/19/21 23:52	1014
2-Butanone (MEK)	**28**	ug/M3	1.5		1	08/19/21	08/19/21 23:52	1014
Carbon Disulfide	ND	ug/M3	12		1	08/19/21	08/19/21 23:52	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/19/21	08/19/21 23:52	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/19/21	08/19/21 23:52	1014
Chloroethane	ND	ug/M3	0.53		1	08/19/21	08/19/21 23:52	1014
Chloroform	ND	ug/M3	0.98		1	08/19/21	08/19/21 23:52	1014
Chloromethane	**0.87**	ug/M3	0.41		1	08/19/21	08/19/21 23:52	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/19/21	08/19/21 23:52	1014
Cyclohexane	ND	ug/M3	0.69		1	08/19/21	08/19/21 23:52	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/19/21	08/19/21 23:52	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/19/21	08/19/21 23:52	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/19/21 23:52	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/19/21 23:52	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/19/21 23:52	1014
Dichlorodifluoromethane	**1.4**	ug/M3	0.99		1	08/19/21	08/19/21 23:52	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/19/21 23:52	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/19/21 23:52	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/19/21 23:52	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/19/21 23:52	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/19/21 23:52	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/19/21	08/19/21 23:52	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/19/21 23:52	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/19/21 23:52	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/19/21	08/19/21 23:52	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/19/21	08/19/21 23:52	1014
Ethyl Acetate	**0.94**	ug/M3	0.72		1	08/19/21	08/19/21 23:52	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/19/21	08/19/21 23:52	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/19/21	08/19/21 23:52	1014

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Class 8 **Date/Time Sampled: 08/16/2021 20:35** **PSS Sample ID: 21081828-004**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS Analytical Method: EPA TO-15 Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/19/21	08/19/21 23:52	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/19/21	08/19/21 23:52	1014
n-Hexane	ND	ug/M3	14		1	08/19/21	08/19/21 23:52	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/19/21	08/19/21 23:52	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/19/21	08/19/21 23:52	1014
Methylene Chloride	ND	ug/M3	14		1	08/19/21	08/19/21 23:52	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/19/21	08/19/21 23:52	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/19/21	08/19/21 23:52	1014
Naphthalene	ND	ug/M3	0.52		1	08/19/21	08/19/21 23:52	1014
Propylene	ND	ug/M3	1.7		1	08/19/21	08/19/21 23:52	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/19/21	08/19/21 23:52	1014
Styrene	ND	ug/M3	4.3		1	08/19/21	08/19/21 23:52	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/19/21	08/19/21 23:52	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/19/21	08/19/21 23:52	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/19/21	08/19/21 23:52	1014
Toluene	**8.3**	ug/M3	0.38		1	08/19/21	08/19/21 23:52	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/19/21	08/19/21 23:52	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/19/21 23:52	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/19/21 23:52	1014
Trichloroethene	ND	ug/M3	1.1		1	08/19/21	08/19/21 23:52	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/19/21	08/19/21 23:52	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/19/21	08/19/21 23:52	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/19/21 23:52	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/19/21 23:52	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/19/21	08/19/21 23:52	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/19/21	08/19/21 23:52	1014
Bromoethene	ND	ug/M3	0.87		1	08/19/21	08/19/21 23:52	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/19/21	08/19/21 23:52	1014
m&p-Xylene	ND	ug/M3	0.87		1	08/19/21	08/19/21 23:52	1014
o-Xylene	ND	ug/M3	0.43		1	08/19/21	08/19/21 23:52	1014

Surrogate(s)	*Recovery*		*Limits*				
4-Bromofluorobenzene	*103*	*%*	*87-120*		*1*	*08/19/21*	*08/19/21 23:52*	*1014*
4-Bromofluorobenzene	*98*	*%*	*87-120*		*2.5*	*08/20/21*	*08/20/21 18:24*	*1014*

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Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Class 13 **Date/Time Sampled: 08/16/2021 20:40** **PSS Sample ID: 21081828-005**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS | Analytical Method: EPA TO-15 | Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	**31**	ug/M3	9.5		1	08/19/21	08/20/21 00:46	1014
Benzene	ND	ug/M3	0.32		1	08/19/21	08/20/21 00:46	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/19/21	08/20/21 00:46	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/19/21	08/20/21 00:46	1014
Bromoform	ND	ug/M3	2.1		1	08/19/21	08/20/21 00:46	1014
Bromomethane	ND	ug/M3	0.78		1	08/19/21	08/20/21 00:46	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/19/21	08/20/21 00:46	1014
2-Butanone (MEK)	**2.6**	ug/M3	1.5		1	08/19/21	08/20/21 00:46	1014
Carbon Disulfide	ND	ug/M3	12		1	08/19/21	08/20/21 00:46	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/19/21	08/20/21 00:46	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/19/21	08/20/21 00:46	1014
Chloroethane	ND	ug/M3	0.53		1	08/19/21	08/20/21 00:46	1014
Chloroform	ND	ug/M3	0.98		1	08/19/21	08/20/21 00:46	1014
Chloromethane	**0.89**	ug/M3	0.41		1	08/19/21	08/20/21 00:46	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/19/21	08/20/21 00:46	1014
Cyclohexane	ND	ug/M3	0.69		1	08/19/21	08/20/21 00:46	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/19/21	08/20/21 00:46	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/19/21	08/20/21 00:46	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 00:46	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 00:46	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 00:46	1014
Dichlorodifluoromethane	**1.3**	ug/M3	0.99		1	08/19/21	08/20/21 00:46	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/20/21 00:46	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/20/21 00:46	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 00:46	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 00:46	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 00:46	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/19/21	08/20/21 00:46	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/20/21 00:46	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/20/21 00:46	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/19/21	08/20/21 00:46	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/19/21	08/20/21 00:46	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/19/21	08/20/21 00:46	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/19/21	08/20/21 00:46	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/19/21	08/20/21 00:46	1014

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Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Class 13 **Date/Time Sampled: 08/16/2021 20:40** **PSS Sample ID: 21081828-005**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS Analytical Method: EPA TO-15 Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/19/21	08/20/21 00:46	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/19/21	08/20/21 00:46	1014
n-Hexane	ND	ug/M3	14		1	08/19/21	08/20/21 00:46	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/19/21	08/20/21 00:46	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 00:46	1014
Methylene Chloride	ND	ug/M3	14		1	08/19/21	08/20/21 00:46	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/19/21	08/20/21 00:46	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/19/21	08/20/21 00:46	1014
Naphthalene	ND	ug/M3	0.52		1	08/19/21	08/20/21 00:46	1014
Propylene	ND	ug/M3	1.7		1	08/19/21	08/20/21 00:46	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 00:46	1014
Styrene	ND	ug/M3	4.3		1	08/19/21	08/20/21 00:46	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/19/21	08/20/21 00:46	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/19/21	08/20/21 00:46	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/19/21	08/20/21 00:46	1014
Toluene	**5.2**	ug/M3	0.38		1	08/19/21	08/20/21 00:46	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/19/21	08/20/21 00:46	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 00:46	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 00:46	1014
Trichloroethene	ND	ug/M3	1.1		1	08/19/21	08/20/21 00:46	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 00:46	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/19/21	08/20/21 00:46	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 00:46	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 00:46	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/19/21	08/20/21 00:46	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/19/21	08/20/21 00:46	1014
Bromoethene	ND	ug/M3	0.87		1	08/19/21	08/20/21 00:46	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/19/21	08/20/21 00:46	1014
m&p-Xylene	**1.1**	ug/M3	0.87		1	08/19/21	08/20/21 00:46	1014
o-Xylene	ND	ug/M3	0.43		1	08/19/21	08/20/21 00:46	1014

Surrogate(s)	*Recovery*		*Limits*				
4-Bromofluorobenzene	*102*	*%*	*87-120*		*1*	*08/19/21*	*08/20/21 00:46*	*1014*

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Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Class 17 **Date/Time Sampled: 08/16/2021 20:43** **PSS Sample ID: 21081828-006**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS | Analytical Method: EPA TO-15 | Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	**14**	ug/M3	9.5		1	08/19/21	08/20/21 01:39	1014
Benzene	ND	ug/M3	0.32		1	08/19/21	08/20/21 01:39	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/19/21	08/20/21 01:39	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/19/21	08/20/21 01:39	1014
Bromoform	ND	ug/M3	2.1		1	08/19/21	08/20/21 01:39	1014
Bromomethane	ND	ug/M3	0.78		1	08/19/21	08/20/21 01:39	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/19/21	08/20/21 01:39	1014
2-Butanone (MEK)	ND	ug/M3	1.5		1	08/19/21	08/20/21 01:39	1014
Carbon Disulfide	ND	ug/M3	12		1	08/19/21	08/20/21 01:39	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/19/21	08/20/21 01:39	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/19/21	08/20/21 01:39	1014
Chloroethane	ND	ug/M3	0.53		1	08/19/21	08/20/21 01:39	1014
Chloroform	ND	ug/M3	0.98		1	08/19/21	08/20/21 01:39	1014
Chloromethane	**0.85**	ug/M3	0.41		1	08/19/21	08/20/21 01:39	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/19/21	08/20/21 01:39	1014
Cyclohexane	ND	ug/M3	0.69		1	08/19/21	08/20/21 01:39	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/19/21	08/20/21 01:39	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/19/21	08/20/21 01:39	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 01:39	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 01:39	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 01:39	1014
Dichlorodifluoromethane	**1.5**	ug/M3	0.99		1	08/19/21	08/20/21 01:39	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/20/21 01:39	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/20/21 01:39	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 01:39	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 01:39	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 01:39	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/19/21	08/20/21 01:39	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/20/21 01:39	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/20/21 01:39	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/19/21	08/20/21 01:39	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/19/21	08/20/21 01:39	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/19/21	08/20/21 01:39	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/19/21	08/20/21 01:39	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/19/21	08/20/21 01:39	1014

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Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Class 17 **Date/Time Sampled: 08/16/2021 20:43** **PSS Sample ID: 21081828-006**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS Analytical Method: EPA TO-15 Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/19/21	08/20/21 01:39	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/19/21	08/20/21 01:39	1014
n-Hexane	ND	ug/M3	14		1	08/19/21	08/20/21 01:39	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/19/21	08/20/21 01:39	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 01:39	1014
Methylene Chloride	ND	ug/M3	14		1	08/19/21	08/20/21 01:39	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/19/21	08/20/21 01:39	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/19/21	08/20/21 01:39	1014
Naphthalene	ND	ug/M3	0.52		1	08/19/21	08/20/21 01:39	1014
Propylene	ND	ug/M3	1.7		1	08/19/21	08/20/21 01:39	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 01:39	1014
Styrene	ND	ug/M3	4.3		1	08/19/21	08/20/21 01:39	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/19/21	08/20/21 01:39	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/19/21	08/20/21 01:39	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/19/21	08/20/21 01:39	1014
Toluene	**1.1**	ug/M3	0.38		1	08/19/21	08/20/21 01:39	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/19/21	08/20/21 01:39	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 01:39	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 01:39	1014
Trichloroethene	ND	ug/M3	1.1		1	08/19/21	08/20/21 01:39	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 01:39	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/19/21	08/20/21 01:39	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 01:39	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 01:39	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/19/21	08/20/21 01:39	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/19/21	08/20/21 01:39	1014
Bromoethene	ND	ug/M3	0.87		1	08/19/21	08/20/21 01:39	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/19/21	08/20/21 01:39	1014
m&p-Xylene	ND	ug/M3	0.87		1	08/19/21	08/20/21 01:39	1014
o-Xylene	ND	ug/M3	0.43		1	08/19/21	08/20/21 01:39	1014

Surrogate(s)	*Recovery*		*Limits*				
4-Bromofluorobenzene	*99*	*%*	*87-120*		*1*	*08/19/21*	*08/20/21 01:39*	*1014*

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Hallway 18 **Date/Time Sampled: 08/16/2021 20:49** **PSS Sample ID: 21081828-007**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS Analytical Method: EPA TO-15 Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	**17**	ug/M3	9.5		1	08/19/21	08/20/21 02:33	1014
Benzene	ND	ug/M3	0.32		1	08/19/21	08/20/21 02:33	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/19/21	08/20/21 02:33	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/19/21	08/20/21 02:33	1014
Bromoform	ND	ug/M3	2.1		1	08/19/21	08/20/21 02:33	1014
Bromomethane	ND	ug/M3	0.78		1	08/19/21	08/20/21 02:33	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/19/21	08/20/21 02:33	1014
2-Butanone (MEK)	ND	ug/M3	1.5		1	08/19/21	08/20/21 02:33	1014
Carbon Disulfide	ND	ug/M3	12		1	08/19/21	08/20/21 02:33	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/19/21	08/20/21 02:33	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/19/21	08/20/21 02:33	1014
Chloroethane	ND	ug/M3	0.53		1	08/19/21	08/20/21 02:33	1014
Chloroform	ND	ug/M3	0.98		1	08/19/21	08/20/21 02:33	1014
Chloromethane	**0.91**	ug/M3	0.41		1	08/19/21	08/20/21 02:33	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/19/21	08/20/21 02:33	1014
Cyclohexane	ND	ug/M3	0.69		1	08/19/21	08/20/21 02:33	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/19/21	08/20/21 02:33	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/19/21	08/20/21 02:33	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 02:33	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 02:33	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 02:33	1014
Dichlorodifluoromethane	**1.5**	ug/M3	0.99		1	08/19/21	08/20/21 02:33	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/20/21 02:33	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/20/21 02:33	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 02:33	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 02:33	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 02:33	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/19/21	08/20/21 02:33	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/20/21 02:33	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/20/21 02:33	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/19/21	08/20/21 02:33	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/19/21	08/20/21 02:33	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/19/21	08/20/21 02:33	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/19/21	08/20/21 02:33	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/19/21	08/20/21 02:33	1014

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Hallway 18 **Date/Time Sampled: 08/16/2021 20:49** **PSS Sample ID: 21081828-007**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS Analytical Method: EPA TO-15 Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/19/21	08/20/21 02:33	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/19/21	08/20/21 02:33	1014
n-Hexane	ND	ug/M3	14		1	08/19/21	08/20/21 02:33	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/19/21	08/20/21 02:33	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 02:33	1014
Methylene Chloride	ND	ug/M3	14		1	08/19/21	08/20/21 02:33	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/19/21	08/20/21 02:33	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/19/21	08/20/21 02:33	1014
Naphthalene	ND	ug/M3	0.52		1	08/19/21	08/20/21 02:33	1014
Propylene	ND	ug/M3	1.7		1	08/19/21	08/20/21 02:33	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 02:33	1014
Styrene	ND	ug/M3	4.3		1	08/19/21	08/20/21 02:33	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/19/21	08/20/21 02:33	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/19/21	08/20/21 02:33	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/19/21	08/20/21 02:33	1014
Toluene	**1.5**	ug/M3	0.38		1	08/19/21	08/20/21 02:33	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/19/21	08/20/21 02:33	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 02:33	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 02:33	1014
Trichloroethene	ND	ug/M3	1.1		1	08/19/21	08/20/21 02:33	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 02:33	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/19/21	08/20/21 02:33	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 02:33	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 02:33	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/19/21	08/20/21 02:33	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/19/21	08/20/21 02:33	1014
Bromoethene	ND	ug/M3	0.87		1	08/19/21	08/20/21 02:33	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/19/21	08/20/21 02:33	1014
m&p-Xylene	ND	ug/M3	0.87		1	08/19/21	08/20/21 02:33	1014
o-Xylene	ND	ug/M3	0.43		1	08/19/21	08/20/21 02:33	1014

Surrogate(s)	*Recovery*		*Limits*				
4-Bromofluorobenzene	*100*	*%*	*87-120*		*1*	*08/19/21*	*08/20/21 02:33*	*1014*

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Gym **Date/Time Sampled: 08/16/2021 20:54** **PSS Sample ID: 21081828-008**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS Analytical Method: EPA TO-15 Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	**17**	ug/M3	9.5		1	08/19/21	08/20/21 03:27	1014
Benzene	ND	ug/M3	0.32		1	08/19/21	08/20/21 03:27	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/19/21	08/20/21 03:27	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/19/21	08/20/21 03:27	1014
Bromoform	ND	ug/M3	2.1		1	08/19/21	08/20/21 03:27	1014
Bromomethane	ND	ug/M3	0.78		1	08/19/21	08/20/21 03:27	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/19/21	08/20/21 03:27	1014
2-Butanone (MEK)	**1.7**	ug/M3	1.5		1	08/19/21	08/20/21 03:27	1014
Carbon Disulfide	ND	ug/M3	12		1	08/19/21	08/20/21 03:27	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/19/21	08/20/21 03:27	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/19/21	08/20/21 03:27	1014
Chloroethane	ND	ug/M3	0.53		1	08/19/21	08/20/21 03:27	1014
Chloroform	ND	ug/M3	0.98		1	08/19/21	08/20/21 03:27	1014
Chloromethane	**0.91**	ug/M3	0.41		1	08/19/21	08/20/21 03:27	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/19/21	08/20/21 03:27	1014
Cyclohexane	ND	ug/M3	0.69		1	08/19/21	08/20/21 03:27	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/19/21	08/20/21 03:27	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/19/21	08/20/21 03:27	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 03:27	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 03:27	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 03:27	1014
Dichlorodifluoromethane	**1.4**	ug/M3	0.99		1	08/19/21	08/20/21 03:27	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/20/21 03:27	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/20/21 03:27	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 03:27	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 03:27	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 03:27	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/19/21	08/20/21 03:27	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/20/21 03:27	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/20/21 03:27	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/19/21	08/20/21 03:27	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/19/21	08/20/21 03:27	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/19/21	08/20/21 03:27	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/19/21	08/20/21 03:27	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/19/21	08/20/21 03:27	1014

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Gym **Date/Time Sampled: 08/16/2021 20:54** **PSS Sample ID: 21081828-008**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS | Analytical Method: EPA TO-15 | Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/19/21	08/20/21 03:27	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/19/21	08/20/21 03:27	1014
n-Hexane	ND	ug/M3	14		1	08/19/21	08/20/21 03:27	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/19/21	08/20/21 03:27	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 03:27	1014
Methylene Chloride	ND	ug/M3	14		1	08/19/21	08/20/21 03:27	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/19/21	08/20/21 03:27	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/19/21	08/20/21 03:27	1014
Naphthalene	ND	ug/M3	0.52		1	08/19/21	08/20/21 03:27	1014
Propylene	ND	ug/M3	1.7		1	08/19/21	08/20/21 03:27	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 03:27	1014
Styrene	ND	ug/M3	4.3		1	08/19/21	08/20/21 03:27	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/19/21	08/20/21 03:27	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/19/21	08/20/21 03:27	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/19/21	08/20/21 03:27	1014
Toluene	**0.75**	ug/M3	0.38		1	08/19/21	08/20/21 03:27	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/19/21	08/20/21 03:27	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 03:27	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 03:27	1014
Trichloroethene	ND	ug/M3	1.1		1	08/19/21	08/20/21 03:27	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 03:27	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/19/21	08/20/21 03:27	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 03:27	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 03:27	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/19/21	08/20/21 03:27	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/19/21	08/20/21 03:27	1014
Bromoethene	ND	ug/M3	0.87		1	08/19/21	08/20/21 03:27	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/19/21	08/20/21 03:27	1014
m&p-Xylene	ND	ug/M3	0.87		1	08/19/21	08/20/21 03:27	1014
o-Xylene	ND	ug/M3	0.43		1	08/19/21	08/20/21 03:27	1014

Surrogate(s)	*Recovery*		*Limits*				
4-Bromofluorobenzene	*100*	*%*	*87-120*		*1*	*08/19/21*	*08/20/21 03:27*	*1014*

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Class 30 **Date/Time Sampled: 08/16/2021 20:56** **PSS Sample ID: 21081828-009**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS | Analytical Method: EPA TO-15 | Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	**11**	ug/M3	9.5		1	08/19/21	08/20/21 04:21	1014
Benzene	**0.35**	ug/M3	0.32		1	08/19/21	08/20/21 04:21	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/19/21	08/20/21 04:21	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/19/21	08/20/21 04:21	1014
Bromoform	ND	ug/M3	2.1		1	08/19/21	08/20/21 04:21	1014
Bromomethane	ND	ug/M3	0.78		1	08/19/21	08/20/21 04:21	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/19/21	08/20/21 04:21	1014
2-Butanone (MEK)	ND	ug/M3	1.5		1	08/19/21	08/20/21 04:21	1014
Carbon Disulfide	ND	ug/M3	12		1	08/19/21	08/20/21 04:21	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/19/21	08/20/21 04:21	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/19/21	08/20/21 04:21	1014
Chloroethane	ND	ug/M3	0.53		1	08/19/21	08/20/21 04:21	1014
Chloroform	ND	ug/M3	0.98		1	08/19/21	08/20/21 04:21	1014
Chloromethane	**0.91**	ug/M3	0.41		1	08/19/21	08/20/21 04:21	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/19/21	08/20/21 04:21	1014
Cyclohexane	ND	ug/M3	0.69		1	08/19/21	08/20/21 04:21	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/19/21	08/20/21 04:21	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/19/21	08/20/21 04:21	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 04:21	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 04:21	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 04:21	1014
Dichlorodifluoromethane	**1.4**	ug/M3	0.99		1	08/19/21	08/20/21 04:21	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/20/21 04:21	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/20/21 04:21	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 04:21	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 04:21	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 04:21	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/19/21	08/20/21 04:21	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/20/21 04:21	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/20/21 04:21	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/19/21	08/20/21 04:21	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/19/21	08/20/21 04:21	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/19/21	08/20/21 04:21	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/19/21	08/20/21 04:21	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/19/21	08/20/21 04:21	1014

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Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Class 30 **Date/Time Sampled: 08/16/2021 20:56** **PSS Sample ID: 21081828-009**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS | Analytical Method: EPA TO-15 | Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/19/21	08/20/21 04:21	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/19/21	08/20/21 04:21	1014
n-Hexane	ND	ug/M3	14		1	08/19/21	08/20/21 04:21	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/19/21	08/20/21 04:21	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 04:21	1014
Methylene Chloride	ND	ug/M3	14		1	08/19/21	08/20/21 04:21	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/19/21	08/20/21 04:21	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/19/21	08/20/21 04:21	1014
Naphthalene	ND	ug/M3	0.52		1	08/19/21	08/20/21 04:21	1014
Propylene	ND	ug/M3	1.7		1	08/19/21	08/20/21 04:21	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 04:21	1014
Styrene	ND	ug/M3	4.3		1	08/19/21	08/20/21 04:21	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/19/21	08/20/21 04:21	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/19/21	08/20/21 04:21	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/19/21	08/20/21 04:21	1014
Toluene	**1.5**	ug/M3	0.38		1	08/19/21	08/20/21 04:21	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/19/21	08/20/21 04:21	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 04:21	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 04:21	1014
Trichloroethene	ND	ug/M3	1.1		1	08/19/21	08/20/21 04:21	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 04:21	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/19/21	08/20/21 04:21	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 04:21	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 04:21	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/19/21	08/20/21 04:21	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/19/21	08/20/21 04:21	1014
Bromoethene	ND	ug/M3	0.87		1	08/19/21	08/20/21 04:21	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/19/21	08/20/21 04:21	1014
m&p-Xylene	ND	ug/M3	0.87		1	08/19/21	08/20/21 04:21	1014
o-Xylene	ND	ug/M3	0.43		1	08/19/21	08/20/21 04:21	1014

Surrogate(s)	*Recovery*		*Limits*				
4-Bromofluorobenzene	*101*	*%*	*87-120*		*1*	*08/19/21*	*08/20/21 04:21*	*1014*

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Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Class 26 **Date/Time Sampled: 08/16/2021 21:03** **PSS Sample ID: 21081828-010**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS Analytical Method: EPA TO-15 Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	**65**	ug/M3	19		2	08/19/21	08/20/21 19:16	1014
Benzene	**0.35**	ug/M3	0.32		1	08/19/21	08/20/21 05:14	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/19/21	08/20/21 05:14	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/19/21	08/20/21 05:14	1014
Bromoform	ND	ug/M3	2.1		1	08/19/21	08/20/21 05:14	1014
Bromomethane	ND	ug/M3	0.78		1	08/19/21	08/20/21 05:14	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/19/21	08/20/21 05:14	1014
2-Butanone (MEK)	**1.6**	ug/M3	1.5		1	08/19/21	08/20/21 05:14	1014
Carbon Disulfide	ND	ug/M3	12		1	08/19/21	08/20/21 05:14	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/19/21	08/20/21 05:14	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/19/21	08/20/21 05:14	1014
Chloroethane	ND	ug/M3	0.53		1	08/19/21	08/20/21 05:14	1014
Chloroform	ND	ug/M3	0.98		1	08/19/21	08/20/21 05:14	1014
Chloromethane	**0.99**	ug/M3	0.41		1	08/19/21	08/20/21 05:14	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/19/21	08/20/21 05:14	1014
Cyclohexane	ND	ug/M3	0.69		1	08/19/21	08/20/21 05:14	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/19/21	08/20/21 05:14	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/19/21	08/20/21 05:14	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 05:14	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 05:14	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/19/21	08/20/21 05:14	1014
Dichlorodifluoromethane	**1.5**	ug/M3	0.99		1	08/19/21	08/20/21 05:14	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/20/21 05:14	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/19/21	08/20/21 05:14	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 05:14	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 05:14	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/19/21	08/20/21 05:14	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/19/21	08/20/21 05:14	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/20/21 05:14	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/19/21	08/20/21 05:14	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/19/21	08/20/21 05:14	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/19/21	08/20/21 05:14	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/19/21	08/20/21 05:14	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/19/21	08/20/21 05:14	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/19/21	08/20/21 05:14	1014

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Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Class 26 **Date/Time Sampled: 08/16/2021 21:03** **PSS Sample ID: 21081828-010**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS Analytical Method: EPA TO-15 Preparation Method: TO-15P

Qualifier(s): See Batch 186939 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/19/21	08/20/21 05:14	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/19/21	08/20/21 05:14	1014
n-Hexane	ND	ug/M3	14		1	08/19/21	08/20/21 05:14	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/19/21	08/20/21 05:14	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 05:14	1014
Methylene Chloride	ND	ug/M3	14		1	08/19/21	08/20/21 05:14	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/19/21	08/20/21 05:14	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/19/21	08/20/21 05:14	1014
Naphthalene	ND	ug/M3	0.52		1	08/19/21	08/20/21 05:14	1014
Propylene	ND	ug/M3	1.7		1	08/19/21	08/20/21 05:14	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 05:14	1014
Styrene	ND	ug/M3	4.3		1	08/19/21	08/20/21 05:14	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/19/21	08/20/21 05:14	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/19/21	08/20/21 05:14	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/19/21	08/20/21 05:14	1014
Toluene	**5.7**	ug/M3	0.38		1	08/19/21	08/20/21 05:14	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/19/21	08/20/21 05:14	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 05:14	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 05:14	1014
Trichloroethene	ND	ug/M3	1.1		1	08/19/21	08/20/21 05:14	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/19/21	08/20/21 05:14	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/19/21	08/20/21 05:14	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 05:14	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/19/21	08/20/21 05:14	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/19/21	08/20/21 05:14	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/19/21	08/20/21 05:14	1014
Bromoethene	ND	ug/M3	0.87		1	08/19/21	08/20/21 05:14	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/19/21	08/20/21 05:14	1014
m&p-Xylene	ND	ug/M3	0.87		1	08/19/21	08/20/21 05:14	1014
o-Xylene	ND	ug/M3	0.43		1	08/19/21	08/20/21 05:14	1014

Surrogate(s)	*Recovery*		*Limits*				
4-Bromofluorobenzene	*102*	*%*	*87-120*		*1*	*08/19/21*	*08/20/21 05:14*	*1014*
4-Bromofluorobenzene	*99*	*%*	*87-120*		*2*	*08/20/21*	*08/20/21 19:16*	*1014*

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Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Hallway 22 **Date/Time Sampled: 08/16/2021 21:07** **PSS Sample ID: 21081828-011**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS Analytical Method: EPA TO-15 Preparation Method: TO-15P

Qualifier(s): See Batch 186940 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	**34**	ug/M3	9.5		1	08/20/21	08/20/21 13:58	1014
Benzene	ND	ug/M3	0.32		1	08/20/21	08/20/21 13:58	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/20/21	08/20/21 13:58	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/20/21	08/20/21 13:58	1014
Bromoform	ND	ug/M3	2.1		1	08/20/21	08/20/21 13:58	1014
Bromomethane	ND	ug/M3	0.78		1	08/20/21	08/20/21 13:58	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/20/21	08/20/21 13:58	1014
2-Butanone (MEK)	ND	ug/M3	1.5		1	08/20/21	08/20/21 13:58	1014
Carbon Disulfide	ND	ug/M3	12		1	08/20/21	08/20/21 13:58	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/20/21	08/20/21 13:58	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/20/21	08/20/21 13:58	1014
Chloroethane	ND	ug/M3	0.53		1	08/20/21	08/20/21 13:58	1014
Chloroform	ND	ug/M3	0.98		1	08/20/21	08/20/21 13:58	1014
Chloromethane	**1.0**	ug/M3	0.41		1	08/20/21	08/20/21 13:58	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/20/21	08/20/21 13:58	1014
Cyclohexane	ND	ug/M3	0.69		1	08/20/21	08/20/21 13:58	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/20/21	08/20/21 13:58	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/20/21	08/20/21 13:58	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/20/21	08/20/21 13:58	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/20/21	08/20/21 13:58	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/20/21	08/20/21 13:58	1014
Dichlorodifluoromethane	**1.5**	ug/M3	0.99		1	08/20/21	08/20/21 13:58	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/20/21	08/20/21 13:58	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/20/21	08/20/21 13:58	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/20/21	08/20/21 13:58	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/20/21	08/20/21 13:58	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/20/21	08/20/21 13:58	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/20/21	08/20/21 13:58	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/20/21	08/20/21 13:58	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/20/21	08/20/21 13:58	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/20/21	08/20/21 13:58	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/20/21	08/20/21 13:58	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/20/21	08/20/21 13:58	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/20/21	08/20/21 13:58	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/20/21	08/20/21 13:58	1014

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Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Hallway 22 **Date/Time Sampled: 08/16/2021 21:07** **PSS Sample ID: 21081828-011**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS | Analytical Method: EPA TO-15 | Preparation Method: TO-15P

Qualifier(s): See Batch 186940 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/20/21	08/20/21 13:58	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/20/21	08/20/21 13:58	1014
n-Hexane	ND	ug/M3	14		1	08/20/21	08/20/21 13:58	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/20/21	08/20/21 13:58	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 13:58	1014
Methylene Chloride	ND	ug/M3	14		1	08/20/21	08/20/21 13:58	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/20/21	08/20/21 13:58	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/20/21	08/20/21 13:58	1014
Naphthalene	ND	ug/M3	0.52		1	08/20/21	08/20/21 13:58	1014
Propylene	ND	ug/M3	1.7		1	08/20/21	08/20/21 13:58	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 13:58	1014
Styrene	ND	ug/M3	4.3		1	08/20/21	08/20/21 13:58	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/20/21	08/20/21 13:58	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/20/21	08/20/21 13:58	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/20/21	08/20/21 13:58	1014
Toluene	**1.6**	ug/M3	0.38		1	08/20/21	08/20/21 13:58	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/20/21	08/20/21 13:58	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/20/21	08/20/21 13:58	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/20/21	08/20/21 13:58	1014
Trichloroethene	ND	ug/M3	1.1		1	08/20/21	08/20/21 13:58	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/20/21	08/20/21 13:58	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/20/21	08/20/21 13:58	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 13:58	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 13:58	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/20/21	08/20/21 13:58	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/20/21	08/20/21 13:58	1014
Bromoethene	ND	ug/M3	0.87		1	08/20/21	08/20/21 13:58	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/20/21	08/20/21 13:58	1014
m&p-Xylene	ND	ug/M3	0.87		1	08/20/21	08/20/21 13:58	1014
o-Xylene	ND	ug/M3	0.43		1	08/20/21	08/20/21 13:58	1014

Surrogate(s)	*Recovery*		*Limits*				
4-Bromofluorobenzene	*100*	*%*	*87-120*		*1*	*08/20/21*	*08/20/21 13:58*	*1014*

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Cafeteria **Date/Time Sampled: 08/16/2021 20:31** **PSS Sample ID: 21081828-012**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS Analytical Method: EPA TO-15 Preparation Method: TO-15P

Qualifier(s): See Batch 186940 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	**10**	ug/M3	9.5		1	08/20/21	08/20/21 14:52	1014
Benzene	ND	ug/M3	0.32		1	08/20/21	08/20/21 14:52	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/20/21	08/20/21 14:52	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/20/21	08/20/21 14:52	1014
Bromoform	ND	ug/M3	2.1		1	08/20/21	08/20/21 14:52	1014
Bromomethane	ND	ug/M3	0.78		1	08/20/21	08/20/21 14:52	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/20/21	08/20/21 14:52	1014
2-Butanone (MEK)	ND	ug/M3	1.5		1	08/20/21	08/20/21 14:52	1014
Carbon Disulfide	ND	ug/M3	12		1	08/20/21	08/20/21 14:52	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/20/21	08/20/21 14:52	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/20/21	08/20/21 14:52	1014
Chloroethane	ND	ug/M3	0.53		1	08/20/21	08/20/21 14:52	1014
Chloroform	ND	ug/M3	0.98		1	08/20/21	08/20/21 14:52	1014
Chloromethane	**0.89**	ug/M3	0.41		1	08/20/21	08/20/21 14:52	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/20/21	08/20/21 14:52	1014
Cyclohexane	ND	ug/M3	0.69		1	08/20/21	08/20/21 14:52	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/20/21	08/20/21 14:52	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/20/21	08/20/21 14:52	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/20/21	08/20/21 14:52	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/20/21	08/20/21 14:52	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/20/21	08/20/21 14:52	1014
Dichlorodifluoromethane	**1.4**	ug/M3	0.99		1	08/20/21	08/20/21 14:52	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/20/21	08/20/21 14:52	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/20/21	08/20/21 14:52	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/20/21	08/20/21 14:52	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/20/21	08/20/21 14:52	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/20/21	08/20/21 14:52	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/20/21	08/20/21 14:52	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/20/21	08/20/21 14:52	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/20/21	08/20/21 14:52	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/20/21	08/20/21 14:52	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/20/21	08/20/21 14:52	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/20/21	08/20/21 14:52	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/20/21	08/20/21 14:52	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/20/21	08/20/21 14:52	1014

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Cafeteria **Date/Time Sampled: 08/16/2021 20:31** **PSS Sample ID: 21081828-012**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS | Analytical Method: EPA TO-15 | Preparation Method: TO-15P

Qualifier(s): See Batch 186940 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/20/21	08/20/21 14:52	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/20/21	08/20/21 14:52	1014
n-Hexane	ND	ug/M3	14		1	08/20/21	08/20/21 14:52	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/20/21	08/20/21 14:52	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 14:52	1014
Methylene Chloride	ND	ug/M3	14		1	08/20/21	08/20/21 14:52	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/20/21	08/20/21 14:52	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/20/21	08/20/21 14:52	1014
Naphthalene	ND	ug/M3	0.52		1	08/20/21	08/20/21 14:52	1014
Propylene	ND	ug/M3	1.7		1	08/20/21	08/20/21 14:52	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 14:52	1014
Styrene	ND	ug/M3	4.3		1	08/20/21	08/20/21 14:52	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/20/21	08/20/21 14:52	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/20/21	08/20/21 14:52	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/20/21	08/20/21 14:52	1014
Toluene	**1.2**	ug/M3	0.38		1	08/20/21	08/20/21 14:52	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/20/21	08/20/21 14:52	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/20/21	08/20/21 14:52	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/20/21	08/20/21 14:52	1014
Trichloroethene	ND	ug/M3	1.1		1	08/20/21	08/20/21 14:52	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/20/21	08/20/21 14:52	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/20/21	08/20/21 14:52	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 14:52	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 14:52	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/20/21	08/20/21 14:52	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/20/21	08/20/21 14:52	1014
Bromoethene	ND	ug/M3	0.87		1	08/20/21	08/20/21 14:52	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/20/21	08/20/21 14:52	1014
m&p-Xylene	ND	ug/M3	0.87		1	08/20/21	08/20/21 14:52	1014
o-Xylene	ND	ug/M3	0.43		1	08/20/21	08/20/21 14:52	1014

Surrogate(s)	*Recovery*		*Limits*				
4-Bromofluorobenzene	*99*	*%*	*87-120*		*1*	*08/20/21*	*08/20/21 14:52*	*1014*

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Library **Date/Time Sampled: 08/16/2021 20:19** **PSS Sample ID: 21081828-013**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS | Analytical Method: EPA TO-15 | Preparation Method: TO-15P

Qualifier(s): See Batch 186940 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	**10**	ug/M3	9.5		1	08/20/21	08/20/21 15:46	1014
Benzene	ND	ug/M3	0.32		1	08/20/21	08/20/21 15:46	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/20/21	08/20/21 15:46	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/20/21	08/20/21 15:46	1014
Bromoform	ND	ug/M3	2.1		1	08/20/21	08/20/21 15:46	1014
Bromomethane	ND	ug/M3	0.78		1	08/20/21	08/20/21 15:46	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/20/21	08/20/21 15:46	1014
2-Butanone (MEK)	ND	ug/M3	1.5		1	08/20/21	08/20/21 15:46	1014
Carbon Disulfide	ND	ug/M3	12		1	08/20/21	08/20/21 15:46	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/20/21	08/20/21 15:46	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/20/21	08/20/21 15:46	1014
Chloroethane	ND	ug/M3	0.53		1	08/20/21	08/20/21 15:46	1014
Chloroform	ND	ug/M3	0.98		1	08/20/21	08/20/21 15:46	1014
Chloromethane	**0.76**	ug/M3	0.41		1	08/20/21	08/20/21 15:46	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/20/21	08/20/21 15:46	1014
Cyclohexane	ND	ug/M3	0.69		1	08/20/21	08/20/21 15:46	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/20/21	08/20/21 15:46	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/20/21	08/20/21 15:46	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/20/21	08/20/21 15:46	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/20/21	08/20/21 15:46	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/20/21	08/20/21 15:46	1014
Dichlorodifluoromethane	**1.2**	ug/M3	0.99		1	08/20/21	08/20/21 15:46	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/20/21	08/20/21 15:46	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/20/21	08/20/21 15:46	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/20/21	08/20/21 15:46	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/20/21	08/20/21 15:46	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/20/21	08/20/21 15:46	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/20/21	08/20/21 15:46	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/20/21	08/20/21 15:46	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/20/21	08/20/21 15:46	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/20/21	08/20/21 15:46	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/20/21	08/20/21 15:46	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/20/21	08/20/21 15:46	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/20/21	08/20/21 15:46	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/20/21	08/20/21 15:46	1014

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Library **Date/Time Sampled: 08/16/2021 20:19** **PSS Sample ID: 21081828-013**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS | Analytical Method: EPA TO-15 | Preparation Method: TO-15P

Qualifier(s): See Batch 186940 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/20/21	08/20/21 15:46	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/20/21	08/20/21 15:46	1014
n-Hexane	ND	ug/M3	14		1	08/20/21	08/20/21 15:46	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/20/21	08/20/21 15:46	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 15:46	1014
Methylene Chloride	ND	ug/M3	14		1	08/20/21	08/20/21 15:46	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/20/21	08/20/21 15:46	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/20/21	08/20/21 15:46	1014
Naphthalene	ND	ug/M3	0.52		1	08/20/21	08/20/21 15:46	1014
Propylene	ND	ug/M3	1.7		1	08/20/21	08/20/21 15:46	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 15:46	1014
Styrene	ND	ug/M3	4.3		1	08/20/21	08/20/21 15:46	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/20/21	08/20/21 15:46	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/20/21	08/20/21 15:46	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/20/21	08/20/21 15:46	1014
Toluene	**0.64**	ug/M3	0.38		1	08/20/21	08/20/21 15:46	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/20/21	08/20/21 15:46	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/20/21	08/20/21 15:46	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/20/21	08/20/21 15:46	1014
Trichloroethene	ND	ug/M3	1.1		1	08/20/21	08/20/21 15:46	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/20/21	08/20/21 15:46	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/20/21	08/20/21 15:46	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 15:46	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 15:46	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/20/21	08/20/21 15:46	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/20/21	08/20/21 15:46	1014
Bromoethene	ND	ug/M3	0.87		1	08/20/21	08/20/21 15:46	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/20/21	08/20/21 15:46	1014
m&p-Xylene	ND	ug/M3	0.87		1	08/20/21	08/20/21 15:46	1014
o-Xylene	ND	ug/M3	0.43		1	08/20/21	08/20/21 15:46	1014

Surrogate(s)	*Recovery*		*Limits*				
4-Bromofluorobenzene	*97*	*%*	*87-120*		*1*	*08/20/21*	*08/20/21 15:46*	*1014*

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Band Room **Date/Time Sampled: 08/16/2021 20:15** **PSS Sample ID: 21081828-014**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS | Analytical Method: EPA TO-15 | Preparation Method: TO-15P

Qualifier(s): See Batch 186940 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	**15**	ug/M3	9.5		1	08/20/21	08/20/21 16:40	1014
Benzene	ND	ug/M3	0.32		1	08/20/21	08/20/21 16:40	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/20/21	08/20/21 16:40	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/20/21	08/20/21 16:40	1014
Bromoform	ND	ug/M3	2.1		1	08/20/21	08/20/21 16:40	1014
Bromomethane	ND	ug/M3	0.78		1	08/20/21	08/20/21 16:40	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/20/21	08/20/21 16:40	1014
2-Butanone (MEK)	**1.6**	ug/M3	1.5		1	08/20/21	08/20/21 16:40	1014
Carbon Disulfide	ND	ug/M3	12		1	08/20/21	08/20/21 16:40	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/20/21	08/20/21 16:40	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/20/21	08/20/21 16:40	1014
Chloroethane	ND	ug/M3	0.53		1	08/20/21	08/20/21 16:40	1014
Chloroform	ND	ug/M3	0.98		1	08/20/21	08/20/21 16:40	1014
Chloromethane	**0.93**	ug/M3	0.41		1	08/20/21	08/20/21 16:40	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/20/21	08/20/21 16:40	1014
Cyclohexane	ND	ug/M3	0.69		1	08/20/21	08/20/21 16:40	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/20/21	08/20/21 16:40	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/20/21	08/20/21 16:40	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/20/21	08/20/21 16:40	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/20/21	08/20/21 16:40	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/20/21	08/20/21 16:40	1014
Dichlorodifluoromethane	**1.4**	ug/M3	0.99		1	08/20/21	08/20/21 16:40	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/20/21	08/20/21 16:40	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/20/21	08/20/21 16:40	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/20/21	08/20/21 16:40	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/20/21	08/20/21 16:40	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/20/21	08/20/21 16:40	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/20/21	08/20/21 16:40	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/20/21	08/20/21 16:40	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/20/21	08/20/21 16:40	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/20/21	08/20/21 16:40	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/20/21	08/20/21 16:40	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/20/21	08/20/21 16:40	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/20/21	08/20/21 16:40	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/20/21	08/20/21 16:40	1014

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Band Room **Date/Time Sampled: 08/16/2021 20:15** **PSS Sample ID: 21081828-014**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS Analytical Method: EPA TO-15 Preparation Method: TO-15P

Qualifier(s): See Batch 186940 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/20/21	08/20/21 16:40	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/20/21	08/20/21 16:40	1014
n-Hexane	ND	ug/M3	14		1	08/20/21	08/20/21 16:40	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/20/21	08/20/21 16:40	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 16:40	1014
Methylene Chloride	ND	ug/M3	14		1	08/20/21	08/20/21 16:40	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/20/21	08/20/21 16:40	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/20/21	08/20/21 16:40	1014
Naphthalene	**0.84**	ug/M3	0.52		1	08/20/21	08/20/21 16:40	1014
Propylene	ND	ug/M3	1.7		1	08/20/21	08/20/21 16:40	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 16:40	1014
Styrene	ND	ug/M3	4.3		1	08/20/21	08/20/21 16:40	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/20/21	08/20/21 16:40	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/20/21	08/20/21 16:40	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/20/21	08/20/21 16:40	1014
Toluene	**1.1**	ug/M3	0.38		1	08/20/21	08/20/21 16:40	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/20/21	08/20/21 16:40	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/20/21	08/20/21 16:40	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/20/21	08/20/21 16:40	1014
Trichloroethene	ND	ug/M3	1.1		1	08/20/21	08/20/21 16:40	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/20/21	08/20/21 16:40	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/20/21	08/20/21 16:40	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 16:40	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 16:40	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/20/21	08/20/21 16:40	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/20/21	08/20/21 16:40	1014
Bromoethene	ND	ug/M3	0.87		1	08/20/21	08/20/21 16:40	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/20/21	08/20/21 16:40	1014
m&p-Xylene	ND	ug/M3	0.87		1	08/20/21	08/20/21 16:40	1014
o-Xylene	ND	ug/M3	0.43		1	08/20/21	08/20/21 16:40	1014

Surrogate(s)	*Recovery*		*Limits*				
4-Bromofluorobenzene	*100*	*%*	*87-120*		*1*	*08/20/21*	*08/20/21 16:40*	*1014*

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Office **Date/Time Sampled: 08/16/2021 21:15** **PSS Sample ID: 21081828-015**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS | Analytical Method: EPA TO-15 | Preparation Method: TO-15P

Qualifier(s): See Batch 186940 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	**17**	ug/M3	9.5		1	08/20/21	08/20/21 17:34	1014
Benzene	ND	ug/M3	0.32		1	08/20/21	08/20/21 17:34	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/20/21	08/20/21 17:34	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/20/21	08/20/21 17:34	1014
Bromoform	ND	ug/M3	2.1		1	08/20/21	08/20/21 17:34	1014
Bromomethane	ND	ug/M3	0.78		1	08/20/21	08/20/21 17:34	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/20/21	08/20/21 17:34	1014
2-Butanone (MEK)	**1.8**	ug/M3	1.5		1	08/20/21	08/20/21 17:34	1014
Carbon Disulfide	ND	ug/M3	12		1	08/20/21	08/20/21 17:34	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/20/21	08/20/21 17:34	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/20/21	08/20/21 17:34	1014
Chloroethane	ND	ug/M3	0.53		1	08/20/21	08/20/21 17:34	1014
Chloroform	ND	ug/M3	0.98		1	08/20/21	08/20/21 17:34	1014
Chloromethane	**0.89**	ug/M3	0.41		1	08/20/21	08/20/21 17:34	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/20/21	08/20/21 17:34	1014
Cyclohexane	ND	ug/M3	0.69		1	08/20/21	08/20/21 17:34	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/20/21	08/20/21 17:34	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/20/21	08/20/21 17:34	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/20/21	08/20/21 17:34	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/20/21	08/20/21 17:34	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/20/21	08/20/21 17:34	1014
Dichlorodifluoromethane	**1.4**	ug/M3	0.99		1	08/20/21	08/20/21 17:34	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/20/21	08/20/21 17:34	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/20/21	08/20/21 17:34	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/20/21	08/20/21 17:34	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/20/21	08/20/21 17:34	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/20/21	08/20/21 17:34	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/20/21	08/20/21 17:34	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/20/21	08/20/21 17:34	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/20/21	08/20/21 17:34	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/20/21	08/20/21 17:34	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/20/21	08/20/21 17:34	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/20/21	08/20/21 17:34	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/20/21	08/20/21 17:34	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/20/21	08/20/21 17:34	1014

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Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Sample ID: GM - Office **Date/Time Sampled: 08/16/2021 21:15** **PSS Sample ID: 21081828-015**
Matrix: AIR **Date/Time Received: 08/18/2021 15:00**

VOCs in Air by GC/MS | Analytical Method: EPA TO-15 | Preparation Method: TO-15P

Qualifier(s): See Batch 186940 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/20/21	08/20/21 17:34	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/20/21	08/20/21 17:34	1014
n-Hexane	ND	ug/M3	14		1	08/20/21	08/20/21 17:34	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/20/21	08/20/21 17:34	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 17:34	1014
Methylene Chloride	ND	ug/M3	14		1	08/20/21	08/20/21 17:34	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/20/21	08/20/21 17:34	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/20/21	08/20/21 17:34	1014
Naphthalene	ND	ug/M3	0.52		1	08/20/21	08/20/21 17:34	1014
Propylene	ND	ug/M3	1.7		1	08/20/21	08/20/21 17:34	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 17:34	1014
Styrene	ND	ug/M3	4.3		1	08/20/21	08/20/21 17:34	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/20/21	08/20/21 17:34	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/20/21	08/20/21 17:34	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/20/21	08/20/21 17:34	1014
Toluene	**1.1**	ug/M3	0.38		1	08/20/21	08/20/21 17:34	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/20/21	08/20/21 17:34	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/20/21	08/20/21 17:34	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/20/21	08/20/21 17:34	1014
Trichloroethene	ND	ug/M3	1.1		1	08/20/21	08/20/21 17:34	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/20/21	08/20/21 17:34	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/20/21	08/20/21 17:34	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 17:34	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/20/21	08/20/21 17:34	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/20/21	08/20/21 17:34	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/20/21	08/20/21 17:34	1014
Bromoethene	ND	ug/M3	0.87		1	08/20/21	08/20/21 17:34	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/20/21	08/20/21 17:34	1014
m&p-Xylene	ND	ug/M3	0.87		1	08/20/21	08/20/21 17:34	1014
o-Xylene	ND	ug/M3	0.43		1	08/20/21	08/20/21 17:34	1014

Surrogate(s)	*Recovery*		*Limits*				
4-Bromofluorobenzene	*101*	*%*	*87-120*		*1*	*08/20/21*	*08/20/21 17:34*	*1014*

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Project Name: ACPS IAQ Testing

PSS Project No.: 21081828

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Canister number for sample 003 listed as 4257 on COC; received canister 4252.
Canister number for sample 011 listed as 3517 on COC; received canister 3519.

Analytical:

VOCs in Air by GC/MS

Batch: 186939
Method exceedance: Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) exceedances identified; see QC summary.

Batch: 186940
Method exceedance: Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) exceedances identified; see QC summary.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

EPA TO-15: 1,2-Dichlorotetrafluoroethane, Chloroethane, Dibromochloromethane

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Lab Chronology

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Method	Client Sample ID	Analysis Type	PSS Sample ID	Mtx	Prep Batch	Analytical Batch	Prepared	Analyzed
EPA TO-15	GM - Class 3	Initial	21081828-001	A	87375	186939	08/19/2021 07:42	08/19/2021 21:10
	GM - Hallway 3	Initial	21081828-002	A	87375	186939	08/19/2021 07:42	08/19/2021 22:04
	GM - Reception	Initial	21081828-003	A	87375	186939	08/19/2021 07:42	08/19/2021 22:58
	GM - Class 8	Initial	21081828-004	A	87375	186939	08/19/2021 07:42	08/19/2021 23:52
	GM - Class 13	Initial	21081828-005	A	87375	186939	08/19/2021 07:42	08/20/2021 00:46
	GM - Class 17	Initial	21081828-006	A	87375	186939	08/19/2021 07:42	08/20/2021 01:39
	GM - Hallway 18	Initial	21081828-007	A	87375	186939	08/19/2021 07:42	08/20/2021 02:33
	GM - Gym	Initial	21081828-008	A	87375	186939	08/19/2021 07:42	08/20/2021 03:27
	GM - Class 30	Initial	21081828-009	A	87375	186939	08/19/2021 07:42	08/20/2021 04:21
	GM - Class 26	Initial	21081828-010	A	87375	186939	08/19/2021 07:42	08/20/2021 05:14
	87375-1-BKS	BKS	87375-1-BKS	A	87375	186939	08/19/2021 07:42	08/19/2021 09:45
	87375-1-BLK	BLK	87375-1-BLK	A	87375	186939	08/19/2021 07:42	08/19/2021 12:25
	87375-1-BSD	BSD	87375-1-BSD	A	87375	186939	08/19/2021 07:42	08/19/2021 10:37
	GM - Hallway 22	Initial	21081828-011	A	87376	186940	08/20/2021 06:00	08/20/2021 13:58
	GM - Cafeteria	Initial	21081828-012	A	87376	186940	08/20/2021 06:00	08/20/2021 14:52
	GM - Library	Initial	21081828-013	A	87376	186940	08/20/2021 06:00	08/20/2021 15:46
	GM - Band Room	Initial	21081828-014	A	87376	186940	08/20/2021 06:00	08/20/2021 16:40
	GM - Office	Initial	21081828-015	A	87376	186940	08/20/2021 06:00	08/20/2021 17:34
	87376-1-BKS	BKS	87376-1-BKS	A	87376	186940	08/20/2021 06:00	08/20/2021 07:41
	87376-1-BLK	BLK	87376-1-BLK	A	87376	186940	08/20/2021 06:00	08/20/2021 13:04
	87376-1-BSD	BSD	87376-1-BSD	A	87376	186940	08/20/2021 06:00	08/20/2021 11:16
	GM - Class 8	Reanalysis	21081828-004	A	87375	186940	08/19/2021 07:42	08/20/2021 18:24
	GM - Class 26	Reanalysis	21081828-010	A	87375	186940	08/19/2021 07:42	08/20/2021 19:16

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QC Summary

Project Name ACPS IAQ Testing
PSS Project No.: 21081828

Analytical Method: EPA TO-15 Prep Method: TO-15P
Seq Number: 186939 Matrix: Air Date Prep: 08/19/21
MB Sample Id: 87375-1-BLK LCS Sample Id: 87375-1-BKS LCSD Sample Id: 87375-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Acetone	<9.498	11.87	10.23	86	10.42	88	69-118	2	25	ug/M3	
Benzene	<0.3193	15.97	14.98	94	15.58	98	79-107	4	25	ug/M3	
Benzyl Chloride	<1.035	25.87	29.55	114	31.10	120	78-143	5	25	ug/M3	
Bromodichloromethane	<1.340	33.49	30.61	91	31.55	94	81-111	3	25	ug/M3	
Bromoform	<2.067	51.67	51.98	101	54.56	106	78-133	5	25	ug/M3	
Bromomethane	<0.7764	19.41	19.14	99	19.02	98	76-116	1	25	ug/M3	
1,3-Butadiene	<0.4423	11.06	10.61	96	10.39	94	70-116	2	25	ug/M3	
2-Butanone (MEK)	<1.474	14.74	13.68	93	14.12	96	74-114	3	25	ug/M3	
Carbon Disulfide	<12.45	15.56	14.23	91	14.44	93	79-117	2	25	ug/M3	
Carbon Tetrachloride	<1.258	31.45	28.43	90	29.62	94	81-110	4	25	ug/M3	
Chlorobenzene	<0.9204	23.01	23.38	102	24.48	106	84-119	4	25	ug/M3	
Chloroethane	<0.5276	13.19	12.90	98	12.95	98	72-118	0	25	ug/M3	
Chloroform	<0.9761	24.40	22.35	92	23.18	95	82-108	3	25	ug/M3	
Chloromethane	<0.4128	10.32	9.268	90	8.855	86	64-121	5	25	ug/M3	
Allyl Chloride (3-Chloropropene)	<0.6258	15.64	14.67	94	14.96	96	77-113	2	25	ug/M3	
Cyclohexane	<0.6881	17.20	17.34	101	18.06	105	82-110	4	25	ug/M3	
Dibromochloromethane	<1.703	42.58	39.77	93	41.56	98	82-113	5	25	ug/M3	
1,2-Dibromoethane	<1.536	38.40	36.94	96	38.79	101	86-110	5	25	ug/M3	
1,2-Dichlorobenzene	<1.202	30.05	31.91	106	33.66	112	83-130	6	25	ug/M3	
1,3-Dichlorobenzene	<1.202	30.05	31.55	105	33.06	110	85-128	5	25	ug/M3	
1,4-Dichlorobenzene	<1.202	30.05	31.49	105	33.06	110	82-132	5	25	ug/M3	
Dichlorodifluoromethane	<0.9887	24.72	20.32	82	19.58	79	62-122	4	25	ug/M3	
1,1-Dichloroethane	<0.8092	20.23	18.69	92	19.30	95	79-110	3	25	ug/M3	
1,2-Dichloroethane	<0.8092	20.23	17.92	89	18.53	92	75-112	3	25	ug/M3	
1,1-Dichloroethene	<0.7926	19.82	18.79	95	18.98	96	80-110	1	25	ug/M3	
cis-1,2-Dichloroethene	<0.7926	19.82	19.46	98	20.01	101	84-109	3	25	ug/M3	
trans-1,2-dichloroethene	<0.7926	19.82	19.02	96	19.50	98	81-109	2	25	ug/M3	
1,2-Dichloropropane	<1.848	23.10	21.66	94	22.27	96	81-111	2	25	ug/M3	
cis-1,3-Dichloropropene	<0.9074	22.68	22.82	101	23.73	105	89-109	4	25	ug/M3	
trans-1,3-dichloropropene	<0.9074	22.68	22.37	99	23.41	103	89-114	4	25	ug/M3	
1,2-Dichlorotetrafluoroethane	<1.398	34.94	32.84	94	31.94	91	72-116	3	25	ug/M3	
1,4-Dioxane (P-Dioxane)	<3.602	18.01	18.88	105	19.34	107	70-120	2	25	ug/M3	
Ethyl Acetate	<0.7204	18.01	18.73	104	19.45	108	87-124	4	25	ug/M3	
Ethylbenzene	<0.4340	21.70	24.39	112	25.48	117	87-125	4	25	ug/M3	
4-Ethyltoluene	<0.9827	24.57	27.22	111	28.84	117	87-127	5	25	ug/M3	
n-Heptane	<0.8193	20.48	21.55	105	22.41	109	90-110	4	25	ug/M3	
Hexachlorobutadiene	<2.132	53.30	55.44	104	58.42	110	83-126	6	25	ug/M3	
n-Hexane	<14.09	17.61	18.46	105	19.02	108	84-114	3	25	ug/M3	
2-Hexanone (MBK)	<2.047	20.47	20.06	98	20.68	101	68-133	3	25	ug/M3	
Isopropylbenzene	<0.9827	24.57	25.80	105	27.03	110	88-117	5	25	ug/M3	
Methylene Chloride	<13.89	17.36	15.31	88	15.84	91	63-130	3	25	ug/M3	
4-Methyl-2-Pentanone (MIBK)	<2.047	20.47	19.86	97	20.60	101	78-115	4	25	ug/M3	
Methyl-t-Butyl Ether	<0.3604	18.02	18.70	104	19.35	107	86-109	3	25	ug/M3	
Naphthalene	<0.5240	26.20	39.30	150	40.19	153	65-129	2	25	ug/M3	H
Propylene	<1.720	8.602	7.621	89	7.312	85	58-129	5	25	ug/M3	
n-Propylbenzene	<0.9828	24.57	26.83	109	28.40	116	86-121	6	25	ug/M3	
Styrene	<4.258	21.29	24.91	117	26.18	123	86-137	5	25	ug/M3	
1,1,2,2-Tetrachloroethane	<1.373	34.31	34.79	101	36.51	106	88-119	5	25	ug/M3	
Tetrachloroethene	<1.356	33.90	32.75	97	34.44	102	86-107	5	25	ug/M3	
Tetrahydrofuran	<0.5895	14.74	14.62	99	15.18	103	80-117	4	25	ug/M3	
Toluene	<0.3767	18.83	19.44	103	20.34	108	91-106	5	25	ug/M3	H

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QC Summary

Project Name ACPS IAQ Testing
PSS Project No.: 21081828

Analytical Method: EPA TO-15 Prep Method: TO-15P
Seq Number: 186939 Matrix: Air Date Prep: 08/19/21
MB Sample Id: 87375-1-BLK LCS Sample Id: 87375-1-BKS LCSD Sample Id: 87375-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
1,2,4-Trichlorobenzene	<1.484	37.09	49.41	133	50.82	137	75-126	3	25	ug/M3	H
1,1,1-Trichloroethane	<1.091	27.27	25.09	92	26.02	95	81-109	3	25	ug/M3	
1,1,2-Trichloroethane	<1.091	27.27	25.69	94	26.78	98	83-111	4	25	ug/M3	
Trichloroethene	<1.074	26.86	25.57	95	26.65	99	88-106	4	25	ug/M3	
Trichlorofluoromethane	<1.123	28.08	25.11	89	25.27	90	78-109	1	25	ug/M3	
1,1,2-Trichlorotrifluoroethane	<1.532	38.31	35.85	94	36.70	96	84-107	2	25	ug/M3	
1,2,4-Trimethylbenzene	<0.9828	24.57	28.06	114	29.58	120	86-130	5	25	ug/M3	
1,3,5-Trimethylbenzene	<0.9828	24.57	26.59	108	27.81	113	87-122	5	25	ug/M3	
2,2,4-Trimethylpentane	<0.9339	23.35	22.65	97	23.54	101	78-107	4	25	ug/M3	
Vinyl acetate	<1.760	17.60	17.60	100	18.30	104	76-119	4	25	ug/M3	
Bromoethene	<0.8746	21.86	21.91	100	21.91	100	77-117	0	25	ug/M3	
Vinyl chloride	<0.5110	12.78	12.14	95	11.70	92	72-116	3	25	ug/M3	
m&p-Xylene	<0.8681	43.41	47.18	109	49.83	115	88-122	5	25	ug/M3	
o-Xylene	<0.4341	21.70	23.66	109	24.96	115	89-120	5	25	ug/M3	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units
4-Bromofluorobenzene	100		103		105		87-120	%

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QC Summary

Project Name ACPS IAQ Testing
PSS Project No.: 21081828

Analytical Method: EPA TO-15 Prep Method: TO-15P
Seq Number: 186940 Matrix: Air Date Prep: 08/20/21
MB Sample Id: 87376-1-BLK LCS Sample Id: 87376-1-BKS LCSD Sample Id: 87376-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Acetone	<9.498	11.87	10.26	86	9.902	83	69-118	4	25	ug/M3	
Benzene	<0.3193	15.97	15.46	97	15.84	99	79-107	2	25	ug/M3	
Benzyl Chloride	<1.035	25.87	30.07	116	30.74	119	78-143	3	25	ug/M3	
Bromodichloromethane	<1.340	33.49	31.01	93	31.55	94	81-111	1	25	ug/M3	
Bromoform	<2.067	51.67	52.19	101	55.49	107	78-133	6	25	ug/M3	
Bromomethane	<0.7764	19.41	18.63	96	17.12	88	76-116	9	25	ug/M3	
1,3-Butadiene	<0.4423	11.06	10.28	93	9.487	86	70-116	8	25	ug/M3	
2-Butanone (MEK)	<1.474	14.74	13.97	95	14.27	97	74-114	2	25	ug/M3	
Carbon Disulfide	<12.45	15.56	14.07	90	13.67	88	79-117	2	25	ug/M3	
Carbon Tetrachloride	<1.258	31.45	29.56	94	30.38	97	81-110	3	25	ug/M3	
Chlorobenzene	<0.9204	23.01	23.93	104	24.16	105	84-119	1	25	ug/M3	
Chloroethane	<0.5276	13.19	12.40	94	11.42	87	72-118	8	25	ug/M3	
Chloroform	<0.9761	24.40	22.89	94	23.43	96	82-108	2	25	ug/M3	
Chloromethane	<0.4128	10.32	9.537	92	8.381	81	64-121	13	25	ug/M3	
Allyl Chloride (3-Chloropropene)	<0.6258	15.64	14.80	95	14.71	94	77-113	1	25	ug/M3	
Cyclohexane	<0.6881	17.20	18.10	105	18.51	108	82-110	3	25	ug/M3	
Dibromochloromethane	<1.703	42.58	40.62	95	41.81	98	82-113	3	25	ug/M3	
1,2-Dibromoethane	<1.536	38.40	37.86	99	38.71	101	86-110	2	25	ug/M3	
1,2-Dichlorobenzene	<1.202	30.05	32.46	108	33.54	112	83-130	4	25	ug/M3	
1,3-Dichlorobenzene	<1.202	30.05	31.91	106	32.76	109	85-128	3	25	ug/M3	
1,4-Dichlorobenzene	<1.202	30.05	31.85	106	32.82	109	82-132	3	25	ug/M3	
Dichlorodifluoromethane	<0.9887	24.72	20.66	84	18.69	76	62-122	10	25	ug/M3	
1,1-Dichloroethane	<0.8092	20.23	19.22	95	19.18	95	79-110	0	25	ug/M3	
1,2-Dichloroethane	<0.8092	20.23	18.57	92	18.97	94	75-112	2	25	ug/M3	
1,1-Dichloroethene	<0.7926	19.82	18.90	95	18.03	91	80-110	4	25	ug/M3	
cis-1,2-Dichloroethene	<0.7926	19.82	19.90	100	20.25	102	84-109	2	25	ug/M3	
trans-1,2-dichloroethene	<0.7926	19.82	19.42	98	19.26	97	81-109	1	25	ug/M3	
1,2-Dichloropropane	<1.848	23.10	22.03	95	22.40	97	81-111	2	25	ug/M3	
cis-1,3-Dichloropropene	<0.9074	22.68	23.41	103	23.95	106	89-109	3	25	ug/M3	
trans-1,3-dichloropropene	<0.9074	22.68	23.14	102	23.55	104	89-114	2	25	ug/M3	
1,2-Dichlorotetrafluoroethane	<1.398	34.94	33.05	95	29.91	86	72-116	10	25	ug/M3	
1,4-Dioxane (P-Dioxane)	<3.602	18.01	19.06	106	19.16	106	70-120	0	25	ug/M3	
Ethyl Acetate	<0.7204	18.01	19.34	107	19.70	109	87-124	2	25	ug/M3	
Ethylbenzene	<0.4340	21.70	24.87	115	25.22	116	87-125	1	25	ug/M3	
4-Ethyltoluene	<0.9827	24.57	27.86	113	28.45	116	87-127	3	25	ug/M3	
n-Heptane	<0.8193	20.48	22.08	108	22.45	110	90-110	2	25	ug/M3	
Hexachlorobutadiene	<2.132	53.30	56.18	105	57.99	109	83-126	4	25	ug/M3	
n-Hexane	<14.09	17.61	18.99	108	19.06	108	84-114	0	25	ug/M3	
2-Hexanone (MBK)	<2.047	20.47	20.47	100	20.92	102	68-133	2	25	ug/M3	
Isopropylbenzene	<0.9827	24.57	26.24	107	26.68	109	88-117	2	25	ug/M3	
Methylene Chloride	<13.89	17.36	15.52	89	15.18	87	63-130	2	25	ug/M3	
4-Methyl-2-Pentanone (MIBK)	<2.047	20.47	20.35	99	20.64	101	78-115	2	25	ug/M3	
Methyl-t-Butyl Ether	<0.3604	18.02	19.39	108	19.46	108	86-109	0	25	ug/M3	
Naphthalene	<0.5240	26.20	38.93	149	40.29	154	65-129	3	25	ug/M3	H
Propylene	<1.720	8.602	7.896	92	6.933	81	58-129	13	25	ug/M3	
n-Propylbenzene	<0.9828	24.57	26.09	106	26.54	108	86-121	2	25	ug/M3	
Styrene	<4.258	21.29	25.55	120	26.06	122	86-137	2	25	ug/M3	
1,1,2,2-Tetrachloroethane	<1.373	34.31	35.34	103	36.10	105	88-119	2	25	ug/M3	
Tetrachloroethene	<1.356	33.90	33.83	100	34.72	102	86-107	2	25	ug/M3	
Tetrahydrofuran	<0.5895	14.74	15.18	103	15.59	106	80-117	3	25	ug/M3	
Toluene	<0.3767	18.83	20.15	107	20.41	108	91-106	1	25	ug/M3	H

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QC Summary

Project Name ACPS IAQ Testing
PSS Project No.: 21081828

Analytical Method: EPA TO-15 Prep Method: TO-15P
Seq Number: 186940 Matrix: Air Date Prep: 08/20/21
MB Sample Id: 87376-1-BLK LCS Sample Id: 87376-1-BKS LCSD Sample Id: 87376-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
1,2,4-Trichlorobenzene	<1.484	37.09	48.59	131	50.37	136	75-126	4	25	ug/M3	H
1,1,1-Trichloroethane	<1.091	27.27	26.07	96	26.67	98	81-109	2	25	ug/M3	
1,1,2-Trichloroethane	<1.091	27.27	26.24	96	26.78	98	83-111	2	25	ug/M3	
Trichloroethene	<1.074	26.86	26.11	97	26.38	98	88-106	1	25	ug/M3	
Trichlorofluoromethane	<1.123	28.08	25.05	89	23.70	84	78-109	6	25	ug/M3	
1,1,2-Trichlorotrifluoroethane	<1.532	38.31	36.16	94	34.93	91	84-107	3	25	ug/M3	
1,2,4-Trimethylbenzene	<0.9828	24.57	28.65	117	29.39	120	86-130	3	25	ug/M3	
1,3,5-Trimethylbenzene	<0.9828	24.57	26.93	110	27.76	113	87-122	3	25	ug/M3	
2,2,4-Trimethylpentane	<0.9339	23.35	23.25	100	23.49	101	78-107	1	25	ug/M3	
Vinyl acetate	<1.760	17.60	18.23	104	18.51	105	76-119	1	25	ug/M3	
Bromoethene	<0.8746	21.86	21.43	98	20.07	92	77-117	6	25	ug/M3	
Vinyl chloride	<0.5110	12.78	11.98	94	10.78	84	72-116	11	25	ug/M3	
m&p-Xylene	<0.8681	43.41	48.22	111	49.09	113	88-122	2	25	ug/M3	
o-Xylene	<0.4341	21.70	24.18	111	24.70	114	89-120	3	25	ug/M3	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units
4-Bromofluorobenzene	100		103		104		87-120	%

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H= Recovery of BS,BSD or both exceeded the laboratory control limits
L = Recovery of BS,BSD or both below the laboratory control limits

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Project Name ACPS IAQ Testing
PSS Project No.: 21081828

Analytical Method: EPA TO-15

Seq Number: 186939 Matrix: Air

CCV Sample Id: CCV-01 Analyzed Date: 08/19/21 08:32

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Acetone	11.87	10.08	85	70-130	ug/M3	
Benzene	15.97	15.54	97	70-130	ug/M3	
Benzyl Chloride	25.87	27.48	106	70-130	ug/M3	
Bromodichloromethane	33.49	30.67	92	70-130	ug/M3	
Bromoform	51.67	51.35	99	70-130	ug/M3	
Bromomethane	19.41	21.06	109	70-130	ug/M3	
1,3-Butadiene	11.06	10.81	98	70-130	ug/M3	
2-Butanone (MEK)	14.74	13.56	92	70-130	ug/M3	
Carbon Disulfide	15.56	16.32	105	70-130	ug/M3	
Carbon Tetrachloride	31.45	28.39	90	70-130	ug/M3	
Chlorobenzene	23.01	23.56	102	70-130	ug/M3	
Chloroethane	13.19	13.84	105	70-130	ug/M3	
Chloroform	24.40	22.99	94	70-130	ug/M3	
Chloromethane	10.32	9.884	96	70-130	ug/M3	
Allyl Chloride (3-Chloropropene)	15.64	17.06	109	70-130	ug/M3	
Cyclohexane	17.20	18.02	105	70-130	ug/M3	
Dibromochloromethane	42.58	39.33	92	70-130	ug/M3	
1,2-Dibromoethane	38.40	37.26	97	70-130	ug/M3	
1,2-Dichlorobenzene	30.05	31.20	104	70-130	ug/M3	
1,3-Dichlorobenzene	30.05	30.95	103	70-130	ug/M3	
1,4-Dichlorobenzene	30.05	30.39	101	70-130	ug/M3	
Dichlorodifluoromethane	24.72	24.25	98	70-130	ug/M3	
1,1-Dichloroethane	20.23	19.48	96	70-130	ug/M3	
1,2-Dichloroethane	20.23	18.41	91	70-130	ug/M3	
1,1-Dichloroethene	19.82	20.25	102	70-130	ug/M3	
cis-1,2-Dichloroethene	19.82	20.04	101	70-130	ug/M3	
trans-1,2-dichloroethene	19.82	19.63	99	70-130	ug/M3	
1,2-Dichloropropane	23.10	21.78	94	70-130	ug/M3	
cis-1,3-Dichloropropene	22.68	22.66	100	70-130	ug/M3	
trans-1,3-dichloropropene	22.68	22.19	98	70-130	ug/M3	
1,2-Dichlorotetrafluoroethane	34.94	35.55	102	70-130	ug/M3	
1,4-Dioxane (P-Dioxane)	18.01	19.11	106	70-130	ug/M3	
Ethyl Acetate	18.01	18.88	105	70-130	ug/M3	
Ethylbenzene	21.70	24.54	113	70-130	ug/M3	
4-Ethyltoluene	24.57	26.73	109	70-130	ug/M3	
n-Heptane	20.48	22.05	108	70-130	ug/M3	
Hexachlorobutadiene	53.30	53.23	100	70-130	ug/M3	
n-Hexane	17.61	18.95	108	70-130	ug/M3	
2-Hexanone (MBK)	20.47	20.15	98	70-130	ug/M3	
Isopropylbenzene	24.57	25.60	104	70-130	ug/M3	
Methylene Chloride	17.36	16.70	96	70-130	ug/M3	
4-Methyl-2-Pentanone (MIBK)	20.47	20.29	99	70-130	ug/M3	
Methyl-t-Butyl Ether	18.02	19.15	106	70-130	ug/M3	
Naphthalene	26.20	32.76	125	70-130	ug/M3	
Propylene	8.602	7.946	92	70-130	ug/M3	
n-Propylbenzene	24.57	26.71	109	70-130	ug/M3	
Styrene	21.29	24.86	117	70-130	ug/M3	
1,1,2,2-Tetrachloroethane	34.31	34.39	100	70-130	ug/M3	
Tetrachloroethene	33.90	33.33	98	70-130	ug/M3	
Tetrahydrofuran	14.74	14.10	96	70-130	ug/M3	
Toluene	18.83	19.72	105	70-130	ug/M3	

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QC Summary

Project Name ACPS IAQ Testing
PSS Project No.: 21081828

Analytical Method: EPA TO-15

Seq Number: 186939 Matrix: Air

CCV Sample Id: CCV-01 Analyzed Date: 08/19/21 08:32

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
1,2,4-Trichlorobenzene	37.09	43.23	117	70-130	ug/M3	
1,1,1-Trichloroethane	27.27	25.66	94	70-130	ug/M3	
1,1,2-Trichloroethane	27.27	26.11	96	70-130	ug/M3	
Trichloroethene	26.86	26.27	98	70-130	ug/M3	
Trichlorofluoromethane	28.08	27.97	100	70-130	ug/M3	
1,1,2-Trichlorotrifluoroethane	38.31	38.64	101	70-130	ug/M3	
1,2,4-Trimethylbenzene	24.57	27.96	114	70-130	ug/M3	
1,3,5-Trimethylbenzene	24.57	26.16	106	70-130	ug/M3	
2,2,4-Trimethylpentane	23.35	23.33	100	70-130	ug/M3	
Vinyl acetate	17.60	17.12	97	70-130	ug/M3	
Bromoethene	21.86	24.83	114	70-130	ug/M3	
Vinyl chloride	12.78	12.60	99	70-130	ug/M3	
m&p-Xylene	43.41	47.59	110	70-130	ug/M3	
o-Xylene	21.70	23.70	109	70-130	ug/M3	

Surrogate	CCV Result	Limits	Units	Flag
4-Bromofluorobenzene	82	50-150	%	

Analytical Method: EPA TO-15

Seq Number: 186940 Matrix: Air

CCV Sample Id: CCV-01 Analyzed Date: 08/20/21 06:50

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Acetone	11.87	10.38	87	70-130	ug/M3	
Benzene	15.97	15.75	99	70-130	ug/M3	
Benzyl Chloride	25.87	27.86	108	70-130	ug/M3	
Bromodichloromethane	33.49	31.04	93	70-130	ug/M3	
Bromoform	51.67	51.80	100	70-130	ug/M3	
Bromomethane	19.41	19.01	98	70-130	ug/M3	
1,3-Butadiene	11.06	10.62	96	70-130	ug/M3	
2-Butanone (MEK)	14.74	14.23	97	70-130	ug/M3	
Carbon Disulfide	15.56	15.59	100	70-130	ug/M3	
Carbon Tetrachloride	31.45	28.63	91	70-130	ug/M3	
Chlorobenzene	23.01	23.89	104	70-130	ug/M3	
Chloroethane	13.19	12.58	95	70-130	ug/M3	
Chloroform	24.40	23.12	95	70-130	ug/M3	
Chloromethane	10.32	9.781	95	70-130	ug/M3	
Allyl Chloride (3-Chloropropene)	15.64	15.13	97	70-130	ug/M3	
Cyclohexane	17.20	18.38	107	70-130	ug/M3	
Dibromochloromethane	42.58	40.08	94	70-130	ug/M3	
1,2-Dibromoethane	38.40	38.26	100	70-130	ug/M3	
1,2-Dichlorobenzene	30.05	31.87	106	70-130	ug/M3	
1,3-Dichlorobenzene	30.05	31.46	105	70-130	ug/M3	
1,4-Dichlorobenzene	30.05	31.34	104	70-130	ug/M3	
Dichlorodifluoromethane	24.72	24.68	100	70-130	ug/M3	
1,1-Dichloroethane	20.23	19.49	96	70-130	ug/M3	
1,2-Dichloroethane	20.23	18.75	93	70-130	ug/M3	
1,1-Dichloroethene	19.82	19.41	98	70-130	ug/M3	
cis-1,2-Dichloroethene	19.82	20.16	102	70-130	ug/M3	
trans-1,2-dichloroethene	19.82	19.77	100	70-130	ug/M3	
1,2-Dichloropropane	23.10	22.38	97	70-130	ug/M3	
cis-1,3-Dichloropropene	22.68	23.52	104	70-130	ug/M3	
trans-1,3-dichloropropene	22.68	23.05	102	70-130	ug/M3	
1,2-Dichlorotetrafluoroethane	34.94	33.83	97	70-130	ug/M3	
1,4-Dioxane (P-Dioxane)	18.01	19.83	110	70-130	ug/M3	
Ethyl Acetate	18.01	19.37	108	70-130	ug/M3	
Ethylbenzene	21.70	25.00	115	70-130	ug/M3	
4-Ethyltoluene	24.57	27.80	113	70-130	ug/M3	
n-Heptane	20.48	22.37	109	70-130	ug/M3	
Hexachlorobutadiene	53.30	55.00	103	70-130	ug/M3	
n-Hexane	17.61	19.12	109	70-130	ug/M3	
2-Hexanone (MBK)	20.47	21.26	104	70-130	ug/M3	
Isopropylbenzene	24.57	26.25	107	70-130	ug/M3	
Methylene Chloride	17.36	15.76	91	70-130	ug/M3	
4-Methyl-2-Pentanone (MIBK)	20.47	21.13	103	70-130	ug/M3	
Methyl-t-Butyl Ether	18.02	19.71	109	70-130	ug/M3	
Naphthalene	26.20	33.93	130	70-130	ug/M3	
Propylene	8.602	8.311	97	70-130	ug/M3	
n-Propylbenzene	24.57	26.45	108	70-130	ug/M3	
Styrene	21.29	25.51	120	70-130	ug/M3	
1,1,2,2-Tetrachloroethane	34.31	35.03	102	70-130	ug/M3	
Tetrachloroethene	33.90	34.25	101	70-130	ug/M3	
Tetrahydrofuran	14.74	15.31	104	70-130	ug/M3	
Toluene	18.83	20.25	108	70-130	ug/M3	

PHASE SEPARATION SCIENCE

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QC Summary

Project Name ACPS IAQ Testing
PSS Project No.: 21081828

Analytical Method: EPA TO-15

Seq Number: 186940 Matrix: Air

CCV Sample Id: CCV-01 Analyzed Date: 08/20/21 06:50

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
1,2,4-Trichlorobenzene	37.09	44.60	120	70-130	ug/M3	
1,1,1-Trichloroethane	27.27	26.28	96	70-130	ug/M3	
1,1,2-Trichloroethane	27.27	26.58	97	70-130	ug/M3	
Trichloroethene	26.86	26.81	100	70-130	ug/M3	
Trichlorofluoromethane	28.08	25.80	92	70-130	ug/M3	
1,1,2-Trichlorotrifluoroethane	38.31	36.89	96	70-130	ug/M3	
1,2,4-Trimethylbenzene	24.57	28.67	117	70-130	ug/M3	
1,3,5-Trimethylbenzene	24.57	27.05	110	70-130	ug/M3	
2,2,4-Trimethylpentane	23.35	23.54	101	70-130	ug/M3	
Vinyl acetate	17.60	17.79	101	70-130	ug/M3	
Bromoethene	21.86	21.86	100	70-130	ug/M3	
Vinyl chloride	12.78	12.28	96	70-130	ug/M3	
m&p-Xylene	43.41	48.53	112	70-130	ug/M3	
o-Xylene	21.70	24.30	112	70-130	ug/M3	

Surrogate	CCV Result	Limits	Units	Flag
4-Bromofluorobenzene	83	50-150	%	

Analytical Method: EPA TO-15

Seq Number: 185968 Matrix: Air

Parent Sample Id: ICV-01 ICV Sample Id: ICV-01 Analyzed Date: 07/15/21 13:32

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
Acetone	11.87	10.66	90	70-130	ug/M3	
Benzene	15.97	15.51	97	70-130	ug/M3	
Benzyl Chloride	25.87	27.08	105	70-130	ug/M3	
Bromodichloromethane	33.49	32.04	96	70-130	ug/M3	
Bromoform	51.67	53.22	103	70-130	ug/M3	
Bromomethane	19.41	19.17	99	70-130	ug/M3	
1,3-Butadiene	11.06	10.68	97	70-130	ug/M3	
2-Butanone (MEK)	14.74	14.29	97	70-130	ug/M3	
Carbon Disulfide	15.56	15.20	98	70-130	ug/M3	
Carbon Tetrachloride	31.45	30.48	97	70-130	ug/M3	
Chlorobenzene	23.01	22.75	99	70-130	ug/M3	
Chloroethane	13.19	12.91	98	70-130	ug/M3	
Chloroform	24.40	23.55	97	70-130	ug/M3	
Chloromethane	10.32	9.584	93	70-130	ug/M3	
Allyl Chloride (3-Chloropropene)	15.64	15.43	99	70-130	ug/M3	
Cyclohexane	17.20	18.31	106	70-130	ug/M3	
Dibromochloromethane	42.58	41.98	99	70-130	ug/M3	
1,2-Dibromoethane	38.40	38.46	100	70-130	ug/M3	
1,2-Dichlorobenzene	30.05	29.90	100	70-130	ug/M3	
1,3-Dichlorobenzene	30.05	30.07	100	70-130	ug/M3	
1,4-Dichlorobenzene	30.05	30.27	101	70-130	ug/M3	
Dichlorodifluoromethane	24.72	23.21	94	70-130	ug/M3	
1,1-Dichloroethane	20.23	19.62	97	70-130	ug/M3	
1,2-Dichloroethane	20.23	19.32	96	70-130	ug/M3	
1,1-Dichloroethene	19.82	19.75	100	70-130	ug/M3	
cis-1,2-Dichloroethene	19.82	20.37	103	70-130	ug/M3	
trans-1,2-dichloroethene	19.82	19.79	100	70-130	ug/M3	
1,2-Dichloropropane	23.10	22.40	97	70-130	ug/M3	
cis-1,3-Dichloropropene	22.68	23.89	105	70-130	ug/M3	
trans-1,3-dichloropropene	22.68	23.53	104	70-130	ug/M3	
1,2-Dichlorotetrafluoroethane	34.94	33.51	96	70-130	ug/M3	
1,4-Dioxane (P-Dioxane)	18.01	19.14	106	70-130	ug/M3	
Ethyl Acetate	18.01	19.17	106	70-130	ug/M3	
Ethylbenzene	21.70	23.79	110	70-130	ug/M3	
4-Ethyltoluene	24.57	26.79	109	70-130	ug/M3	
n-Heptane	20.48	22.37	109	70-130	ug/M3	
Hexachlorobutadiene	53.30	47.13	88	70-130	ug/M3	
n-Hexane	17.61	18.94	108	70-130	ug/M3	
2-Hexanone (MBK)	20.47	21.03	103	70-130	ug/M3	
Isopropylbenzene	24.57	25.34	103	70-130	ug/M3	
Methylene Chloride	17.36	16.17	93	70-130	ug/M3	
4-Methyl-2-Pentanone (MIBK)	20.47	21.14	103	70-130	ug/M3	
Methyl-t-Butyl Ether	18.02	19.55	108	70-130	ug/M3	
Naphthalene	26.20	21.32	81	70-130	ug/M3	
Propylene	8.602	8.112	94	70-130	ug/M3	
n-Propylbenzene	24.57	26.87	109	70-130	ug/M3	
Styrene	21.29	24.28	114	70-130	ug/M3	
1,1,2,2-Tetrachloroethane	34.31	32.86	96	70-130	ug/M3	
Tetrachloroethene	33.90	34.26	101	70-130	ug/M3	
Tetrahydrofuran	14.74	15.47	105	70-130	ug/M3	
Toluene	18.83	20.13	107	70-130	ug/M3	

PHASE SEPARATION SCIENCE

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410-747-8770
800-932-9047
www.phaseonline.com

QC Summary

Project Name ACPS IAQ Testing
PSS Project No.: 21081828

Analytical Method: EPA TO-15

Seq Number: 185968 Matrix: Air
Parent Sample Id: ICV-01 ICV Sample Id: ICV-01 Analyzed Date: 07/15/21 13:32

Parameter	Spike Amount	ICV Result	ICV %Rec	Limits	Units	Flag
1,2,4-Trichlorobenzene	37.09	33.48	90	70-130	ug/M3	
1,1,1-Trichloroethane	27.27	26.75	98	70-130	ug/M3	
1,1,2-Trichloroethane	27.27	26.47	97	70-130	ug/M3	
Trichloroethene	26.86	26.83	100	70-130	ug/M3	
Trichlorofluoromethane	28.08	26.66	95	70-130	ug/M3	
1,1,2-Trichlorotrifluoroethane	38.31	37.18	97	70-130	ug/M3	
1,2,4-Trimethylbenzene	24.57	27.23	111	70-130	ug/M3	
1,3,5-Trimethylbenzene	24.57	26.05	106	70-130	ug/M3	
2,2,4-Trimethylpentane	23.35	23.79	102	70-130	ug/M3	
Vinyl acetate	17.60	18.06	103	70-130	ug/M3	
Bromoethene	21.86	21.66	99	70-130	ug/M3	
Vinyl chloride	12.78	12.23	96	70-130	ug/M3	
m&p-Xylene	43.41	46.74	108	70-130	ug/M3	
o-Xylene	21.70	23.49	108	70-130	ug/M3	

Surrogate	ICV Result	Limits	Units	Flag
4-Bromofluorobenzene	103	50-150	%	

X = Recovery outside of QC Criteria

SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

(1)
*CLIENT: Total Environmental Concepts, Inc. *OFFICE LOC.: Lorton
*PROJECT MGR: Karl Ford
EMAIL: kford@teci.pro *PHONE NO: (703) 567-4346
*PROJECT NAME: ACPS IAQ testing PROJECT NO.: 4920002
SITE LOCATION: George Washington Middl P.O. NO.: ODC 4920002-001
SAMPLER(S): Karl Ford

PSS Work Order #: 2108188

PAGE 1 OF 2

(2) (3)

LAB #	*SAMPLE IDENTIFICATION	*DATE START	*Time Start (24hr clock)	*DATE STOP	*Time Stop (24hr clock)	* Can ID *	Sample Reg. ID *	Canister Pressure * in field ("Hg) Start	Canister Pressure * in field ("Hg) Stop	Incoming Canister Pressure ("Hg) Lab	Soil Gas / Subslab *	Indoor/Ambient Air *	TO-15 Full List	Special List	REMARKS
1	GM - Class 3	8-16-21	1030	8-16-21	2024	3531	12323	31	0	6	☐	☐	☑	☐	
2	GM - Hallway 3	8-16-21	1036	8-16-21	2027	4315	10946	30	0	0	☐	☐	☑	☐	0
3	GM - Reception	8-16-21	1042	8-16-21	2031	4257	6170	32	0	0	☐	☐	☑	☐	
4	GM - Class 8	8-16-21	1048	8-16-21	2035	4309	03235	31	2.8	6	☐	☐	☑	☐	
5	GM - Class 13	8-16-21	1055	8-16-21	2040	4250	12327	32	2	1	☐	☐	☑	☐	
6	GM - Class 17	8-16-21	1100	8-16-21	2043	4195	3215	30	0	0	☐	☐	☑	☐	
7	GM - Hallway 18	8-16-21	1107	8-16-21	2049	4314	05676	30	0	0	☐	☐	☑	☐	
8	GM - Gym	8-16-21	1122	8-16-21	2054	4251	03160	31	1.8	2	☐	☐	☑	☐	
9	GM - Class 30	8-16-21	1127	8-16-21	2056	4264	13651	32	0	0	☐	☐	☑	☐	
10	GM - Class 26	8-16-21	1142	8-16-21	2103	4254	11062	31	0	2	☐	☐	☑	☐	

(5)

Relinquished By: (1)	Date	Time	Received By:
Deanna John	8/18/21	1500	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:

(4) *Requested TAT (One TAT per COC)
☑ 5-Day ☐ 3-Day ☐ 2-Day
☐ Next Day ☐ Emergency ☐ Other

Shipping Carrier: Client

Data Deliverables Required:

Special Instructions:

6630 Baltimore National Pike • Route 40 West • Baltimore, Maryland 21228 • (410) 747-8770 • (800) 932-9047 • Fax (410) 788-8723

SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

(1) *CLIENT: Total Environmental Concepts, Inc. *OFFICE LOC.: Lorton
*PROJECT MGR: Karl Ford
EMAIL: kford@teci.pro *PHONE NO: (703) 567-4346
*PROJECT NAME: ACPS IAQ testing PROJECT NO.: 4920002
SITE LOCATION: George Washington Middl P.O. NO.: ODC 4920002-001
SAMPLER(S): Karl Ford

PSS Work Order #: 21081828
PAGE 2 OF 2

(2)

LAB #	*SAMPLE IDENTIFICATION	*DATE START	*Time Start (24hr clock)	*DATE STOP	*Time Stop (24hr clock)	* (3) Can ID *	Sample Reg. ID *	Canister Pressure * in field ("Hg) Start	Canister Pressure * in field ("Hg) Stop	Incoming Canister Pressure ("Hg) Lab	Soil Gas / Subslab *	Indoor/Ambient Air *	TO-15 Full List	Special List	REMARKS
11	GM - Hallway 22	8-16-21	1146	8-16-21	2107	3517	11060	31	3	3			✓		
12	GM - Cafeteria	8-16-21	1152	8-16-21	2031	4271	05675	31	2.2	2			✓		
13	GM - Library	8-16-21	1013	8-16-21	2019	4312	10947	30	0	0			✓		
14	GM - Band room	8-16-21	1020	8-16-21	2015	3528	11059	31	2.5	6			✓		
15	GM - Office 4	8-16-21	1136	8-16-21	2115	4313	10948	31	2.2	2			✓		

(5)

	Date	Time	
Relinquished By: (1) Dennis Johnson	8/18/21	1500	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:

(4) *Requested TAT (One TAT per COC)
☑ 5-Day ☐ 3-Day ☐ 2-Day
☐ Next Day ☐ Emergency ☐ Other

Shipping Carrier: Client

Data Deliverables Required:

Special Instructions:

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TO-15 Canister and Flow Controller Check List

Check Out	Check In	(use n/a as necessary)
☑	☐	**No. Canisters:** 15
☑		Pressure Checked (29 – 30" Hg)
☑		Top of Micro QT tight
☑		Sampling tag/label
☑	☐	Stands
☑	☐	**No. Flow controllers:** 15
	☐	Use COC pressures to evaluate sampling time accuracy
☑	☐	Leak evaluated
☑		Gauge checked / adjusted (29 – 30" Hg)
☑		Flow set
☑		Purged with N
	☐	*Checked for water if soil gas
☐	☐	Duplicate T-piece(s)

Other items in bin:

☑		Hard Copy of O-01.05.F01 TO-15 Client Sampling Guide
☑		COC Form(s) (+1 extra)
☑		Client copy of bottle order
☐		STOP Notice if split IA/SG order
☐	☐	Soil Gas? wrench/nuts/ferules Qty____
☐		Tubing? purged/capped: ft_____
☐	☐	Tubing cutter
☐		Bin labelled, copy of BO for receiving
☐		Client survey response card

Vapor Pins – indicate type: barbed/compression

☐	☐	Vapor Pins with sleeves: Qty_____
☐	☐	Tygon pieces/FLX Fittings: Qty_____
☐	☐	Installation tool
☐	☐	Deadblow hammer
☐	☐	Hole Brush
☐		**Additional Items (see form F06)**

Check Out

BO#/Client: 14268 / TEC

Assembled/Checked Out: Date/Initials 8/12/21 BW

Serial #s Entered in LIMS: Date/Initials AM 8/12/21

Verified: Date/Initials AM 8/19/21

Check In

Sample Receipt Checklist: Date/Initials: 8/18/21 TL

Work Order No.: 21081828

Checked In: Date/Initials _____

Notes: Canister number for sample 003 listed as 4257 on COC; received canister 4252. Canister number for sample 011 listed as 3517 on COC; received canister 3519.

Sample Receipt Checklist (Y/N): To be completed during login

N ☑ *All sample fields completed and accurate: Sample ID; Start/Stop Dates/Times; Canister ID (S/N); Flow Controller ID (S/N); Field Start and Stop Pressures; Soil Gas/Indoor Air. AM 8/19/21

☑ *Sampling times documented in 24 hour clock or am/pm or else verified.

☑ *Incoming lab pressure w/in 5" of field stop pressure and < 10" Hg for indoor air and <15" Hg for soil gas.

***These sample check in criteria must be met or the nonconformance must be documented in the Sampling & Login case narrative field of the work order in LIMS and communicated to the PSS project manager for client notification.**

PHASE SEPARATION SCIENCE

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Baltimore, MD 21228
410-747-8770
800-932-9047
www.phaseonline.com

Sample Receipt Checklist

Project Name: ACPS IAQ Testing
PSS Project No.: 21081828

Client Name Total Environmental Concepts - Lorto
Disposal Date 09/22/2021

Received By Thomas Wingate
Date Received 08/18/2021 03:00:00 PM
Delivered By Client
Tracking No Not Applicable
Logged In By Thomas Wingate

Shipping Container(s)
No. of Coolers 0

Ice N/A
Custody Seal(s) Intact? N/A
Temp (deg C)
Seal(s) Signed / Dated? N/A
Temp Blank Present No

Documentation
Sampler Name Karl Ford
COC agrees with sample labels? No
MD DW Cert. No. N/A
Chain of Custody Yes

Sample Container
Custody Seal(s) Intact? Not Applicable
Appropriate for Specified Analysis? Yes
Seal(s) Signed / Dated Not Applicable
Intact? Yes
Labeled and Labels Legible? Yes

Holding Time
Total No. of Samples Received 15
All Samples Received Within Holding Time(s)? Yes
Total No. of Containers Received 15

Preservation

Total Metals	(pH<2)	N/A
Dissolved Metals, filtered within 15 minutes of collection	(pH<2)	N/A
Orthophosphorus, filtered within 15 minutes of collection		N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, DOC (field filtered), COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A
524 VOC (Rcvd with trip blanks)	(pH<2)	N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Canister number for sample 003 listed as 4257 on COC; received canister 4252.
Canister number for sample 011 listed as 3517 on COC; received canister 3519.

Samples Inspected/Checklist Completed By: Thomas Wingate — Date: 08/18/2021

PM Review and Approval: Amber L Loafer — Date: 08/19/2021

SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com
email: info@phaseonline.com

(1)

*CLIENT: Total Environmental Concepts, Inc. *OFFICE LOC.: Lorton

*PROJECT MGR: Karl Ford

EMAIL: kford@teci.pro *PHONE NO: (703) 567-4346

*PROJECT NAME: ACPS IAQ testing PROJECT NO.: 4920002

SITE LOCATION: George Washington Middl P.O. NO.: ODC 4920002-001

SAMPLER(S): Karl Ford

PSS Work Order #:

PAGE 1 OF 2

(2)

LAB #	*SAMPLE IDENTIFICATION	*DATE START	*Time Start (24hr clock)	*DATE STOP	*Time Stop (24hr clock)	* (3) Can ID *	Sample Reg. ID *	Canister Pressure * in field ("Hg) Start	Canister Pressure * in field ("Hg) Stop	Incoming Canister Pressure ("Hg) Lab	Soil Gas / Subslab *	Indoor/Ambient Air *	TO-15 Full List	Special List	REMARKS
	GM - Class 3	8-16-21	1030	8-16-21	2024	3531	12323	31	0		☐	☐	☑	☐	
	GM - Hallway 3	8-16-21	1036	8-16-21	2027	4315	10946	30	0		☐	☐	☑	☐	0
	GM - Reception	8-16-21	1042	8-16-21	2031	4257	6170	32	0		☐	☐	☑	☐	
	GM - Class 8	8-16-21	1048	8-16-21	2035	4309	03235	31	2.8		☐	☐	☑	☐	
	GM - Class 13	8-16-21	1055	8-16-21	2040	4250	12327	32	2		☐	☐	☑	☐	
	GM - Class 17	8-16-21	1100	8-16-21	2043	4195	3215	30	0		☐	☐	☑	☐	
	GM - Hallway 18	8-16-21	1107	8-16-21	2049	4314	05676	30	0		☐	☐	☑	☐	
	GM - Gym	8-16-21	1122	8-16-21	2054	4251	03160	31	1.8		☐	☐	☑	☐	
	GM - Class 30	8-16-21	1127	8-16-21	2056	4264	13651	32	0		☐	☐	☑	☐	
	GM - Class 26	8-16-21	1142	8-16-21	2103	4254	11062	31	0		☐	☐	☑	☐	

(5)

Relinquished By: (1)	Date	Time	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:

(4) *Requested TAT (One TAT per COC)

☑ 5-Day ☐ 3-Day ☐ 2-Day
☐ Next Day ☐ Emergency ☐ Other

Shipping Carrier:

Data Deliverables Required:

Special Instructions:

6630 Baltimore National Pike • Route 40 West • Baltimore, Maryland 21228 • (410) 747-8770 • (800) 932-9047 • Fax (410) 788-8723

SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com

email: info@phaseonline.com

(1)

*CLIENT: Total Environmental Concepts, Inc. *OFFICE LOC.: Lorton

*PROJECT MGR: Karl Ford

EMAIL: kford@teci.pro *PHONE NO: (703) 567-4346

*PROJECT NAME: ACPS IAQ testing PROJECT NO.: 4920002

SITE LOCATION: George Washington Middl P.O. NO.: ODC 4920002-001

SAMPLER(S): Karl Ford

PSS Work Order #:

PAGE 1 OF 2

(2)

LAB #	*SAMPLE IDENTIFICATION	*DATE START	*Time Start (24hr clock)	*DATE STOP	*Time Stop (24hr clock)	* (3) Can ID *	Sample Reg. ID *	Canister Pressure * in field ("Hg) Start	Canister Pressure * in field ("Hg) Stop	Incoming Canister Pressure ("Hg) Lab	Soil Gas / Subslab *	Indoor/Ambient Air *	TO-15 Full List	Special List	REMARKS
	GM - Class 3	8-16-21	1030	8-16-21	2024	3531	12323	31	0		☐	☐	✔	☐	
	GM - Hallway 3	8-16-21	1036	8-16-21	2027	4315	10946	30	0		☐	☐	✔	☐	0
	GM - Reception	8-16-21	1042	8-16-21	2031	4257	6170	32	0		☐	☐	✔	☐	
	GM - Class 8	8-16-21	1048	8-16-21	2035	4309	03235	31	2.8		☐	☐	✔	☐	
	GM - Class 13	8-16-21	1055	8-16-21	2040	4250	12327	32	2		☐	☐	✔	☐	
	GM - Class 17	8-16-21	1100	8-16-21	2043	4195	3215	30	0		☐	☐	✔	☐	
	GM - Hallway 18	8-16-21	1107	8-16-21	2049	4314	05676	30	0		☐	☐	✔	☐	
	GM - Gym	8-16-21	1122	8-16-21	2054	4251	03160	31	1.8		☐	☐	✔	☐	
	GM - Class 30	8-16-21	1127	8-16-21	2056	4264	13651	32	0		☐	☐	✔	☐	
	GM - Class 26	8-16-21	1142	8-16-21	2103	4254	11062	31	0		☐	☐	✔	☐	

(5)

Relinquished By:	Date	Time	Received By:
(1)			
(2)			
(3)			
(4)			

(4) *Requested TAT (One TAT per COC)

☑ 5-Day ☐ 3-Day ☐ 2-Day

☐ Next Day ☐ Emergency ☐ Other

Shipping Carrier:

Data Deliverables Required:

Special Instructions:

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Appendix D: Formaldehyde Analytical Results

PHASE SEPARATION SCIENCE

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410-747-8770
800-932-9047
www.phaseonline.com

Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21082530

September 3, 2021

Karl Ford
Total Environmental Concepts - Lorton
8382 Terminal Road, Suite B
Lorton, VA 22079

Reference: PSS Project No: **21082530**
Project Name: ACPS IAQ Testing
Project Location: George Mason School
Project ID.: 4920002

Dear Karl Ford:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) **21082530**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on September 29, 2021, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager

PHASE SEPARATION SCIENCE

6630 Baltimore National Pike
Baltimore, MD 21228
410-747-8770
800-932-9047
www.phaseonline.com

Explanation of Qualifiers

Project Name: ACPS IAQ Testing

PSS Project No.: 21082530

Project ID: 4920002

The following samples were received under chain of custody by Phase Separation Science (PSS) on 08/25/2021 at 05:35 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
21082530-001	GM-Class 3	AIR	08/16/21 00:00
21082530-002	GM-Hallway 3	AIR	08/16/21 00:00
21082530-003	GM-Reception	AIR	08/16/21 00:00
21082530-004	GM-Class 8	AIR	08/16/21 00:00
21082530-005	GM-Class 13	AIR	08/16/21 00:00
21082530-006	GM-Class 17	AIR	08/16/21 00:00
21082530-007	GM-Hallway 18	AIR	08/16/21 00:00
21082530-008	GM-Gym	AIR	08/16/21 00:00
21082530-009	GM-Class 30	AIR	08/16/21 00:00
21082530-010	GM-Class 26	AIR	08/16/21 00:00
21082530-011	GM-Hallway 22	AIR	08/16/21 00:00
21082530-012	GM-Cafeteria	AIR	08/16/21 00:00
21082530-013	GM-Library	AIR	08/16/21 00:00
21082530-014	GM-Band room	AIR	08/16/21 00:00
21082530-015	GM-Office 4	AIR	08/16/21 00:00

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

PHASE SEPARATION SCIENCE

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Baltimore, MD 21228
410-747-8770
800-932-9047
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Explanation of Qualifiers

Project Name: ACPS IAQ Testing

PSS Project No.: 21082530

Standard Flags/Abbreviations:

B	A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
C	Results Pending Final Confirmation.
E	The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
Fail	The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
J	The target analyte was positively identified below the reporting limit but greater than the MDL.
MDL	This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
ND	Not Detected at or above the reporting limit.
RL	PSS Reporting Limit.
U	Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

SGS GALSON

Ms. Amber Confer
Phase Separation Science, Inc.
6630 Baltimore National Pike
Baltimore, MD 21228

September 02, 2021

Account# 15354

Login# L545210

Dear Amber Confer:

Enclosed are the analytical results for the samples received by our laboratory on August 27, 2021. All samples on the chain of custody were received in good condition unless otherwise noted. Any additional observations will be noted on the chain of custody.

Please contact client services at (888) 432-5227 if you would like any additional information regarding this report. Thank you for using SGS Galson.

Sincerely,

SGS Galson

Lisa Swab
Laboratory Director

Enclosure(s)

Terms and Conditions & General Disclaimers

- This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.
- Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Analytical Disclaimers

- Unless otherwise noted within the report, all quality control results associated with the samples were within established control limits or did not impact reported results.
- Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process, including but not limited to the use of field equipment and collection media, as well as the sampling duration, collection volume or any other collection parameter used by the Client. The findings herein constitute no warranty of the sample's representativeness of any sampled environment, and strictly relate to the samples as they were presented to the laboratory. For recommended sampling collection parameters, please refer to the Sampling and Analysis Guide at www.sgsgalson.com.
- Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.
- The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).
- Unless otherwise noted within the report, results have not been blank corrected for any field blank or method blank data.

Accreditations SGS Galson holds a variety of accreditations and recognitions. Our quality management system conforms with the requirements of ISO/IEC 17025. Where applicable, samples may also be analyzed in accordance with the requirements of ELAP, NELAC, or LELAP under one of the state accrediting bodies listed below. Current Scopes of Accreditation can be viewed at http://www.sgsgalson.com in the accreditations section of the "About" page. To determine if the analyte tested falls under our scope of accreditation, please visit our website or call Client Services at (888) 432-5227.

National/International	Accreditation/Recognition	Lab ID#	Program/Sector
AIHA-LAP, LLC - IHLAP, ELLAP, EMLAP	ISO/IEC 17025 and USEPA NLLAP	Lab ID 100324	Industrial Hygiene, Environmental Lead, Environmental Microbiology

State	Accreditation/Recognition	Lab ID#	Program/Sector
New York (NYSDOH)	ELAP and NELAC (TNI)	Lab ID: 11626	Air Analysis, Solid and Hazardous Waste
New Jersey (NJDEP)	NELAC (TNI)	Lab ID: NY024	Air Analysis
Louisiana (LDEQ)	LELAP	Lab ID: 04083	Air Analysis, Solid Chemical Materials
Texas	Texas Dept. of Licensing and Regulation	Lab ID: 1042	Mold Analysis Laboratory license

Legend

< - Less than	mg - Milligrams	MDL - Method Detection Limit	ppb - Parts per Billion
> - Greater than	ug - Micrograms	NA - Not Applicable	ppm - Parts per Million
l - Liters	m3 - Cubic Meters	NS - Not Specified	ppbv - ppb Volume
LOQ - Limit of Quantitation	kg - Kilograms	ND - Not Detected	ppmv - ppm Volume
ft2 - Square Feet	cm2 - Square Centimeters	in2 - Square Inches	ng - Nanograms

SGS GALSON

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
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LABORATORY ANALYSIS REPORT

Client : Phase Separation Science, Inc. Account No.: 15354
Site : GEORGE MASON SCHOOL Login No. : L545210
Project No. : ACPS IAQ TESTING-4920002
Date Sampled : 16-AUG-21 Date Analyzed : 31-AUG-21
Date Received : 27-AUG-21 Report ID : 1262677

Formaldehyde

Sample ID	Lab ID	Time minutes	Total ug	Conc mg/m3	ppm
GM-CLASS 3	L545210-1	248	<0.4	<0.01	<0.01
GM-HALLWAY 3	L545210-2	246	<0.4	<0.01	<0.01
GM- RECEPTION	L545210-3	243	<0.4	<0.01	<0.01
GM-CLASS 8	L545210-4	242	<0.4	<0.01	<0.01
GM-CLASS 13	L545210-5	240	<0.4	<0.01	<0.01
GM-CLASS 17	L545210-6	243	<0.4	<0.01	<0.01
GM-HALLWAY 18	L545210-7	240	<0.4	<0.01	<0.01
GM-GYM	L545210-8	235	<0.4	<0.01	<0.01
GM-CLASS 30	L545210-9	240	<0.4	<0.01	<0.01
GM-CLASS 26	L545210-10	240	<0.4	<0.01	<0.01
GM-HALLWAY 22	L545210-11	240	<0.4	<0.01	<0.01
GM-CAFETERIA	L545210-12	240	<0.4	<0.01	<0.01
GM-LIBRARY	L545210-13	252	<0.4	<0.01	<0.01
GM-BAND ROOM	L545210-14	251	<0.4	<0.01	<0.01
GM-OFFICE 4	L545210-15	235	<0.4	<0.01	<0.01

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of Quantitation: 0.4 ug
Analytical Method : mod. OSHA 1007; HPLC/UV
Collection Media : Assay 581

Submitted by: JLL
Date : 02-SEP-21
Supervisor : MWJ

Approved by: NKP

GALSON

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.sgsgalson.com

Client Name : Phase Separation Science, Inc.
Site : GEORGE MASON SCHOOL
Project No. : ACPS IAQ TESTING-4920002

Date Sampled : 16-AUG-21 Account No.: 15354
Date Received: 27-AUG-21 Login No. : L545210
Date Analyzed: 31-AUG-21

L545210 (Report ID: 1262677):
Total ug corrected for a desorption efficiency of 96%.
FORMALDEHYDE results have been corrected for the average background found on the media:
0.1305 ug for lot #12B20 (samples 1-15).
SOPs: LC-SOP-4(23)

L545210 (Report ID: 1262677):
Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
Formaldehyde	+/-12.1%	95.3%

1Z2313E40165461239
Date: 08/27/21
Shipper: UPS
Initials: BGF

Prep: UNKNOWN

210825 30

☐ New Client?

Report To*: Phase Separation Science
6630 Baltimore National Pike
Baltimore, MD 21228

Client Account No.*:

Phone No.*: 410-747-8770
Cell No.:
Email Results to: Amber Confer
Email address: reporting@phaseonline.com

Invoice To*: Phase Separation Science

Phone No.: 410-747-8770
Email: invoicing@phaseonline.com
P.O. No.: ODC 4920002-001
Credit Card: ☐ Card on File ☐ Call for Credit Card Info.

☑ Samples submitted using the FreePumpLoan™ Program ☐ Samples submitted using the FreeSamplingBadges™ Program

East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)

www.sgsgalson.com

90-91

Need Results By:	(surcharge)
☑ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Site Name: George Mason School Project: ACPS IAQ testing - 4920002 Sampled by: Karl Ford

Comments:
Dosimeter cartrige # noted in the (Hexavelent Chromium Process) colum

List description of industry or Process/interferences present in sampling area:
Public grade school building

State samples were collected in (e.g., NY)
VA

Please indicate which OEL this data will be used for:
☑ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA ☐ MSHA ☐ Other (specify):

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
GM - Class 3	08/16/21	Assay N581 Aldehyde Badge	248	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5229
GM - Hallway 3	08/16/21	Assay N581 Aldehyde Badge	246	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4406
GM - Reception	08/16/21	Assay N581 Aldehyde Badge	243	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4297
GM - Class 8	08/16/21	Assay N581 Aldehyde Badge	242	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5157
GM - Class 13	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4506
GM - Class 17	08/16/21	Assay N581 Aldehyde Badge	243	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ3932
GM - Hallway 18	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4076
GM - Gym	08/16/21	Assay N581 Aldehyde Badge	235	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5203
GM - Class 30	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4955
GM - Class 26	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5310
GM - Hallway 22	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5313

^Galson Laboratories will subsititute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: ☑ Use method(s) listed on COC

For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):

For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)*:

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by:	Client	8/25/21	1735	Received by:			
Relinquished by:				Received by:	Brett Grenert-Fischer	8/27/21	1126

Samples received after 3pm will be considered as next day's business
* Required fields, failure to complete these fields may result in a delay in your samples being processed.

21082530

SGS GALSON

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East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)

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☐ New Client?

Report To*: Phase Separation Science
6630 Baltimore National Pike
Baltimore, MD 21228

Client Account No.*:

Phone No.*: 410-747-8770
Cell No.:
Email Results to: Amber Confer
Email address: reporting@phaseonline.com

Invoice To*: Phase Separation Science

Phone No.: 410-747-8770
Email: invoicing@phaseonline.com
P.O. No.: ODC 4920002-001
Credit Card: ☐ Card on File ☐ Call for Credit Card Info.

☑ Samples submitted using the FreePumpLoan™ Program ☐ Samples submitted using the FreeSamplingBadges™ Program

Need Results By:	(surcharge)
☑ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Site Name: George Mason School Project: ACPS IAQ testing - 4920002 Sampled by: Karl Ford

Comments:

Dosimeter cartrige # noted in the (Hexavelent Chromium Process) colum

List description of industry or Process/interferences present in sampling area:

Public grade school building

State samples were collected in (e.g., NY): VA

Please indicate which OEL this data will be used for: ☑ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA ☐ MSHA ☐ Other (specify):

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
GM - Cafeteria	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4853
GM - Library	08/16/21	Assay N581 Aldehyde Badge	252	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4676
GM - Band room	08/16/21	Assay N581 Aldehyde Badge	251	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4345
GM - Office 4	08/16/21	Assay N581 Aldehyde Badge	235	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4337
		Assay N581 Aldehyde Badge			Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge			Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge			Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge			Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge			Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge			Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge			Formaldehyde	mod. OSHA 1007: TPLC/UV	

^Galson Laboratories will subsititute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: ☑ Use method(s) listed on COC

For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):

For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)*:

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by:				Received by:			
Relinquished by:				Received by:	Brett Grenert-Fischer Brett Grenert-Fischer	8/27/21	1126

Samples received after 3pm will be considered as next day's business

* Required fields, failure to complete these fields may result in a delay in your samples being processed.

Page 2 of 2

Chain of Custody Form for Subcontracted Analyses

Phase Separation Science, Inc
6630 Baltimore National Pike
Baltimore, MD 21228
Phone: (410) 747-8770
Fax: (410) 788-8723

For Questions or issues please contact: Amber Confer

W.O. No. : **21082530**
Project Location : George Mason School
Project Number : 4920002
Report To LOD : No

Report Due On :09/03/21 05:00

Samples Transferred To:
SGS North America - NY
6601 Kirkville Road
East Syracuse, NY 13057

Old SGS Galson Labs. bsc
Phone : 315-432-5227

Lab Sample ID	Field Sample ID	Date Sampled	Time Sampled	Matrix	Analyses Required	Method	Type of Container	Preservative
21082530-001	GM-Class 3	08/16/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082530-002	GM-Hallway 3	08/16/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082530-003	GM-Reception	08/16/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082530-004	GM-Class 8	08/16/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082530-005	GM-Class 13	08/16/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082530-006	GM-Class 17	08/16/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082530-007	GM-Hallway 18	08/16/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082530-008	GM-Gym	08/16/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082530-009	GM-Class 30	08/16/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082530-010	GM-Class 26	08/16/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082530-011	GM-Hallway 22	08/16/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082530-012	GM-Cafeteria	08/16/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082530-013	GM-Library	08/16/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082530-014	GM-Band room	08/16/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082530-015	GM-Office 4	08/16/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON

Data Deliverables Required: COA

Perform Q.C. on Sample : _____

Send Report Attn : reporting@phaseonline.com

Send InvoiceAttn : invoicing@phaseonline.com

Airbill No.: _____ Carrier : UPS

Condition Upon Receipt : _____

Comments :

Samples Relinquished By : Amber Confer Date : 8/26/21 Time: _____ Samples Received By : Brett Grenert-Fischer Brett Grenert-Fischer 8/27/21 1126

Samples Relinquished By: _____ Date : _____ Time : _____ Samples Received By: _____

Samples Relinquished By: _____ Date: _____ Time: _____ Samples Received By: _____

6630 Baltimore National Pike
Baltimore, MD 21228
410-747-8770
800-932-9047
www.phaseonline.com

Project Name: ACPS IAQ Testing

PSS Project No.: 21082530

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

All sample receipt conditions were acceptable.

21082530: Analyses associated with analyst code 4051 were performed by
SGS North America - NY, 6601 Kirkville Road, East Syracuse, NY 13057 - NY 11626

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

21082530

SGS GALSON

6601 Kirkville Rd
East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)

www.sgsgalson.com

☐ New Client? Client Account No.*:

Report To* : Phase Separation Science
6630 Baltimore National Pike
Baltimore, MD 21228
Phone No.* : 410-747-8770
Cell No. :
Email Results to : Amber Confer
Email address: reporting@phaseonline.com

Invoice To* : Phase Separation Science
Phone No.: 410-747-8770
Email : invoicing@phaseonline.com
P.O. No. : ODC 4920002-001
Credit Card : ☐ Card on File ☐ Call for Credit Card Info.

☑ Samples submitted using the FreePumpLoan™ Program ☐ Samples submitted using the FreeSamplingBadges™ Program

Need Results By:	(surcharge)
☑ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Site Name : George Mason School Project : ACPS IAQ testing - 4920002 Sampled by : Karl Ford

Comments :
Dosimeter cartrige # noted in the (Hexavelent Chromium Process) colum

List description of industry or Process/interferences present in sampling area :
Public grade school building

State samples were collected in (e.g., NY)
VA

Please indicate which OEL this data will be used for :
☑ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA ☐ MSHA ☐ Other (specify):

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
GM - Class 3	08/16/21	Assay N581 Aldehyde Badge	248	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5229
GM - Hallway 3	08/16/21	Assay N581 Aldehyde Badge	246	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4406
GM - Reception	08/16/21	Assay N581 Aldehyde Badge	243	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4297
GM - Class 8	08/16/21	Assay N581 Aldehyde Badge	242	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5157
GM - Class 13	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4506
GM - Class 17	08/16/21	Assay N581 Aldehyde Badge	243	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ3932
GM - Hallway 18	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4076
GM - Gym	08/16/21	Assay N581 Aldehyde Badge	235	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5203
GM - Class 30	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4955
GM - Class 26	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5310
GM - Hallway 22	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5313

^Galson Laboratories will subsitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: ☑ Use method(s) listed on COC

For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):

For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)* :

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :	Client	8/25/21	1735	Received by :			
Relinquished by :				Received by :			

Samples received after 3pm will be considered as next day's business
* Required fields, failure to complete these fields may result in a delay in your samples being processed.

21082530

SGS GALSON

6601 Kirkville Rd
East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)

www.sgsgalson.com

☐ New Client?

Client Account No.*:

Report To*: Phase Separation Science
6630 Baltimore National Pike
Baltimore, MD 21228

Phone No.*: 410-747-8770
Cell No.:
Email Results to: Amber Confer
Email address: reporting@phaseonline.com

Invoice To*: Phase Separation Science

Phone No.: 410-747-8770
Email: invoicing@phaseonline.com
P.O. No.: ODC 4920002-001
Credit Card: ☐ Card on File ☐ Call for Credit Card Info.

☑ Samples submitted using the FreePumpLoan™ Program ☐ Samples submitted using the FreeSamplingBadges™ Program

Need Results By:	(surcharge)
☑ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Site Name: George Mason School Project: ACPS IAQ testing - 4920002 Sampled by: Karl Ford

Comments:

Dosimeter cartrige # noted in the (Hexavelent Chromium Process) colum

List description of industry or Process/interferences present in sampling area:

Public grade school building

State samples were collected in (e.g., NY): VA

Please indicate which OEL this data will be used for: ☑ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA ☐ MSHA ☐ Other (specify):

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
GM - Cafeteria	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4853
GM - Library	08/16/21	Assay N581 Aldehyde Badge	252	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4676
GM - Band room	08/16/21	Assay N581 Aldehyde Badge	251	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4345
GM - Office 4	08/16/21	Assay N581 Aldehyde Badge	235	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4337
		Assay N581 Aldehyde Badge			Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge			Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge			Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge			Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge			Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge			Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge			Formaldehyde	mod. OSHA 1007: TPLC/UV	

^Galson Laboratories will subsititute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: ☑ Use method(s) listed on COC

For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):

For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)*:

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by:				Received by:			
Relinquished by:				Received by:			

Samples received after 3pm will be considered as next day's business
* Required fields, failure to complete these fields may result in a delay in your samples being processed.

Page 2 of 2

PHASE SEPARATION SCIENCE

6630 Baltimore National Pike
Baltimore, MD 21228
410-747-8770
800-932-9047
www.phaseonline.com

Sample Receipt Checklist

Project Name: ACPS IAQ Testing
PSS Project No.: 21082530

Client Name Total Environmental Concepts - Lorto
Disposal Date 09/29/2021

Received By Amber Confer
Date Received 08/25/2021 05:35:00 PM
Delivered By Client
Tracking No Not Applicable
Logged In By Amber Confer

Shipping Container(s)
No. of Coolers 0

Custody Seal(s) Intact? N/A
Seal(s) Signed / Dated? N/A

Ice N/A
Temp (deg C)
Temp Blank Present No

Documentation
COC agrees with sample labels? Yes
Chain of Custody Yes

Sampler Name Karl Ford
MD DW Cert. No. N/A

Sample Container
Appropriate for Specified Analysis? Yes
Intact? Yes
Labeled and Labels Legible? Yes

Custody Seal(s) Intact? Not Applicable
Seal(s) Signed / Dated Not Applicable

Holding Time
All Samples Received Within Holding Time(s)? Yes

Total No. of Samples Received 15
Total No. of Containers Received 15

Preservation

Total Metals	(pH<2)	N/A
Dissolved Metals, filtered within 15 minutes of collection	(pH<2)	N/A
Orthophosphorus, filtered within 15 minutes of collection		N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, DOC (field filtered), COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A
524 VOC (Rcvd with trip blanks)	(pH<2)	N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By: Amber F Confer — Date: 08/26/2021
Amber Confer

PM Review and Approval: N L Jackson — Date: 08/26/2021
Lynn Jackson

SGS GALSON

6601 Kirkville Rd
East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)

www.sgsgalson.com

☐ New Client?

Client Account No.*:

Report To* : Phase Separation Science
6630 Baltimore National Pike
Baltimore, MD 21228

Phone No.* : 410-747-8770
Cell No. :
Email Results to : Amber Confer
Email address: reporting@phaseonline.com

Invoice To* : Phase Separation Science

Phone No.: 410-747-8770
Email : invoicing@phaseonline.com
P.O. No. : ODC 4920002-001
Credit Card : ☐ Card on File ☐ Call for Credit Card Info.

☑ Samples submitted using the FreePumpLoan™ Program ☐ Samples submitted using the FreeSamplingBadges™ Program

Need Results By:	(surcharge)
☑ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Site Name : George Mason Project : ACPS IAQ testing - 4920002 Sampled by : Karl Ford

Comments :
Dosimeter cartrige # noted in the (Hexavelent Chromium Process) colum

List description of industry or Process/interferences present in sampling area :
Public grade school building

State samples were collected in (e.g., NY)
VA

Please indicate which OEL this data will be used for :
☑ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA
☐ MSHA ☐ Other (specify):

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
GM - Class 3	08/16/21	Assay N581 Aldehyde Badge	248	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5229
GM - Hallway 3	08/16/21	Assay N581 Aldehyde Badge	246	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4406
GM - Reception	08/16/21	Assay N581 Aldehyde Badge	243	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4297
GM - Class 8	08/16/21	Assay N581 Aldehyde Badge	242	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5157
GM - Class 13	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4506
GM - Class 17	08/16/21	Assay N581 Aldehyde Badge	243	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ3932
GM - Hallway 18	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4076
GM - Gym	08/16/21	Assay N581 Aldehyde Badge	235	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5203
GM - Class 30	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4955
GM - Class 26	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5310
GM - Hallway 22	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5313

^Galson Laboratories will subsitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: ☑ Use method(s) listed on COC

For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):

For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)* :

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :				Received by :			
Relinquished by :				Received by :			

Samples received after 3pm will be considered as next day's business
* Required fields, failure to complete these fields may result in a delay in your samples being processed.

SGS GALSON

6601 Kirkville Rd
East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)

www.sgsgalson.com

☐ New Client?

Client Account No.*:

Report To* : Phase Separation Science
6630 Baltimore National Pike
Baltimore, MD 21228

Phone No.* : 410-747-8770
Cell No. :
Email Results to : Amber Confer
Email address: reporting@phaseonline.com

Invoice To* : Phase Separation Science

Phone No.: 410-747-8770
Email : invoicing@phaseonline.com
P.O. No. : ODC 4920002-001
Credit Card : ☐ Card on File ☐ Call for Credit Card Info.

☑ Samples submitted using the FreePumpLoan™ Program ☐ Samples submitted using the FreeSamplingBadges™ Program

Need Results By:	(surcharge)
☐ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Site Name : George Mason Project : ACPS IAQ testing - 4920002 Sampled by : Karl Ford

Comments :
Dosimeter cartrige # noted in the (Hexavelent Chromium Process) colum

List description of industry or Process/interferences present in sampling area :
Public grade school building

State samples were collected in (e.g., NY)
VA

Please indicate which OEL this data will be used for :
☑ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA
☐ MSHA ☐ Other (specify):

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
GM - Class 3	08/16/21	Assay N581 Aldehyde Badge	248	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5229
GM - Hallway 3	08/16/21	Assay N581 Aldehyde Badge	246	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4406
GM - Reception	08/16/21	Assay N581 Aldehyde Badge	243	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4297
GM - Class 8	08/16/21	Assay N581 Aldehyde Badge	242	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5157
GM - Class 13	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4506
GM - Class 17	08/16/21	Assay N581 Aldehyde Badge	243	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ3932
GM - Hallway 18	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4076
GM - Gym	08/16/21	Assay N581 Aldehyde Badge	235	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5203
GM - Class 30	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4955
GM - Class 26	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5310
GM - Hallway 22	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5313

^Galson Laboratories will subsitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: ☑ Use method(s) listed on COC

For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):

For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)* :

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :				Received by :			
Relinquished by :				Received by :			

Samples received after 3pm will be considered as next day's business
* Required fields, failure to complete these fields may result in a delay in your samples being processed.

Appendix E: 4-PCH Analytical Results

PHASE SEPARATION SCIENCE

6630 Baltimore National Pike
Baltimore, MD 21228
410-747-8770
800-932-9047
www.phaseonline.com

Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21082531

September 3, 2021

Karl Ford
Total Environmental Concepts - Lorton
8382 Terminal Road, Suite B
Lorton, VA 22079

Reference: PSS Project No: **21082531**
Project Name: ACPS IAQ Testing
Project Location: George Mason School
Project ID.: 4920002

Dear Karl Ford:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) **21082531**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on September 29, 2021, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager

PHASE SEPARATION SCIENCE

6630 Baltimore National Pike
Baltimore, MD 21228
410-747-8770
800-932-9047
www.phaseonline.com

Explanation of Qualifiers

Project Name: ACPS IAQ Testing

PSS Project No.: 21082531

Project ID: 4920002

The following samples were received under chain of custody by Phase Separation Science (PSS) on 08/25/2021 at 05:35 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
21082531-001	GM-Class 3	AIR	08/16/21 00:00
21082531-002	GM-Hallway 3	AIR	08/16/21 00:00
21082531-003	GM-Reception	AIR	08/16/21 00:00
21082531-004	GM-Class 8	AIR	08/16/21 00:00
21082531-005	GM-Class 13	AIR	08/16/21 00:00
21082531-006	GM-Class 17	AIR	08/16/21 00:00
21082531-007	GM-Hallway 18	AIR	08/16/21 00:00
21082531-008	GM-Gym	AIR	08/16/21 00:00
21082531-009	GM-Class 30	AIR	08/16/21 00:00
21082531-010	GM-Class 26	AIR	08/16/21 00:00
21082531-011	GM-Hallway 22	AIR	08/16/21 00:00
21082531-012	GM-Cafeteria	AIR	08/16/21 00:00
21082531-013	GM-Library	AIR	08/16/21 00:00
21082531-014	GM-Band room	AIR	08/16/21 00:00
21082531-015	GM-Office 4	AIR	08/16/21 00:00

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

PHASE SEPARATION SCIENCE

6630 Baltimore National Pike
Baltimore, MD 21228
410-747-8770
800-932-9047
www.phaseonline.com

Explanation of Qualifiers

Project Name: ACPS IAQ Testing

PSS Project No.: 21082531

Standard Flags/Abbreviations:

B	A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
C	Results Pending Final Confirmation.
E	The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
Fail	The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
J	The target analyte was positively identified below the reporting limit but greater than the MDL.
MDL	This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
ND	Not Detected at or above the reporting limit.
RL	PSS Reporting Limit.
U	Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

SGS GALSON

Ms. Amber Confer
Phase Separation Science, Inc.
6630 Baltimore National Pike
Baltimore, MD 21228

September 03, 2021

Account# 15354

Login# L545203

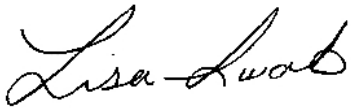
Dear Amber Confer:

Enclosed are the analytical results for the samples received by our laboratory on August 27, 2021. All samples on the chain of custody were received in good condition unless otherwise noted. Any additional observations will be noted on the chain of custody.

Please contact client services at (888) 432-5227 if you would like any additional information regarding this report. Thank you for using SGS Galson.

Sincerely,

SGS Galson



Lisa Swab
Laboratory Director

Enclosure(s)

Terms and Conditions & General Disclaimers

- This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.
- Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Analytical Disclaimers

- Unless otherwise noted within the report, all quality control results associated with the samples were within established control limits or did not impact reported results.
- Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process, including but not limited to the use of field equipment and collection media, as well as the sampling duration, collection volume or any other collection parameter used by the Client. The findings herein constitute no warranty of the sample's representativeness of any sampled environment, and strictly relate to the samples as they were presented to the laboratory. For recommended sampling collection parameters, please refer to the Sampling and Analysis Guide at www.sgsgalson.com.
- Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.
- The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).
- Unless otherwise noted within the report, results have not been blank corrected for any field blank or method blank data.

Accreditations SGS Galson holds a variety of accreditations and recognitions. Our quality management system conforms with the requirements of ISO/IEC 17025. Where applicable, samples may also be analyzed in accordance with the requirements of ELAP, NELAC, or LELAP under one of the state accrediting bodies listed below. Current Scopes of Accreditation can be viewed at http://www.sgsgalson.com in the accreditations section of the "About" page. To determine if the analyte tested falls under our scope of accreditation, please visit our website or call Client Services at (888) 432-5227.

National/International	Accreditation/Recognition	Lab ID#	Program/Sector
AIHA-LAP, LLC - IHLAP, ELLAP, EMLAP	ISO/IEC 17025 and USEPA NLLAP	Lab ID 100324	Industrial Hygiene, Environmental Lead, Environmental Microbiology

State	Accreditation/Recognition	Lab ID#	Program/Sector
New York (NYSDOH)	ELAP and NELAC (TNI)	Lab ID: 11626	Air Analysis, Solid and Hazardous Waste
New Jersey (NJDEP)	NELAC (TNI)	Lab ID: NY024	Air Analysis
Louisiana (LDEQ)	LELAP	Lab ID: 04083	Air Analysis, Solid Chemical Materials
Texas	Texas Dept. of Licensing and Regulation	Lab ID: 1042	Mold Analysis Laboratory license

Legend

< - Less than	mg - Milligrams	MDL - Method Detection Limit	ppb - Parts per Billion
> - Greater than	ug - Micrograms	NA - Not Applicable	ppm - Parts per Million
l - Liters	m3 - Cubic Meters	NS - Not Specified	ppbv - ppb Volume
LOQ - Limit of Quantitation	kg - Kilograms	ND - Not Detected	ppmv - ppm Volume
ft2 - Square Feet	cm2 - Square Centimeters	in2 - Square Inches	ng - Nanograms

SGS GALSON

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.sgsgalson.com

LABORATORY ANALYSIS REPORT

Client : Phase Separation Science, Inc. Account No.: 15354
Site : GEORGE MASON SCHOOL Login No. : L545203
Project No. : ACPS IAQ TESTING-4920002
Date Sampled : 16-AUG-21 Date Analyzed : 01-SEP-21
Date Received : 27-AUG-21 Report ID : 1263236

4-Phenylcyclohexene (4PCH low LOQ)

Sample ID	Lab ID	Air Vol liter	Front ug	Back ug	Total ug	Conc mg/m3	ppm
GM-CLASS 3	L545203-1	49.6	<0.2	<0.2	<0.2	<0.004	<0.0006
GM-HALLWAY 3	L545203-2	49.2	<0.2	<0.2	<0.2	<0.004	<0.0006
GM-RECEPTION	L545203-3	48.6	<0.2	<0.2	<0.2	<0.004	<0.0007
GM-CLASS 8	L545203-4	48.4	<0.2	<0.2	<0.2	<0.004	<0.0007
GM-CLASS 13	L545203-5	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GM-CLASS 17	L545203-6	48.6	<0.2	<0.2	<0.2	<0.004	<0.0007
GM-HALLWAY 18	L545203-7	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GM-GYM	L545203-8	47	<0.2	<0.2	<0.2	<0.004	<0.0007
GM-CLASS 30	L545203-9	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GM-CLASS 26	L545203-10	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GM-HALLWAY 22	L545203-11	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GM-CAFETERIA	L545203-12	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GM-LIBRARY	L545203-13	50.4	<0.2	<0.2	<0.2	<0.004	<0.0006
GM-BAND ROOM	L545203-14	50.2	<0.2	<0.2	<0.2	<0.004	<0.0006
GM-OFFICE 4	L545203-15	47	<0.2	<0.2	<0.2	<0.004	<0.0007

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of Quantitation: 0.2 ug
Analytical Method : mod. NIOSH 1501; GC/PID
Collection Media : 226-01

Submitted by: BDK
Date : 03-SEP-21
Supervisor : KAG

Approved by: MLN

GALSON

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.sgsgalson.com

Client Name : Phase Separation Science, Inc.
Site : GEORGE MASON SCHOOL
Project No. : ACPS IAQ TESTING-4920002

Date Sampled : 16-AUG-21 Account No.: 15354
Date Received: 27-AUG-21 Login No. : L545203
Date Analyzed: 01-SEP-21

L545203 (Report ID: 1263236):
Total ug corrected for a desorption efficiency of 97%.
SOPs: GC-SOP-16(26), GC-SOP-8(27), GC-SOP-12(20)

L545203 (Report ID: 1263236):
Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
4-Phenylcyclohexene (4PCH low LOQ)	+/-18%	88.2%

21082531

1Z2313E40165461239
Date:08/27/21
Shipper:UPS
Initials:BGF
Prep:UNKNOWN

☐ New Client? Report To*: Phase Separation Science
6630 Baltimore National Pike
Baltimore, MD 21228

Client Account No.*:

Invoice To*: Phase Separation Science

Phone No.*: 410-747-8770
Cell No.:
Email Results to: Amber Confer
Email address: reporting@phaseonline.com

Phone No.: 410-747-8770
Email: invoicing@phaseonline.com
P.O. No.: ODC 4920002-001
Credit Card: ☐ Card on File ☐ Call for Credit Card Info.

☑ Samples submitted using the FreePumpLoan™ Program ☐ Samples submitted using the FreeSamplingBadges™ Program

East Syracuse, NY 13057
Tel: (315) 432-5227
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85

Need Results By:	(surcharge)
☑ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Site Name: George Mason School Project: ACPS IAQ testing - 4920002 Sampled by: Karl Ford

Comments:

List description of industry or Process/interferences present in sampling area:
Public grade school all NG BGF 8/27/21

State samples were collected in (e.g., NY): VA

Please indicate which OEL this data will be used for:
☑ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA ☐ MSHA ☐ Other (specify):

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
GM - Class 3	08/16/21	Sm Charcoal tubes / 226-01	49.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Hallway 3	08/16/21	Sm Charcoal tubes / 226-01	49.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Reception	08/16/21	Sm Charcoal tubes / 226-01	48.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Class 8	08/16/21	Sm Charcoal tubes / 226-01	48.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Class 13	08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Class 17	08/16/21	Sm Charcoal tubes / 226-01	48.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Hallway 18	08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Gym	08/16/21	Sm Charcoal tubes / 226-01	47.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Class 30	08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Class 26	08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Hallway 22	08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	

^Galson Laboratories will subsitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: ☑ Use method(s) listed on COC

For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):

For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)*:

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by:	Client	8/25/21	1735	Received by:			
Relinquished by:				Received by:	Brett Grenert-Fischer	8/27/21	1126

Samples received after 3pm will be considered as next day's business

* Required Fields, failure to complete these fields may result in a delay in your samples being processed.

21082531

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East Syracuse, NY 13057
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888-432-LABS (5227)

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☐ New Client?

Client Account No.*:

Report To* : Phase Separation Science
6630 Baltimore National Pike
Baltimore, MD 21228

Phone No.* : 410-747-8770
Cell No. :
Email Results to : Amber Confer
Email address: reporting@phaseonline.com

Invoice To* : Phase Separation Science

Phone No.: 410-747-8770
Email : invoicing@phaseonline.com
P.O. No. : ODC 4920002-001
Credit Card : ☐ Card on File ☐ Call for Credit Card Info.

☑ Samples submitted using the FreePumpLoan™ Program ☐ Samples submitted using the FreeSamplingBadges™ Program

Need Results By:	(surcharge)
☑ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Site Name : George Mason School Project : ACPS IAQ testing - 4920002 Sampled by : Karl Ford

Comments :

List description of industry or Process/interferences present in sampling area : Public grade school

State samples were collected in (e.g., NY): VA

Please indicate which OEL this data will be used for : ☑ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA ☐ MSHA ☐ Other (specify):

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
GM - Cafeteria	08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Library	08/16/21	Sm Charcoal tubes / 226-01	50.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Band room	08/16/21	Sm Charcoal tubes / 226-01	50.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Office 4	08/16/21	Sm Charcoal tubes / 226-01	47.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01			4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01			4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01			4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01			4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01			4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01			4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01			4-Phenylcyclohexene	mod. NIOSH 1501	

^Galson Laboratories will subsititute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: ☑ Use method(s) listed on COC

For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):

For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)* :

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :	Client	8/25/21	1735	Received by :	Amber Confer		
Relinquished by :	Amber Confer			Received by :	Brett Grenert-Fischer Brett Grenert-Fischer	8/27/21	1126

Samples received after 3pm will be considered as next day's business

* Required fields, failure to complete these fields may result in a delay in your samples being processed.

Chain of Custody Form for Subcontracted Analyses

Phase Separation Science, Inc
6630 Baltimore National Pike
Baltimore, MD 21228
Phone: (410) 747-8770
Fax: (410) 788-8723

For Questions or issues please contact: Amber Confer

W.O. No. : **21082531**
Project Location : George Mason School
Project Number : 4920002
Report To LOD : No

Report Due On :09/02/21 05:00

Samples Transferred To:
SGS North America - NY
6601 Kirkville Road
East Syracuse, NY 13057
Old SGS Galson Labs. bsc
Phone : 315-432-5227

Lab Sample ID	Field Sample ID	Date Sampled	Time Sampled	Matrix	Analyses Required	Method	Type of Container	Preservative
21082531-001	GM-Class 3	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082531-002	GM-Hallway 3	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082531-003	GM-Reception	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082531-004	GM-Class 8	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082531-005	GM-Class 13	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082531-006	GM-Class 17	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082531-007	GM-Hallway 18	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082531-008	GM-Gym	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082531-009	GM-Class 30	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082531-010	GM-Class 26	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082531-011	GM-Hallway 22	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082531-012	GM-Cafeteria	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082531-013	GM-Library	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082531-014	GM-Band room	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082531-015	GM-Office 4	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON

ata Deliverables Required: COA
end Report Attn : reporting@phaseonline.com
ill No.: _____ Carrier : UPS
dition Upon Receipt : _____
ments : _____

Perform Q.C. on Sample : _____
Send InvoiceAttn : invoicing@phaseonline.com

les Relinquished By : Amber Confer Date : 8/26/21 Time: _____ Samples Received By : Brett Grenert-Fischer Brett Grenert-Fischer 8/27/21
es Relinquished By: _____ Date : _____ Time: _____ Samples Received By: _____ 1126
es Relinquished By: _____ Date: _____ Time: _____ Samples Received By: _____

6630 Baltimore National Pike
Baltimore, MD 21228
410-747-8770
800-932-9047
www.phaseonline.com

Project Name: ACPS IAQ Testing

PSS Project No.: 21082531

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

All sample receipt conditions were acceptable.

21082531: Analyses associated with analyst code 4051 were performed by
SGS North America - NY, 6601 Kirkville Road, East Syracuse, NY 13057 - NY 11626

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

21082531

SGS GALSON

6601 Kirkville Rd
East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)

www.sgsgalson.com

☐ New Client?

Client Account No.*:

Report To* : Phase Separation Science
6630 Baltimore National Pike
Baltimore, MD 21228

Phone No.* : 410-747-8770
Cell No. :
Email Results to : Amber Confer
Email address: reporting@phaseonline.com

Invoice To* : Phase Separation Science

Phone No.: 410-747-8770
Email : invoicing@phaseonline.com
P.O. No. : ODC 4920002-001
Credit Card : ☐ Card on File ☐ Call for Credit Card Info.

☑ Samples submitted using the FreePumpLoan™ Program ☐ Samples submitted using the FreeSamplingBadges™ Program

Need Results By:	(surcharge)
☑ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Site Name : George Mason School Project : ACPS IAQ testing - 4920002 Sampled by : Karl Ford

Comments :

List description of industry or Process/interferences present in sampling area :
Public grade school

State samples were collected in (e.g., NY)
VA

Please indicate which OEL this data will be used for :
☑ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA
☐ MSHA ☐ Other (specify):

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
GM - Class 3	08/16/21	Sm Charcoal tubes / 226-01	49.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Hallway 3	08/16/21	Sm Charcoal tubes / 226-01	49.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Reception	08/16/21	Sm Charcoal tubes / 226-01	48.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Class 8	08/16/21	Sm Charcoal tubes / 226-01	48.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Class 13	08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Class 17	08/16/21	Sm Charcoal tubes / 226-01	48.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Hallway 18	08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Gym	08/16/21	Sm Charcoal tubes / 226-01	47.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Class 30	08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Class 26	08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Hallway 22	08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	

^Galson Laboratories will subsititute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: ☑ Use method(s) listed on COC

For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):

For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)* :

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :	Client	8/25/21	1735	Received by :			
Relinquished by :				Received by :			

Samples received after 3pm will be considered as next day's business
* Required fields, failure to complete these fields may result in a delay in your samples being processed.

Page 1 of 2

21082531

SGS GALSON

6601 Kirkville Rd
East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)

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☐ New Client?

Client Account No.*:

Report To*: Phase Separation Science
6630 Baltimore National Pike
Baltimore, MD 21228

Phone No.*: 410-747-8770
Cell No.:
Email Results to: Amber Confer
Email address: reporting@phaseonline.com

Invoice To*: Phase Separation Science

Phone No.: 410-747-8770
Email: invoicing@phaseonline.com
P.O. No.: ODC 4920002-001
Credit Card: ☐ Card on File ☐ Call for Credit Card Info.

☑ Samples submitted using the FreePumpLoan™ Program ☐ Samples submitted using the FreeSamplingBadges™ Program

Need Results By:	(surcharge)
☑ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Site Name: George Mason School Project: ACPS IAQ testing - 4920002 Sampled by: Karl Ford

Comments:

List description of industry or Process/interferences present in sampling area: Public grade school

State samples were collected in (e.g., NY): VA

Please indicate which OEL this data will be used for: ☑ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA ☐ MSHA ☐ Other (specify):

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
GM - Cafeteria	08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Library	08/16/21	Sm Charcoal tubes / 226-01	50.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Band room	08/16/21	Sm Charcoal tubes / 226-01	50.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GM - Office 4	08/16/21	Sm Charcoal tubes / 226-01	47.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01			4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01			4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01			4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01			4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01			4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01			4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01			4-Phenylcyclohexene	mod. NIOSH 1501	

^Galson Laboratories will subsititute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: ☑ Use method(s) listed on COC

For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):

For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)*:

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by:	Client	8/25/21	1735	Received by:	[signature]		
Relinquished by:	[signature]			Received by:			

Samples received after 3pm will be considered as next day's business
* Required fields, failure to complete these fields may result in a delay in your samples being processed.

Page 2 of 2

PHASE SEPARATION SCIENCE

6630 Baltimore National Pike
Baltimore, MD 21228
410-747-8770
800-932-9047
www.phaseonline.com

Sample Receipt Checklist

Project Name: ACPS IAQ Testing
PSS Project No.: 21082531

Client Name	Total Environmental Concepts - Lortc	**Received By**	Amber Confer
Disposal Date	09/29/2021	**Date Received**	08/25/2021 05:35:00 PM
		Delivered By	Client
		Tracking No	Not Applicable
		Logged In By	Amber Confer

Shipping Container(s)

No. of Coolers 0

		Ice	N/A
Custody Seal(s) Intact?	N/A	Temp (deg C)	
Seal(s) Signed / Dated?	N/A	Temp Blank Present	No
Documentation		Sampler Name	Karl Ford
COC agrees with sample labels?	Yes	MD DW Cert. No.	N/A
Chain of Custody	Yes		
Sample Container		Custody Seal(s) Intact?	Not Applicable
Appropriate for Specified Analysis?	Yes	Seal(s) Signed / Dated	Not Applicable
Intact?	Yes		
Labeled and Labels Legible?	Yes		
Holding Time		Total No. of Samples Received	15
All Samples Received Within Holding Time(s)?	Yes	Total No. of Containers Received	15

Preservation

Total Metals	(pH<2)	N/A
Dissolved Metals, filtered within 15 minutes of collection	(pH<2)	N/A
Orthophosphorus, filtered within 15 minutes of collection		N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, DOC (field filtered), COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A
524 VOC (Rcvd with trip blanks)	(pH<2)	N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By: Amber Confer — Date: 08/26/2021

Amber Confer

PM Review and Approval: Lynn Jackson — Date: 08/26/2021

Lynn Jackson

SGS GALSON

6601 Kirkville Rd
East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)

www.sgsgalson.com

☐ New Client?

Client Account No.*:

Report To* : Phase Separation Science
6630 Baltimore National Pike
Baltimore, MD 21228

Phone No.* : 410-747-8770
Cell No. :
Email Results to : Amber Confer
Email address: reporting@phaseonline.com

Invoice To* : Phase Separation Science

Phone No.: 410-747-8770
Email : invoicing@phaseonline.com
P.O. No. : ODC 4920002-001
Credit Card : ☐ Card on File ☐ Call for Credit Card Info.

☑ Samples submitted using the FreePumpLoan™ Program ☐ Samples submitted using the FreeSamplingBadges™ Program

Need Results By:	(surcharge)
☐ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Site Name : George Mason Project : ACPS IAQ testing - 4920002 Sampled by : Karl Ford

Comments :
Dosimeter cartrige # noted in the (Hexavelent Chromium Process) colum

List description of industry or Process/interferences present in sampling area :
Public grade school building

State samples were collected in (e.g., NY)
VA

Please indicate which OEL this data will be used for :
☑ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA
☐ MSHA ☐ Other (specify):

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
GM - Class 3	08/16/21	Assay N581 Aldehyde Badge	248	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5229
GM - Hallway 3	08/16/21	Assay N581 Aldehyde Badge	246	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4406
GM - Reception	08/16/21	Assay N581 Aldehyde Badge	243	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4297
GM - Class 8	08/16/21	Assay N581 Aldehyde Badge	242	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5157
GM - Class 13	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4506
GM - Class 17	08/16/21	Assay N581 Aldehyde Badge	243	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ3932
GM - Hallway 18	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4076
GM - Gym	08/16/21	Assay N581 Aldehyde Badge	235	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5203
GM - Class 30	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4955
GM - Class 26	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5310
GM - Hallway 22	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5313

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For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)* :

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :				Received by :			
Relinquished by :				Received by :			

Samples received after 3pm will be considered as next day's business
* Required fields, failure to complete these fields may result in a delay in your samples being processed.

SGS GALSON

6601 Kirkville Rd
East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)

www.sgsgalson.com

☐ New Client?

Client Account No.*:

Report To* : Phase Separation Science
6630 Baltimore National Pike
Baltimore, MD 21228

Phone No.* : 410-747-8770
Cell No. :
Email Results to : Amber Confer
Email address: reporting@phaseonline.com

Invoice To* : Phase Separation Science

Phone No.: 410-747-8770
Email : invoicing@phaseonline.com
P.O. No. : ODC 4920002-001
Credit Card : ☐ Card on File ☐ Call for Credit Card Info.

☑ Samples submitted using the FreePumpLoan™ Program ☐ Samples submitted using the FreeSamplingBadges™ Program

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GM - Hallway 18	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4076
GM - Gym	08/16/21	Assay N581 Aldehyde Badge	235	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5203
GM - Class 30	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4955
GM - Class 26	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5310
GM - Hallway 22	08/16/21	Assay N581 Aldehyde Badge	240	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5313

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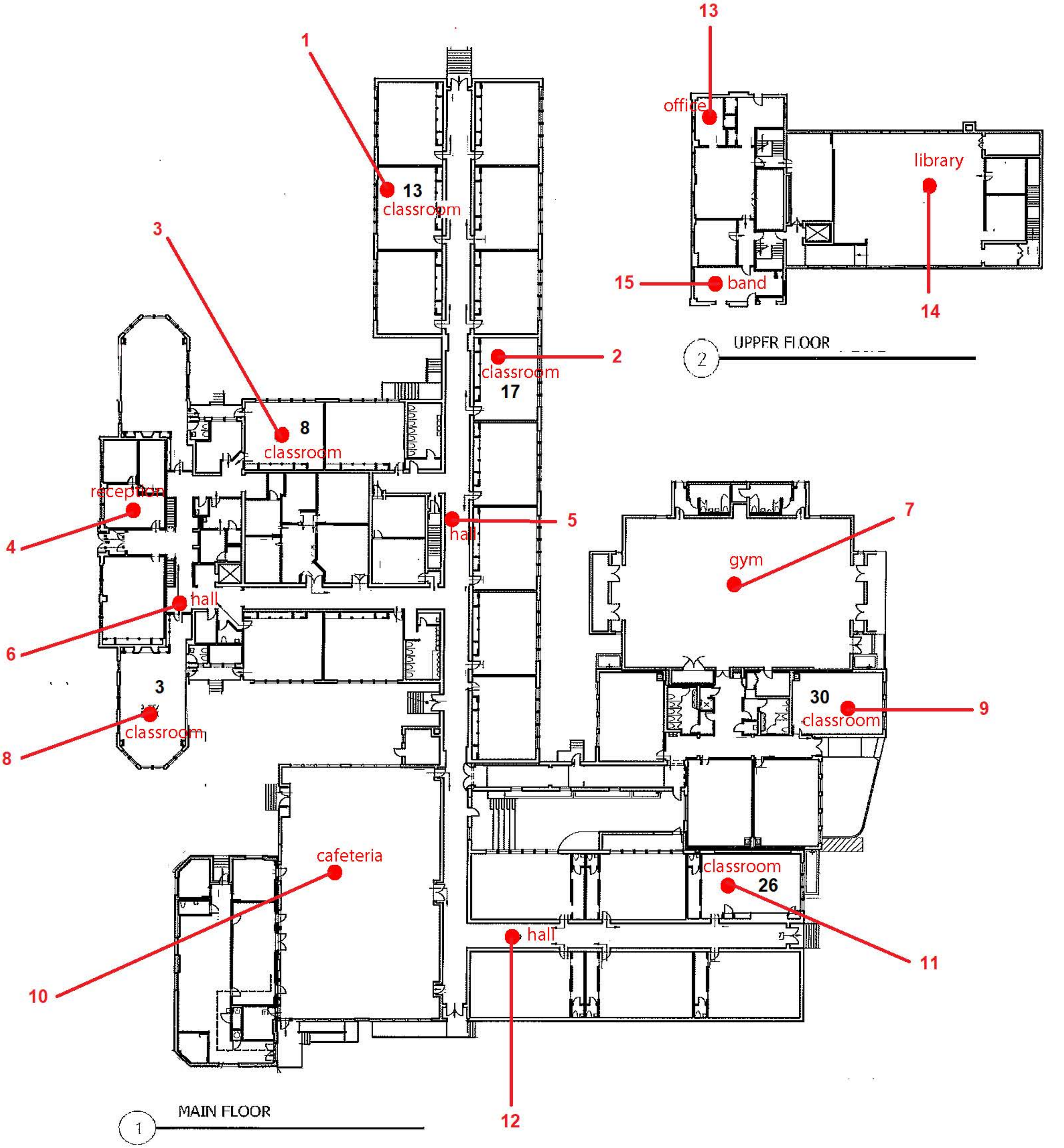
Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :				Received by :			
Relinquished by :				Received by :			

Samples received after 3pm will be considered as next day's business
* Required fields, failure to complete these fields may result in a delay in your samples being processed.

Appendix F: Sampling Locations



LEGEND

- Sample Location Analyzed For:
  - Mold
  - Radon
  - VOC's (TO+15)
  - 4-polycyclohexene
  - Formaldehyde

George Mason Elementary School

2601 Cameron Mills Rd,
Alexandria, VA 22302

N

Total Environmental Concepts, Inc.
8382 Terminal Road, Suite B
Lorton, VA 22079
Phone: 703-567-4346
Fax: 703-567-3487

Figure 1

Appendix G: Photographs

George Mason, Band Room

George Mason, Cafeteria

George Mason, Office

George Mason, Classroom

George Mason, Gym

George Mason, Hallway