

**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



INDOOR AIR QUALITY ASSESSMENT REPORT

at

WILLIAM RAMSEY ELEMENTARY SCHOOL

5700 Sanger Ave,
Alexandria, VA 22311



Report Prepared for:

John Contreras

Alexandria City Public Schools

2601 Cameron Mills Rd, Alexandria, VA 22302

Dated: September 30, 2021

TABLE OF CONTENTS

1	Executive Summary.....	1
2	Assessment Methods.....	3
3	Visual Observations	6
4	Conditions for Human Occupancy	8
	4.1 Temperature	8
	4.2 Relative Humidity	8
	4.3 Carbon Dioxide	9
	4.4 Carbon Monoxide	9
	4.5 Multi-Gas	9
5	Mold Sampling Results	9
6	Radon Gas Sampling Results	11
7	Formaldehyde Gas Sampling Results	11
8	TO+15 (VOCs) Sampling Results	11
9	4-pch Sampling Results	11
10	Multi-Gas detector (MSA Altair Multi-gas) Readings – Oxygen, VOCs, Hydrogen Sulfide	11
11	Quality Control Program	14

APPENDICES

Appendix A: Mold Analytical Results

Appendix B: Radon Analytical Results

Appendix C: VOCs (TO+15) Analytical Results

Appendix D: Formaldehyde Analytical Results

Appendix E: 4-PCH Analytical Results

Appendix F: Sampling Locations

Appendix G: Photographs

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 assessed last. 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 MacArthur 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 William Ramsey Elementary School on Wednesday, August 25, 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. An extra sampling location was included, at the request of the Assistant Principal, to verify onsite air purifier (Alen BreathSmart). ACPS required that TEC test for the following major indoor air pollutants:

- Mold
- Radon
- 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:

- **Mold** – TEC conducted site-specific mold sampling outside at William Ramsey to obtain a baseline of the number and types of fungal spores in the air. This baseline was compared to the spores collected inside at the sampling locations since inside spore counts above baseline, could indicate internal sources of mold.

Findings:

1. The number of spores in the air were within acceptable ranges in all locations as compared to background outside air mold spore counts.
2. A mold spore ratio anomaly was recorded in room R – 5 and in the stairwell near room R - 8. This ratio anomaly is most likely caused by open windows and doors and by normal fluctuations in outdoor spore counts. No visible mold was observed. This anomaly is not a health issue.
3. Areas of water staining were also observed and in the stairwell near room R - 8. and in several other locations. No visible mold was observed.

None of the other mold sampling results at William Ramsey Elementary School were indicative of mold issues. Photographs can be found in Section 3, Visual Observations.

Recommendations:

- Moving forward, any suspected mold growth should be inspected by a qualified professional.
 - Investigate sources of water leaks and any evidence of water staining.
 - Inspect above drop ceilings and replace stained ceiling tiles.
 - Inspect areas around building foundation.
 - A detailed schedule of maintenance, for all HVAC and associated building systems, should be established, and adhered to.
- **Radon** – levels recorded in all locations were less than 4pCi/L, as recommended by EPA and HUD.
 - **VOCs** – The levels of volatile 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 $\leq 67\%$, and for the purposes of this investigation $\leq 65\%$. 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.

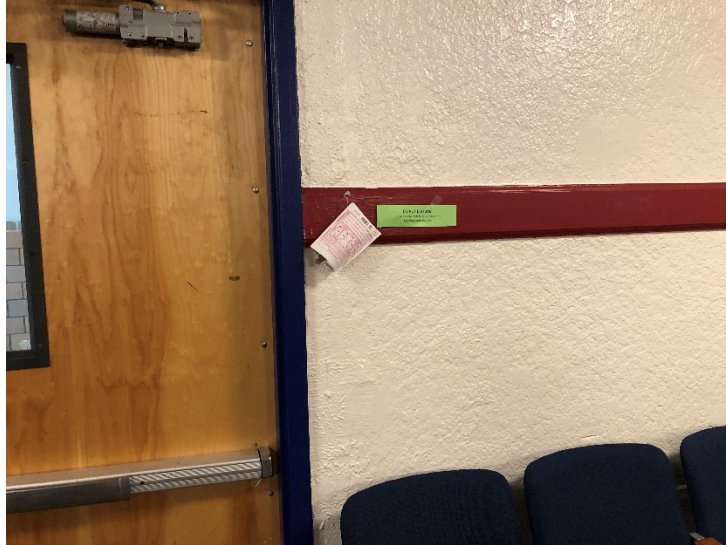
2. Assesment Methods

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 25, 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. Temperature 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. This information can be found in Table 1 below. Photograph Below.



3. Visual Observations

Sample Location	August 25, 2021	Visual Observations
Stairwell 205 R-9	Water stain observed on the ceiling of stairwell.	

<p>Stairwell 205 R-9</p>	<p>Alternative view of water stain observed on ceiling of stairwell.</p>	
<p>5</p>	<p>No visible water damage in room 5.</p>	
<p>34</p>	<p>Close up of staining on ceiling tiles of room 34</p>	

<p>Stairwell by rooms 25-30</p>	<p>Wall and tile cracking observed in the stairwell by room 25-30</p>	
---------------------------------	---	--

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 indicate 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

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

1. The number of spores in the air were within acceptable ranges in all locations as compared to background outside air mold spore counts.
2. A mold spore ratio anomaly was recorded in room R – 5 and in the stairwell near room R - 8. The fungi *Aspergillus*/*Penicillium* and the fungi *Cladosporium* was detected. Ratio anomalies such as this are most likely caused by open windows and doors and normal fluctuations in outside spore counts. *Aspergillus*/*Penicillium* is the most commonly identified fungi in the environment, and *Cladosporium* is also one of the most commonly found mold genera world-wide. *Aspergillus*/*Penicillium* and *Cladosporium* are very common in soil and on plants. These groups contain common allergens and have been known to cause hypersensitivity issues. The outdoor numbers of *Cladosporium* are lower in the winter and are often relatively high in summer. *Cladosporium* numbers are known to spike in the late afternoon and evening, such as when TEC sampled. Photographs of these locations can be found, in Section 3, Visual Observations.
3. Areas of water staining were also observed and in the stairwell near room R - 8 and in several other locations. No visible mold was observed.

In conclusion, federal standards for the number of fungal spores that may be present in the indoor environment, don't exist. The widely accepted guideline in the indoor air quality field, requires that the numbers and types of spores that are present in the indoor environment not exceed those that are present outdoors at any given time.

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.

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.

There will also be mold spores present in "normal" outdoor environments. In any environment, excess mold growth may arise as a result of excess moisture. Indoors this may indicate water leaks or high indoor humidity.

Interior spore counts above baseline readings, may indicate internal sources of mold. This would indicate a requirement for further investigation and potential mitigation. TEC observed evidence of water intrusion into the building in several locations however, no visible mold was present.

- TEC recommends that ACPS investigate all areas where there are obvious signs of water intrusion. Care should be taken to look above drop ceilings and around the building foundation. Any hidden suspected mold should be tested and verified by a qualified professional. The mold in air results do not indicate a need for mold abatement at this time, but conditions may worsen if the issues with leaks and water intrusion are not addressed. The observed ratio anomalies are most likely caused by a combination of the normal fluctuation in daily spore counts, and the issues with water intrusion. Mold analytical results can be found in Appendix A.
- None of the other results from the fifteen sampling locations at William Ramsey Elementary School were indicative of mold issues.
 - Moving forward, any suspected mold growth should be inspected by a qualified professional.
 - Investigate sources of water leaks and any evidence of water staining.
 - Inspect above drop ceilings and replace stained ceiling tiles.
 - Inspect areas around building foundation.
 - A detailed schedule of maintenance, for all HVAC and associated building systems, should be established, and adhered to.

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 E.

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 indicated elevated levels of pch. Analytical results can be found in Appendix C.

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
Reception Office	0.0	0.0	20.9	0.0
Cafeteria	0.0	0.0	20.9	0.0
Library	0.0	0.0	20.9	0.0
Auditorium	0.0	0.0	20.9	0.0
R-5	0.0	0.0	20.9	0.0
Hallway R31	0.0	0.0	20.9	0.0
35	0.0	0.0	20.9	0.0
Gym	0.0	0.0	20.9	0.0
210 Office	0.0	0.0	20.9	0.0
16	0.0	0.0	20.9	0.0
13	0.0	0.0	20.9	0.0
Hall 8-7	0.0	0.0	20.9	0.0
R-8 Stairwell	0.0	0.0	20.9	0.0
21	0.0	0.0	20.9	0.0
28	0.0	0.0	20.9	0.0
Art	0.0	0.0	20.9	0.0

Table 2

Results of Analytes by Location						
Location	Radon	Mold		TO+15 VOCs	4PCH	Formaldehyde
		AVG: 73 F	AVG: 46 %			
Reception Office	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Cafeteria	< 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
Auditorium	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
R - 5	< 4 pCi/L	*Spore Ratio Anomaly		< RSL	< 6.5 ug/m3	< RSL
Hallway R31	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
35	< 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
210 Office	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
16	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
13	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Hall 8-7	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
R-8 stairwell	< 4 pCi/L	*Spore Ratio Anomaly		< RSL	< 6.5 ug/m3	< RSL
21	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
28	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Art	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL

*See Section 5 - Ratio abnormalities are most likely caused by fluctuations in daily spore counts

11. Quality Control Program

- TEC recognizes the importance of quality assurance (QA) and quality control (QC) measures as they relate to the performance of sample collection and processing.
- To ensure compliance with QA/QC measures, SOPs have been developed for field sample collection techniques, field sample screening procedures, multi-media sampling, and the accurate presentation of findings/reporting.
- All staff are provided these SOPs and are trained in these procedures before conducting work activities. TEC's Program Manager and the on-site PM/QCM will manage the quality control program.
- The PM will work closely with field technicians to ensure the success of the quality control program. All team members will receive copies of and abide by the quality control plan.
- Daily records will be kept of all operations, activities, and tests performed in the quality control program.
- All samples collected during this IAQ assessment were collected, processed, and shipped under the strictest chain of custody (CoC) guidelines.
- All samples were shipped for analysis by a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory.

Appendix A: Mold Analytical Results

Analysis Report prepared for

Total Environmental Concepts, Inc.

8382 Terminal Road
Suite B
Lorton, VA 22079

Phone: (571) 289-2173

William Ramsey ES

Collected: **August 25, 2021**
Received: **August 27, 2021**
Reported: **August 27, 2021**

We would like to thank you for trusting Hayes Microbial for your analytical needs!
We received 18 samples by FedEx in good condition for this project on August 27th, 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

Sample Number	1	WR4318570			2	WR4318564			3	WR4318574			4	WR4318576		
Sample Name	WR-35			WR-Hall 31			WR-16			WR-13						
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	2			2			2			2						
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	5	67	38.5%	7	93	77.8%	6	80	46.2%	9	120	56.3%				
Aspergillus Penicillium	2	27	15.4%	1	13	11.1%	2	27	15.4%	2	27	12.5%				
Basidiospores				1	13	11.1%				1	13	6.3%				
Bipolaris Drechslera																
Chaetomium																
Cladosporium	6	80	46.2%				4	53	30.8%	3	40	18.8%				
Curvularia										1	13	6.3%				
Epicoccum							1	13	7.7%							
Fusarium																
Memnoniella																
Myxomycetes																
Pithomyces																
Stachybotrys																
Stemphylium																
Torula																
Ulocladium																
Total	13	174	100%	9	119	100%	13	173	100%	16	213	100%				

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

Collected: **Aug 25, 2021**

Received: **Aug 27, 2021**

Reported: **Aug 27, 2021**



Project Analyst:
 Steve Hayes, BSMT *Stephen N. Hayes*

Date:
08 - 27 - 2021

Reviewed By:
 Ramesh Poluri, PhD *P. Ramesh*

Date:
08 - 27 - 2021

Sample Number	5	WR4315648			6	WR4315654			7	WR4318573			8	WR4318571		
Sample Name	WR-5			WR-Gym			WR-Outdoor			WR - Library						
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	2			2			2			2						
Fragments	13/m ³			ND			27/m ³			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							2	27	<1%							
Ascospores	7	93	17.5%	14	187	70.0%	420	5600	55.3%	11	147	57.9%				
Aspergillus Penicillium	28	373	70.0%	2	27	10.0%	18	240	2.4%	7	93	36.8%				
Basidiospores				3	40	15.0%	198	2640	26.1%							
Bipolaris Drechslera							1	13	<1%							
Chaetomium																
Cladosporium	4	53	10.0%	1	13	5.0%	112	1493	14.7%	1	13	5.3%				
Curvularia	1	13	2.5%													
Epicoccum																
Fusarium																
Memnoniella																
Myxomycetes							6	80	<1%							
Pithomyces							3	40	<1%							
Stachybotrys																
Stemphylium																
Torula																
Ulocladium																
Total	40	532	100%	20	267	100%	760	10133	100%	19	253	100%				

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

Collected: **Aug 25, 2021**

Received: **Aug 27, 2021**

Reported: **Aug 27, 2021**



Project Analyst:
 Steve Hayes, BSMT *Stephen N. Hayes*

Date:
08 - 27 - 2021

Reviewed By:
 Ramesh Poluri, PhD *P. Ramesh*

Date:
08 - 27 - 2021

Sample Number	9	WR4318565			10	WR4318566			11	WR4315649			12	WR4318567		
Sample Name	WR-Aud			WR-Reception			WR-Cafe			WR-Hall 8						
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	2			2			2			2						
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	22	293	73.3%	4	53	80.0%	8	107	61.5%	5	67	62.5%				
Aspergillus Penicillium	3	40	10.0%				2	27	15.4%							
Basidiospores	4	53	13.3%							1	13	12.5%				
Bipolaris Drechslera																
Chaetomium																
Cladosporium	1	13	3.3%	1	13	20.0%	3	40	23.1%	2	27	25.0%				
Curvularia																
Epicoccum																
Fusarium																
Memnoniella																
Myxomycetes																
Pithomyces																
Stachybotrys																
Stemphylium																
Torula																
Ulocladium																
Total	30	399	100%	5	66	100%	13	174	100%	8	107	100%				

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

Collected: **Aug 25, 2021**

Received: **Aug 27, 2021**

Reported: **Aug 27, 2021**



Project Analyst:
 Steve Hayes, BSMT *Stephen N. Hayes*

Date:
08 - 27 - 2021

Reviewed By:
 Ramesh Poluri, PhD *P. Ramesh*

Date:
08 - 27 - 2021

Sample Number	13	WR4315643			14	WR4318569			15	WR4318578			16	WR4315653		
Sample Name	WR-28			WR-21			WR-203-R8			WR-R8-Stair						
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	2			2			2			2						
Fragments	ND			13/m ³			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	7	93	70.0%	6	80	27.3%	2	27	66.7%	12	160	37.5%				
Aspergillus Penicillium	2	27	20.0%	3	40	13.6%	1	13	33.3%	3	40	9.4%				
Basidiospores										1	13	3.1%				
Bipolaris Drechslera																
Chaetomium																
Cladosporium				13	173	59.1%				16	213	50.0%				
Curvularia																
Epicoccum																
Fusarium																
Memnoniella																
Myxomycetes	1	13	10.0%													
Pithomyces																
Stachybotrys																
Stemphylium																
Torula																
Ulocladium																
Total	10	133	100%	22	293	100%	3	40	100%	32	426	100%				

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

Collected: **Aug 25, 2021**

Received: **Aug 27, 2021**

Reported: **Aug 27, 2021**



Project Analyst:
 Steve Hayes, BSMT *Stephen N. Hayes*

Date:
08 - 27 - 2021

Reviewed By:
 Ramesh Poluri, PhD *P. Ramesh*

Date:
08 - 27 - 2021

Sample Number	17	WR4315644			18	WR4318572				
Sample Name	WR-21 Office			WR-Art						
Sample Volume	75.00 liter			75.00 liter						
Reporting Limit	13 spores/m ³			13 spores/m ³						
Background	2			2						
Fragments	ND			ND						
Organism	Raw Count	Count / m ³	% of Total	Raw Count	Count / m ³	% of Total				
Alternaria										
Ascospores	5	67	83.3%	3	40	60.0%				
Aspergillus Penicillium				1	13	20.0%				
Basidiospores										
Bipolaris Drechslera										
Chaetomium										
Cladosporium	1	13	16.7%	1	13	20.0%				
Curvularia										
Epicoccum										
Fusarium										
Memnoniella										
Myxomycetes										
Pithomyces										
Stachybotrys										
Stemphylium										
Torula										
Ulocladium										
Total	6	80	100%	5	66	100%				

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



Collected: **Aug 25, 2021**

Received: **Aug 27, 2021**

Reported: **Aug 27, 2021**

Project Analyst:
 Steve Hayes, BSMT *Stephen N. Hayes*

Date:
08 - 27 - 2021

Reviewed By:
 Ramesh Poluri, PhD *P. Ramesh*

Date:
08 - 27 - 2021

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	<p>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:</p> <p>NBD: No background detected due to possible pump or cassette malfunction. Recollect sample. (Field Blanks will display NBD)</p> <p>1 : <5% of field occluded. No spores will be uncountable.</p> <p>2 : 5-25% of field occluded.</p> <p>3 : 25-75% of field occluded.</p> <p>4 : 75-90% of field occluded.</p> <p>5 : >90% of field occluded. Suggested recollection of sample.</p>										
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.										
<table border="1"> <tr> <td style="background-color: #ADD8E6;">Water Damage Indicator</td> <td>Blue: These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem.</td> </tr> <tr> <td style="background-color: #90EE90;">Common Allergen</td> <td>Green: Although all molds are potential allergens, these are the most common allergens that may be found indoors.</td> </tr> <tr> <td style="background-color: #FFDAB9;">Slightly Higher than Baseline</td> <td>Orange: The spore count is slightly higher than the outside count and may or may not indicate a source of contamination.</td> </tr> <tr> <td style="background-color: #FFB6C1;">Significantly Higher than Baseline</td> <td>Red: The spore count is significantly higher than the baseline count and probably indicates a source of contamination.</td> </tr> <tr> <td style="background-color: #DDA0DD;">Ratio Abnormality</td> <td>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.</td> </tr> </table>	Water Damage Indicator	Blue: These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem.	Common Allergen	Green: Although all molds are potential allergens, these are the most common allergens that may be found indoors.	Slightly Higher than Baseline	Orange: The spore count is slightly higher than the outside count and may or may not indicate a source of contamination.	Significantly Higher than Baseline	Red: The spore count is significantly higher than the baseline count and probably indicates a source of contamination.	Ratio Abnormality	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.	
Water Damage Indicator	Blue: These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem.										
Common Allergen	Green: Although all molds are potential allergens, these are the most common allergens that may be found indoors.										
Slightly Higher than Baseline	Orange: The spore count is slightly higher than the outside count and may or may not indicate a source of contamination.										
Significantly Higher than Baseline	Red: The spore count is significantly higher than the baseline count and probably indicates a source of contamination.										
Ratio Abnormality	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.										

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.
Bipolaris Drechslera	Habitat: They are found in soil and as plant pathogens. Can grow indoors on a variety of substrates. Effects: They may be allergenic and are very commonly involved in allergic fungal sinusitis. They are opportunistic pathogens but occasionally infect healthy individuals, causing keratitis, sinusitis and osteomyelitis.
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.

Curvularia

Habitat: They exist in soil and plant debris, and are plant pathogens.

Effects: They are allergenic and a common cause of allergic fungal sinusitis. An occasional cause of human infection, including keratitis, sinusitis, onychomycosis, mycetoma, pneumonia, endocarditis and disseminated infection, primarily in the immunocompromised.

Epicoccum

Habitat: It is found in soil and plant litter and is a plant pathogen. It can grow indoors on a variety of substrates, including paper and textiles and is commonly found on wet drywall.

Effects: It is a common allergen. No cases of infection have been reported in humans.

Myxomycetes

Habitat: Found on decaying plant material and as a plant pathogen.

Effects: Some allergenic properties reported, but generally pose no health concerns to humans.

Pithomyces

Habitat: Common fungus isolated from soil, decaying plant material. Rarely found indoors.

Effects: Allergenic properties are poorly studied. No cases of infection in humans.

William Ramsay ES



Placement Tech	Victoria/Maggie	Sample Type	mold
Placement Date	8/25/21	Email	kford@tec-pro
Address			

Sample #	Location/ room	Flow Rate	Sampling Time	Pump Start Time	Pump End Time	Comments
WR 4318570	WR-35	10 l/m	7.5m	1623	1630	
WR 4318564	WR-hall 31			1634	1641	
WR 4318574	WR-16			1644	1651	
WR 4318576	WR-13			1654	1701	
WR 4318548	WR-5			1723	1730	
WR 4318554	WR-Gym			1744	1751	
WR 4318573	WR-outdoor			1800	1807	
WR 4318571	WR-library			1632	1639	73° F 46%
WR 4318565	WR-Aud			1644	1652	
WR 4318566	WR-reception			1656	1703	
WR 4318549	WR-cafe			1705	1712	
WR 4318567	WR-Hall 8			1717	1724	
WR 4318543	WR-28			1731	1738	
WR 4318569	WR-21			1744	1751	
WR 4318578	WR-203-R8			1808	1815	
WR 4318553	WR-R8-stair			1827	1834	mold nearby
WR 4318544	WR-21 office			1827	1834	
WR 4318572	WR-Ant			16:06	16:13	

N

SHIP: FEDEX - BOX 50
DATE: 08-27-2021



21032158

W 8.27.21

Appendix B: Radon Analytical Results

Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723728 Result: 0.7 ± 0.3 pCi/l

Location: *3S*

Wr

,

Analysis Note :

Analyzed : 2021-08-31 at 1:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 4:00 pm

Hours/MST% : 97 hours 13.7% 70°F

Kit #: 9723729 Result: 0.9 ± 0.3 pCi/l

Location: *CAPE1*

Wr

,

Analysis Note :

Analyzed : 2021-08-31 at 1:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 4:00 pm

Hours/MST% : 97 hours 13.6% 70°F

Kit #: 9723730 Result: 0.9 ± 0.3 pCi/l

Location: *Gym*

Wr

,

Analysis Note :

Analyzed : 2021-08-31 at 1:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 3:00 pm

Hours/MST% : 96 hours 12.7% 70°F

Kit #: 9723731 Result: 0.6 ± 0.3 pCi/l

Location: *HANWAY 31*

Wr Es

,

Analysis Note :

Analyzed : 2021-08-31 at 2:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 3:00 pm

Hours/MST% : 96 hours 10.8% 70°F

Kit #: 9723733 Result: < 0.3 pCi/l

Location: *WR - Library B*

Wr

,

Analysis Note :

Analyzed : 2021-08-31 at 1:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 3:00 pm

Hours/MST% : 96 hours 6.0% 70°F

Kit #: 9723734 Result: 0.7 ± 0.3 pCi/l

Location: *Auditorium*

Wr

,

Analysis Note :

Analyzed : 2021-08-31 at 1:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 3:00 pm

Hours/MST% : 96 hours 13.6% 70°F

Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723735 Result: 1.1 ± 0.3 pCi/l

Location: WR - Library

Wr)

,

Analysis Note :

Analyzed : 2021-08-31 at 1:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 3:00 pm

Hours/MST% : 96 hours 11.6% 70°F

Kit #: 9723736 Result: 0.6 ± 0.3 pCi/l

Location: WR - 5

Wr

,

Analysis Note :

Analyzed : 2021-08-31 at 2:00 pm

Started : 2021-08-26 at 4:00 pm

Ended : 2021-08-30 at 3:00 pm

Hours/MST% : 95 hours 14.7% 70°F

Kit #: 9723737 Result: 0.6 ± 0.3 pCi/l

Location: WR - 28

Wr

,

Analysis Note :

Analyzed : 2021-08-31 at 2:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 4:00 pm

Hours/MST% : 97 hours 12.4% 70°F

Kit #: 9723738 Result: 1.0 ± 0.3 pCi/l

Location: WR - Library

Wr

,

Analysis Note :

Analyzed : 2021-08-31 at 2:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 3:00 pm

Hours/MST% : 96 hours 12.1% 70°F

Kit #: 9723740 Result: 0.7 ± 0.3 pCi/l

Location: WR - CAFE-2

Wr

,

Analysis Note :

Analyzed : 2021-08-31 at 1:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 4:00 pm

Hours/MST% : 97 hours 13.7% 70°F

Kit #: 9723744 Result: 1.0 ± 0.3 pCi/l

Location: WR - 21

Wr

,

Analysis Note :

Analyzed : 2021-08-31 at 2:00 pm

Started : 2021-08-26 at 4:00 pm

Ended : 2021-08-30 at 3:00 pm

Hours/MST% : 95 hours 14.6% 70°F

Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723745 Result: 0.7 ± 0.3 pCi/l

Location: WR-13

Wr Es

,

Analysis Note :

Analyzed : 2021-08-31 at 1:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 4:00 pm

Hours/MST% : 97 hours 13.5% 70°F

Kit #: 9723746 Result: 1.1 ± 0.3 pCi/l

Location: Library B

Wr

,

Analysis Note :

Analyzed : 2021-08-31 at 1:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 3:00 pm

Hours/MST% : 96 hours 11.6% 70°F

Kit #: 9723751 Result: 0.8 ± 0.3 pCi/l

Location: WR-Hall 8-9

Wr

,

Analysis Note :

Analyzed : 2021-08-31 at 2:00 pm

Started : 2021-08-26 at 4:00 pm

Ended : 2021-08-30 at 3:00 pm

Hours/MST% : 95 hours 13.6% 70°F

Kit #: 9723752 Result: 0.8 ± 0.3 pCi/l

Location: WR-Gym

Wr

,

Analysis Note :

Analyzed : 2021-08-31 at 2:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 3:00 pm

Hours/MST% : 96 hours 13.5% 70°F

Kit #: 9723753 Result: 0.9 ± 0.3 pCi/l

Location: WR-Auditorium

Wr

,

Analysis Note :

Analyzed : 2021-08-31 at 1:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 3:00 pm

Hours/MST% : 96 hours 12.9% 70°F

Kit #: 9723754 Result: 1.0 ± 0.3 pCi/l

Location: WR-R-8

Wr

,

Analysis Note :

Analyzed : 2021-08-31 at 1:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 3:00 pm

Hours/MST% : 96 hours 15.9% 70°F

Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723757 Result: < 0.3 pCi/l

Location: WR -210 office

Wr

,

Analysis Note :

Analyzed : 2021-08-31 at 1:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 4:00 pm

Hours/MST% : 97 hours 19.6% 70°F

Kit #: 9723758 Result: 0.6 ± 0.3 pCi/l

Location: WR -1b

Wr Es

,

Analysis Note :

Analyzed : 2021-08-31 at 1:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 4:00 pm

Hours/MST% : 97 hours 15.9% 70°F

Kit #: 9723775 Result: ????

Location: BLANK

Wr

,

Analysis Note : IB2

Analyzed : 2021-08-31 at 1:00 pm

Started : 2021-08-30 at 7:00 pm

Ended : 2021-08-30 at 7:00 pm

Hours/MST% : 0 hours 13.5% 70°F

Kit #: 9723881 Result: ????

Location: Travel blank

Wr Es

,

Analysis Note : IA5

Analyzed : 2021-08-31 at 1:00 pm

Started : 2021-08-26 at 3:00 pm

Ended : 2021-08-30 at 3:00 pm

Hours/MST% : 96 hours 8.9% 70°F

William Ramsey



Sample #	Location / room	SQFT >2000	HVAC Y/N	Window Y/N	Fan Y/N	Time in	Time out	Comment
WR 9723735	WR - Library		Y	Y	N	3:17		
WR 9723738	WR - Library		Y	Y	N	3:17		
WR 9723746D	WR - Library D		Y	Y	N	3:17		
WR 9723733B	WR - Library B		Y	Y	N	3:17		
WR 9723743	WR - RECEPTION		Y	Y	N	3:30		
WR 9723736	WR - E		Y	Y	N	3:40		
WR 9723731	WR hallway 31		Y	N	N	3:15		
WR 9723728	WR 35		Y	Y	N	3:17		
WR 9723757	WR 210 office		Y	Y	N	3:19		
WR 9723758	WR 16		Y	Y	N	3:23		
WR 9723745	WR 13		Y	Y	N	3:25		
WR 9723729	WR - Cafe - 1		Y	Y	N	3:33		
WR 9723740	WR - Cafe - 2		Y	Y	N	3:34		
WR 9723751	WR - Hall 8-9		Y	Y	N	3:45		
WR 9723881	WR act		Y	Y	N	3:54		
WR 9723754	WR R-8		Y	Y	N	3:17		
WR 9723753	WR Auditorium		N	N	N	3:25		
WR 9723734	WR Auditorium		Y	N	N	3:27		
WR 9723744	WR 21		Y	Y	Y	4:00		
WR 9723752	WR GYM		Y	Y	N	3:48		
WR 9723730	WR GYM		Y	Y	N	3:50		
WR 9723737	WR 28		Y	Y	N	3:58		

Placement Tech Maggie	Sample Type Radon	Pickup Tech
Placement Date 8/26/21	Sample Media	Pickup Date
Address		Email

Appendix C: VOCs (TO+15) Analytical Results

Project Name: ACPS IAQ Testing
PSS Project No.: 21082713

September 3, 2021

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



Reference: PSS Project No: **21082713**
Project Name: ACPS IAQ Testing
Project Location: William Ramsay 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) **21082713**.

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 October 1, 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



Project Name: ACPS IAQ Testing
PSS Project No.: 21082713

Project ID: 4920002

The following samples were received under chain of custody by Phase Separation Science (PSS) on 08/27/2021 at 01:56 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
21082713-001	WR- Library	AIR	08/25/21 20:27
21082713-002	WR- Auditorium	AIR	08/25/21 20:36
21082713-003	WR- Reception	AIR	08/25/21 20:42
21082713-004	WR- Cafeteria	AIR	08/25/21 20:50
21082713-005	WR- Class 28	AIR	08/25/21 20:58
21082713-006	WR- Gym	AIR	08/25/21 21:09
21082713-007	WR- Class 21	AIR	08/25/21 21:19
21082713-008	WR- Class 5	AIR	08/25/21 21:31
21082713-009	WR- Hall 31-20	AIR	08/25/21 21:53
21082713-010	WR- Class 35	AIR	08/25/21 21:46
21082713-011	WR- Class 16	AIR	08/25/21 22:00
21082713-012	WR- Class 13	AIR	08/25/21 22:10
21082713-013	WR- Class R-8	AIR	08/25/21 22:33
21082713-014	WR- Suite A	AIR	08/25/21 22:21
21082713-015	WR- Outdoor	AIR	08/25/21 22:43

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 contaminants, and part 141.3, for the secondary drinking water contaminants.
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.

Explanation of Qualifiers

Project Name: ACPS IAQ Testing

PSS Project No.: 21082713

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

Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21082713

Sample ID: WR- Gym **Date/Time Sampled: 08/25/2021 21:09** **PSS Sample ID: 21082713-006**
Matrix: AIR **Date/Time Received: 08/27/2021 13:56**

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

Qualifier(s): See Batch 187185 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	33	ug/M3	9.5		1	08/30/21	08/30/21 15:20	1014
Benzene	0.48	ug/M3	0.32		1	08/30/21	08/30/21 15:20	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/30/21	08/30/21 15:20	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/30/21	08/30/21 15:20	1014
Bromoform	ND	ug/M3	2.1		1	08/30/21	08/30/21 15:20	1014
Bromomethane	ND	ug/M3	0.78		1	08/30/21	08/30/21 15:20	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/30/21	08/30/21 15:20	1014
2-Butanone (MEK)	2.7	ug/M3	1.5		1	08/30/21	08/30/21 15:20	1014
Carbon Disulfide	ND	ug/M3	12		1	08/30/21	08/30/21 15:20	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/30/21	08/30/21 15:20	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/30/21	08/30/21 15:20	1014
Chloroethane	ND	ug/M3	0.53		1	08/30/21	08/30/21 15:20	1014
Chloroform	ND	ug/M3	0.98		1	08/30/21	08/30/21 15:20	1014
Chloromethane	1.4	ug/M3	0.41		1	08/30/21	08/30/21 15:20	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/30/21	08/30/21 15:20	1014
Cyclohexane	ND	ug/M3	0.69		1	08/30/21	08/30/21 15:20	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/30/21	08/30/21 15:20	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/30/21	08/30/21 15:20	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 15:20	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 15:20	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 15:20	1014
Dichlorodifluoromethane	1.0	ug/M3	0.99		1	08/30/21	08/30/21 15:20	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/30/21	08/30/21 15:20	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/30/21	08/30/21 15:20	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 15:20	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 15:20	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 15:20	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/30/21	08/30/21 15:20	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/30/21	08/30/21 15:20	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/30/21	08/30/21 15:20	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/30/21	08/30/21 15:20	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/30/21	08/30/21 15:20	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/30/21	08/30/21 15:20	1014
Ethylbenzene	0.48	ug/M3	0.43		1	08/30/21	08/30/21 15:20	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/30/21	08/30/21 15:20	1014

Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21082713

Sample ID: WR- Gym **Date/Time Sampled: 08/25/2021 21:09** **PSS Sample ID: 21082713-006**
Matrix: AIR **Date/Time Received: 08/27/2021 13:56**

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

Qualifier(s): See Batch 187185 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/30/21	08/30/21 15:20	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/30/21	08/30/21 15:20	1014
n-Hexane	ND	ug/M3	14		1	08/30/21	08/30/21 15:20	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/30/21	08/30/21 15:20	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 15:20	1014
Methylene Chloride	ND	ug/M3	14		1	08/30/21	08/30/21 15:20	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/30/21	08/30/21 15:20	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/30/21	08/30/21 15:20	1014
Naphthalene	ND	ug/M3	0.52		1	08/30/21	08/30/21 15:20	1014
Propylene	ND	ug/M3	1.7		1	08/30/21	08/30/21 15:20	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 15:20	1014
Styrene	ND	ug/M3	4.3		1	08/30/21	08/30/21 15:20	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/30/21	08/30/21 15:20	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/30/21	08/30/21 15:20	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/30/21	08/30/21 15:20	1014
Toluene	8.2	ug/M3	0.38		1	08/30/21	08/30/21 15:20	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/30/21	08/30/21 15:20	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 15:20	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 15:20	1014
Trichloroethene	ND	ug/M3	1.1		1	08/30/21	08/30/21 15:20	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 15:20	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/30/21	08/30/21 15:20	1014
1,2,4-Trimethylbenzene	1.5	ug/M3	0.98		1	08/30/21	08/30/21 15:20	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 15:20	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/30/21	08/30/21 15:20	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/30/21	08/30/21 15:20	1014
Bromoethene	ND	ug/M3	0.87		1	08/30/21	08/30/21 15:20	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/30/21	08/30/21 15:20	1014
m&p-Xylene	1.3	ug/M3	0.87		1	08/30/21	08/30/21 15:20	1014
o-Xylene	0.78	ug/M3	0.43		1	08/30/21	08/30/21 15:20	1014

Surrogate(s)	Recovery	Limits
4-Bromofluorobenzene	102 %	87-120

Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21082713

Sample ID: WR- Class 21 **Date/Time Sampled: 08/25/2021 21:19** **PSS Sample ID: 21082713-007**
Matrix: AIR **Date/Time Received: 08/27/2021 13:56**

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

Qualifier(s): See Batch 187185 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	23	ug/M3	9.5		1	08/30/21	08/30/21 21:46	1014
Benzene	0.48	ug/M3	0.32		1	08/30/21	08/30/21 21:46	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/30/21	08/30/21 21:46	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/30/21	08/30/21 21:46	1014
Bromoform	ND	ug/M3	2.1		1	08/30/21	08/30/21 21:46	1014
Bromomethane	ND	ug/M3	0.78		1	08/30/21	08/30/21 21:46	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/30/21	08/30/21 21:46	1014
2-Butanone (MEK)	3.3	ug/M3	1.5		1	08/30/21	08/30/21 21:46	1014
Carbon Disulfide	ND	ug/M3	12		1	08/30/21	08/30/21 21:46	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/30/21	08/30/21 21:46	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/30/21	08/30/21 21:46	1014
Chloroethane	ND	ug/M3	0.53		1	08/30/21	08/30/21 21:46	1014
Chloroform	ND	ug/M3	0.98		1	08/30/21	08/30/21 21:46	1014
Chloromethane	0.95	ug/M3	0.41		1	08/30/21	08/30/21 21:46	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/30/21	08/30/21 21:46	1014
Cyclohexane	ND	ug/M3	0.69		1	08/30/21	08/30/21 21:46	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/30/21	08/30/21 21:46	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/30/21	08/30/21 21:46	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 21:46	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 21:46	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 21:46	1014
Dichlorodifluoromethane	1.1	ug/M3	0.99		1	08/30/21	08/30/21 21:46	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/30/21	08/30/21 21:46	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/30/21	08/30/21 21:46	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 21:46	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 21:46	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 21:46	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/30/21	08/30/21 21:46	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/30/21	08/30/21 21:46	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/30/21	08/30/21 21:46	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/30/21	08/30/21 21:46	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/30/21	08/30/21 21:46	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/30/21	08/30/21 21:46	1014
Ethylbenzene	0.43	ug/M3	0.43		1	08/30/21	08/30/21 21:46	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/30/21	08/30/21 21:46	1014

Certificate of Analysis

Project Name: ACPS IAQ Testing
 PSS Project No.: 21082713

Sample ID: WR- Class 21 **Date/Time Sampled: 08/25/2021 21:19** **PSS Sample ID: 21082713-007**
Matrix: AIR **Date/Time Received: 08/27/2021 13:56**

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

Qualifier(s): See Batch 187185 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/30/21	08/30/21 21:46	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/30/21	08/30/21 21:46	1014
n-Hexane	ND	ug/M3	14		1	08/30/21	08/30/21 21:46	1014
2-Hexanone (MBK)	2.1	ug/M3	2.0		1	08/30/21	08/30/21 21:46	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 21:46	1014
Methylene Chloride	ND	ug/M3	14		1	08/30/21	08/30/21 21:46	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/30/21	08/30/21 21:46	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/30/21	08/30/21 21:46	1014
Naphthalene	ND	ug/M3	0.52		1	08/30/21	08/30/21 21:46	1014
Propylene	ND	ug/M3	1.7		1	08/30/21	08/30/21 21:46	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 21:46	1014
Styrene	ND	ug/M3	4.3		1	08/30/21	08/30/21 21:46	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/30/21	08/30/21 21:46	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/30/21	08/30/21 21:46	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/30/21	08/30/21 21:46	1014
Toluene	5.7	ug/M3	0.38		1	08/30/21	08/30/21 21:46	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/30/21	08/30/21 21:46	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 21:46	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 21:46	1014
Trichloroethene	ND	ug/M3	1.1		1	08/30/21	08/30/21 21:46	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 21:46	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/30/21	08/30/21 21:46	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 21:46	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 21:46	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/30/21	08/30/21 21:46	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/30/21	08/30/21 21:46	1014
Bromoethene	ND	ug/M3	0.87		1	08/30/21	08/30/21 21:46	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/30/21	08/30/21 21:46	1014
m&p-Xylene	1.3	ug/M3	0.87		1	08/30/21	08/30/21 21:46	1014
o-Xylene	0.61	ug/M3	0.43		1	08/30/21	08/30/21 21:46	1014

Surrogate(s)	Recovery	Limits
4-Bromofluorobenzene	103 %	87-120

Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21082713

Sample ID: WR- Hall 31-20 **Date/Time Sampled: 08/25/2021 21:53** **PSS Sample ID: 21082713-009**
Matrix: AIR **Date/Time Received: 08/27/2021 13:56**

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

Qualifier(s): See Batch 187185 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	32	ug/M3	9.5		1	08/30/21	08/30/21 16:15	1014
Benzene	0.54	ug/M3	0.32		1	08/30/21	08/30/21 16:15	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/30/21	08/30/21 16:15	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/30/21	08/30/21 16:15	1014
Bromoform	ND	ug/M3	2.1		1	08/30/21	08/30/21 16:15	1014
Bromomethane	ND	ug/M3	0.78		1	08/30/21	08/30/21 16:15	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/30/21	08/30/21 16:15	1014
2-Butanone (MEK)	3.1	ug/M3	1.5		1	08/30/21	08/30/21 16:15	1014
Carbon Disulfide	ND	ug/M3	12		1	08/30/21	08/30/21 16:15	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/30/21	08/30/21 16:15	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/30/21	08/30/21 16:15	1014
Chloroethane	ND	ug/M3	0.53		1	08/30/21	08/30/21 16:15	1014
Chloroform	2.4	ug/M3	0.98		1	08/30/21	08/30/21 16:15	1014
Chloromethane	0.91	ug/M3	0.41		1	08/30/21	08/30/21 16:15	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/30/21	08/30/21 16:15	1014
Cyclohexane	ND	ug/M3	0.69		1	08/30/21	08/30/21 16:15	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/30/21	08/30/21 16:15	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/30/21	08/30/21 16:15	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 16:15	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 16:15	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 16:15	1014
Dichlorodifluoromethane	1.3	ug/M3	0.99		1	08/30/21	08/30/21 16:15	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/30/21	08/30/21 16:15	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/30/21	08/30/21 16:15	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 16:15	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 16:15	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 16:15	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/30/21	08/30/21 16:15	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/30/21	08/30/21 16:15	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/30/21	08/30/21 16:15	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/30/21	08/30/21 16:15	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/30/21	08/30/21 16:15	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/30/21	08/30/21 16:15	1014
Ethylbenzene	0.48	ug/M3	0.43		1	08/30/21	08/30/21 16:15	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/30/21	08/30/21 16:15	1014

Certificate of Analysis

Project Name: ACPS IAQ Testing
 PSS Project No.: 21082713

Sample ID: WR- Hall 31-20 **Date/Time Sampled: 08/25/2021 21:53** **PSS Sample ID: 21082713-009**
Matrix: AIR **Date/Time Received: 08/27/2021 13:56**

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

Qualifier(s): See Batch 187185 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/30/21	08/30/21 16:15	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/30/21	08/30/21 16:15	1014
n-Hexane	ND	ug/M3	14		1	08/30/21	08/30/21 16:15	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/30/21	08/30/21 16:15	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 16:15	1014
Methylene Chloride	ND	ug/M3	14		1	08/30/21	08/30/21 16:15	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/30/21	08/30/21 16:15	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/30/21	08/30/21 16:15	1014
Naphthalene	0.79	ug/M3	0.52		1	08/30/21	08/30/21 16:15	1014
Propylene	ND	ug/M3	1.7		1	08/30/21	08/30/21 16:15	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 16:15	1014
Styrene	ND	ug/M3	4.3		1	08/30/21	08/30/21 16:15	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/30/21	08/30/21 16:15	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/30/21	08/30/21 16:15	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/30/21	08/30/21 16:15	1014
Toluene	8.7	ug/M3	0.38		1	08/30/21	08/30/21 16:15	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/30/21	08/30/21 16:15	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 16:15	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 16:15	1014
Trichloroethene	ND	ug/M3	1.1		1	08/30/21	08/30/21 16:15	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 16:15	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/30/21	08/30/21 16:15	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 16:15	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 16:15	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/30/21	08/30/21 16:15	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/30/21	08/30/21 16:15	1014
Bromoethene	ND	ug/M3	0.87		1	08/30/21	08/30/21 16:15	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/30/21	08/30/21 16:15	1014
m&p-Xylene	1.2	ug/M3	0.87		1	08/30/21	08/30/21 16:15	1014
o-Xylene	0.52	ug/M3	0.43		1	08/30/21	08/30/21 16:15	1014
Surrogate(s)	Recovery		Limits					
4-Bromofluorobenzene	102 %		87-120		1	08/30/21	08/30/21 16:15	1014

Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21082713

Sample ID: WR- Class 16 **Date/Time Sampled: 08/25/2021 22:00** **PSS Sample ID: 21082713-011**
Matrix: AIR **Date/Time Received: 08/27/2021 13:56**

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

Qualifier(s): See Batch 187185 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	28	ug/M3	9.5		1	08/30/21	08/30/21 17:10	1014
Benzene	0.45	ug/M3	0.32		1	08/30/21	08/30/21 17:10	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/30/21	08/30/21 17:10	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/30/21	08/30/21 17:10	1014
Bromoform	ND	ug/M3	2.1		1	08/30/21	08/30/21 17:10	1014
Bromomethane	ND	ug/M3	0.78		1	08/30/21	08/30/21 17:10	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/30/21	08/30/21 17:10	1014
2-Butanone (MEK)	2.8	ug/M3	1.5		1	08/30/21	08/30/21 17:10	1014
Carbon Disulfide	ND	ug/M3	12		1	08/30/21	08/30/21 17:10	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/30/21	08/30/21 17:10	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/30/21	08/30/21 17:10	1014
Chloroethane	ND	ug/M3	0.53		1	08/30/21	08/30/21 17:10	1014
Chloroform	ND	ug/M3	0.98		1	08/30/21	08/30/21 17:10	1014
Chloromethane	1.1	ug/M3	0.41		1	08/30/21	08/30/21 17:10	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/30/21	08/30/21 17:10	1014
Cyclohexane	ND	ug/M3	0.69		1	08/30/21	08/30/21 17:10	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/30/21	08/30/21 17:10	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/30/21	08/30/21 17:10	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 17:10	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 17:10	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 17:10	1014
Dichlorodifluoromethane	1.5	ug/M3	0.99		1	08/30/21	08/30/21 17:10	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/30/21	08/30/21 17:10	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/30/21	08/30/21 17:10	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 17:10	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 17:10	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 17:10	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/30/21	08/30/21 17:10	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/30/21	08/30/21 17:10	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/30/21	08/30/21 17:10	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/30/21	08/30/21 17:10	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/30/21	08/30/21 17:10	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/30/21	08/30/21 17:10	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/30/21	08/30/21 17:10	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/30/21	08/30/21 17:10	1014

Certificate of Analysis

Project Name: ACPS IAQ Testing
 PSS Project No.: 21082713

Sample ID: WR- Class 16 **Date/Time Sampled: 08/25/2021 22:00** **PSS Sample ID: 21082713-011**
Matrix: AIR **Date/Time Received: 08/27/2021 13:56**

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

Qualifier(s): See Batch 187185 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/30/21	08/30/21 17:10	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/30/21	08/30/21 17:10	1014
n-Hexane	ND	ug/M3	14		1	08/30/21	08/30/21 17:10	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/30/21	08/30/21 17:10	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 17:10	1014
Methylene Chloride	ND	ug/M3	14		1	08/30/21	08/30/21 17:10	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/30/21	08/30/21 17:10	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/30/21	08/30/21 17:10	1014
Naphthalene	1.8	ug/M3	0.52		1	08/30/21	08/30/21 17:10	1014
Propylene	ND	ug/M3	1.7		1	08/30/21	08/30/21 17:10	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 17:10	1014
Styrene	ND	ug/M3	4.3		1	08/30/21	08/30/21 17:10	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/30/21	08/30/21 17:10	1014
Tetrachloroethene	11	ug/M3	1.4		1	08/30/21	08/30/21 17:10	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/30/21	08/30/21 17:10	1014
Toluene	8.9	ug/M3	0.38		1	08/30/21	08/30/21 17:10	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/30/21	08/30/21 17:10	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 17:10	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 17:10	1014
Trichloroethene	ND	ug/M3	1.1		1	08/30/21	08/30/21 17:10	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 17:10	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/30/21	08/30/21 17:10	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 17:10	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 17:10	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/30/21	08/30/21 17:10	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/30/21	08/30/21 17:10	1014
Bromoethene	ND	ug/M3	0.87		1	08/30/21	08/30/21 17:10	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/30/21	08/30/21 17:10	1014
m&p-Xylene	1.0	ug/M3	0.87		1	08/30/21	08/30/21 17:10	1014
o-Xylene	0.52	ug/M3	0.43		1	08/30/21	08/30/21 17:10	1014
Surrogate(s)	Recovery		Limits					
4-Bromofluorobenzene	104 %		87-120		1	08/30/21	08/30/21 17:10	1014

Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21082713

Sample ID: WR- Class 13 **Date/Time Sampled: 08/25/2021 22:10** **PSS Sample ID: 21082713-012**
Matrix: AIR **Date/Time Received: 08/27/2021 13:56**

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

Qualifier(s): See Batch 187185 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	43	ug/M3	9.5		1	08/30/21	08/30/21 18:05	1014
Benzene	0.48	ug/M3	0.32		1	08/30/21	08/30/21 18:05	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/30/21	08/30/21 18:05	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/30/21	08/30/21 18:05	1014
Bromoform	ND	ug/M3	2.1		1	08/30/21	08/30/21 18:05	1014
Bromomethane	ND	ug/M3	0.78		1	08/30/21	08/30/21 18:05	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/30/21	08/30/21 18:05	1014
2-Butanone (MEK)	2.7	ug/M3	1.5		1	08/30/21	08/30/21 18:05	1014
Carbon Disulfide	ND	ug/M3	12		1	08/30/21	08/30/21 18:05	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/30/21	08/30/21 18:05	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/30/21	08/30/21 18:05	1014
Chloroethane	ND	ug/M3	0.53		1	08/30/21	08/30/21 18:05	1014
Chloroform	ND	ug/M3	0.98		1	08/30/21	08/30/21 18:05	1014
Chloromethane	1.2	ug/M3	0.41		1	08/30/21	08/30/21 18:05	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/30/21	08/30/21 18:05	1014
Cyclohexane	ND	ug/M3	0.69		1	08/30/21	08/30/21 18:05	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/30/21	08/30/21 18:05	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/30/21	08/30/21 18:05	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 18:05	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 18:05	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 18:05	1014
Dichlorodifluoromethane	1.4	ug/M3	0.99		1	08/30/21	08/30/21 18:05	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/30/21	08/30/21 18:05	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/30/21	08/30/21 18:05	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 18:05	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 18:05	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 18:05	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/30/21	08/30/21 18:05	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/30/21	08/30/21 18:05	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/30/21	08/30/21 18:05	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/30/21	08/30/21 18:05	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/30/21	08/30/21 18:05	1014
Ethyl Acetate	1.1	ug/M3	0.72		1	08/30/21	08/30/21 18:05	1014
Ethylbenzene	0.48	ug/M3	0.43		1	08/30/21	08/30/21 18:05	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/30/21	08/30/21 18:05	1014

Certificate of Analysis

Project Name: ACPS IAQ Testing
 PSS Project No.: 21082713

Sample ID: WR- Class 13 **Date/Time Sampled: 08/25/2021 22:10** **PSS Sample ID: 21082713-012**
Matrix: AIR **Date/Time Received: 08/27/2021 13:56**

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

Qualifier(s): See Batch 187185 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/30/21	08/30/21 18:05	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/30/21	08/30/21 18:05	1014
n-Hexane	ND	ug/M3	14		1	08/30/21	08/30/21 18:05	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/30/21	08/30/21 18:05	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 18:05	1014
Methylene Chloride	ND	ug/M3	14		1	08/30/21	08/30/21 18:05	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/30/21	08/30/21 18:05	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/30/21	08/30/21 18:05	1014
Naphthalene	2.3	ug/M3	0.52		1	08/30/21	08/30/21 18:05	1014
Propylene	ND	ug/M3	1.7		1	08/30/21	08/30/21 18:05	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 18:05	1014
Styrene	ND	ug/M3	4.3		1	08/30/21	08/30/21 18:05	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/30/21	08/30/21 18:05	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/30/21	08/30/21 18:05	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/30/21	08/30/21 18:05	1014
Toluene	7.5	ug/M3	0.38		1	08/30/21	08/30/21 18:05	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/30/21	08/30/21 18:05	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 18:05	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 18:05	1014
Trichloroethene	ND	ug/M3	1.1		1	08/30/21	08/30/21 18:05	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 18:05	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/30/21	08/30/21 18:05	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 18:05	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 18:05	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/30/21	08/30/21 18:05	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/30/21	08/30/21 18:05	1014
Bromoethene	ND	ug/M3	0.87		1	08/30/21	08/30/21 18:05	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/30/21	08/30/21 18:05	1014
m&p-Xylene	1.00	ug/M3	0.87		1	08/30/21	08/30/21 18:05	1014
o-Xylene	0.52	ug/M3	0.43		1	08/30/21	08/30/21 18:05	1014

Surrogate(s)	Recovery	Limits
4-Bromofluorobenzene	104 %	87-120

Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21082713

Sample ID: WR- Class R-8 **Date/Time Sampled: 08/25/2021 22:33** **PSS Sample ID: 21082713-013**
Matrix: AIR **Date/Time Received: 08/27/2021 13:56**

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

Qualifier(s): See Batch 187185 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	39	ug/M3	9.5		1	08/30/21	08/30/21 18:59	1014
Benzene	0.42	ug/M3	0.32		1	08/30/21	08/30/21 18:59	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/30/21	08/30/21 18:59	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/30/21	08/30/21 18:59	1014
Bromoform	ND	ug/M3	2.1		1	08/30/21	08/30/21 18:59	1014
Bromomethane	ND	ug/M3	0.78		1	08/30/21	08/30/21 18:59	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/30/21	08/30/21 18:59	1014
2-Butanone (MEK)	2.6	ug/M3	1.5		1	08/30/21	08/30/21 18:59	1014
Carbon Disulfide	ND	ug/M3	12		1	08/30/21	08/30/21 18:59	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/30/21	08/30/21 18:59	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/30/21	08/30/21 18:59	1014
Chloroethane	ND	ug/M3	0.53		1	08/30/21	08/30/21 18:59	1014
Chloroform	4.7	ug/M3	0.98		1	08/30/21	08/30/21 18:59	1014
Chloromethane	0.93	ug/M3	0.41		1	08/30/21	08/30/21 18:59	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/30/21	08/30/21 18:59	1014
Cyclohexane	ND	ug/M3	0.69		1	08/30/21	08/30/21 18:59	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/30/21	08/30/21 18:59	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/30/21	08/30/21 18:59	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 18:59	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 18:59	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 18:59	1014
Dichlorodifluoromethane	6.5	ug/M3	0.99		1	08/30/21	08/30/21 18:59	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/30/21	08/30/21 18:59	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/30/21	08/30/21 18:59	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 18:59	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 18:59	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 18:59	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/30/21	08/30/21 18:59	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/30/21	08/30/21 18:59	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/30/21	08/30/21 18:59	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/30/21	08/30/21 18:59	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/30/21	08/30/21 18:59	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/30/21	08/30/21 18:59	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/30/21	08/30/21 18:59	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/30/21	08/30/21 18:59	1014

Certificate of Analysis

Project Name: ACPS IAQ Testing
 PSS Project No.: 21082713

Sample ID: WR- Class R-8 **Date/Time Sampled: 08/25/2021 22:33** **PSS Sample ID: 21082713-013**
Matrix: AIR **Date/Time Received: 08/27/2021 13:56**

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

Qualifier(s): See Batch 187185 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/30/21	08/30/21 18:59	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/30/21	08/30/21 18:59	1014
n-Hexane	ND	ug/M3	14		1	08/30/21	08/30/21 18:59	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/30/21	08/30/21 18:59	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 18:59	1014
Methylene Chloride	ND	ug/M3	14		1	08/30/21	08/30/21 18:59	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/30/21	08/30/21 18:59	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/30/21	08/30/21 18:59	1014
Naphthalene	0.58	ug/M3	0.52		1	08/30/21	08/30/21 18:59	1014
Propylene	ND	ug/M3	1.7		1	08/30/21	08/30/21 18:59	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 18:59	1014
Styrene	ND	ug/M3	4.3		1	08/30/21	08/30/21 18:59	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/30/21	08/30/21 18:59	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/30/21	08/30/21 18:59	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/30/21	08/30/21 18:59	1014
Toluene	7.3	ug/M3	0.38		1	08/30/21	08/30/21 18:59	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/30/21	08/30/21 18:59	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 18:59	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 18:59	1014
Trichloroethene	ND	ug/M3	1.1		1	08/30/21	08/30/21 18:59	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 18:59	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/30/21	08/30/21 18:59	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 18:59	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 18:59	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/30/21	08/30/21 18:59	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/30/21	08/30/21 18:59	1014
Bromoethene	ND	ug/M3	0.87		1	08/30/21	08/30/21 18:59	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/30/21	08/30/21 18:59	1014
m&p-Xylene	ND	ug/M3	0.87		1	08/30/21	08/30/21 18:59	1014
o-Xylene	ND	ug/M3	0.43		1	08/30/21	08/30/21 18:59	1014

Surrogate(s)	Recovery	Limits
4-Bromofluorobenzene	106 %	87-120

Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21082713

Sample ID: WR- Suite A **Date/Time Sampled: 08/25/2021 22:21** **PSS Sample ID: 21082713-014**
Matrix: AIR **Date/Time Received: 08/27/2021 13:56**

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

Qualifier(s): See Batch 187185 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	23	ug/M3	9.5		1	08/30/21	08/30/21 19:56	1014
Benzene	0.48	ug/M3	0.32		1	08/30/21	08/30/21 19:56	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/30/21	08/30/21 19:56	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/30/21	08/30/21 19:56	1014
Bromoform	ND	ug/M3	2.1		1	08/30/21	08/30/21 19:56	1014
Bromomethane	ND	ug/M3	0.78		1	08/30/21	08/30/21 19:56	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/30/21	08/30/21 19:56	1014
2-Butanone (MEK)	2.2	ug/M3	1.5		1	08/30/21	08/30/21 19:56	1014
Carbon Disulfide	ND	ug/M3	12		1	08/30/21	08/30/21 19:56	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/30/21	08/30/21 19:56	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/30/21	08/30/21 19:56	1014
Chloroethane	ND	ug/M3	0.53		1	08/30/21	08/30/21 19:56	1014
Chloroform	2.5	ug/M3	0.98		1	08/30/21	08/30/21 19:56	1014
Chloromethane	1.1	ug/M3	0.41		1	08/30/21	08/30/21 19:56	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/30/21	08/30/21 19:56	1014
Cyclohexane	ND	ug/M3	0.69		1	08/30/21	08/30/21 19:56	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/30/21	08/30/21 19:56	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/30/21	08/30/21 19:56	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 19:56	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 19:56	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 19:56	1014
Dichlorodifluoromethane	1.4	ug/M3	0.99		1	08/30/21	08/30/21 19:56	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/30/21	08/30/21 19:56	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/30/21	08/30/21 19:56	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 19:56	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 19:56	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 19:56	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/30/21	08/30/21 19:56	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/30/21	08/30/21 19:56	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/30/21	08/30/21 19:56	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/30/21	08/30/21 19:56	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/30/21	08/30/21 19:56	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/30/21	08/30/21 19:56	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/30/21	08/30/21 19:56	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/30/21	08/30/21 19:56	1014

Certificate of Analysis

Project Name: ACPS IAQ Testing
 PSS Project No.: 21082713

Sample ID: WR- Suite A **Date/Time Sampled: 08/25/2021 22:21** **PSS Sample ID: 21082713-014**
Matrix: AIR **Date/Time Received: 08/27/2021 13:56**

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

Qualifier(s): See Batch 187185 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/30/21	08/30/21 19:56	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/30/21	08/30/21 19:56	1014
n-Hexane	ND	ug/M3	14		1	08/30/21	08/30/21 19:56	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/30/21	08/30/21 19:56	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 19:56	1014
Methylene Chloride	ND	ug/M3	14		1	08/30/21	08/30/21 19:56	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/30/21	08/30/21 19:56	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/30/21	08/30/21 19:56	1014
Naphthalene	0.52	ug/M3	0.52		1	08/30/21	08/30/21 19:56	1014
Propylene	ND	ug/M3	1.7		1	08/30/21	08/30/21 19:56	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 19:56	1014
Styrene	ND	ug/M3	4.3		1	08/30/21	08/30/21 19:56	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/30/21	08/30/21 19:56	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/30/21	08/30/21 19:56	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/30/21	08/30/21 19:56	1014
Toluene	9.2	ug/M3	0.38		1	08/30/21	08/30/21 19:56	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/30/21	08/30/21 19:56	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 19:56	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 19:56	1014
Trichloroethene	ND	ug/M3	1.1		1	08/30/21	08/30/21 19:56	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 19:56	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/30/21	08/30/21 19:56	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 19:56	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 19:56	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/30/21	08/30/21 19:56	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/30/21	08/30/21 19:56	1014
Bromoethene	ND	ug/M3	0.87		1	08/30/21	08/30/21 19:56	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/30/21	08/30/21 19:56	1014
m&p-Xylene	0.91	ug/M3	0.87		1	08/30/21	08/30/21 19:56	1014
o-Xylene	ND	ug/M3	0.43		1	08/30/21	08/30/21 19:56	1014

Surrogate(s)	Recovery	Limits
4-Bromofluorobenzene	103 %	87-120

Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21082713

Sample ID: WR- Outdoor **Date/Time Sampled: 08/25/2021 22:43** **PSS Sample ID: 21082713-015**
Matrix: AIR **Date/Time Received: 08/27/2021 13:56**

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

Qualifier(s): See Batch 187185 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	16	ug/M3	9.5		1	08/30/21	08/30/21 20:51	1014
Benzene	0.35	ug/M3	0.32		1	08/30/21	08/30/21 20:51	1014
Benzyl Chloride	ND	ug/M3	1.0		1	08/30/21	08/30/21 20:51	1014
Bromodichloromethane	ND	ug/M3	1.3		1	08/30/21	08/30/21 20:51	1014
Bromoform	ND	ug/M3	2.1		1	08/30/21	08/30/21 20:51	1014
Bromomethane	ND	ug/M3	0.78		1	08/30/21	08/30/21 20:51	1014
1,3-Butadiene	ND	ug/M3	0.44		1	08/30/21	08/30/21 20:51	1014
2-Butanone (MEK)	ND	ug/M3	1.5		1	08/30/21	08/30/21 20:51	1014
Carbon Disulfide	ND	ug/M3	12		1	08/30/21	08/30/21 20:51	1014
Carbon Tetrachloride	ND	ug/M3	1.3		1	08/30/21	08/30/21 20:51	1014
Chlorobenzene	ND	ug/M3	0.92		1	08/30/21	08/30/21 20:51	1014
Chloroethane	ND	ug/M3	0.53		1	08/30/21	08/30/21 20:51	1014
Chloroform	ND	ug/M3	0.98		1	08/30/21	08/30/21 20:51	1014
Chloromethane	0.91	ug/M3	0.41		1	08/30/21	08/30/21 20:51	1014
Allyl Chloride (3-Chloropropene)	ND	ug/M3	0.63		1	08/30/21	08/30/21 20:51	1014
Cyclohexane	ND	ug/M3	0.69		1	08/30/21	08/30/21 20:51	1014
Dibromochloromethane	ND	ug/M3	1.7		1	08/30/21	08/30/21 20:51	1014
1,2-Dibromoethane	ND	ug/M3	1.5		1	08/30/21	08/30/21 20:51	1014
1,2-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 20:51	1014
1,3-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 20:51	1014
1,4-Dichlorobenzene	ND	ug/M3	1.2		1	08/30/21	08/30/21 20:51	1014
Dichlorodifluoromethane	1.1	ug/M3	0.99		1	08/30/21	08/30/21 20:51	1014
1,1-Dichloroethane	ND	ug/M3	0.81		1	08/30/21	08/30/21 20:51	1014
1,2-Dichloroethane	ND	ug/M3	0.81		1	08/30/21	08/30/21 20:51	1014
1,1-Dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 20:51	1014
cis-1,2-Dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 20:51	1014
trans-1,2-dichloroethene	ND	ug/M3	0.79		1	08/30/21	08/30/21 20:51	1014
1,2-Dichloropropane	ND	ug/M3	1.8		1	08/30/21	08/30/21 20:51	1014
cis-1,3-Dichloropropene	ND	ug/M3	0.91		1	08/30/21	08/30/21 20:51	1014
trans-1,3-dichloropropene	ND	ug/M3	0.91		1	08/30/21	08/30/21 20:51	1014
1,2-Dichlorotetrafluoroethane	ND	ug/M3	1.4		1	08/30/21	08/30/21 20:51	1014
1,4-Dioxane (P-Dioxane)	ND	ug/M3	3.6		1	08/30/21	08/30/21 20:51	1014
Ethyl Acetate	ND	ug/M3	0.72		1	08/30/21	08/30/21 20:51	1014
Ethylbenzene	ND	ug/M3	0.43		1	08/30/21	08/30/21 20:51	1014
4-Ethyltoluene	ND	ug/M3	0.98		1	08/30/21	08/30/21 20:51	1014

Certificate of Analysis

Project Name: ACPS IAQ Testing
 PSS Project No.: 21082713

Sample ID: WR- Outdoor **Date/Time Sampled: 08/25/2021 22:43** **PSS Sample ID: 21082713-015**
Matrix: AIR **Date/Time Received: 08/27/2021 13:56**

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

Qualifier(s): See Batch 187185 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
n-Heptane	ND	ug/M3	0.82		1	08/30/21	08/30/21 20:51	1014
Hexachlorobutadiene	ND	ug/M3	2.1		1	08/30/21	08/30/21 20:51	1014
n-Hexane	ND	ug/M3	14		1	08/30/21	08/30/21 20:51	1014
2-Hexanone (MBK)	ND	ug/M3	2.0		1	08/30/21	08/30/21 20:51	1014
Isopropylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 20:51	1014
Methylene Chloride	ND	ug/M3	14		1	08/30/21	08/30/21 20:51	1014
4-Methyl-2-Pentanone (MIBK)	ND	ug/M3	2.0		1	08/30/21	08/30/21 20:51	1014
Methyl-t-Butyl Ether	ND	ug/M3	0.36		1	08/30/21	08/30/21 20:51	1014
Naphthalene	ND	ug/M3	0.52		1	08/30/21	08/30/21 20:51	1014
Propylene	ND	ug/M3	1.7		1	08/30/21	08/30/21 20:51	1014
n-Propylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 20:51	1014
Styrene	ND	ug/M3	4.3		1	08/30/21	08/30/21 20:51	1014
1,1,2,2-Tetrachloroethane	ND	ug/M3	1.4		1	08/30/21	08/30/21 20:51	1014
Tetrachloroethene	ND	ug/M3	1.4		1	08/30/21	08/30/21 20:51	1014
Tetrahydrofuran	ND	ug/M3	0.59		1	08/30/21	08/30/21 20:51	1014
Toluene	0.60	ug/M3	0.38		1	08/30/21	08/30/21 20:51	1014
1,2,4-Trichlorobenzene	ND	ug/M3	1.5		1	08/30/21	08/30/21 20:51	1014
1,1,1-Trichloroethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 20:51	1014
1,1,2-Trichloroethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 20:51	1014
Trichloroethene	ND	ug/M3	1.1		1	08/30/21	08/30/21 20:51	1014
Trichlorofluoromethane	ND	ug/M3	1.1		1	08/30/21	08/30/21 20:51	1014
1,1,2-Trichlorotrifluoroethane	ND	ug/M3	1.5		1	08/30/21	08/30/21 20:51	1014
1,2,4-Trimethylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 20:51	1014
1,3,5-Trimethylbenzene	ND	ug/M3	0.98		1	08/30/21	08/30/21 20:51	1014
2,2,4-Trimethylpentane	ND	ug/M3	0.93		1	08/30/21	08/30/21 20:51	1014
Vinyl acetate	ND	ug/M3	1.8		1	08/30/21	08/30/21 20:51	1014
Bromoethene	ND	ug/M3	0.87		1	08/30/21	08/30/21 20:51	1014
Vinyl chloride	ND	ug/M3	0.51		1	08/30/21	08/30/21 20:51	1014
m&p-Xylene	ND	ug/M3	0.87		1	08/30/21	08/30/21 20:51	1014
o-Xylene	ND	ug/M3	0.43		1	08/30/21	08/30/21 20:51	1014

Surrogate(s)	Recovery	Limits			
4-Bromofluorobenzene	101 %	87-120	1	08/30/21	08/30/21 20:51 1014

03 September 2021

Amber Confer
Phase Separation Science, Inc.
6630 Baltimore National Pike, Route 40 West
Baltimore, MD 21228
RE: William Ramsey Elementary

Enclosed are the results of analyses for samples received by the laboratory on 08/30/21 15:04.

Maryland Spectral Services, Inc. is a TNI 2009 Standard accredited laboratory and as such, all analyses performed at Maryland Spectral Services included in this report are 2009 TNI certified except as indicated at the end of this report. Please visit our website at www.mdspectral.com for a complete listing of our TNI 2009 Standard accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Rabecka Koons
Quality Assurance Officer

Analytical Results

Project: William Ramsey Elementary

Project Number: 4920002
Project Manager: Amber Confer

Reported:
09/03/21 12:50

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WR-LIBRARY	21082713-001	1083013-01	Vapor	08/25/21 20:27	08/30/21 15:04
WR-AUDITORIUM	21082713-002	1083013-02	Vapor	08/25/21 20:36	08/30/21 15:04
WR-CAFETERIA	21082713-004	1083013-04	Vapor	08/25/21 20:50	08/30/21 15:04
WR-CLASS28	21082713-005	1083013-05	Vapor	08/25/21 20:58	08/30/21 15:04
WR-CLASS 5	21082713-008	1083013-06	Vapor	08/25/21 21:31	08/30/21 15:04
WR-CLASS 35	21082713-010	1083013-07	Vapor	08/25/21 21:46	08/30/21 15:04

Narrative

Results for the following sample is not included in this data package:

MSS ID	CLIENT ID	Matrix
1083013-03	WR-Reception	Vapor

The sample listed above was received with no sample collection. Upon inspection the canister was in working order. This may indicate an issue with the field sample collection procedure.



Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report

Analytical Results

Project: William Ramsey Elementary

Project Number: 4920002
Project Manager: Amber Confer

Reported:
09/03/21 12:50

WR-LIBRARY
21082713-001
1083013-01 (Vapor)
Sample Date: 08/25/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	37.4		ug/m ³	2.40	2.40	1	08/31/21	08/31/21 11:51	WB
Benzene	0.48	J	ug/m ³	0.64	0.16	1	08/31/21	08/31/21 11:51	WB
Benzyl chloride	ND		ug/m ³	1.00	0.25	1	08/31/21	08/31/21 11:51	WB
Bromodichloromethane	ND		ug/m ³	1.30	0.33	1	08/31/21	08/31/21 11:51	WB
Bromoform	ND		ug/m ³	2.10	0.53	1	08/31/21	08/31/21 11:51	WB
Bromomethane	ND		ug/m ³	0.78	0.20	1	08/31/21	08/31/21 11:51	WB
1,3-Butadiene	ND		ug/m ³	0.44	0.44	1	08/31/21	08/31/21 11:51	WB
Carbon disulfide	ND		ug/m ³	1.56	1.56	1	08/31/21	08/31/21 11:51	WB
Carbon tetrachloride	0.50	J	ug/m ³	1.30	0.33	1	08/31/21	08/31/21 11:51	WB
Chlorobenzene	ND		ug/m ³	0.92	0.23	1	08/31/21	08/31/21 11:51	WB
Chloroethane	ND		ug/m ³	0.53	0.27	1	08/31/21	08/31/21 11:51	WB
Chloroform	3.27		ug/m ³	0.97	0.24	1	08/31/21	08/31/21 11:51	WB
Chloromethane	1.09		ug/m ³	0.41	0.10	1	08/31/21	08/31/21 11:51	WB
3-Chloropropene	ND		ug/m ³	0.63	0.16	1	08/31/21	08/31/21 11:51	WB
Cyclohexane	ND		ug/m ³	0.69	0.17	1	08/31/21	08/31/21 11:51	WB
Dibromochloromethane	ND		ug/m ³	1.30	0.33	1	08/31/21	08/31/21 11:51	WB
1,2-Dibromoethane (EDB)	ND		ug/m ³	1.40	0.35	1	08/31/21	08/31/21 11:51	WB
1,2-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 11:51	WB
1,3-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 11:51	WB
1,4-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 11:51	WB
Dichlorodifluoromethane	6.53		ug/m ³	0.99	0.99	1	08/31/21	08/31/21 11:51	WB
1,1-Dichloroethane	ND		ug/m ³	0.81	0.20	1	08/31/21	08/31/21 11:51	WB
1,2-Dichloroethane	ND		ug/m ³	0.81	0.20	1	08/31/21	08/31/21 11:51	WB
1,1-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 11:51	WB
cis-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 11:51	WB
trans-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 11:51	WB
1,2-Dichloropropane	0.23	J	ug/m ³	0.92	0.23	1	08/31/21	08/31/21 11:51	WB
cis-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	08/31/21	08/31/21 11:51	WB
trans-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	08/31/21	08/31/21 11:51	WB
1,4-Dioxane	0.18	J	ug/m ³	0.72	0.18	1	08/31/21	08/31/21 11:51	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	08/31/21	08/31/21 11:51	WB
Ethylbenzene	0.39	J	ug/m ³	0.87	0.22	1	08/31/21	08/31/21 11:51	WB
4-Ethyltoluene	0.29	J	ug/m ³	0.98	0.25	1	08/31/21	08/31/21 11:51	WB
Freon 113	0.54	J	ug/m ³	1.50	0.38	1	08/31/21	08/31/21 11:51	WB



Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report

Analytical Results

Project: William Ramsey Elementary

Project Number: 4920002
Project Manager: Amber Confer

Reported:
09/03/21 12:50

WR-LIBRARY
21082713-001
1083013-01 (Vapor)
Sample Date: 08/25/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	08/31/21	08/31/21 11:51	WB
n-Heptane	0.57	J	ug/m ³	0.82	0.21	1	08/31/21	08/31/21 11:51	WB
Hexachlorobutadiene	ND		ug/m ³	2.10	2.10	1	08/31/21	08/31/21 11:51	WB
Hexane	ND		ug/m ³	14.0	14.0	1	08/31/21	08/31/21 11:51	WB
2-Hexanone	0.49	J	ug/m ³	0.82	0.15	1	08/31/21	08/31/21 11:51	WB
Isopropylbenzene (Cumene)	ND		ug/m ³	1.10	0.40	1	08/31/21	08/31/21 11:51	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.72	0.21	1	08/31/21	08/31/21 11:51	WB
Methylene chloride	ND		ug/m ³	18.0	18.0	1	08/31/21	08/31/21 11:51	WB
Methyl ethyl ketone (2-Butanone)	3.04		ug/m ³	0.59	0.34	1	08/31/21	08/31/21 11:51	WB
Methyl isobutyl ketone	0.94		ug/m ³	0.82	0.82	1	08/31/21	08/31/21 11:51	WB
Naphthalene	0.94	J	ug/m ³	1.10	0.70	1	08/31/21	08/31/21 11:51	WB
Propene	ND		ug/m ³	0.34	0.34	1	08/31/21	08/31/21 11:51	WB
n-Propylbenzene	ND		ug/m ³	0.98	0.40	1	08/31/21	08/31/21 11:51	WB
Styrene	1.45		ug/m ³	0.85	0.15	1	08/31/21	08/31/21 11:51	WB
1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.40	0.35	1	08/31/21	08/31/21 11:51	WB
Tetrachloroethene	ND		ug/m ³	1.40	0.70	1	08/31/21	08/31/21 11:51	WB
Tetrahydrofuran	ND		ug/m ³	0.59	0.15	1	08/31/21	08/31/21 11:51	WB
Toluene	6.07		ug/m ³	0.75	0.35	1	08/31/21	08/31/21 11:51	WB
1,2,4-Trichlorobenzene	ND		ug/m ³	1.50	0.38	1	08/31/21	08/31/21 11:51	WB
1,1,1-Trichloroethane	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 11:51	WB
1,1,2-Trichloroethane	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 11:51	WB
Trichloroethene	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 11:51	WB
Trichlorofluoromethane (Freon 11)	1.40		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 11:51	WB
1,2,4-Trimethylbenzene	0.39	J	ug/m ³	0.98	0.25	1	08/31/21	08/31/21 11:51	WB
1,3,5-Trimethylbenzene	ND		ug/m ³	0.98	0.25	1	08/31/21	08/31/21 11:51	WB
2,2,4-Trimethylpentane	ND		ug/m ³	0.93	0.23	1	08/31/21	08/31/21 11:51	WB
Vinyl acetate	ND		ug/m ³	0.70	0.70	1	08/31/21	08/31/21 11:51	WB
Vinyl bromide	ND		ug/m ³	0.87	0.22	1	08/31/21	08/31/21 11:51	WB
Vinyl chloride	ND		ug/m ³	0.51	0.13	1	08/31/21	08/31/21 11:51	WB
o-Xylene	0.48	J	ug/m ³	0.87	0.22	1	08/31/21	08/31/21 11:51	WB
m- & p-Xylenes	1.09	J	ug/m ³	1.70	0.43	1	08/31/21	08/31/21 11:51	WB
Surrogate: 4-Bromofluorobenzene			73-115	105 %	08/31/21		08/31/21 11:51		

Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report

Analytical Results

Project: William Ramsey Elementary

Project Number: 4920002
Project Manager: Amber Confer

Reported:
09/03/21 12:50

WR-AUDITORIUM
21082713-002
1083013-02 (Vapor)
Sample Date: 08/25/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	27.0		ug/m ³	2.40	2.40	1	08/31/21	08/31/21 12:27	WB
Benzene	0.42	J	ug/m ³	0.64	0.16	1	08/31/21	08/31/21 12:27	WB
Benzyl chloride	ND		ug/m ³	1.00	0.25	1	08/31/21	08/31/21 12:27	WB
Bromodichloromethane	ND		ug/m ³	1.30	0.33	1	08/31/21	08/31/21 12:27	WB
Bromoform	ND		ug/m ³	2.10	0.53	1	08/31/21	08/31/21 12:27	WB
Bromomethane	ND		ug/m ³	0.78	0.20	1	08/31/21	08/31/21 12:27	WB
1,3-Butadiene	ND		ug/m ³	0.44	0.44	1	08/31/21	08/31/21 12:27	WB
Carbon disulfide	ND		ug/m ³	1.56	1.56	1	08/31/21	08/31/21 12:27	WB
Carbon tetrachloride	0.50	J	ug/m ³	1.30	0.33	1	08/31/21	08/31/21 12:27	WB
Chlorobenzene	ND		ug/m ³	0.92	0.23	1	08/31/21	08/31/21 12:27	WB
Chloroethane	ND		ug/m ³	0.53	0.27	1	08/31/21	08/31/21 12:27	WB
Chloroform	2.20		ug/m ³	0.97	0.24	1	08/31/21	08/31/21 12:27	WB
Chloromethane	1.07		ug/m ³	0.41	0.10	1	08/31/21	08/31/21 12:27	WB
3-Chloropropene	ND		ug/m ³	0.63	0.16	1	08/31/21	08/31/21 12:27	WB
Cyclohexane	ND		ug/m ³	0.69	0.17	1	08/31/21	08/31/21 12:27	WB
Dibromochloromethane	ND		ug/m ³	1.30	0.33	1	08/31/21	08/31/21 12:27	WB
1,2-Dibromoethane (EDB)	ND		ug/m ³	1.40	0.35	1	08/31/21	08/31/21 12:27	WB
1,2-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 12:27	WB
1,3-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 12:27	WB
1,4-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 12:27	WB
Dichlorodifluoromethane	3.26		ug/m ³	0.99	0.99	1	08/31/21	08/31/21 12:27	WB
1,1-Dichloroethane	ND		ug/m ³	0.81	0.20	1	08/31/21	08/31/21 12:27	WB
1,2-Dichloroethane	ND		ug/m ³	0.81	0.20	1	08/31/21	08/31/21 12:27	WB
1,1-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 12:27	WB
cis-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 12:27	WB
trans-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 12:27	WB
1,2-Dichloropropane	0.23	J	ug/m ³	0.92	0.23	1	08/31/21	08/31/21 12:27	WB
cis-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	08/31/21	08/31/21 12:27	WB
trans-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	08/31/21	08/31/21 12:27	WB
1,4-Dioxane	ND		ug/m ³	0.72	0.18	1	08/31/21	08/31/21 12:27	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	08/31/21	08/31/21 12:27	WB
Ethylbenzene	0.35	J	ug/m ³	0.87	0.22	1	08/31/21	08/31/21 12:27	WB
4-Ethyltoluene	0.34	J	ug/m ³	0.98	0.25	1	08/31/21	08/31/21 12:27	WB
Freon 113	0.54	J	ug/m ³	1.50	0.38	1	08/31/21	08/31/21 12:27	WB

Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report

Analytical Results

Project: William Ramsey Elementary

Project Number: 4920002
Project Manager: Amber Confer

Reported:
09/03/21 12:50

WR-AUDITORIUM
21082713-002
1083013-02 (Vapor)
Sample Date: 08/25/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	08/31/21	08/31/21 12:27	WB
n-Heptane	0.37	J	ug/m ³	0.82	0.21	1	08/31/21	08/31/21 12:27	WB
Hexachlorobutadiene	ND		ug/m ³	2.10	2.10	1	08/31/21	08/31/21 12:27	WB
Hexane	ND		ug/m ³	14.0	14.0	1	08/31/21	08/31/21 12:27	WB
2-Hexanone	0.33	J	ug/m ³	0.82	0.15	1	08/31/21	08/31/21 12:27	WB
Isopropylbenzene (Cumene)	ND		ug/m ³	1.10	0.40	1	08/31/21	08/31/21 12:27	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.72	0.21	1	08/31/21	08/31/21 12:27	WB
Methylene chloride	ND		ug/m ³	18.0	18.0	1	08/31/21	08/31/21 12:27	WB
Methyl ethyl ketone (2-Butanone)	3.10		ug/m ³	0.59	0.34	1	08/31/21	08/31/21 12:27	WB
Methyl isobutyl ketone	1.39		ug/m ³	0.82	0.82	1	08/31/21	08/31/21 12:27	WB
Naphthalene	ND		ug/m ³	1.10	0.70	1	08/31/21	08/31/21 12:27	WB
Propene	ND		ug/m ³	0.34	0.34	1	08/31/21	08/31/21 12:27	WB
n-Propylbenzene	ND		ug/m ³	0.98	0.40	1	08/31/21	08/31/21 12:27	WB
Styrene	0.51	J	ug/m ³	0.85	0.15	1	08/31/21	08/31/21 12:27	WB
1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.40	0.35	1	08/31/21	08/31/21 12:27	WB
Tetrachloroethene	1.09	J	ug/m ³	1.40	0.70	1	08/31/21	08/31/21 12:27	WB
Tetrahydrofuran	ND		ug/m ³	0.59	0.15	1	08/31/21	08/31/21 12:27	WB
Toluene	3.43		ug/m ³	0.75	0.35	1	08/31/21	08/31/21 12:27	WB
1,2,4-Trichlorobenzene	ND		ug/m ³	1.50	0.38	1	08/31/21	08/31/21 12:27	WB
1,1,1-Trichloroethane	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 12:27	WB
1,1,2-Trichloroethane	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 12:27	WB
Trichloroethene	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 12:27	WB
Trichlorofluoromethane (Freon 11)	1.29		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 12:27	WB
1,2,4-Trimethylbenzene	0.49	J	ug/m ³	0.98	0.25	1	08/31/21	08/31/21 12:27	WB
1,3,5-Trimethylbenzene	ND		ug/m ³	0.98	0.25	1	08/31/21	08/31/21 12:27	WB
2,2,4-Trimethylpentane	ND		ug/m ³	0.93	0.23	1	08/31/21	08/31/21 12:27	WB
Vinyl acetate	ND		ug/m ³	0.70	0.70	1	08/31/21	08/31/21 12:27	WB
Vinyl bromide	ND		ug/m ³	0.87	0.22	1	08/31/21	08/31/21 12:27	WB
Vinyl chloride	ND		ug/m ³	0.51	0.13	1	08/31/21	08/31/21 12:27	WB
o-Xylene	0.48	J	ug/m ³	0.87	0.22	1	08/31/21	08/31/21 12:27	WB
m- & p-Xylenes	1.00	J	ug/m ³	1.70	0.43	1	08/31/21	08/31/21 12:27	WB
Surrogate: 4-Bromofluorobenzene				73-115	102 %		08/31/21	08/31/21 12:27	

Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report

Analytical Results

Project: William Ramsey Elementary

Project Number: 4920002
Project Manager: Amber Confer

Reported:
09/03/21 12:50

WR-CAFETERIA
21082713-004
1083013-04 (Vapor)
Sample Date: 08/25/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	33.7		ug/m ³	2.40	2.40	1	08/31/21	08/31/21 13:04	WB
Benzene	0.48	J	ug/m ³	0.64	0.16	1	08/31/21	08/31/21 13:04	WB
Benzyl chloride	ND		ug/m ³	1.00	0.25	1	08/31/21	08/31/21 13:04	WB
Bromodichloromethane	ND		ug/m ³	1.30	0.33	1	08/31/21	08/31/21 13:04	WB
Bromoform	ND		ug/m ³	2.10	0.53	1	08/31/21	08/31/21 13:04	WB
Bromomethane	ND		ug/m ³	0.78	0.20	1	08/31/21	08/31/21 13:04	WB
1,3-Butadiene	ND		ug/m ³	0.44	0.44	1	08/31/21	08/31/21 13:04	WB
Carbon disulfide	ND		ug/m ³	1.56	1.56	1	08/31/21	08/31/21 13:04	WB
Carbon tetrachloride	0.50	J	ug/m ³	1.30	0.33	1	08/31/21	08/31/21 13:04	WB
Chlorobenzene	ND		ug/m ³	0.92	0.23	1	08/31/21	08/31/21 13:04	WB
Chloroethane	ND		ug/m ³	0.53	0.27	1	08/31/21	08/31/21 13:04	WB
Chloroform	0.98		ug/m ³	0.97	0.24	1	08/31/21	08/31/21 13:04	WB
Chloromethane	1.16		ug/m ³	0.41	0.10	1	08/31/21	08/31/21 13:04	WB
3-Chloropropene	ND		ug/m ³	0.63	0.16	1	08/31/21	08/31/21 13:04	WB
Cyclohexane	ND		ug/m ³	0.69	0.17	1	08/31/21	08/31/21 13:04	WB
Dibromochloromethane	ND		ug/m ³	1.30	0.33	1	08/31/21	08/31/21 13:04	WB
1,2-Dibromoethane (EDB)	ND		ug/m ³	1.40	0.35	1	08/31/21	08/31/21 13:04	WB
1,2-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 13:04	WB
1,3-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 13:04	WB
1,4-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 13:04	WB
Dichlorodifluoromethane	2.42		ug/m ³	0.99	0.99	1	08/31/21	08/31/21 13:04	WB
1,1-Dichloroethane	ND		ug/m ³	0.81	0.20	1	08/31/21	08/31/21 13:04	WB
1,2-Dichloroethane	ND		ug/m ³	0.81	0.20	1	08/31/21	08/31/21 13:04	WB
1,1-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 13:04	WB
cis-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 13:04	WB
trans-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 13:04	WB
1,2-Dichloropropane	0.28	J	ug/m ³	0.92	0.23	1	08/31/21	08/31/21 13:04	WB
cis-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	08/31/21	08/31/21 13:04	WB
trans-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	08/31/21	08/31/21 13:04	WB
1,4-Dioxane	0.18	J	ug/m ³	0.72	0.18	1	08/31/21	08/31/21 13:04	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	08/31/21	08/31/21 13:04	WB
Ethylbenzene	0.43	J	ug/m ³	0.87	0.22	1	08/31/21	08/31/21 13:04	WB
4-Ethyltoluene	0.29	J	ug/m ³	0.98	0.25	1	08/31/21	08/31/21 13:04	WB
Freon 113	0.54	J	ug/m ³	1.50	0.38	1	08/31/21	08/31/21 13:04	WB

Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report

Analytical Results

Project: William Ramsey Elementary

Project Number: 4920002
Project Manager: Amber Confer

Reported:
09/03/21 12:50

WR-CAFETERIA
21082713-004
1083013-04 (Vapor)
Sample Date: 08/25/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	08/31/21	08/31/21 13:04	WB
n-Heptane	0.37	J	ug/m ³	0.82	0.21	1	08/31/21	08/31/21 13:04	WB
Hexachlorobutadiene	ND		ug/m ³	2.10	2.10	1	08/31/21	08/31/21 13:04	WB
Hexane	ND		ug/m ³	14.0	14.0	1	08/31/21	08/31/21 13:04	WB
2-Hexanone	0.49	J	ug/m ³	0.82	0.15	1	08/31/21	08/31/21 13:04	WB
Isopropylbenzene (Cumene)	ND		ug/m ³	1.10	0.40	1	08/31/21	08/31/21 13:04	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.72	0.21	1	08/31/21	08/31/21 13:04	WB
Methylene chloride	ND		ug/m ³	18.0	18.0	1	08/31/21	08/31/21 13:04	WB
Methyl ethyl ketone (2-Butanone)	3.45		ug/m ³	0.59	0.34	1	08/31/21	08/31/21 13:04	WB
Methyl isobutyl ketone	1.52		ug/m ³	0.82	0.82	1	08/31/21	08/31/21 13:04	WB
Naphthalene	0.84	J	ug/m ³	1.10	0.70	1	08/31/21	08/31/21 13:04	WB
Propene	ND		ug/m ³	0.34	0.34	1	08/31/21	08/31/21 13:04	WB
n-Propylbenzene	ND		ug/m ³	0.98	0.40	1	08/31/21	08/31/21 13:04	WB
Styrene	0.85		ug/m ³	0.85	0.15	1	08/31/21	08/31/21 13:04	WB
1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.40	0.35	1	08/31/21	08/31/21 13:04	WB
Tetrachloroethene	ND		ug/m ³	1.40	0.70	1	08/31/21	08/31/21 13:04	WB
Tetrahydrofuran	0.27	J	ug/m ³	0.59	0.15	1	08/31/21	08/31/21 13:04	WB
Toluene	5.20		ug/m ³	0.75	0.35	1	08/31/21	08/31/21 13:04	WB
1,2,4-Trichlorobenzene	ND		ug/m ³	1.50	0.38	1	08/31/21	08/31/21 13:04	WB
1,1,1-Trichloroethane	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 13:04	WB
1,1,2-Trichloroethane	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 13:04	WB
Trichloroethene	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 13:04	WB
Trichlorofluoromethane (Freon 11)	1.35		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 13:04	WB
1,2,4-Trimethylbenzene	0.34	J	ug/m ³	0.98	0.25	1	08/31/21	08/31/21 13:04	WB
1,3,5-Trimethylbenzene	ND		ug/m ³	0.98	0.25	1	08/31/21	08/31/21 13:04	WB
2,2,4-Trimethylpentane	ND		ug/m ³	0.93	0.23	1	08/31/21	08/31/21 13:04	WB
Vinyl acetate	ND		ug/m ³	0.70	0.70	1	08/31/21	08/31/21 13:04	WB
Vinyl bromide	ND		ug/m ³	0.87	0.22	1	08/31/21	08/31/21 13:04	WB
Vinyl chloride	ND		ug/m ³	0.51	0.13	1	08/31/21	08/31/21 13:04	WB
o-Xylene	0.56	J	ug/m ³	0.87	0.22	1	08/31/21	08/31/21 13:04	WB
m- & p-Xylenes	1.26	J	ug/m ³	1.70	0.43	1	08/31/21	08/31/21 13:04	WB
<i>Surrogate: 4-Bromofluorobenzene</i>				73-115	103 %		08/31/21	08/31/21 13:04	

Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report

Analytical Results

Project: William Ramsey Elementary

Project Number: 4920002
Project Manager: Amber Confer

Reported:
09/03/21 12:50

WR-CLASS28
21082713-005
1083013-05 (Vapor)
Sample Date: 08/25/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	33.7		ug/m ³	2.40	2.40	1	08/31/21	08/31/21 13:41	WB
Benzene	0.48	J	ug/m ³	0.64	0.16	1	08/31/21	08/31/21 13:41	WB
Benzyl chloride	ND		ug/m ³	1.00	0.25	1	08/31/21	08/31/21 13:41	WB
Bromodichloromethane	ND		ug/m ³	1.30	0.33	1	08/31/21	08/31/21 13:41	WB
Bromoform	ND		ug/m ³	2.10	0.53	1	08/31/21	08/31/21 13:41	WB
Bromomethane	ND		ug/m ³	0.78	0.20	1	08/31/21	08/31/21 13:41	WB
1,3-Butadiene	ND		ug/m ³	0.44	0.44	1	08/31/21	08/31/21 13:41	WB
Carbon disulfide	ND		ug/m ³	1.56	1.56	1	08/31/21	08/31/21 13:41	WB
Carbon tetrachloride	0.50	J	ug/m ³	1.30	0.33	1	08/31/21	08/31/21 13:41	WB
Chlorobenzene	ND		ug/m ³	0.92	0.23	1	08/31/21	08/31/21 13:41	WB
Chloroethane	ND		ug/m ³	0.53	0.27	1	08/31/21	08/31/21 13:41	WB
Chloroform	0.68	J	ug/m ³	0.97	0.24	1	08/31/21	08/31/21 13:41	WB
Chloromethane	1.26		ug/m ³	0.41	0.10	1	08/31/21	08/31/21 13:41	WB
3-Chloropropene	ND		ug/m ³	0.63	0.16	1	08/31/21	08/31/21 13:41	WB
Cyclohexane	ND		ug/m ³	0.69	0.17	1	08/31/21	08/31/21 13:41	WB
Dibromochloromethane	ND		ug/m ³	1.30	0.33	1	08/31/21	08/31/21 13:41	WB
1,2-Dibromoethane (EDB)	ND		ug/m ³	1.40	0.35	1	08/31/21	08/31/21 13:41	WB
1,2-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 13:41	WB
1,3-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 13:41	WB
1,4-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 13:41	WB
Dichlorodifluoromethane	2.32		ug/m ³	0.99	0.99	1	08/31/21	08/31/21 13:41	WB
1,1-Dichloroethane	ND		ug/m ³	0.81	0.20	1	08/31/21	08/31/21 13:41	WB
1,2-Dichloroethane	ND		ug/m ³	0.81	0.20	1	08/31/21	08/31/21 13:41	WB
1,1-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 13:41	WB
cis-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 13:41	WB
trans-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 13:41	WB
1,2-Dichloropropane	0.23	J	ug/m ³	0.92	0.23	1	08/31/21	08/31/21 13:41	WB
cis-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	08/31/21	08/31/21 13:41	WB
trans-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	08/31/21	08/31/21 13:41	WB
1,4-Dioxane	ND		ug/m ³	0.72	0.18	1	08/31/21	08/31/21 13:41	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	08/31/21	08/31/21 13:41	WB
Ethylbenzene	0.39	J	ug/m ³	0.87	0.22	1	08/31/21	08/31/21 13:41	WB
4-Ethyltoluene	0.25	J	ug/m ³	0.98	0.25	1	08/31/21	08/31/21 13:41	WB
Freon 113	0.54	J	ug/m ³	1.50	0.38	1	08/31/21	08/31/21 13:41	WB



Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report

Analytical Results

Project: William Ramsey Elementary

Project Number: 4920002
Project Manager: Amber Confer

Reported:
09/03/21 12:50

WR-CLASS28
21082713-005
1083013-05 (Vapor)
Sample Date: 08/25/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	08/31/21	08/31/21 13:41	WB
n-Heptane	0.66	J	ug/m ³	0.82	0.21	1	08/31/21	08/31/21 13:41	WB
Hexachlorobutadiene	ND		ug/m ³	2.10	2.10	1	08/31/21	08/31/21 13:41	WB
Hexane	ND		ug/m ³	14.0	14.0	1	08/31/21	08/31/21 13:41	WB
2-Hexanone	0.61	J	ug/m ³	0.82	0.15	1	08/31/21	08/31/21 13:41	WB
Isopropylbenzene (Cumene)	ND		ug/m ³	1.10	0.40	1	08/31/21	08/31/21 13:41	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.72	0.21	1	08/31/21	08/31/21 13:41	WB
Methylene chloride	ND		ug/m ³	18.0	18.0	1	08/31/21	08/31/21 13:41	WB
Methyl ethyl ketone (2-Butanone)	2.83		ug/m ³	0.59	0.34	1	08/31/21	08/31/21 13:41	WB
Methyl isobutyl ketone	ND		ug/m ³	0.82	0.82	1	08/31/21	08/31/21 13:41	WB
Naphthalene	ND		ug/m ³	1.10	0.70	1	08/31/21	08/31/21 13:41	WB
Propene	ND		ug/m ³	0.34	0.34	1	08/31/21	08/31/21 13:41	WB
n-Propylbenzene	ND		ug/m ³	0.98	0.40	1	08/31/21	08/31/21 13:41	WB
Styrene	0.81	J	ug/m ³	0.85	0.15	1	08/31/21	08/31/21 13:41	WB
1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.40	0.35	1	08/31/21	08/31/21 13:41	WB
Tetrachloroethene	1.36	J	ug/m ³	1.40	0.70	1	08/31/21	08/31/21 13:41	WB
Tetrahydrofuran	ND		ug/m ³	0.59	0.15	1	08/31/21	08/31/21 13:41	WB
Toluene	5.24		ug/m ³	0.75	0.35	1	08/31/21	08/31/21 13:41	WB
1,2,4-Trichlorobenzene	ND		ug/m ³	1.50	0.38	1	08/31/21	08/31/21 13:41	WB
1,1,1-Trichloroethane	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 13:41	WB
1,1,2-Trichloroethane	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 13:41	WB
Trichloroethene	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 13:41	WB
Trichlorofluoromethane (Freon 11)	1.29		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 13:41	WB
1,2,4-Trimethylbenzene	0.39	J	ug/m ³	0.98	0.25	1	08/31/21	08/31/21 13:41	WB
1,3,5-Trimethylbenzene	ND		ug/m ³	0.98	0.25	1	08/31/21	08/31/21 13:41	WB
2,2,4-Trimethylpentane	0.23	J	ug/m ³	0.93	0.23	1	08/31/21	08/31/21 13:41	WB
Vinyl acetate	ND		ug/m ³	0.70	0.70	1	08/31/21	08/31/21 13:41	WB
Vinyl bromide	ND		ug/m ³	0.87	0.22	1	08/31/21	08/31/21 13:41	WB
Vinyl chloride	ND		ug/m ³	0.51	0.13	1	08/31/21	08/31/21 13:41	WB
o-Xylene	0.43	J	ug/m ³	0.87	0.22	1	08/31/21	08/31/21 13:41	WB
m- & p-Xylenes	1.17	J	ug/m ³	1.70	0.43	1	08/31/21	08/31/21 13:41	WB
Surrogate: 4-Bromofluorobenzene				73-115	103 %		08/31/21	08/31/21 13:41	

Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report

Analytical Results

Project: William Ramsey Elementary

Project Number: 4920002
Project Manager: Amber Confer

Reported:
09/03/21 12:50

WR-CLASS 5
21082713-008
1083013-06 (Vapor)
Sample Date: 08/25/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	32.6		ug/m ³	2.40	2.40	1	08/31/21	08/31/21 14:18	WB
Benzene	0.48	J	ug/m ³	0.64	0.16	1	08/31/21	08/31/21 14:18	WB
Benzyl chloride	ND		ug/m ³	1.00	0.25	1	08/31/21	08/31/21 14:18	WB
Bromodichloromethane	ND		ug/m ³	1.30	0.33	1	08/31/21	08/31/21 14:18	WB
Bromoform	ND		ug/m ³	2.10	0.53	1	08/31/21	08/31/21 14:18	WB
Bromomethane	ND		ug/m ³	0.78	0.20	1	08/31/21	08/31/21 14:18	WB
1,3-Butadiene	ND		ug/m ³	0.44	0.44	1	08/31/21	08/31/21 14:18	WB
Carbon disulfide	ND		ug/m ³	1.56	1.56	1	08/31/21	08/31/21 14:18	WB
Carbon tetrachloride	0.44	J	ug/m ³	1.30	0.33	1	08/31/21	08/31/21 14:18	WB
Chlorobenzene	ND		ug/m ³	0.92	0.23	1	08/31/21	08/31/21 14:18	WB
Chloroethane	ND		ug/m ³	0.53	0.27	1	08/31/21	08/31/21 14:18	WB
Chloroform	1.03		ug/m ³	0.97	0.24	1	08/31/21	08/31/21 14:18	WB
Chloromethane	1.18		ug/m ³	0.41	0.10	1	08/31/21	08/31/21 14:18	WB
3-Chloropropene	ND		ug/m ³	0.63	0.16	1	08/31/21	08/31/21 14:18	WB
Cyclohexane	0.28	J	ug/m ³	0.69	0.17	1	08/31/21	08/31/21 14:18	WB
Dibromochloromethane	ND		ug/m ³	1.30	0.33	1	08/31/21	08/31/21 14:18	WB
1,2-Dibromoethane (EDB)	ND		ug/m ³	1.40	0.35	1	08/31/21	08/31/21 14:18	WB
1,2-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 14:18	WB
1,3-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 14:18	WB
1,4-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 14:18	WB
Dichlorodifluoromethane	2.97		ug/m ³	0.99	0.99	1	08/31/21	08/31/21 14:18	WB
1,1-Dichloroethane	ND		ug/m ³	0.81	0.20	1	08/31/21	08/31/21 14:18	WB
1,2-Dichloroethane	ND		ug/m ³	0.81	0.20	1	08/31/21	08/31/21 14:18	WB
1,1-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 14:18	WB
cis-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 14:18	WB
trans-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 14:18	WB
1,2-Dichloropropane	ND		ug/m ³	0.92	0.23	1	08/31/21	08/31/21 14:18	WB
cis-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	08/31/21	08/31/21 14:18	WB
trans-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	08/31/21	08/31/21 14:18	WB
1,4-Dioxane	ND		ug/m ³	0.72	0.18	1	08/31/21	08/31/21 14:18	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	08/31/21	08/31/21 14:18	WB
Ethylbenzene	0.30	J	ug/m ³	0.87	0.22	1	08/31/21	08/31/21 14:18	WB
4-Ethyltoluene	ND		ug/m ³	0.98	0.25	1	08/31/21	08/31/21 14:18	WB
Freon 113	0.46	J	ug/m ³	1.50	0.38	1	08/31/21	08/31/21 14:18	WB

Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report

Analytical Results

Project: William Ramsey Elementary

Project Number: 4920002
Project Manager: Amber Confer

Reported:
09/03/21 12:50

WR-CLASS 5
21082713-008
1083013-06 (Vapor)
Sample Date: 08/25/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	08/31/21	08/31/21 14:18	WB
n-Heptane	0.86		ug/m ³	0.82	0.21	1	08/31/21	08/31/21 14:18	WB
Hexachlorobutadiene	ND		ug/m ³	2.10	2.10	1	08/31/21	08/31/21 14:18	WB
Hexane	ND		ug/m ³	14.0	14.0	1	08/31/21	08/31/21 14:18	WB
2-Hexanone	0.66	J	ug/m ³	0.82	0.15	1	08/31/21	08/31/21 14:18	WB
Isopropylbenzene (Cumene)	ND		ug/m ³	1.10	0.40	1	08/31/21	08/31/21 14:18	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.72	0.21	1	08/31/21	08/31/21 14:18	WB
Methylene chloride	ND		ug/m ³	18.0	18.0	1	08/31/21	08/31/21 14:18	WB
Methyl ethyl ketone (2-Butanone)	2.74		ug/m ³	0.59	0.34	1	08/31/21	08/31/21 14:18	WB
Methyl isobutyl ketone	ND		ug/m ³	0.82	0.82	1	08/31/21	08/31/21 14:18	WB
Naphthalene	0.89	J	ug/m ³	1.10	0.70	1	08/31/21	08/31/21 14:18	WB
Propene	ND		ug/m ³	0.34	0.34	1	08/31/21	08/31/21 14:18	WB
n-Propylbenzene	ND		ug/m ³	0.98	0.40	1	08/31/21	08/31/21 14:18	WB
Styrene	0.72	J	ug/m ³	0.85	0.15	1	08/31/21	08/31/21 14:18	WB
1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.40	0.35	1	08/31/21	08/31/21 14:18	WB
Tetrachloroethene	ND		ug/m ³	1.40	0.70	1	08/31/21	08/31/21 14:18	WB
Tetrahydrofuran	0.24	J	ug/m ³	0.59	0.15	1	08/31/21	08/31/21 14:18	WB
Toluene	4.41		ug/m ³	0.75	0.35	1	08/31/21	08/31/21 14:18	WB
1,2,4-Trichlorobenzene	ND		ug/m ³	1.50	0.38	1	08/31/21	08/31/21 14:18	WB
1,1,1-Trichloroethane	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 14:18	WB
1,1,2-Trichloroethane	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 14:18	WB
Trichloroethene	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 14:18	WB
Trichlorofluoromethane (Freon 11)	1.24		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 14:18	WB
1,2,4-Trimethylbenzene	ND		ug/m ³	0.98	0.25	1	08/31/21	08/31/21 14:18	WB
1,3,5-Trimethylbenzene	ND		ug/m ³	0.98	0.25	1	08/31/21	08/31/21 14:18	WB
2,2,4-Trimethylpentane	ND		ug/m ³	0.93	0.23	1	08/31/21	08/31/21 14:18	WB
Vinyl acetate	ND		ug/m ³	0.70	0.70	1	08/31/21	08/31/21 14:18	WB
Vinyl bromide	ND		ug/m ³	0.87	0.22	1	08/31/21	08/31/21 14:18	WB
Vinyl chloride	ND		ug/m ³	0.51	0.13	1	08/31/21	08/31/21 14:18	WB
o-Xylene	0.39	J	ug/m ³	0.87	0.22	1	08/31/21	08/31/21 14:18	WB
m- & p-Xylenes	0.96	J	ug/m ³	1.70	0.43	1	08/31/21	08/31/21 14:18	WB
Surrogate: 4-Bromofluorobenzene			73-115	104 %			08/31/21	08/31/21 14:18	

Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report

Analytical Results

Project: William Ramsey Elementary

Project Number: 4920002
Project Manager: Amber Confer

Reported:
09/03/21 12:50

WR-CLASS 35
21082713-010
1083013-07 (Vapor)
Sample Date: 08/25/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	37.7		ug/m ³	2.40	2.40	1	08/31/21	08/31/21 14:57	WB
Benzene	0.48	J	ug/m ³	0.64	0.16	1	08/31/21	08/31/21 14:57	WB
Benzyl chloride	ND		ug/m ³	1.00	0.25	1	08/31/21	08/31/21 14:57	WB
Bromodichloromethane	ND		ug/m ³	1.30	0.33	1	08/31/21	08/31/21 14:57	WB
Bromoform	ND		ug/m ³	2.10	0.53	1	08/31/21	08/31/21 14:57	WB
Bromomethane	ND		ug/m ³	0.78	0.20	1	08/31/21	08/31/21 14:57	WB
1,3-Butadiene	ND		ug/m ³	0.44	0.44	1	08/31/21	08/31/21 14:57	WB
Carbon disulfide	ND		ug/m ³	1.56	1.56	1	08/31/21	08/31/21 14:57	WB
Carbon tetrachloride	0.50	J	ug/m ³	1.30	0.33	1	08/31/21	08/31/21 14:57	WB
Chlorobenzene	ND		ug/m ³	0.92	0.23	1	08/31/21	08/31/21 14:57	WB
Chloroethane	ND		ug/m ³	0.53	0.27	1	08/31/21	08/31/21 14:57	WB
Chloroform	0.44	J	ug/m ³	0.97	0.24	1	08/31/21	08/31/21 14:57	WB
Chloromethane	1.24		ug/m ³	0.41	0.10	1	08/31/21	08/31/21 14:57	WB
3-Chloropropene	ND		ug/m ³	0.63	0.16	1	08/31/21	08/31/21 14:57	WB
Cyclohexane	ND		ug/m ³	0.69	0.17	1	08/31/21	08/31/21 14:57	WB
Dibromochloromethane	ND		ug/m ³	1.30	0.33	1	08/31/21	08/31/21 14:57	WB
1,2-Dibromoethane (EDB)	ND		ug/m ³	1.40	0.35	1	08/31/21	08/31/21 14:57	WB
1,2-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 14:57	WB
1,3-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 14:57	WB
1,4-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	08/31/21	08/31/21 14:57	WB
Dichlorodifluoromethane	2.23		ug/m ³	0.99	0.99	1	08/31/21	08/31/21 14:57	WB
1,1-Dichloroethane	ND		ug/m ³	0.81	0.20	1	08/31/21	08/31/21 14:57	WB
1,2-Dichloroethane	0.32	J	ug/m ³	0.81	0.20	1	08/31/21	08/31/21 14:57	WB
1,1-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 14:57	WB
cis-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 14:57	WB
trans-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	08/31/21	08/31/21 14:57	WB
1,2-Dichloropropane	0.79	J	ug/m ³	0.92	0.23	1	08/31/21	08/31/21 14:57	WB
cis-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	08/31/21	08/31/21 14:57	WB
trans-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	08/31/21	08/31/21 14:57	WB
1,4-Dioxane	0.29	J	ug/m ³	0.72	0.18	1	08/31/21	08/31/21 14:57	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	08/31/21	08/31/21 14:57	WB
Ethylbenzene	0.48	J	ug/m ³	0.87	0.22	1	08/31/21	08/31/21 14:57	WB
4-Ethyltoluene	0.34	J	ug/m ³	0.98	0.25	1	08/31/21	08/31/21 14:57	WB
Freon 113	0.54	J	ug/m ³	1.50	0.38	1	08/31/21	08/31/21 14:57	WB

Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report

Analytical Results

Project: William Ramsey Elementary

Project Number: 4920002
Project Manager: Amber Confer

Reported:
09/03/21 12:50

WR-CLASS 35
21082713-010
1083013-07 (Vapor)
Sample Date: 08/25/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	08/31/21	08/31/21 14:57	WB
n-Heptane	0.86		ug/m ³	0.82	0.21	1	08/31/21	08/31/21 14:57	WB
Hexachlorobutadiene	ND		ug/m ³	2.10	2.10	1	08/31/21	08/31/21 14:57	WB
Hexane	ND		ug/m ³	14.0	14.0	1	08/31/21	08/31/21 14:57	WB
2-Hexanone	0.70	J	ug/m ³	0.82	0.15	1	08/31/21	08/31/21 14:57	WB
Isopropylbenzene (Cumene)	ND		ug/m ³	1.10	0.40	1	08/31/21	08/31/21 14:57	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.72	0.21	1	08/31/21	08/31/21 14:57	WB
Methylene chloride	ND		ug/m ³	18.0	18.0	1	08/31/21	08/31/21 14:57	WB
Methyl ethyl ketone (2-Butanone)	4.13		ug/m ³	0.59	0.34	1	08/31/21	08/31/21 14:57	WB
Methyl isobutyl ketone	ND		ug/m ³	0.82	0.82	1	08/31/21	08/31/21 14:57	WB
Naphthalene	0.84	J	ug/m ³	1.10	0.70	1	08/31/21	08/31/21 14:57	WB
Propene	ND		ug/m ³	0.34	0.34	1	08/31/21	08/31/21 14:57	WB
n-Propylbenzene	ND		ug/m ³	0.98	0.40	1	08/31/21	08/31/21 14:57	WB
Styrene	0.98		ug/m ³	0.85	0.15	1	08/31/21	08/31/21 14:57	WB
1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.40	0.35	1	08/31/21	08/31/21 14:57	WB
Tetrachloroethene	0.75	J	ug/m ³	1.40	0.70	1	08/31/21	08/31/21 14:57	WB
Tetrahydrofuran	ND		ug/m ³	0.59	0.15	1	08/31/21	08/31/21 14:57	WB
Toluene	13.7		ug/m ³	0.75	0.35	1	08/31/21	08/31/21 14:57	WB
1,2,4-Trichlorobenzene	ND		ug/m ³	1.50	0.38	1	08/31/21	08/31/21 14:57	WB
1,1,1-Trichloroethane	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 14:57	WB
1,1,2-Trichloroethane	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 14:57	WB
Trichloroethene	ND		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 14:57	WB
Trichlorofluoromethane (Freon 11)	1.35		ug/m ³	1.10	0.28	1	08/31/21	08/31/21 14:57	WB
1,2,4-Trimethylbenzene	0.49	J	ug/m ³	0.98	0.25	1	08/31/21	08/31/21 14:57	WB
1,3,5-Trimethylbenzene	ND		ug/m ³	0.98	0.25	1	08/31/21	08/31/21 14:57	WB
2,2,4-Trimethylpentane	ND		ug/m ³	0.93	0.23	1	08/31/21	08/31/21 14:57	WB
Vinyl acetate	ND		ug/m ³	0.70	0.70	1	08/31/21	08/31/21 14:57	WB
Vinyl bromide	ND		ug/m ³	0.87	0.22	1	08/31/21	08/31/21 14:57	WB
Vinyl chloride	ND		ug/m ³	0.51	0.13	1	08/31/21	08/31/21 14:57	WB
o-Xylene	0.56	J	ug/m ³	0.87	0.22	1	08/31/21	08/31/21 14:57	WB
m- & p-Xylenes	1.69	J	ug/m ³	1.70	0.43	1	08/31/21	08/31/21 14:57	WB
Surrogate: 4-Bromofluorobenzene				73-115	104 %		08/31/21	08/31/21 14:57	

Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report

Analytical Results

Project: William Ramsey Elementary

Project Number: 4920002
Project Manager: Amber Confer

Reported:
09/03/21 12:50

Notes and Definitions

J	Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
%-Solids	Percent Solids is a supportive test and as such does not require accreditation



Rabecka Koons, Quality Assurance Officer

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

W.O. No. : 21082713
Project Location : William Ramsay Elementary
Project Number : 4920002
Report To LOD : No

Samples Transferred To:
Maryland Spectral Services, Inc.
1500 Caton Center Drive, Suite G
Baltimore, MD 21227
Phone : 410-247-7600

For Questions or issues please contact: Amber Confer

Report Due On : 09/07/21 05:00

Lab Sample ID	Field Sample ID	Date Sampled	Time Sampled	Matrix	Analyses Required	Method	Type of Container	Preservative
21082713-001	WR- Library	08/25/21	20:27	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON
21082713-002	WR- Auditorium	08/25/21	20:36	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON
21082713-003	WR- Reception	08/25/21	20:42	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON
21082713-004	WR- Cafeteria	08/25/21	20:50	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON
21082713-005	WR- Class 28	08/25/21	20:58	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON
21082713-008	WR- Class 5	08/25/21	21:31	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON
21082713-010	WR- Class 35	08/25/21	21:46	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON

1083013

0001
0002
0003
0004
0005
0006
0007
0008
0009
0010

Data Deliverables Required: COA

Perform Q.C. on Sample : _____

Send Report Attn : reporting@phaseonline.com

Send Invoice Attn : invoicing@phaseonline.com

Airbill No.: _____ Carrier : TTE

Condition Upon Receipt : _____

Comments :

Samples Relinquished By: [Signature] Date: 08/30/21 Time: 11:29 Samples Received By: [Signature]
Samples Relinquished By: [Signature] Date: 08/30/21 Time: _____ Samples Received By: _____
Samples Relinquished By: _____ Date: 8/30/21 Time: 15:04 Samples Received By: [Signature]

Air Analysis by TO-15

Chain of Custody

Client Contact Information		Project Manager: <i>Amber Confer</i>				Carrier:				1 of 1 COCs					
Company: <i>PSS</i>		Phone:				Samplers Name(s)				Analysis/ Matrix					
		Site Contact:													
Project Name:		Analysis Turnaround Time													
Site:		Standard (Specify) <i>5 day</i>													
PO #		Rush (Specify)													
Client Sample ID	Sample Date Start	Time Start (24 hr clock)	Sample Date Stop	Time Stop (24 hr clock)	Canister Pressure in Field ("Hg) (Start)	Canister Pressure in Field ("Hg) (Stop)	Incoming Canister Pressure ("Hg) (Lab)	Sample Regulator ID	Can ID	Can Size (L)	TO-15 FULL LIST	TO-15 ABBREVIATED LIST	Indoor / Ambient Air	Soil Gas / Subslab	Comments
<i>21082713-001</i>	<i>8/23/21</i>	<i>1633</i>	<i>8/25/21</i>	<i>2027</i>	<i>29</i>	<i>9</i>			<i>10191</i>	<i>1.4</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<i>1083013</i>
<i>-002</i>		<i>1639</i>		<i>2036</i>	<i>31</i>	<i>5</i>			<i>591</i>						<i>-02</i>
<i>-003</i>		<i>1646</i>		<i>2042</i>	<i>31</i>	<i>31</i>			<i>10188</i>						<i>Malfunction?</i>
<i>-004</i>		<i>1654</i>		<i>2050</i>	<i>31</i>	<i>4</i>			<i>3684</i>						<i>-04</i>
<i>-005</i>		<i>1702</i>		<i>2058</i>	<i>29</i>	<i>4</i>			<i>887</i>						<i>-05</i>
<i>-008</i>		<i>1736</i>		<i>2131</i>	<i>31</i>	<i>6</i>			<i>9267</i>						<i>-06</i>
<i>-010</i>		<i>1751</i>		<i>2146</i>	<i>30</i>	<i>7</i>			<i>878</i>						<i>-07</i>
Special Instructions/QC Requirements & Comments:															
Canisters Shipped by:		Date/Time:				Canisters Received by: <i>[Signature]</i>				Date/Time:					
Samples Relinquished by:		Date/Time:				Received by:				Date/Time:					
Relinquished by:		Date/Time:				Received by:				Date/Time:					

01
03

Case Narrative

Project Name: ACPS IAQ Testing

PSS Project No.: 21082713

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:

Incoming pressures not taken for samples 001, 002, 003, 004, 005, 008, and 010; samples subbed out.

Incoming pressures will be taken by subcontractor.

Received additional sample not listed on COC; logged in as sample 015. Start and end field pressure not documented on COC for sample 015.

Soil gas/indoor air not indicated on COC; samples are indoor air.

21082713: Analyses associated with analyst code 4010 were performed by Maryland Spectral Services, Inc., 1500 Caton Center Drive, Suite G, Baltimore, MD 21227 - VA 460156

Analytical:

VOCs in Air by GC/MS

Batch: 187185

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

Lab Chronology

Project Name: ACPS IAQ Testing
 PSS Project No.: 21082713

Method	Client Sample ID	Analysis Type	PSS Sample ID	Mtx	Prep Batch	Analytical Batch	Prepared	Analyzed
EPA TO-15	WR- Gym	Initial	21082713-006	A	87488	187185	08/30/2021 07:21	08/30/2021 15:20
	WR- Class 21	Initial	21082713-007	A	87488	187185	08/30/2021 07:21	08/30/2021 21:46
	WR- Hall 31-20	Initial	21082713-009	A	87488	187185	08/30/2021 07:21	08/30/2021 16:15
	WR- Class 16	Initial	21082713-011	A	87488	187185	08/30/2021 07:21	08/30/2021 17:10
	WR- Class 13	Initial	21082713-012	A	87488	187185	08/30/2021 07:21	08/30/2021 18:05
	WR- Class R-8	Initial	21082713-013	A	87488	187185	08/30/2021 07:21	08/30/2021 18:59
	WR- Suite A	Initial	21082713-014	A	87488	187185	08/30/2021 07:21	08/30/2021 19:56
	WR- Outdoor	Initial	21082713-015	A	87488	187185	08/30/2021 07:21	08/30/2021 20:51
	87488-1-BKS	BKS	87488-1-BKS	A	87488	187185	08/30/2021 07:21	08/30/2021 09:31
	87488-1-BLK	BLK	87488-1-BLK	A	87488	187185	08/30/2021 07:21	08/30/2021 14:25
	87488-1-BSD	BSD	87488-1-BSD	A	87488	187185	08/30/2021 07:21	08/30/2021 12:34

Project Name ACPS IAQ Testing

PSS Project No.: 21082713

Analytical Method: EPA TO-15

Seq Number: 187185

Matrix: Air

Prep Method: TO-15P

Date Prep: 08/30/21

MB Sample Id: 87488-1-BLK

LCS Sample Id: 87488-1-BKS

LCSD Sample Id: 87488-1-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	9.640	81	9.712	82	69-118	1	25	ug/M3	
Benzene	<0.3193	15.97	14.05	88	14.43	90	79-107	2	25	ug/M3	
Benzyl Chloride	<1.035	25.87	30.43	118	32.03	124	78-143	5	25	ug/M3	
Bromodichloromethane	<1.340	33.49	29.27	87	30.01	90	81-111	3	25	ug/M3	
Bromoform	<2.067	51.67	54.15	105	56.53	109	78-133	4	25	ug/M3	
Bromomethane	<0.7764	19.41	18.09	93	19.22	99	76-116	6	25	ug/M3	
1,3-Butadiene	<0.4423	11.06	9.951	90	10.44	94	70-116	4	25	ug/M3	
2-Butanone (MEK)	<1.474	14.74	12.85	87	13.09	89	74-114	2	25	ug/M3	
Carbon Disulfide	<12.45	15.56	13.57	87	14.04	90	79-117	3	25	ug/M3	
Carbon Tetrachloride	<1.258	31.45	27.86	89	28.68	91	81-110	2	25	ug/M3	
Chlorobenzene	<0.9204	23.01	22.69	99	23.75	103	84-119	4	25	ug/M3	
Chloroethane	<0.5276	13.19	11.84	90	12.45	94	72-118	4	25	ug/M3	
Chloroform	<0.9761	24.40	21.33	87	21.96	90	82-108	3	25	ug/M3	
Chloromethane	<0.4128	10.32	8.670	84	9.186	89	64-121	6	25	ug/M3	
Allyl Chloride (3-Chloropropene)	<0.6258	15.64	13.86	89	14.36	92	77-113	3	25	ug/M3	
Cyclohexane	<0.6881	17.20	16.17	94	16.72	97	82-110	3	25	ug/M3	
Dibromochloromethane	<1.703	42.58	39.09	92	40.36	95	82-113	3	25	ug/M3	
1,2-Dibromoethane	<1.536	38.40	35.33	92	36.94	96	86-110	4	25	ug/M3	
1,2-Dichlorobenzene	<1.202	30.05	31.49	105	33.24	111	83-130	6	25	ug/M3	
1,3-Dichlorobenzene	<1.202	30.05	31.25	104	33.18	110	85-128	6	25	ug/M3	
1,4-Dichlorobenzene	<1.202	30.05	31.55	105	33.42	111	82-132	6	25	ug/M3	
Dichlorodifluoromethane	<0.9887	24.72	21.41	87	21.65	88	62-122	1	25	ug/M3	
1,1-Dichloroethane	<0.8092	20.23	17.72	88	18.21	90	79-110	2	25	ug/M3	
1,2-Dichloroethane	<0.8092	20.23	17.28	85	17.60	87	75-112	2	25	ug/M3	
1,1-Dichloroethene	<0.7926	19.82	17.68	89	18.47	93	80-110	4	25	ug/M3	
cis-1,2-Dichloroethene	<0.7926	19.82	18.07	91	18.71	94	84-109	3	25	ug/M3	
trans-1,2-dichloroethene	<0.7926	19.82	17.87	90	18.51	93	81-109	3	25	ug/M3	
1,2-Dichloropropane	<1.848	23.10	20.19	87	20.65	89	81-111	2	25	ug/M3	
cis-1,3-Dichloropropene	<0.9074	22.68	21.69	96	22.59	100	89-109	4	25	ug/M3	
trans-1,3-dichloropropene	<0.9074	22.68	21.55	95	22.37	99	89-114	4	25	ug/M3	
1,2-Dichlorotetrafluoroethane	<1.398	34.94	31.03	89	33.19	95	72-116	7	25	ug/M3	
1,4-Dioxane (P-Dioxane)	<3.602	18.01	17.00	94	17.90	99	70-120	5	25	ug/M3	
Ethyl Acetate	<0.7204	18.01	17.98	100	18.48	103	87-124	3	25	ug/M3	
Ethylbenzene	<0.4340	21.70	23.26	107	24.44	113	87-125	5	25	ug/M3	
4-Ethyltoluene	<0.9827	24.57	26.34	107	27.81	113	87-127	5	25	ug/M3	
n-Heptane	<0.8193	20.48	20.24	99	20.97	102	90-110	3	25	ug/M3	
Hexachlorobutadiene	<2.132	53.30	54.48	102	57.99	109	83-126	7	25	ug/M3	
n-Hexane	<14.09	17.61	17.09	97	17.58	100	84-114	3	25	ug/M3	
2-Hexanone (MBK)	<2.047	20.47	18.80	92	19.04	93	68-133	1	25	ug/M3	
Isopropylbenzene	<0.9827	24.57	24.81	101	26.19	107	88-117	6	25	ug/M3	
Methylene Chloride	<13.89	17.36	14.31	82	15.14	87	63-130	6	25	ug/M3	
4-Methyl-2-Pentanone (MIBK)	<2.047	20.47	18.75	92	19.00	93	78-115	1	25	ug/M3	
Methyl-t-Butyl Ether	<0.3604	18.02	17.62	98	18.20	101	86-109	3	25	ug/M3	
Naphthalene	<0.5240	26.20	35.84	137	38.30	146	65-129	6	25	ug/M3	H
Propylene	<1.720	8.602	7.053	82	7.776	90	58-129	9	25	ug/M3	
n-Propylbenzene	<0.9828	24.57	25.41	103	26.68	109	86-121	6	25	ug/M3	
Styrene	<4.258	21.29	24.27	114	25.42	119	86-137	4	25	ug/M3	
1,1,2,2-Tetrachloroethane	<1.373	34.31	33.35	97	35.07	102	88-119	5	25	ug/M3	
Tetrachloroethene	<1.356	33.90	32.14	95	33.56	99	86-107	4	25	ug/M3	
Tetrahydrofuran	<0.5895	14.74	13.68	93	13.85	94	80-117	1	25	ug/M3	
Toluene	<0.3767	18.83	18.46	98	19.36	103	91-106	5	25	ug/M3	

Project Name ACPS IAQ Testing

PSS Project No.: 21082713

Analytical Method: EPA TO-15

Seq Number: 187185

Matrix: Air

Prep Method: TO-15P

Date Prep: 08/30/21

MB Sample Id: 87488-1-BLK

LCS Sample Id: 87488-1-BKS

LCSD Sample Id: 87488-1-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	44.96	121	48.74	131	75-126	8	25	ug/M3	H
1,1,1-Trichloroethane	<1.091	27.27	24.11	88	24.93	91	81-109	3	25	ug/M3	
1,1,2-Trichloroethane	<1.091	27.27	24.76	91	25.36	93	83-111	2	25	ug/M3	
Trichloroethene	<1.074	26.86	24.60	92	25.30	94	88-106	2	25	ug/M3	
Trichlorofluoromethane	<1.123	28.08	24.15	86	25.39	90	78-109	5	25	ug/M3	
1,1,2-Trichlorotrifluoroethane	<1.532	38.31	34.32	90	35.85	94	84-107	4	25	ug/M3	
1,2,4-Trimethylbenzene	<0.9828	24.57	27.08	110	28.75	117	86-130	6	25	ug/M3	
1,3,5-Trimethylbenzene	<0.9828	24.57	26.04	106	27.32	111	87-122	5	25	ug/M3	
2,2,4-Trimethylpentane	<0.9339	23.35	21.20	91	21.81	93	78-107	2	25	ug/M3	
Vinyl acetate	<1.760	17.60	16.05	91	16.54	94	76-119	3	25	ug/M3	
Bromoethene	<0.8746	21.86	20.51	94	22.08	101	77-117	7	25	ug/M3	
Vinyl chloride	<0.5110	12.78	11.32	89	12.06	94	72-116	5	25	ug/M3	
m&p-Xylene	<0.8681	43.41	45.84	106	48.09	111	88-122	5	25	ug/M3	
o-Xylene	<0.4341	21.70	23.00	106	24.13	111	89-120	5	25	ug/M3	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units
4-Bromofluorobenzene	99		104		106		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

Project Name ACPS IAQ Testing

PSS Project No.: 21082713

Analytical Method: EPA TO-15

Seq Number: 187185

Matrix: Air

CCV Sample Id: CCV-01

Analyzed Date: 08/30/21 08:11

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
Acetone	11.87	10.17	86	70-130	ug/M3	
Benzene	15.97	14.79	93	70-130	ug/M3	
Benzyl Chloride	25.87	27.98	108	70-130	ug/M3	
Bromodichloromethane	33.49	29.90	89	70-130	ug/M3	
Bromoform	51.67	53.04	103	70-130	ug/M3	
Bromomethane	19.41	18.38	95	70-130	ug/M3	
1,3-Butadiene	11.06	9.977	90	70-130	ug/M3	
2-Butanone (MEK)	14.74	13.41	91	70-130	ug/M3	
Carbon Disulfide	15.56	15.41	99	70-130	ug/M3	
Carbon Tetrachloride	31.45	28.20	90	70-130	ug/M3	
Chlorobenzene	23.01	23.31	101	70-130	ug/M3	
Chloroethane	13.19	12.37	94	70-130	ug/M3	
Chloroform	24.40	22.10	91	70-130	ug/M3	
Chloromethane	10.32	8.781	85	70-130	ug/M3	
Allyl Chloride (3-Chloropropene)	15.64	14.21	91	70-130	ug/M3	
Cyclohexane	17.20	16.76	97	70-130	ug/M3	
Dibromochloromethane	42.58	39.52	93	70-130	ug/M3	
1,2-Dibromoethane	38.40	36.66	95	70-130	ug/M3	
1,2-Dichlorobenzene	30.05	30.38	101	70-130	ug/M3	
1,3-Dichlorobenzene	30.05	30.80	102	70-130	ug/M3	
1,4-Dichlorobenzene	30.05	30.70	102	70-130	ug/M3	
Dichlorodifluoromethane	24.72	21.69	88	70-130	ug/M3	
1,1-Dichloroethane	20.23	18.32	91	70-130	ug/M3	
1,2-Dichloroethane	20.23	17.95	89	70-130	ug/M3	
1,1-Dichloroethene	19.82	18.17	92	70-130	ug/M3	
cis-1,2-Dichloroethene	19.82	18.78	95	70-130	ug/M3	
trans-1,2-dichloroethene	19.82	18.40	93	70-130	ug/M3	
1,2-Dichloropropane	23.10	21.14	92	70-130	ug/M3	
cis-1,3-Dichloropropene	22.68	22.26	98	70-130	ug/M3	
trans-1,3-dichloropropene	22.68	21.90	97	70-130	ug/M3	
1,2-Dichlorotetrafluoroethane	34.94	31.00	89	70-130	ug/M3	
1,4-Dioxane (P-Dioxane)	18.01	18.58	103	70-130	ug/M3	
Ethyl Acetate	18.01	19.00	105	70-130	ug/M3	
Ethylbenzene	21.70	24.00	111	70-130	ug/M3	
4-Ethyltoluene	24.57	26.75	109	70-130	ug/M3	
n-Heptane	20.48	20.85	102	70-130	ug/M3	
Hexachlorobutadiene	53.30	51.02	96	70-130	ug/M3	
n-Hexane	17.61	17.74	101	70-130	ug/M3	
2-Hexanone (MBK)	20.47	19.79	97	70-130	ug/M3	
Isopropylbenzene	24.57	25.46	104	70-130	ug/M3	
Methylene Chloride	17.36	14.94	86	70-130	ug/M3	
4-Methyl-2-Pentanone (MIBK)	20.47	20.00	98	70-130	ug/M3	
Methyl-t-Butyl Ether	18.02	18.06	100	70-130	ug/M3	
Naphthalene	26.20	26.11	100	70-130	ug/M3	
Propylene	8.602	7.095	82	70-130	ug/M3	
n-Propylbenzene	24.57	25.97	106	70-130	ug/M3	
Styrene	21.29	24.56	115	70-130	ug/M3	
1,1,2,2-Tetrachloroethane	34.31	33.56	98	70-130	ug/M3	
Tetrachloroethene	33.90	33.20	98	70-130	ug/M3	
Tetrahydrofuran	14.74	14.15	96	70-130	ug/M3	
Toluene	18.83	19.03	101	70-130	ug/M3	

Project Name ACPS IAQ Testing
PSS Project No.: 21082713

Analytical Method: EPA TO-15

Seq Number: 187185

Matrix: Air

CCV Sample Id: CCV-01

Analyzed Date: 08/30/21 08:11

Parameter	Spike Amount	CCV Result	CCV %Rec	Limits	Units	Flag
1,2,4-Trichlorobenzene	37.09	36.96	100	70-130	ug/M3	
1,1,1-Trichloroethane	27.27	25.01	92	70-130	ug/M3	
1,1,2-Trichloroethane	27.27	25.60	94	70-130	ug/M3	
Trichloroethene	26.86	25.91	96	70-130	ug/M3	
Trichlorofluoromethane	28.08	24.97	89	70-130	ug/M3	
1,1,2-Trichlorotrifluoroethane	38.31	35.33	92	70-130	ug/M3	
1,2,4-Trimethylbenzene	24.57	27.37	111	70-130	ug/M3	
1,3,5-Trimethylbenzene	24.57	26.19	107	70-130	ug/M3	
2,2,4-Trimethylpentane	23.35	22.25	95	70-130	ug/M3	
Vinyl acetate	17.60	15.88	90	70-130	ug/M3	
Bromoethene	21.86	20.85	95	70-130	ug/M3	
Vinyl chloride	12.78	11.36	89	70-130	ug/M3	
Surrogate		CCV Result		Limits	Units	Flag
4-Bromofluorobenzene		83		50-150	%	

Project Name ACPS IAQ Testing

PSS Project No.: 21082713

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	
1,1,1,2-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	

Project Name ACPS IAQ Testing
PSS Project No.: 21082713

Analytical Method: EPA TO-15

Seq Number: 185968

Matrix: Air

Parent Sample Id: ICV-01

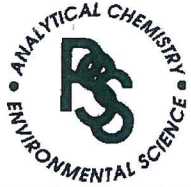
ICV Sample Id: ICV-01

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

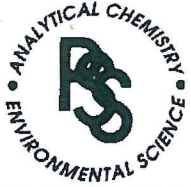
PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com

email: info@phaseonline.com

1 *CLIENT: Total Environmental Concepts, Inc. *OFFICE LOC.: Lorton						PSS Work Order #: 21082713				PAGE <u>1</u> OF <u>2</u>					
*PROJECT MGR: Karl Ford						* 3	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
EMAIL: kford@teci.pro *PHONE NO.: (703) 567-4346															
*PROJECT NAME: ACPS IAQ testing PROJECT NO.: 4920002															
SITE LOCATION: William Ramsay Elementa P.O. NO.:															
SAMPLER(S):															
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	WR - Library	8/25/21	16:33	8/25/21	20:27	10191	15036	29	9		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2	WR - Auditorium	8/25/21	16:39	8/25/21	20:36	591	15038	31	5		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3	WR - Reception	8/25/21	16:46	8/25/21	20:42	10188	12328	31	31		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Malfunction?
4	WR - Cafeteria	8/25/21	16:54	8/25/21	20:50	3684	15034	31	4		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5	WR - Class 28	8/25/21	17:02	8/25/21	20:58	887	10940	29	4		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6	WR - Gym	8/25/21	17:11	8/25/21	21:09	11204	15037	31	7	7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7	WR - Class 21	8/25/21	17:28	8/25/21	21:19	11205	15035	30	8	8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8	WR - Class 5	8/25/21	17:36	8/25/21	21:31	9267	12324	31	6		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9	WR- Hall 31-20	8/25/21	17:56	8/25/21	21:53	11211	13652	30	8	7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10	WR - Class 35	8/25/21	17:51	8/25/21	21:46	888	15032	30	7		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5 Relinquished By: (1)		Date: 8/25/21	Time: 1800	Received By:		4 *Requested TAT (One TAT per COC)					Shipping Carrier: CLIENT				
Relinquished By: (2)		Date: 8/27/21	Time: 1:56	Received By:		<input type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other					Data Deliverables Required:				
Relinquished By: (3)		Date	Time	Received By:		Special Instructions:									
Relinquished By: (4)		Date	Time	Received By:											

6630 Baltimore National Pike • Route 40 West • Baltimore, Maryland 21228 • (410) 747-8770 • (800) 932-9047 • Fax (410) 788-8723
 The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary. * = REQUIRED



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: William Ramsay Elementa P.O. NO.:
 SAMPLER(S):

PSS Work Order #: **21082713** PAGE 2 OF 2

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
11	WR - Class 16	8/25/21	18:02	8/25/21	22:00	11222	15033	30	6	6			<input checked="" type="checkbox"/>		
12	WR - Class 13	8/25/21	18:05	8/25/21	22:10	11206	12318	30	8	8			<input checked="" type="checkbox"/>		
13	WR - Class R-8	8/25/21	18:21	8/25/21	22:33	4260	13653	30	5	5			<input checked="" type="checkbox"/>		
14	WR - Suite A	8/25/21	18:30	8/25/21	22:21	4245	5678	32	10	9			<input checked="" type="checkbox"/>		
15	WR - Outside Outdoor on 8/27/21	8/25/21	18:34	8/25/21	22:43	11218	4081			6			<input type="checkbox"/>		

5 Relinquished By: (1) *[Signature]* Date 8/25/21 Time 1:00 Received By: *[Signature]*
 Relinquished By: (2) *Derrick Johnson* Date 8/25/21 Time 1:56 Received By: *[Signature]*
 Relinquished By: (3) Date 27 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:

Sample Receipt Checklist

Project Name: ACPS IAQ Testing
 PSS Project No.: 21082713

Client Name	Total Environmental Concepts - Lortc	Received By	Amber Confer
Disposal Date	10/01/2021	Date Received	08/27/2021 01:56:00 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? No
 Chain of Custody Yes

Sampler Name Not Provided
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

Sample Receipt Checklist

Project Name: ACPS IAQ Testing
 PSS Project No.: 21082713

Client Name	Total Environmental Concepts - Lortc	Received By	Amber Confer
Disposal Date	10/01/2021	Date Received	08/27/2021 01:56:00 PM
		Delivered By	Client
		Tracking No	Not Applicable
		Logged In By	Amber Confer

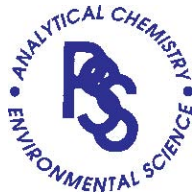
Comments: (Any "No" response must be detailed in the comments section below.)

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.

Incoming pressures not taken for samples 001, 002, 003, 004, 005, 008, and 010; samples subbed out. Incoming pressures will be taken by subcontractor.
 Received additional sample not listed on COC; logged in as sample 015. Start and end field pressure not documented on COC for sample 015.
 Soil gas/indoor air not indicated on COC; samples are indoor air.

Samples Inspected/Checklist Completed By: Amber J Confer Date: 08/27/2021
 Amber Confer

PM Review and Approval: Lynn Jackson Date: 08/27/2021
 Lynn Jackson



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15

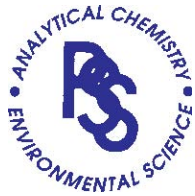
PHASE SEPARATION SCIENCE, INC.

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

1 *CLIENT: _____ *OFFICE LOC.: _____						PSS Work Order #: _____				PAGE _____ OF _____				
*PROJECT MGR: _____						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				
EMAIL: _____			*PHONE NO: (_____) _____											
*PROJECT NAME: _____			PROJECT NO.: _____											
SITE LOCATION: _____			P.O. NO.: _____											
SAMPLER(S): _____														
2	LAB #	*SAMPLE IDENTIFICATION	*DATE START	*Time Start (24hr clock)	*DATE STOP	*Time Stop (24hr clock)								
5	Relinquished By: (1)	Date	Time	Received By:		4 *Requested TAT (One TAT per COC) <input type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other						Shipping Carrier:		
	Relinquished By: (2)	Date	Time	Received By:		Data Deliverables Required:								
	Relinquished By: (3)	Date	Time	Received By:		Special Instructions:								
	Relinquished By: (4)	Date	Time	Received By:										

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

The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary. * = REQUIRED



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15

PHASE SEPARATION SCIENCE, INC.

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

1 *CLIENT: _____ *OFFICE LOC.: _____						PSS Work Order #: _____				PAGE _____ OF _____																																																																																																																																																																																																						
*PROJECT MGR: _____						<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">3</div> <div style="margin-bottom: 10px;">Can ID *</div> <div style="margin-bottom: 10px;">Sample Reg. ID *</div> <div style="margin-bottom: 10px;">Canister Pressure * in field ("Hg) Start</div> <div style="margin-bottom: 10px;">Canister Pressure * in field ("Hg) Stop</div> <div style="margin-bottom: 10px;">Incoming Canister Pressure ("Hg) Lab</div> <div style="margin-bottom: 10px;">Soil Gas / Subslab *</div> <div style="margin-bottom: 10px;">Indoor/Ambient Air *</div> <div style="margin-bottom: 10px;">TO-15 Full List</div> <div style="margin-bottom: 10px;">Special List</div> <div style="margin-bottom: 10px;">REMARKS</div> </div>				EMAIL: _____ *PHONE NO: (_____)																																																																																																																																																																																																						
*PROJECT NAME: _____			PROJECT NO.: _____																																																																																																																																																																																																													
SITE LOCATION: _____			P.O. NO.: _____																																																																																																																																																																																																													
SAMPLER(S): _____																																																																																																																																																																																																																
2 <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">LAB #</th> <th style="width: 20%;">*SAMPLE IDENTIFICATION</th> <th style="width: 10%;">*DATE START</th> <th style="width: 10%;">*Time Start (24hr clock)</th> <th style="width: 10%;">*DATE STOP</th> <th style="width: 10%;">*Time Stop (24hr clock)</th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>										LAB #	*SAMPLE IDENTIFICATION	*DATE START	*Time Start (24hr clock)	*DATE STOP	*Time Stop (24hr clock)																																																																																																																																																																																																	
LAB #	*SAMPLE IDENTIFICATION	*DATE START	*Time Start (24hr clock)	*DATE STOP	*Time Stop (24hr clock)																																																																																																																																																																																																											
5 Relinquished By: (1) _____		Date _____	Time _____	Received By: _____				4 *Requested TAT (One TAT per COC) <input type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other				Shipping Carrier: _____																																																																																																																																																																																																				
Relinquished By: (2) _____		Date _____	Time _____	Received By: _____				Data Deliverables Required:																																																																																																																																																																																																								
Relinquished By: (3) _____		Date _____	Time _____	Received By: _____				Special Instructions:																																																																																																																																																																																																								
Relinquished By: (4) _____		Date _____	Time _____	Received By: _____																																																																																																																																																																																																												

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

The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary. * = REQUIRED

Appendix D: Formaldehyde Analytical Results

Project Name: ACPS IAQ Testing
PSS Project No.: 21082719

September 8, 2021

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



Reference: PSS Project No: **21082719**
Project Name: ACPS IAQ Testing
Project Location: Williams Ramsay
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) **21082719**.

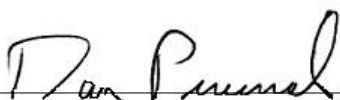
All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis 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 October 1, 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



Explanation of Qualifiers

Project Name: ACPS IAQ Testing

PSS Project No.: 21082719

Project ID: 4920002

The following samples were received under chain of custody by Phase Separation Science (PSS) on 08/27/2021 at 03:53 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
21082719-001	WR-Library	AIR	08/25/21 00:00
21082719-002	WR-Auditorium	AIR	08/25/21 00:00
21082719-003	WR-Reception	AIR	08/25/21 00:00
21082719-004	WR-Cafeteria	AIR	08/25/21 00:00
21082719-005	WR-Class 28	AIR	08/25/21 00:00
21082719-006	WR-Gym	AIR	08/25/21 00:00
21082719-007	WR-Class 21	AIR	08/25/21 00:00
21082719-008	WR-Class 5	AIR	08/25/21 00:00
21082719-009	WR-Hall 8-9	AIR	08/25/21 00:00
21082719-010	WR-Class 35	AIR	08/25/21 00:00
21082719-011	WR-Hall 31-20	AIR	08/25/21 00:00
21082719-012	WR-Class 16	AIR	08/25/21 00:00
21082719-013	WR-Class 13	AIR	08/25/21 00:00
21082719-014	WR-Class R-8	AIR	08/25/21 00:00
21082719-015	WR-Suite A	AIR	08/25/21 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 contaminants, and part 141.3, for the secondary drinking water contaminants.
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.

Explanation of Qualifiers

Project Name: ACPS IAQ Testing

PSS Project No.: 21082719

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



GALSON

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

September 08, 2021

Account# 15354

Login# L545499

Dear Amber Confer:

Enclosed are the analytical results for the samples received by our laboratory on August 31, 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.sgs.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.sgs.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



LABORATORY ANALYSIS REPORT

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

Client : Phase Separation Science, Inc. Account No.: 15354
 Site : WILLIAM RAMSAY Login No. : L545499
 Project No. : ACPS IAQ TESTING-4920002
 Date Sampled : 25-AUG-21 Date Analyzed : 02-SEP-21
 Date Received : 31-AUG-21 Report ID : 1263176

Formaldehyde

Sample ID	Lab ID	Time minutes	Total ug	Conc mg/m3	Conc ppm
WR-LIBRARY	L545499-1	237	<0.4	<0.01	<0.01
WR-AUDITORIUM	L545499-2	237	<0.4	<0.01	<0.01
WR-RECEPTION	L545499-3	236	<0.4	<0.01	<0.01
WR-CAFETERIA	L545499-4	236	<0.4	<0.01	<0.01
WR-CLASS 28	L545499-5	236	<0.4	<0.01	<0.01
WR-GYM	L545499-6	238	<0.4	<0.01	<0.01
WR-CLASS 21	L545499-7	231	<0.4	<0.01	<0.01
WR-CLASS 5	L545499-8	235	<0.4	<0.01	<0.01
WR-HALL 8-9	L545499-9	238	<0.4	<0.01	<0.01
WR-CLASS 35	L545499-10	235	<0.4	<0.01	<0.01
WR-HALL 31-20	L545499-11	237	<0.4	<0.01	<0.01
WR-CLASS 16	L545499-12	238	<0.4	<0.01	<0.01
WR-CLASS 13	L545499-13	245	0.4	0.01	0.01
WR-CLASS R-8	L545499-14	252	0.4	0.01	0.01
WR-SUITE A	L545499-15	231	<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 : 08-SEP-21
 Supervisor : MWJ

Approved by: MLN



GALSON

LABORATORY FOOTNOTE REPORT

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

Client Name : Phase Separation Science, Inc.
Site : WILLIAM RAMSAY
Project No. : APCS IAQ TESTING-4920002
Date Sampled : 25-AUG-21
Date Received : 31-AUG-21
Date Analyzed : 02-SEP-21
Account No.: 15354
Login No. : L545499

L545499 (Report ID: 1263176):

Total ug corrected for a desorption efficiency of 96%.
FORMALDEHYDE results have been corrected for the average background found on the media:
0.1178 ug for lot #4B21 (samples 1-15).
SOPs: LC-SOP-4(23)

L545499 (Report ID: 1263176):

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%

1545499

21 082719

122313E40164925623
Date: 08/31/21
Shipper: UPS
Initials: BGF
Prep: UNKNOWJN

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

Invoice To*: Phase Separation Science

Client Account No.*:

East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)
www.sgsgalson.com

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

Site Name: William Ramsay

Project: ACPS IAQ testing - 4920002

Sampled by: Karl Ford

Comments:

Dosimeter cartridge # noted in the (Hexavalent Chromium Process) column

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

State samples were collected in (e.g., NY) VA OSHA PEL ACGIH TLV Cal OSHA MSHA Other (specify):

Public grade school building

Need Results By:	(surcharge)	Sample Identification* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*, L, ml, min, in, 2, cm, 2, ft, 2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
<input checked="" type="checkbox"/> Standard	0%	WR - Library	08/25/21	Assay N581 Aldehyde Badge	237	Min	Formaldehyde	mod. OSHA 1007: TPLCUV	PD5092
<input type="checkbox"/> 4 Business Days	35%	WR - Auditorium	08/25/21	Assay N581 Aldehyde Badge	237	Min	Formaldehyde	mod. OSHA 1007: TPLCUV	PD4583
<input type="checkbox"/> 3 Business Days	50%	WR - Reception	08/25/21	Assay N581 Aldehyde Badge	236	Min	Formaldehyde	mod. OSHA 1007: TPLCUV	PD4790
<input type="checkbox"/> 2 Business Days	75%	WR - Cafeteria	08/25/21	Assay N581 Aldehyde Badge	236	Min	Formaldehyde	mod. OSHA 1007: TPLCUV	PD5377
<input type="checkbox"/> Next Day by 6pm	100%	WR - Class 28	08/25/21	Assay N581 Aldehyde Badge	236	Min	Formaldehyde	mod. OSHA 1007: TPLCUV	PD4569
<input type="checkbox"/> Next Day by Noon	150%	WR - Gym	08/25/21	Assay N581 Aldehyde Badge	238	Min	Formaldehyde	mod. OSHA 1007: TPLCUV	PD4888
<input type="checkbox"/> Same Day	200%	WR - Class 21	08/25/21	Assay N581 Aldehyde Badge	231	Min	Formaldehyde	mod. OSHA 1007: TPLCUV	PD5319
		WR - Class 5	08/25/21	Assay N581 Aldehyde Badge	235	Min	Formaldehyde	mod. OSHA 1007: TPLCUV	PD5558
		WR - Hall 8-9	08/25/21	Assay N581 Aldehyde Badge	238	Min	Formaldehyde	mod. OSHA 1007: TPLCUV	PD4731
		WR - Class 35	08/25/21	Assay N581 Aldehyde Badge	235	Min	Formaldehyde	mod. OSHA 1007: TPLCUV	PD5573
		WR - Hall 31-20	08/25/21	Assay N581 Aldehyde Badge	237	Min	Formaldehyde	mod. OSHA 1007: TPLCUV	PD4568

^Galson Laboratories will substitute 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	Date	Time
Relinquished by: <i>Channing Jackson</i>	<i>Channing Jackson</i>	8/27/21	11:46	8/27/21	11:47
Relinquished by: <i>Derrick Johnson</i>	<i>Derrick Johnson</i>	8/27/21	1:53	8/27/21	1:53

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 processing.

21082719

SGS GALSON

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

www.sgsgalson.com

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

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

Site Name : William Ramsay Project : ACPS IAQ testing - 4920002 Sampled by : Karl Ford

Comments :

Dosimeter cartridge # noted in the (Hexavalent Chromium Process) column

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):

Need Results By:	(surcharge)	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.)*
<input checked="" type="checkbox"/> Standard	0%	08/25/21	Assay N581 Aldehyde Badge	238	Min	Formaldehyde	mod. OSHA 1007: TPLCOUV	PD4246
<input type="checkbox"/> 4 Business Days	35%	08/25/21	Assay N581 Aldehyde Badge	245	Min	Formaldehyde	mod. OSHA 1007: TPLCOUV	PD4843
<input type="checkbox"/> 3 Business Days	50%	08/25/21	Assay N581 Aldehyde Badge	252	Min	Formaldehyde	mod. OSHA 1007: TPLCOUV	PD5399
<input type="checkbox"/> 2 Business Days	75%	08/25/21	Assay N581 Aldehyde Badge	231	Min	Formaldehyde	mod. OSHA 1007: TPLCOUV	PD4308
<input type="checkbox"/> Next Day by 6pm	100%							
<input type="checkbox"/> Next Day by Noon	150%							
<input type="checkbox"/> Same Day	200%							

^Galson Laboratories will substitute 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	Received by:	Received by:	Date	Time
Relinquished by:				Derrick Johnson		8/27/21	11:47
Relinquished by:	Derrick Johnson	8/27/21	1:55			8/27/21	1553

* Required fields. failure to complete these fields may result in a delay in your samples being processed. Report Reference: Generated: 08-SEP-21 09:27

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



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

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

W.O. No. : **21082719**
 Project Location : Williams Ramsay
 Project Number : 4920002
 Report To LOD : No

For Questions or issues please contact: Amber Confer

Report Due On : 09/08/21 05:00

Lab Sample ID	Field Sample ID	Date Sampled	Time Sampled	Matrix	Analyses Required	Method	Type of Container	Preservative
21082719-001	WR-Library	08/25/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082719-002	WR-Auditorium	08/25/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082719-003	WR-Reception	08/25/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082719-004	WR-Cafeteria	08/25/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082719-005	WR-Class 28	08/25/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082719-006	WR-Gym	08/25/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082719-007	WR-Class 21	08/25/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082719-008	WR-Class 5	08/25/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082719-009	WR-Hall 8-9	08/25/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082719-010	WR-Class 35	08/25/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082719-011	WR-Hall 31-20	08/25/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082719-012	WR-Class 16	08/25/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082719-013	WR-Class 13	08/25/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082719-014	WR-Class R-8	08/25/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082719-015	WR-Suite A	08/25/21	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 Invoice Attn : invoicing@phaseonline.com

Airbill No. : _____ Carrier : UPS

Condition Upon Receipt : _____

Comments : _____

Samples Relinquished By : Amber Confer Date : 8/30/21 Time : _____ Samples Received By : Brett Grenert-Fischer Date : 8/31/21 Time : _____
 Samples Relinquished By : _____ Date : _____ Time : _____ Samples Received By : Brett Grenert-Fischer Date : 8/31/21 Time : 11:55
 Samples Relinquished By : _____ Date : _____ Time : _____ Samples Received By : _____ Date : _____ Time : _____

Case Narrative

Project Name: ACPS IAQ Testing

PSS Project No.: 21082719

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.

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

21 082719



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

New Client? 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.

Need Results By:	(surcharge)
<input checked="" type="checkbox"/> Standard	0%
<input type="checkbox"/> 4 Business Days	35%
<input type="checkbox"/> 3 Business Days	50%
<input type="checkbox"/> 2 Business Days	75%
<input type="checkbox"/> Next Day by 6pm	100%
<input type="checkbox"/> Next Day by Noon	150%
<input type="checkbox"/> Same Day	200%

Site Name: William Ramsay Project: ACPS IAQ testing - 4920002 Sampled by: Karl Ford

Comments:

Dosimeter cartridge # noted in the (Hexavalent Chromium Process) column

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* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in ² ,cm ² ,ft ²	Analysis Requested*	Method Reference ^A	Hexavalent Chromium Process (e.g., welding plating, painting, etc.) [*]
WR - Library	08/25/21	Assay N581 Aldehyde Badge	237	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5092
WR - Auditorium	08/25/21	Assay N581 Aldehyde Badge	237	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4583
WR - Reception	08/25/21	Assay N581 Aldehyde Badge	236	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4790
WR - Cafeteria	08/25/21	Assay N581 Aldehyde Badge	236	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5377
WR - Class 28	08/25/21	Assay N581 Aldehyde Badge	236	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4569
WR - Gym	08/25/21	Assay N581 Aldehyde Badge	238	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4888
WR - Class 21	08/25/21	Assay N581 Aldehyde Badge	231	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5319
WR - Class 5	08/25/21	Assay N581 Aldehyde Badge	235	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5558
WR - Hall 8-9	08/25/21	Assay N581 Aldehyde Badge	238	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4731
WR - Class 35	08/25/21	Assay N581 Aldehyde Badge	235	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5573
WR - Hall 31-20	08/25/21	Assay N581 Aldehyde Badge	237	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4568

Galson Laboratories will substitute 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: Chan-Ning Jackson - Amber Confer	<i>Chan-Ning Jackson</i>	8/27/21	11:46	<i>Derrick Johnson</i>	8/27/21	11:47
Relinquished by: Derrick Johnson	<i>Derrick Johnson</i>	8/27/21	1:53	<i>Amber Confer</i>	8/27/21	1:53

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

21082719



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

Invoice To*: Phase Separation Science

Client Account No.*:

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

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

Site Name: William Ramsay Project: ACPS IAQ testing - 4920002 Sampled by: Karl Ford

Comments:
Dosimeter cartridge # noted in the (Hexavalent Chromium Process) column

Need Results By:	(surcharge)	List description of industry or Process/interferences present in sampling area:				State samples were collected in (e.g., NY)		Please indicate which OEL this data will be used for:		Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
		Standard	0%	35%	50%	75%	100%	150%	200%	
<input checked="" type="checkbox"/>		Public grade school building				VA				
Sample Identification* (Maximum of 20 Characters)		Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml, min, in ² , cm ² , ft ²	Analysis Requested*	Method Reference^			
WR - Class 16		08/25/21	Assay N581 Aldehyde Badge	238	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV			PD4246
WR - Class 13		08/25/21	Assay N581 Aldehyde Badge	245	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV			PD4843
WR - Class R-8		08/25/21	Assay N581 Aldehyde Badge	252	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV			PD5399
WR - Suite A		08/25/21	Assay N581 Aldehyde Badge	231	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV			PD4308

^Galson Laboratories will substitute 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	Received by:	Received by:	Print Name/Signature	Date	Time
Relinquished by:								
Relinquished by:	Derrick Johnson	8/27/21	1:55	Derrick Johnson			8/27/21	11:47
							8/27/21	1553

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

Sample Receipt Checklist

Project Name: ACPS IAQ Testing
PSS Project No.: 21082719

Client Name Total Environmental Concepts - Lortc
Received By Amber Confer
Disposal Date 10/01/2021
Date Received 08/27/2021 03:53:00 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 Not Provided
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 Confer Date: 08/30/2021

PM Review and Approval: Lynn Jackson Date: 08/30/2021



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

www.sgsgalson.com

New Client? Report To* : _____
 Client Account No.*: _____
 Phone No.* : _____
 Cell No. : _____
 Email Results to : _____
 Email address: _____

Invoice To* : _____
 Phone No.: _____
 Email : _____
 P.O. No. : _____
 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)
<input type="checkbox"/> Standard	0%
<input type="checkbox"/> 4 Business Days	35%
<input type="checkbox"/> 3 Business Days	50%
<input type="checkbox"/> 2 Business Days	75%
<input type="checkbox"/> Next Day by 6pm	100%
<input type="checkbox"/> Next Day by Noon	150%
<input type="checkbox"/> Same Day	200%

Site Name : _____ Project : _____ Sampled by : _____
 Comments : _____

List description of industry or Process/interferences present in sampling area : _____
 State samples were collected in (e.g., NY) _____
 Please indicate which OEL this data will be used for :
 OSHA PEL ACGIH TLV Cal OSHA
 MSHA Other (specify): _____

Sample Identification* (Maximum 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.)*

^Galson Laboratories will substitute 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 :		



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

www.sgsgalson.com

New Client? Report To* : _____
 Client Account No.*: _____
 Phone No.* : _____
 Cell No. : _____
 Email Results to : _____
 Email address: _____

Invoice To* : _____
 Phone No.: _____
 Email : _____
 P.O. No. : _____
 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)
<input type="checkbox"/> Standard	0%
<input type="checkbox"/> 4 Business Days	35%
<input type="checkbox"/> 3 Business Days	50%
<input type="checkbox"/> 2 Business Days	75%
<input type="checkbox"/> Next Day by 6pm	100%
<input type="checkbox"/> Next Day by Noon	150%
<input type="checkbox"/> Same Day	200%

Site Name : _____ Project : _____ Sampled by : _____

Comments : _____

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

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

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

Sample Identification* (Maximum 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.)*

^Galson Laboratories will substitute 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 :		

Appendix E: 4-PCH Analytical Results

Project Name: ACPS IAQ Testing
PSS Project No.: 21082720

September 8, 2021

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



Reference: PSS Project No: **21082720**
Project Name: ACPS IAQ Testing
Project Location: Williams Ramsay
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) **21082720**.


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 October 1, 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

Explanation of Qualifiers

Project Name: ACPS IAQ Testing
 PSS Project No.: 21082720

Project ID: 4920002

The following samples were received under chain of custody by Phase Separation Science (PSS) on 08/27/2021 at 03:53 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
21082720-001	WR-Library	AIR	08/25/21 00:00
21082720-002	WR-Auditorium	AIR	08/25/21 00:00
21082720-003	WR-Reception	AIR	08/25/21 00:00
21082720-004	WR-Cafeteria	AIR	08/25/21 00:00
21082720-005	WR-Class 28	AIR	08/25/21 00:00
21082720-006	WR-Gym	AIR	08/25/21 00:00
21082720-007	WR-Class 21	AIR	08/25/21 00:00
21082720-008	WR-Class 5	AIR	08/25/21 00:00
21082720-009	WR-Hall 8-9	AIR	08/25/21 00:00
21082720-010	WR-Class 35	AIR	08/25/21 00:00
21082720-011	WR-Hall 31-20	AIR	08/25/21 00:00
21082720-012	WR-Class 16	AIR	08/25/21 00:00
21082720-013	WR-Class 13	AIR	08/25/21 00:00
21082720-014	WR-Class R-8	AIR	08/25/21 00:00
21082720-015	WR-Suite A	AIR	08/25/21 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 contaminants, and part 141.3, for the secondary drinking water contaminants.
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.

Explanation of Qualifiers

Project Name: ACPS IAQ Testing

PSS Project No.: 21082720

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



GALSON

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

September 08, 2021

Account# 15354

Login# L545480

Dear Amber Confer:

Enclosed are the analytical results for the samples received by our laboratory on August 31, 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.sgs.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.sgs.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



GALSON

LABORATORY ANALYSIS REPORT

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

Client : Phase Separation Science, Inc. Account No.: 15354
 Site : WILLIAM RAMSAY Login No. : L545480
 Project No. : ACPS IAQ TESTING-4920002
 Date Sampled : 25-AUG-21 Date Analyzed : 02-SEP-21 - 03-SEP-21
 Date Received : 31-AUG-21 Report ID : 1263475

4-Phenylcyclohexene (4PCH low LOQ)

Sample ID	Lab ID	Air Vol liter	Front ug	Back ug	Total ug	Conc mg/m3	ppm
WR-LIBRARY	L545480-1	46.8	<0.2	<0.2	<0.2	<0.004	<0.0007
WR-AUDITORIUM	L545480-2	47.4	<0.2	<0.2	<0.2	<0.004	<0.0007
WR-RECEPTION	L545480-3	47.2	<0.2	<0.2	<0.2	<0.004	<0.0007
WR-CAFETERIA	L545480-4	47.2	<0.2	<0.2	<0.2	<0.004	<0.0007
WR-CLASS 28	L545480-5	47.2	<0.2	<0.2	<0.2	<0.004	<0.0007
WR-GYM	L545480-6	47.6	<0.2	<0.2	<0.2	<0.004	<0.0007
WR-CLASS 21	L545480-7	46.2	<0.2	<0.2	<0.2	<0.004	<0.0007
WR-CLASS 5	L545480-8	47	<0.2	<0.2	<0.2	<0.004	<0.0007
WR-HALL 8-9	L545480-9	47.6	<0.2	<0.2	<0.2	<0.004	<0.0007
WR-CLASS 35	L545480-10	47	<0.2	<0.2	<0.2	<0.004	<0.0007
WR-HALL 31-20	L545480-11	47.4	<0.2	<0.2	<0.2	<0.004	<0.0007
WR-CLASS 16	L545480-12	47.6	<0.2	<0.2	<0.2	<0.004	<0.0007
WR-CLASS 13	L545480-13	49	<0.2	<0.2	<0.2	<0.004	<0.0007
WR-CLASS R-8	L545480-14	50.4	<0.2	<0.2	<0.2	<0.004	<0.0006
WR-SUITE A	L545480-15	46.2	<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: MRH
 Date : 08-SEP-21
 Supervisor : KAG

Approved by: NKP



GALSON

LABORATORY FOOTNOTE REPORT

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

Client Name : Phase Separation Science, Inc.
Site : WILLIAM RAMSAY
Project No. : ACPS IAQ TESTING-4920002

Date Sampled : 25-AUG-21 Account No.: 15354
Date Received: 31-AUG-21 Login No. : L545480
Date Analyzed: 02-SEP-21 - 03-SEP-21

L545480 (Report ID: 1263475):

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

L545480 (Report ID: 1263475):

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%

122313E40166463431
 Date: 08/31/21
 Shipper: UPS
 Initials: BGF
 Prep: UNKNOWN

LS45480

21082720

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.

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

www.sgsgalson.com

92

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

Need Results By:	(surcharge)
<input checked="" type="checkbox"/> Standard	0%
<input type="checkbox"/> 4 Business Days	35%
<input type="checkbox"/> 3 Business Days	50%
<input type="checkbox"/> 2 Business Days	75%
<input type="checkbox"/> Next Day by 6pm	100%
<input type="checkbox"/> Next Day by Noon	150%
<input type="checkbox"/> Same Day	200%

Site Name: William Ramsay Project: ACPS IAQ testing - 4920002 Sampled by: Karl Ford

Comments: WR-GYM pump stopped early

List description of industry or Process/interferences present in sampling area:
 Public grade school all NG. BGF 6h11z
 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* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml, min, in, 2, cm, ft ²	Analysis Requested*	Method Reference ^A	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
WR - Library	08/25/21	Sm Charcoal tubes / 226-01	46.8	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Auditorium	08/25/21	Sm Charcoal tubes / 226-01	47.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Reception	08/25/21	Sm Charcoal tubes / 226-01	47.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Cafeteria	08/25/21	Sm Charcoal tubes / 226-01	47.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Class 28	08/25/21	Sm Charcoal tubes / 226-01	47.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Gym	08/25/21	Sm Charcoal tubes / 226-01	47.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Class 21	08/25/21	Sm Charcoal tubes / 226-01	46.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Class 5	08/25/21	Sm Charcoal tubes / 226-01	47.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Hall 8-9	08/25/21	Sm Charcoal tubes / 226-01	47.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Class 35	08/25/21	Sm Charcoal tubes / 226-01	47.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Hall 31-20	08/25/21	Sm Charcoal tubes / 226-01	47.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	

^AGalson Laboratories will substitute 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:	Channing Jackson - <i>[Signature]</i>	8/27/21	11:45	Received by: Derrick Johnson - <i>[Signature]</i>	8/27/21	11:46
Relinquished by:	Derrick Johnson - <i>[Signature]</i>	8/27/21	1:51	Received by: <i>[Signature]</i>	8/27/21	1:53

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

Page 5 of 7 Report Reference: 1 Generated: 08-SEP-21 11:27

SGS GALSON

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

www.sgsgalson.com

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.

21082720

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

Need Results By:	(surcharge)
<input checked="" type="checkbox"/> Standard	0%
<input type="checkbox"/> 4 Business Days	35%
<input type="checkbox"/> 3 Business Days	50%
<input type="checkbox"/> 2 Business Days	75%
<input type="checkbox"/> Next Day by 6pm	100%
<input type="checkbox"/> Next Day by Noon	150%
<input type="checkbox"/> Same Day	200%

Site Name: William Ramsay 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* (Maximum 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.)*
WR - Class 16	08/25/21	Sm Charcoal tubes / 226-01	47.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Class 13	08/25/21	Sm Charcoal tubes / 226-01	49.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Class R-8	08/25/21	Sm Charcoal tubes / 226-01	50.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Suite A	08/25/21	Sm Charcoal tubes / 226-01	46.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	

^Galson Laboratories will substitute 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: <u>Derrick Johnson & Jessica Johnson</u>	<u>8/27/21</u>	<u>11:40</u>
Relinquished by: <u>Derrick Johnson & Jessica Johnson</u>		<u>8/27/21</u>	<u>1:52</u>	Received by: <u>[Signature]</u>	<u>8/27/21</u>	<u>1553</u>

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

* Required fields for use to complete this form may be generated by the system being processed.

Page 1 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

W.O. No. : 21082720
Project Location : Williams Ramsay
Project Number : 4920002
Report To LOD : No

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

For Questions or issues please contact: Amber Confer

Report Due On : 09/08/21 05:00

Lab Sample ID	Field Sample ID	Date Sampled	Time Sampled	Matrix	Analyses Required	Method	Type of Container	Preservative
21082720-001	WR-Library	08/25/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082720-002	WR-Auditorium	08/25/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082720-003	WR-Reception	08/25/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082720-004	WR-Cafeteria	08/25/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082720-005	WR-Class 28	08/25/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082720-006	WR-Gym	08/25/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082720-007	WR-Class 21	08/25/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082720-008	WR-Class 5	08/25/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082720-009	WR-Hall 8-9	08/25/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082720-010	WR-Class 35	08/25/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082720-011	WR-Hall 31-20	08/25/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082720-012	WR-Class 16	08/25/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082720-013	WR-Class 13	08/25/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082720-014	WR-Class R-8	08/25/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082720-015	WR-Suite A	08/25/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON

Data Deliverables Required: COA

Perform Q.C. on Sample : _____

Send Report Attn : reporting@phaseonline.com

Send Invoice Attn : invoicing@phaseonline.com

Airbill No.: _____ Carrier : WPS

Condition Upon Receipt : _____

Comments : _____

Samples Relinquished By: [Signature] Date: 8/30/21 Time: _____ Samples Received By: Brett Grenert-Fischer [Signature]

Samples Relinquished By: _____ Date: _____ Time: _____ Samples Received By: _____ 8/31/21 1150

Samples Relinquished By: _____ Date: _____ Time: _____ Page 7 of 7 Report Reference: 1 Generated: 08-SEP-21 11:27

Case Narrative

Project Name: ACPS IAQ Testing

PSS Project No.: 21082720

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.

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

21082720



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.

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

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

Need Results By:	(surcharge)
<input checked="" type="checkbox"/> Standard	0%
<input type="checkbox"/> 4 Business Days	35%
<input type="checkbox"/> 3 Business Days	50%
<input type="checkbox"/> 2 Business Days	75%
<input type="checkbox"/> Next Day by 6pm	100%
<input type="checkbox"/> Next Day by Noon	150%
<input type="checkbox"/> Same Day	200%

Site Name : William Ramsay Project : ACPS IAQ testing - 4920002 Sampled by : Karl Ford

Comments : WR- Gym pump stopped early

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* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml, min, in, 2, cm, ft, 2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
WR - Library	08/25/21	Sm Charcoal tubes / 226-01	46.8	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Auditorium	08/25/21	Sm Charcoal tubes / 226-01	47.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Reception	08/25/21	Sm Charcoal tubes / 226-01	47.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Cafeteria	08/25/21	Sm Charcoal tubes / 226-01	47.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Class 28	08/25/21	Sm Charcoal tubes / 226-01	47.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Gym	08/25/21	Sm Charcoal tubes / 226-01	47.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Class 21	08/25/21	Sm Charcoal tubes / 226-01	46.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Class 5	08/25/21	Sm Charcoal tubes / 226-01	47.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Hall 8-9	08/25/21	Sm Charcoal tubes / 226-01	47.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Class 35	08/25/21	Sm Charcoal tubes / 226-01	47.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Hall 31-20	08/25/21	Sm Charcoal tubes / 226-01	47.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	

^Galson Laboratories will substitute 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	Received by:	Print Name/Signature	Date	Time
Relinquished by:	Channing Jackson - <i>[Signature]</i>	8/27/21	11:45	Received by:	Derrick Johnson - <i>[Signature]</i>	8/27/21	11:46
Relinquished by:	Derrick Johnson - <i>[Signature]</i>	8/27/21	1:51	Received by:	<i>[Signature]</i>	8/27/21	1:53

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.

21082720



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.

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

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

Need Results By:	(surcharge)	Site Name : William Ramsay		Project : ACPS IAQ testing - 4920002		Sampled by : Karl Ford	
<input checked="" type="checkbox"/> Standard	0%	Comments :					
<input type="checkbox"/> 4 Business Days	35%						
<input type="checkbox"/> 3 Business Days	50%						
<input type="checkbox"/> 2 Business Days	75%						
<input type="checkbox"/> Next Day by 6pm	100%						
<input type="checkbox"/> Next Day by Noon	150%	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 :	
<input type="checkbox"/> Same Day	200%					<input checked="" type="checkbox"/> OSHA PEL <input type="checkbox"/> ACGIH TLV <input type="checkbox"/> Cal OSHA <input type="checkbox"/> MSHA <input type="checkbox"/> 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.)*
WR - Class 16	08/25/21	Sm Charcoal tubes / 226-01	47.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Class 13	08/25/21	Sm Charcoal tubes / 226-01	49.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Class R-8	08/25/21	Sm Charcoal tubes / 226-01	50.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	
WR - Suite A	08/25/21	Sm Charcoal tubes / 226-01	46.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	

^Galson Laboratories will substitute 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 : Derrick Johnson & Jenna Johnson	8/27/21	11:40
Relinquished by : Derrick Johnson & Jenna Johnson		8/27/21	1:52	Received by : [Signature]	8/27/21	1:53

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

Sample Receipt Checklist

Project Name: ACPS IAQ Testing

PSS Project No.: 21082720

Client Name	Total Environmental Concepts - Lortc	Received By	Amber Confer
Disposal Date	10/01/2021	Date Received	08/27/2021 03:53:00 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 Not Provided
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 Confer

 Amber Confer

Date: 08/30/2021

PM Review and Approval:

Lynn Jackson

 Lynn Jackson
 Page 14 of 14

Date: 08/30/2021



New Client? Report To* : _____
 Client Account No.*: _____
 Phone No.* : _____
 Cell No. : _____
 Email Results to : _____
 Email address: _____

Invoice To* : _____
 Phone No.: _____
 Email : _____
 P.O. No. : _____
 Credit Card : Card on File Call for Credit Card Info.

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

www.sgsgalson.com

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

Need Results By:	(surcharge)
<input type="checkbox"/> Standard	0%
<input type="checkbox"/> 4 Business Days	35%
<input type="checkbox"/> 3 Business Days	50%
<input type="checkbox"/> 2 Business Days	75%
<input type="checkbox"/> Next Day by 6pm	100%
<input type="checkbox"/> Next Day by Noon	150%
<input type="checkbox"/> Same Day	200%

Site Name : _____ Project : _____ Sampled by : _____
 Comments : _____

List description of industry or Process/interferences present in sampling area : _____
 State samples were collected in (e.g., NY) : _____
 Please indicate which OEL this data will be used for :
 OSHA PEL ACGIH TLV Cal OSHA
 MSHA Other (specify): _____

Sample Identification* (Maximum 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.)*

^Galson Laboratories will substitute 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 :		



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

www.sgsgalson.com

New Client? Report To* : _____
 Client Account No.*: _____
 Phone No.* : _____
 Cell No. : _____
 Email Results to : _____
 Email address: _____

Invoice To* : _____
 Phone No.: _____
 Email : _____
 P.O. No. : _____
 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)
<input type="checkbox"/> Standard	0%
<input type="checkbox"/> 4 Business Days	35%
<input type="checkbox"/> 3 Business Days	50%
<input type="checkbox"/> 2 Business Days	75%
<input type="checkbox"/> Next Day by 6pm	100%
<input type="checkbox"/> Next Day by Noon	150%
<input type="checkbox"/> Same Day	200%

Site Name : _____ Project : _____ Sampled by : _____
 Comments : _____

List description of industry or Process/interferences present in sampling area : _____
 State samples were collected in (e.g., NY) _____
 Please indicate which OEL this data will be used for :
 OSHA PEL ACGIH TLV Cal OSHA
 MSHA Other (specify): _____

Sample Identification* (Maximum 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.)*

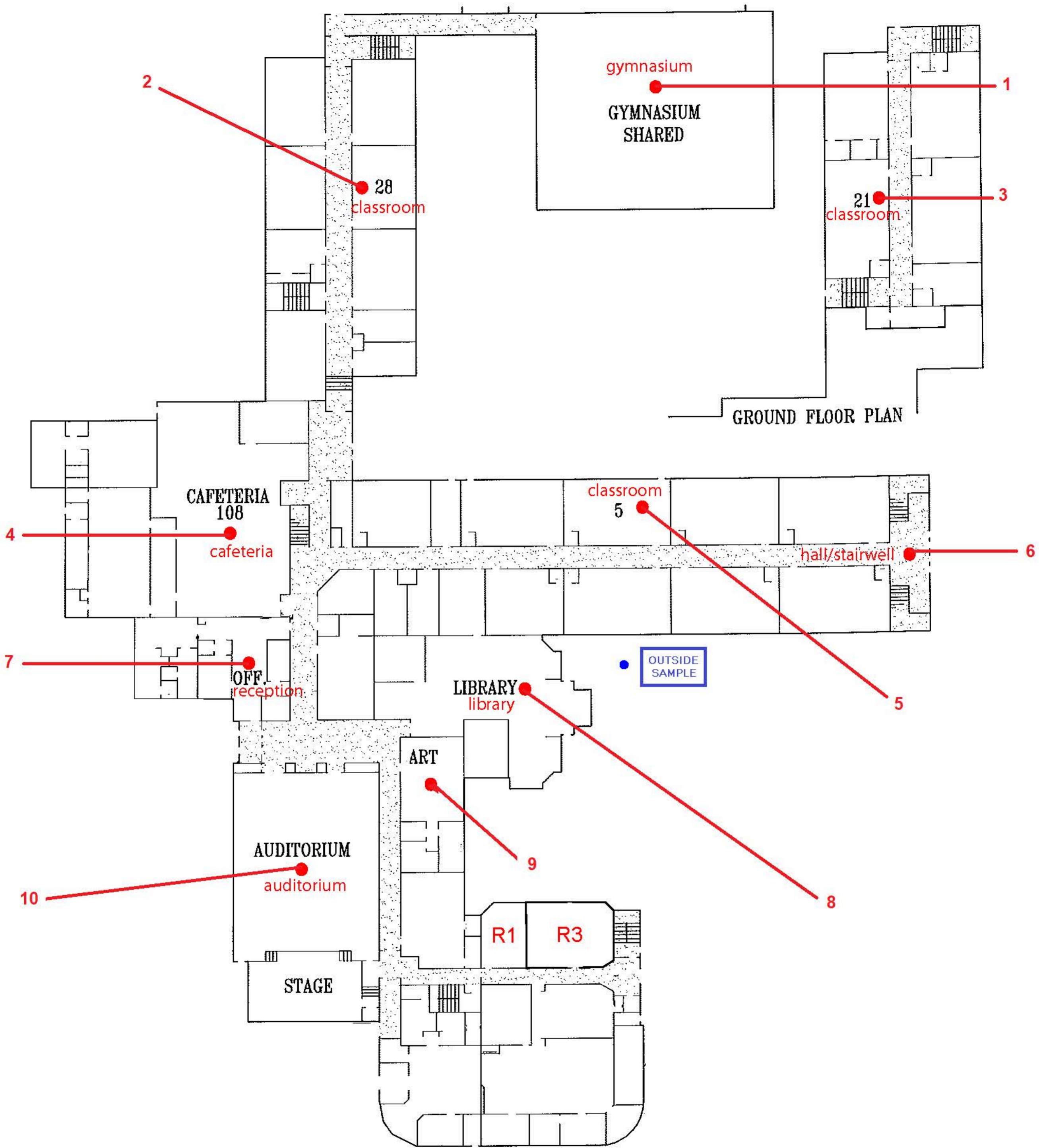
^Galson Laboratories will substitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: Use method(s) listed on COC

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 :		

Appendix F: Sampling Locations



GROUND FLOOR PLAN

LEGEND

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

WILLIAM RAMSAY ELEMENTARY

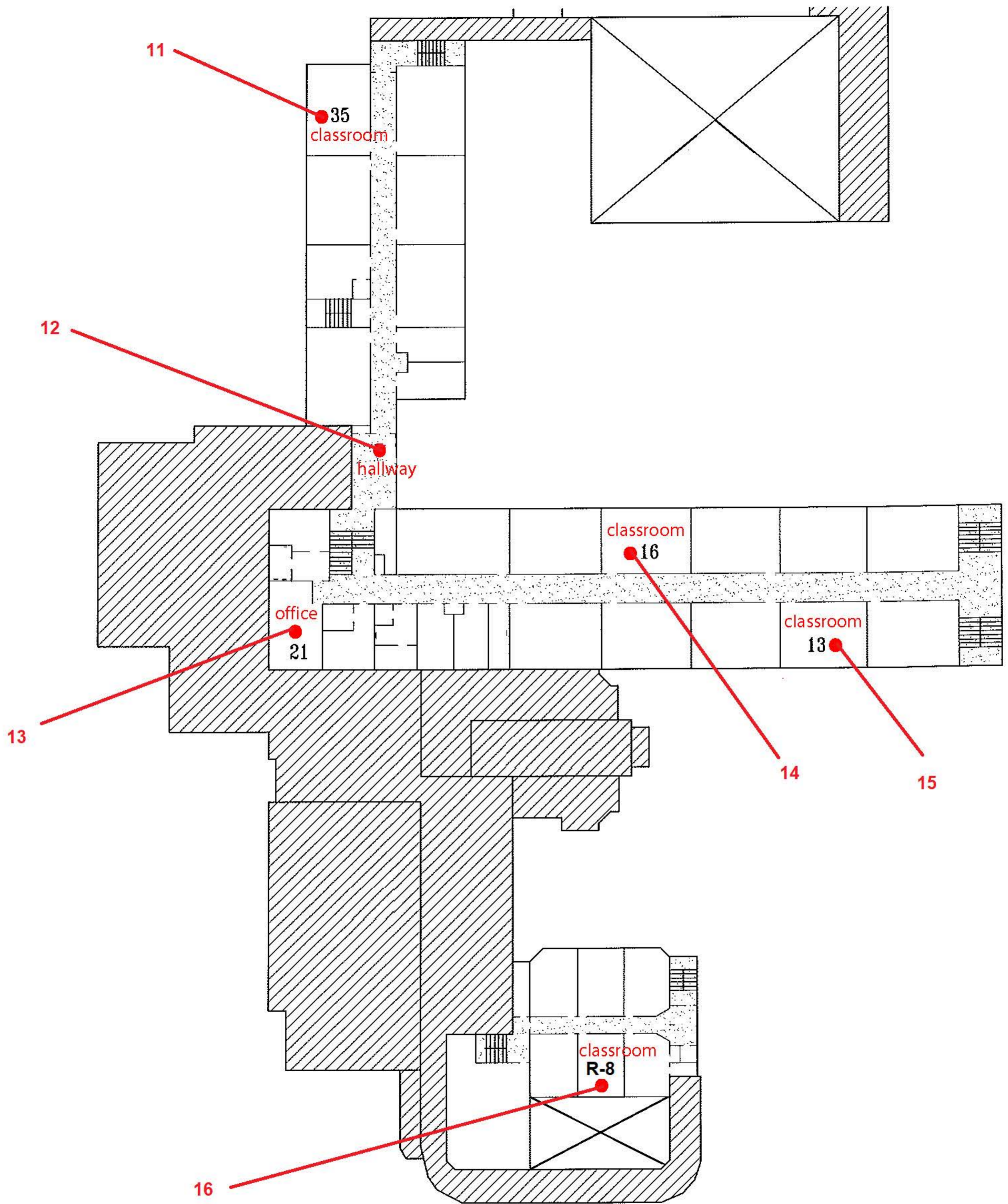
5700 Sanger Ave.
Alexandria, Va 22311

1ST FLOOR PLAN



Total Environmental Concepts, Inc.

8382 Terminal Road, Suite B
Lorton, VA 22079
Phone: 703-567-4346
Fax: 703-567-3487



WILLIAM RAMSAY ELEMENTARY

5700 Sanger Ave.
Alexandria, Va 22311

1ST FLOOR PLAN



LEGEND

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



8382 Terminal Road, Suite B
Lorton, VA 22079
Phone: 703-567-4346
Fax: 703-567-3487

Appendix G: Photographs



William Ramsay, Media Center



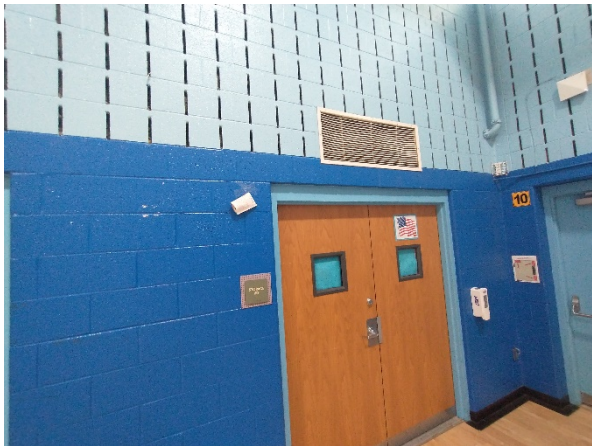
William Ramsay, Cafeteria



William Ramsay, Auditorium



William Ramsay, Classroom



William Ramsay, Gym



William Ramsay, Main Office



William Ramsay, Stairwell by Rooms 25-30



William Ramsay, Stairwell by Rooms 25-30



William Ramsay, Stairwell by 205 R-9



William Ramsay, Stairwell by 205 R-9



William Ramsay, Room 5



William Ramsay, Room 34