

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

# **George Washington Middle School**

1005 Mount Vernon Avenue, Alexandria, VA 22304



# Report Prepared for:

John Contreras

Alexandria City Public Schools

1340 Braddock Place

Alexandria VA 22314

Dated: September 20, 2021

# **Table of Contents**

1	Execu	tive Summary	1
2	Asses	sment Methods	2
3	Visua	Observations	6
4	Condi	tions for Human Occupancy	7
	4.1	Temperature	8
	4.2	Relative Humidity	8
	4.3	Carbon Dioxide	8
	4.4	Carbon Monoxide	8
	4.5	Multi-Gas	8
5	Mold	Sampling Results	8
6	Rador	n Gas Sampling Results	9
7	Forma	aldehyde Gas Sampling Results	9
8	TO+1	5 (VOCs) Sampling Results	9
9	4-pch	Sampling Results	10
10	Multi-	gas detector (MSA Altair Multi-gas) Readings – Oxygen, VOCs, Hydro	ger
	Sulfid	e	10

# Appendices

Appendix A: Laboratory Reports and Chain of Custody

Appendix B: Site Plans and Sampling Locations

Appendix B: Representative 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 TechnologyNVLAP 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 MinuteNTE Not to exceed°F degree FahrenheitPPM Parts Per Million

# 1. Executive Summary

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

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

This IAQ assessment was conducted at George Washington Middle School on Friday, August 13, 2021. ACPS required that the testing to be based on the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) guidelines. ACPS provided site plans and fifteen (15) sampling locations per school. Sampling locations were chosen by ACPS based on internal review of facilities maintenance records, and a review of facilities maintenance related issues. These sampling locations were selected to collect representative IAQ data in these specific areas and to document any areas of potential concern observed during the site assessment. As such, ACPS required that TEC test for the following major indoor air pollutants:

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

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

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

# <u>Summary of findings and recommendations during this limited IAQ investigation:</u>

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

# 2. Assesment Methods

Under the direction of TEC Industrial Hygienist Nikki Satari; Margaret Stanger, Victoria Powers, and Channing Jackson, also of TEC, conducted IAQ inspections and air sampling on August 13, 2021. All air samples were collected three-six feet from floor level, the typical breathing zone for adults.

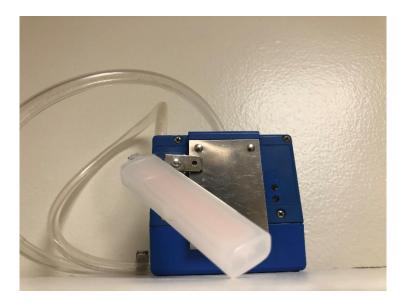
Mold air samples were collected with a field calibrated Environmental Monitoring Systems High Volume Sampling Pump on Allergenco-D Disposable IAQ Air Monitoring Cassettes at a flow rate of 10 liters per minute for a sample volume of 75 liters during the assessment (photograph below). The Hayes Microbial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



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 A. 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 A. 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 A. Photograph Below.



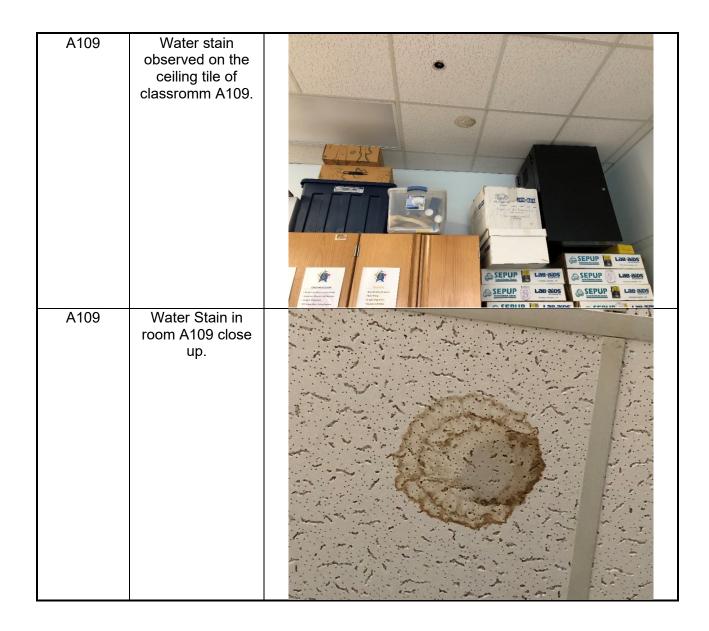
The temperature and relative humidity were taken with the AcuRite Digital Indoor Temperature and Humidity Monitor in the lobby of each school. Teperature and relative humidity readings can be found in Section 5 Mold Sampling Results, below.

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



# 3. <u>Visual Observations</u>

Sample Location	August 13, 2021	Visual Observations
Gymnasium	Parkay flooring replacement was ongoing during testing	
A124	Water stain was observed on the floor of classroom A124.	



# 4. Conditions for Human Occupancy

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

# 4.1 Temperature

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

### 4.2 Relative Humidity

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

## 4.3 Carbon Dioxide

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

### 4.4 Carbon Monoxide

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

# 4.5 Multi-gas Detector Readings

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

# 5. Mold Sampling Results

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

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

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

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

For example the Ascomycetes fungi, Chaetomium, was detected in classrooms A324 and A 336 at slightly higher than baseline levels. The spore counts per cubic meter in these locations was low, however. Chaetomium is a plant-based organism that is commonly found in soil. It also grows well on paper, and sheetrock.

These analytical results were most likely the result of Chaetomium spores being trapped inside after entering through an open window, perhaps after grass-mowing. Though the fungi is reported to be allergenic and may produce toxins, the adverse health risks of Chaetomium at these levels are minimal. No further action is indicated at this time. Analytical results can be found in Appendix A.

None of the other results from the fourteen sampling locations at George Washington Middle School were indicative of mold issues.

# 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 A.

# 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 A.

# 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 A.

# 9. 4-pch Sampling Results

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

# 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.

Location	VOC	СО	OXYGEN	H2S
Gym	0.0	0.0	20.8	0.0
Media Center	0.0	0.0	20.8	0.0
Cafeteria	0.0	0.0	20.8	0.0
Café-Hall A126	0.0	0.0	20.8	0.0
A109	0.0	0.0	20.8	0.0
Hall A202	0.0	0.0	20.8	0.0
A212	0.0	0.0	20.8	0.0
A242	0.0	0.0	20.8	0.0
Auditorium	0.0	0.0	20.8	0.0
Hall A222	0.0	0.0	20.8	0.0
Hall A303	0.0	0.0	20.8	0.0
6 <sup>th</sup> Grade Office A322	0.0	0.0	20.8	0.0
A336	0.0	0.0	20.8	0.0
C120	0.0	0.0	20.8	0.0
C125	0.0	0.0	20.8	0.0

Table 1

	Results of Analytes by Location							
Location	Radon	M	old	TO+15	4PCH	Formaldehyde		
		AVG: 77 F	AVG: 60 %	VOCs				
Gym	< 4 pCi/L	Spore Cou	int Normal	< RSL	< 6.5 ug/m3	< RSL		
Media Center	< 4 pCi/L	Spore Cou	int Normal	< RSL	< 6.5 ug/m3	< RSL		
Cafeteria	< 4 pCi/L	Spore Cou	int Normal	< RSL	< 6.5 ug/m3	< RSL		
Cafe-Hall A126	< 4 pCi/L	Spore Cou	int Normal	< RSL	< 6.5 ug/m3	< RSL		
A109	< 4 pCi/L	Spore Cou	ınt Normal	< RSL	< 6.5 ug/m3	< RSL		

Hall A202	< 4 pCi/L	Spore Count Normal	< RSL	< 6.5 ug/m3	< RSL
A212	< 4 pCi/L	Spore Count Normal	< RSL	< 6.5 ug/m3	< RSL
A242	< 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
Hall A222	< 4 pCi/L	Spore Count Normal	< RSL	< 6.5 ug/m3	< RSL
Hall A303	< 4 pCi/L	Spore Count Normal	< RSL	< 6.5 ug/m3	< RSL
6th Grade Office A322	< 4 pCi/L	Spore Count Normal	< RSL	< 6.5 ug/m3	< RSL
A336	< 4 pCi/L	Spore Count Normal	< RSL	< 6.5 ug/m3	< RSL
C120	< 4 pCi/L	Spore Count Normal	< RSL	< 6.5 ug/m3	< RSL
C125	< 4 pCi/L	Spore Count Normal	< RSL	< 6.5 ug/m3	< RSL

Table 2







Арр	endix A: Laborator	y Report and Cha	ain of Custody





Analysis Report prepared for

# Total Environmental Concepts, Inc.

8382 Terminal Road Suite B Lorton, VA 22079

Phone: (571) 289-2173

George Washington Middle School 1005 Mt. Vernon Ave. Alexandria, VA 22301

> Collected: August 13, 2021 Received: August 16, 2021 Reported: August 16, 2021

We would like to thank you for trusting Hayes Microbial for your analytical needs!
We received 19 samples by FedEx in good condition for this project on August 16th, 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



phon N. Hoyes

Lab ID: #188863



DPH License: #PH-0198

George Washington Middle School 1005 Mt. Vernon Ave. Alexandria, VA 22301

#21029956

Spore Trap SOP - HMC#101

# 8382 Terminal Road Suite B Lorton, VA 22079 (571) 289-2173

Sample Number	1	GW43	18817	2	GW43	18816	3	GW43	18814	4 GW4318820		18820
Sample Name		GW A336			GW A324		GW Hallway A302			GW Hallway C202		
Sample Volume		75.00 liter			75.00 liter		75.00 liter			75.00 liter		
Reporting Limit		13 spores/m <sup>3</sup>	l		13 spores/m <sup>3</sup>	1		13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>	
Background		1			2			2			2	
Fragments		ND			ND			ND			ND	
Organism	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total
Alternaria												
Ascospores	2	27	50.0%	1	13	50.0%	3	40	75.0%	2	27	100.0%
Aspergillus Penicillium												
Basidiospores	1	13	25.0%				1	13	25.0%			
Bipolaris Drechslera												
Chaetomium	1	13	25.0%	1	13	50.0%						
Cladosporium												
Curvularia												
Epicoccum												
Fusarium												
Memnoniella												
Myxomycetes												
Pithomyces												
Stachybotrys												
Stemphylium												
Torula												
Ulocladium												
Pestalotiopsis												
Total	4	53	100%	2	26	100%	4	53	100%	2	27	100%

MICROBIAL CONSULTING

Water Damage Indicator

Collected: Aug 13, 2021

Common Allergen

Received: Aug 16, 2021

Slightly Higher than Baseline

Date:

Reported: Aug 16, 2021

Significantly Higher than Baseline

Ratio Abnormality

Project Analyst: Ramesh Poluri, PhD

08 - 16 - 2021

Reviewed By:

Steve Hayes, BSMT

Date:

#21029956

George Washington Middle School 1005 Mt. Vernon Ave. Alexandria, VA 22301

8382 Terminal Road Suite B Lorton, VA 22079 (571) 289-2173

Spore Trap SOP - HMC#101

Sample Number	5	GW43	18815	6	Gw431	88825	7	GW43	18819	8	GW43	18838	
Sample Name		GW A212		W A242			GW A219 Aud			GW	GW Hallway A232		
Sample Volume		75.00 liter			75.00 liter		75.00 liter				75.00 liter		
Reporting Limit		13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>	1	
Background		2			1			2			2		
Fragments		ND			ND			ND			ND		
_		_ 3			3			3			. 3		
Organism	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	
Alternaria													
Ascospores	1	13	50.0%	1	13	100.0%	2	27	66.7%	2	27	66.7%	
Aspergillus Penicillium										_			
Basidiospores	1	13	50.0%							1	13	33.3%	
Bipolaris Drechslera													
Chaetomium													
Cladosporium							1	13	33.3%				
Curvularia													
Epicoccum													
Fusarium													
Memnoniella													
Myxomycetes													
Pithomyces													
Stachybotrys													
Stemphylium													
Torula													
Ulocladium													
Pestalotiopsis													
Total	2	26	100%	1	13	100%	3	40	100%	3	40	100%	

HAYES
MICROBIAL CONSULTING

Water Damage Indicator

Collected: Aug 13, 2021

Common Allergen

Slightly Higher than Baseline

Significantly Higher than Baseline

Ratio Abnormality

Received: Aug 16, 2021

Reported: Aug 16, 2021

Project Analyst:

Ramesh Poluri, PhD

Date: **08 - 16 - 2021** 

Reviewed By:

Steve Hayes, BSMT

Date:

#21029956

George Washington Middle School 1005 Mt. Vernon Ave. Alexandria, VA 22301

8382 Terminal Road Suite B Lorton, VA 22079 (571) 289-2173

Spore Trap SOP - HMC#101

Sample Number	9	GW43	18829	10	GW43	15347	11	GW43	18830	12 GW4318826			
Sample Name	G	W A219 Au	d	(	GW Outside			GW A124			GW Library B102		
Sample Volume		75.00 liter			75.00 liter			75.00 liter		75.00 liter			
Reporting Limit		13 spores/m <sup>3</sup>		13 spores/m <sup>3</sup>				13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>	l	
Background		2			2			2			2		
Fragments		ND			ND			ND			ND		
Organism	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	
Alternaria													
Ascospores	1	13	50.0%	48	640	45.7%	2	27	66.7%	1	13	50.0%	
Aspergillus Penicillium													
Basidiospores	1	13	50.0%	20	267	19.0%	1	13	33.3%				
Bipolaris Drechslera													
Chaetomium													
Cladosporium				32	427	30.5%							
Curvularia				1	13	<1%				1	13	50.0%	
Epicoccum				1	13	<1%							
Fusarium													
Memnoniella													
Myxomycetes													
Pithomyces				2	27	1.9%							
Stachybotrys													
Stemphylium													
Torula													
Ulocladium													
Pestalotiopsis				1	13	<1%							
Total	2	26	100%	105	1400	100%	3	40	100%	2	26	100%	

HAYES
MICROBIAL CONSULTING

Water Damage Indicator

Collected: Aug 13, 2021

Project Analyst:

Ramesh Poluri, PhD

Common Allergen

Received: Aug 16, 2021

Slightly Higher than Baseline

Date:

Reported: Aug 16, 2021

Significantly Higher than Baseline

Date:

Ratio Abnormality

08 - 16 - 2021

Steve Hayes, BSMT

Reviewed By:

My sugar 11. Huggs

George Washington Middle School 1005 Mt. Vernon Ave. Alexandria, VA 22301 #21029956

Spore Trap SOP - HMC#101

8382 Terminal Road Suite B Lorton, VA 22079 (571) 289-2173

Sample Number	13	GW43	18837	14	GW43	18831	15	GW43	18836	16 GW4318832			
Sample Name		GWC 120		GW C125			GW Gym				GW A109		
Sample Volume		75.00 liter			75.00 liter		75.00 liter			75.00 liter			
Reporting Limit		13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>	3		13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>	}	
Background		2			2			2			2		
Fragments		ND			ND			ND			ND		
Organism	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	
Alternaria													
Ascospores	3	40	60.0%	1	13	100.0%	2	27	66.7%	2	27	50.0%	
Aspergillus Penicillium													
Basidiospores	2	27	40.0%				1	13	33.3%				
Bipolaris Drechslera													
Chaetomium													
Cladosporium										1	13	25.0%	
Curvularia										1	13	25.0%	
Epicoccum													
Fusarium													
Memnoniella													
Myxomycetes													
Pithomyces													
Stachybotrys													
Stemphylium													
Torula													
Ulocladium													
Pestalotiopsis													
Total	5	67	100%	1	13	100%	3	40	100%	4	53	100%	

THAVE C

Water Damage Indicator

Collected: Aug 13, 2021

Ramesh Poluri, PhD

Common Allergen

Received: Aug 16, 2021

Reported: Aug 16, 2021

Significantly Higher than Baseline

Project Analyst:

Ramexh

Date:

08 - 16 - 2021

Slightly Higher than Baseline

Reviewed By:

Steve Hayes, BSMT

Date:

Ratio Abnormality

#21029956

8382 Terminal Road Suite B Lorton, VA 22079 (571) 289-2173

George Washington Middle School 1005 Mt. Vernon Ave. Alexandria, VA 22301

Spore Trap SOP - HMC#101

Sample Name  Sample Volume  Reporting Limit  Background  Fragments		W Cafeteria 75.00 liter 13 spores/m <sup>3</sup> 2			75.00 liter	2 RG		GW A124			
Reporting Limit Background	1	13 spores/m³			75.00 liter						
Reporting Limit Background	1	13 spores/m³				75.00 liter					
Background					13 spores/m <sup>3</sup>		-	75.00 liter I 3 spores/m <sup>3</sup>			
					2			2			
		ND			ND			ND			
Organism Raw	v Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total		
Alternaria											
Ascospores	3	40	60.0%	3	40	100.0%	1	13	16.7%		
Aspergillus Penicillium							4	53	66.7%		
Basidiospores	2	27	40.0%								
Bipolaris Drechslera											
Chaetomium											
Cladosporium							1	13	16.7%		
Curvularia											
Epicoccum											
Fusarium											
Memnoniella											
Myxomycetes											
Pithomyces											
Stachybotrys											
Stemphylium											
Torula											
Ulocladium											
Pestalotiopsis											
Total	5	67	100%	3	40	100%	6	79	100%		

MICROBIAL CONSULTING

Water Damage Indicator

Common Allergen

Received: Aug 16, 2021

Significantly Higher than Baseline

Ratio Abnormality

Collected: Aug 13, 2021

Slightly Higher than Baseline

Date:

Reported: Aug 16, 2021

Project Analyst:

Ramesh Poluri, PhD

08 - 16 - 2021

Reviewed By:

Steve Hayes, BSMT

Date:

Lorton, VA 22079 (571) 289-2173

**Total Environmental Concepts, Inc.** 8382 Terminal Road Suite B

George Washington Middle School 1005 Mt. Vernon Ave. Alexandria, VA 22301

#21029956

**Spore Trap Information** 

Reporting Limit	The Reporting Limit is the lowest number of spores that can be detected based on the total volume of the sample collected and the percentage of the slide that is counted. At Hayes Microbial, 100% of the slide is read so the LOD is based solely on the total volume. Raw spore counts that exceed 500 spores will be estimated.
Blanks	Results have not been corrected for field or laboratory blanks.
Background	The Background is the amount of debris that is present in the sample. This debris consists of skin cells, dirt, dust, pollen, drywall dust and other organic and non-organic matter. As the background density increases, the likelihood of spores, especially small spores such as those of Aspergillus and Penicillium may be obscured. The background is rated on a scale of 1 to 5 and each level is determined as follows:
	<ul> <li>NBD: No background detected due to possible pump or cassette malfunction. Recollect sample. (Field Blanks will display NBD)</li> <li>1: &lt;5% of field occluded. No spores will be uncountable.</li> <li>2: 5-25% of field occluded.</li> <li>3: 25-75% of field occluded.</li> <li>4: 75-90% of field occluded.</li> <li>5: &gt;90% of field occluded. Suggested recollection of sample.</li> </ul>
Fragments	Fragments are small pieces of fungal mycelium or spores. They are not identifiable as to type and when present in very large numbers, may indicate the presence of mold amplification.
Control Comparisons	There are no national standards for the numbers of fungal spores that may be present in the indoor environment. As a general rule and guideline that is widely accepted in the indoor air quality field, the numbers and types of spores that are present in the indoor environment should not exceed those that are present outdoors at any given time. There will always be some mold spores present in "normal" indoor environments. The purpose of sampling and counting spores is to help determine whether an abnormal condition exists within the indoor environment and if it does, to help pinpoint the area of contamination. Spore counts should not be used as the sole determining factor of mold contamination. There are many factors that can cause anomalies in the comparison of indoor and outdoor samples due to the dynamic nature of both of those environments.
Water Damage Indicator	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.  Red: The spore count is significantly higher than the baseline count and probably indicates a source of contamination.
Significantly Higher than Baseline	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
Ratio Abnormality	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.



# **Karl Ford Total Environmental Concepts, Inc.**

8382 Terminal Road Suite B Lorton, VA 22079 (571) 289-2173

George Washington Middle School 1005 Mt. Vernon Ave. Alexandria, VA 22301

#21029956

# **Organism Descriptions**

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.
Chaetomium	Habitat:	Ascomycete fungus, commonly isolated from soil and decaying plant materials. It is cellulolytic and grows well indoors on damp sheetrock and other paper substrates. It is often found growing with Stachybotrys.
	Effects:	It is reported to be allergenic and may produce toxins.
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 desseminated infection, primarily in the immunocompromised.



# **Karl Ford Total Environmental Concepts, Inc.**

8382 Terminal Road Suite B Lorton, VA 22079 (571) 289-2173

George Washington Middle School 1005 Mt. Vernon Ave. Alexandria, VA 22301

#21029956

# **Organism Descriptions**

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.				
Pestalotiopsis	Habitat:	Found in soil and occasionally on plants. Some species can break down plastics.				
	Effects:	No known health effects. Allergenic properties are poorly studied.				
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.				



# \*\* LABORATORY ANALYSIS REPORT \*\*

Pg 1 of 4

Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723539

Result: ????

Location:

library Bloz

Analysis Note: WI

Analyzed: 2021-08-18 at 3:00 pm Started: 2021-08-13 at 11:00 am Ended: 2021-08-17 at 10:00 am

Hours/MST%: 95 hours 20.4% 70°F

Kit #: 9723540

Result: < 0.3 pCi/l

Location:

Gw Ms

library BloZ

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm Started: 2021-08-13 at 11:00 am Ended: 2021-08-17 at 10:00 am

Hours/MST%: 95 hours 15.6% 70°F

Kit #: 9723541

Result: < 0.3 pCi/l

Location:

Gw Ms

D library Bloz

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm Started: 2021-08-13 at 11:00 am

Ended: 2021-08-17 at 10:00 am Hours/MST%: 95 hours 14.7% 70°F

Kit #: 9723543

Result: < 0.3 pCi/l

Location:

Gw Ms

13 library Bloz

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm Started: 2021-08-13 at 11:00 am

Ended: 2021-08-17 at 10:00 am

Hours/MST%: 95 hours 5.9% 70°F

Kit #: 9723545

Result: < 0.3 pCi/l

Location:

Gw Ms

A109

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm Started: 2021-08-13 at 12:00 pm

Ended: 2021-08-17 at 11:00 am

Hours/MST%: 95 hours 15.2% 70°F

Kit #: 9723546

Result: < 0.3 pCi/l

Location:

Gw Ms

Cafe

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm Started: 2021-08-13 at 1:00 pm

Ended: 2021-08-17 at 11:00 am

Hours/MST%: 94 hours 13.5% 70°F

# \*\* LABORATORY ANALYSIS REPORT \*\*

Pg 2 of 4

Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723547

Result: < 0.3 pCi/l

Location:

Gw Ms

hall A128

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm

Started: 2021-08-13 at 1:00 pm

Ended: 2021-08-17 at 11:00 am

Hours/MST%: 94 hours 11.4% 70°F

Kit #: 9723548

Result: < 0.3 pCi/l

Location:

Gw Ms

C120

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm

Started: 2021-08-13 at 12:00 pm

Ended: 2021-08-17 at 10:00 am

Hours/MST%: 94 hours 11.4% 70°F

Kit #: 9723549

Result: < 0.3 pCi/l

Location:

Gw Ms

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm

Started: 2021-08-13 at 12:00 pm

Ended: 2021-08-17 at 10:00 am

Hours/MST%: 94 hours 11.4% 70°F

Kit #: 9723550

Location:

Gw Ms

Result: < 0.3 pCi/l

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm

Started: 2021-08-13 at 12:00 pm

Ended: 2021-08-17 at 10:00 am

Hours/MST%: 94 hours 14.8% 70°F

Kit #: 9723551

Result: < 0.3 pCi/l

Location:

Gw Ms

212

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm

Started: 2021-08-13 at 1:00 pm

Ended: 2021-08-17 at 11:00 am

Hours/MST%: 94 hours 10.0% 70°F

Kit #: 9723555

Result: < 0.3 pCi/l

Location:

Gw Ms

A-336

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm

Started: 2021-08-13 at 2:00 pm

Ended: 2021-08-17 at 11:00 am

Hours/MST%: 93 hours 12.0% 70°F

# \*\* LABORATORY ANALYSIS REPORT \*\*

Pg 3 of 4

Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723556

Result: < 0.3 pCi/l

Location:

Gw Ms

H-324

Kit #: 9723559

Location:

Gw Ms

A242

Result: < 0.3 pCi/l

Kit #: 9723560

Location:

Gw Ms

Result: < 0.3 pCi/l

A2428

Kit #: 9723561

Location:

Gw Ms

A 302 hall

Result: < 0.3 pCi/l

Kit #: 9723562

Location:

Result: < 0.3 pCi/l

Kit #: 9723565 Result: < 0.3 pCi/l

Location:

Gw Ms

hall A Z3Z

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm Started: 2021-08-13 at 2:00 pm Ended: 2021-08-17 at 11:00 am

Hours/MST%: 93 hours 9.5% 70°F

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm Started: 2021-08-13 at 2:00 pm Ended: 2021-08-17 at 11:00 am

Hours/MST%: 93 hours 12.5% 70°F

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm Started: 2021-08-13 at 2:00 pm

Ended: 2021-08-17 at 11:00 am Hours/MST%: 93 hours 13.6% 70°F

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm Started: 2021-08-13 at 2:00 pm

Ended: 2021-08-17 at 11:00 am Hours/MST%: 93 hours 11.4% 70°F

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm

Started: 2021-08-13 at 2:00 pm Ended: 2021-08-17 at 11:00 am

Hours/MST%: 93 hours 12.5% 70°F

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm Started: 2021-08-13 at 1:00 pm

Ended: 2021-08-17 at 11:00 am

Hours/MST%: 94 hours 11.5% 70°F

# \*\* LABORATORY ANALYSIS REPORT \*\*

Pg 4 of 4

# Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723566

Result: < 0.3 pCi/l

Location:

Gw Ms

1-126

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm

Started: 2021-08-13 at 12:00 pm

Ended: 2021-08-17 at 10:00 am

Hours/MST%: 94 hours 12.1% 70°F

Kit #: 9723567

Result: < 0.3 pCi/l

Location:

Gw Ms

2 flr and B

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm

Started: 2021-08-13 at 1:00 pm

Ended: 2021-08-17 at 11:00 am

Hours/MST%: 94 hours 16.2% 70°F

Kit #: 9723568

Result: < 0.3 pCi/l

Location:

Gw Ms

2 flr and S

Analysis Note:

Analyzed: 2021-08-18 at 3:00 pm

Started: 2021-08-13 at 1:00 pm

Ended: 2021-08-17 at 11:00 am

Hours/MST%: 94 hours 15.3% 70°F

Kit #: 9723709

Result: ????

Location:

blank

Analysis Note: IB2

Analyzed: 2021-08-18 at 3:00 pm

Started: 2021-08-17 at 6:00 pm

Ended: 2021-08-17 at 5:00 pm

Hours/MST%: 0 hours 0.0% 70°F

GW

Total Environmental Concepts, Inc.

Placement Tech	Sample Type Redon	Pickup Tech	
Placement Date	Sample Media	Pickup Date	
Address		Email	

Sample #	Location/ room	SQFT >2000	HVAC Y/N	Window Y/N	Fan Y/N	Time in	Time out	Comment
W9723539	GW Library B102		Y	Y	N	10:50		
349723540	Caw Library B102		Y	Y	N	10:57		
W 9723541	Gwhibray B102		Y	Y	N	11:01		
Sw9723543	Gwlibrary B102		Y	4	N	11:02		
GW-549	GW GYM		Y	N	N	11:36		
GW-550	6WGYUN		X		N	11:38		
GW-548	B-W- C120		Y	Y	N	11:59		
GW-566	6 w-C126		Y	¥	N	12:00		
G-W - 545	6-W-4109		Y	<b>V</b>	N	12:06		
GW-547	1-W- Hallway A 128	(A428)	V	N	1/	12332		
GW-546	Gw-Caf S		Y		n/	12:30		
OW-552	10-W- Hallway (-205)	(C-205)	Y	1	N	12:51		
6-W-551	0-W-A-212		¥	Y	11	13:14		
6-00-568	6-W-2411 And 5		Y	X	N	13:19		
G-W-567	GW-2flr And B		Y	Y		13:19		
Cow- 565	G-W- Hallway A232		V	Y	N	13:23		
6-w-540	GW-A-242		Y	V	N	13:33		
6W-555	6W -A-336		M	Y	N	13:59		
GN-556	5W- A-384	Cogne leas	Y	Y	N	13:507		6th office
5-N-561 (561)	GW - A-302 Halluky		Y	*	N	13:58		
-N-562	GW-Caf N		Y	N	n	14:21		
2W-559	GW- A242		Y	N	N	13:33		



# **Certificate of Analysis**

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

Project Name: ACPS IAQ Testing

PSS Project No.: 21082528

September 3, 2021

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

Reference: PSS Project No: 21082528

Project Name: ACPS IAQ Testing

Project Location: George Washington School

Project ID.: 4920002



### Dear Karl Ford:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) 21082528.

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

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

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

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

Sincerely,

**Dan Prucnal**Laboratory Manager





# **Explanation of Qualifiers**

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

Project Name: ACPS IAQ Testing

PSS Project No.: 21082528

# **Project ID: 4920002**

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

PSS Sample ID	Sample ID	Matrix	Date/Time Collected	
21082528-001	GW- Cafeteria	AIR	08/16/21 00:00	
21082528-002	GW- Class A109	AIR	08/16/21 00:00	
21082528-003	GW- Hall A124	AIR	08/16/21 00:00	
21082528-004	GW- Class C120	AIR	08/16/21 00:00	
21082528-005	GW- Class C125	AIR	08/16/21 00:00	
21082528-006	GW- Gym	AIR	08/16/21 00:00	
21082528-007	GW- Library	AIR	08/16/21 00:00	
21082528-008	GW- Hall C203	AIR	08/16/21 00:00	
21082528-009	GW- Class A212	AIR	08/16/21 00:00	
21082528-010	GW- Auditorium	AIR	08/16/21 00:00	
21082528-011	GW- Hall A230	AIR	08/16/21 00:00	
21082528-012	GW- Hall A242	AIR	08/16/21 00:00	
21082528-013	GW- Class A336	AIR	08/16/21 00:00	
21082528-014	GW- Class A324	AIR	08/16/21 00:00	
21082528-015	GW- Class A303	AIR	08/16/21 00:00	

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

### Notes:

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



# **Explanation of Qualifiers**

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

Project Name: ACPS IAQ Testing

PSS Project No.: 21082528

### 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.
- 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



Ms. Amber Confer Phase Separation Science, Inc. 6630 Baltimore National Pike Baltimore, MD 21228 September 02, 2021

Account# 15354 Login# L545200

Dear Amber Confer:

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

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

Sincerely,

SGS Galson

Lisa Swab Laboratory Director

Lisa Luab

Enclosure(s)



### ANALYTICAL REPORT

Account : 15354 Login No.: L545200

### **Terms and Conditions & General Disclaimers**

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

### **Analytical Disclaimers**

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

Accreditations SGS Galson holds a variety of accreditations and recognitions. Our quality management system conforms with the requirements of ISO/IEC 17025. Where applicable, samples may also be analyzed in accordance with the requirements of ELAP, NELAC, or LELAP under one of the state accrediting bodies listed below. Current Scopes of Accreditation can be viewed at <a href="http://www.sgsgalson.com">http://www.sgsgalson.com</a> 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	Lab ID: 1042	Mold Analysis Laboratory license
	Regulation		

### Legend

< - Less than MDL - Method Detection Limit mg - Milligrams ppb - Parts per Billion > - Greater than ug - Micrograms NA - Not Applicable ppm - Parts per Million I - 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

## GALSON

Date Sampled Date Received Project No. Site East Syracuse, NY 13057 6601 Kirkville Road FAX: (315) 437-0571 (315) 432-5227

Login No. : L545200 Account No.: 15354 : Phase Separation Science, Inc. : GEORGE WASHINGTON SCHOOL

: ACPS IAQ TESTING-4920002

: 16-AUG-21 : 27-AUG-21

Date Analyzed : 31-AUG-21 Report ID : 1262675

www.sgsgalson.com

Formaldehyde						
		Time	Total	Conc		
Sample ID	<u>Lab ID</u>	minutes	nd	mg/m3	mdd	
GW-CAFETERIA	L545200-1	240	<0.4	<0.01	<0.01	
GW-CLASS A109	L545200-2	240	6.0	0.03	0.02	
GW-HALL A124	L545200-3	240	<0.4	<0.01	<0.01	
GW-CLASS C120	L545200-4	240	<0.4	<0.01	<0.01	
GW-CLASS C125	L545200-5	240	<0.4	<0.01	<0.01	
GW-GYM	L545200-6	240	<0.4	<0.01	<0.01	
GW-LIBRARY	L545200-7	241	<0.4	<0.01	<0.01	
GW-HALL C203	L545200-8	240	<0.4	<0.01	<0.01	
GW-CLASS A212	L545200-9	240	0.5	0.02	0.01	
GW-AUDITORIUM	L545200-10	240	<0.4	<0.01	<0.01	
GW-HALL A230	L545200-11	240	<0.4	<0.01	<0.01	
GW-CLASS A242	L545200-12	240	<0.4	<0.01	<0.01	
GW-CLASS A336	L545200-13	240	<0.4	<0.01	<0.01	
GW-CLASS A324	L545200-14	240	<0.4	<0.01	<0.01	
GW-HALL A303	L545200-15	180	<0.4	<0.02	<0.02	

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

Level of Quantitation: 0.4 ug		Submitted by: JLL	Approved by: NKP
Analytical Method : mc	mod. OSHA 1007; HPLC/UV	Date : 02-SEP-21	
Collection Media : As	Assay 581	Supervisor : MWJ	

Page 6 of 14

Version 1.000



LABORATORY FOOTNOTE REPORT

### GALSON

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

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

Account No.: 15354

Login No. : L545200 Date Sampled : 16-AUG-21 Date Received: 27-AUG-21 Date Analyzed: 31-AUG-21

L545200 (Report ID: 1262675):

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

L545200-2 (Report ID: 1262675): There is an interfering peak present in the chromatography that could not be separated from the analyte peak. The reported result may be biased high.

ID: 1262675): L545200 (Report

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.

Mean Recovery Accuracy Parameter

Formaldehyde

95.3%

+/-12.1%

Page 7 of 14

Version 1.000

122313E40165461239 Date:08/27/21 Shipper:UPS Initials:BGF

545200

21082528

Report To\*: Phase Separation Science

6630 Baltimore National Pike Baltimore, MD 21228

Invoice To\*: Phase Separation Science

Phone No.\*: 410-747-8770

Client Account No.\*:

Prep:UNKNOMN

New Client?

Email Results to : Amber Confer Cell No.

ージー

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

Email: invoicing@phaseonline.com P.O. No.

Phone No.: 410-747-8770

www.sgsgalson.com

Samples submitted using the FreePumpLoan<sup>TM</sup> Program

Email address: reporting@phaseonline.com

Call for Credit Card Info.

Credit Card : Card on File

Samples submitted using the FreeSamplingBadges<sup>TM</sup> Program

Sampled by:

(surcharge)

Need Results By:

Project: ACPS IAQ testing - 4920002 Site Name: George Washington School Comments

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

Public grade school building

150% 200%

Next Day by Noon

Same Day

100%

Next Day by 6pm

75%

2 Business Days

32% 20%

%

Standard 4 Business Days 3 Business Days Please indicate which OEL this data will be used for: ACGIH TLV OSHA PEL MSHA State samples were collected in (e.g., NY)

₹

Other (specify):

Hexavalent Chromium Process (e.g., welding

Method Reference<sup>A</sup>

mod. OSHA 1007: TPLC/UV | OZ5461.

mod. OSHA 1007: TPLC/UV OZ5527

Cal OSHA

Analysis Requested\* Formaldehyde Formaldehyde Formaldehyde Sample Units\*: L, ml,min,in2,cm2,ft2 min E E

Sample Volume Sample Time Sample Area\*

Collection Medium

Date Sampled

(Maxmium of 20 Characters) Sample Identification\*

240

Assay N581 Aldehyde Badge

08/16/20

GW - Class A109

- Cafeteria

Š

Assay N581 Aldehyde Badge

08/16/20

mod. OSHA 1007: TPLC/UV | OZ5049 mod. OSHA 1007: TPLC/UV OZ5039 mod. OSHA 1007: TPLC/UV OZ4374 mod. OSHA 1007: TPLC/UV OZ5254 Formaldehyde Formaldehyde Formaldehyde ij. min. m; 240 240 240 Assay N581 Aldehyde Badge 240 Assay N581 Aldehyde Badge Assay N581 Aldehyde Badge Assay N581 Aldehyde Badge 08/16/20 08/16/20 08/16/20 08/16/20 GW - Class C125 GW - Class C120 **GW - Hall A124** 

Formaldehyde Formaldehyde min E. Assay N581 Aldehyde Badge 241 Assay N581 Aldehyde Badge 240 08/16/20 08/16/20

**GW - Library** 

GW - Gym

mod. OSHA 1007: TPLC/UV OZ4070

mod. OSHA 1007: TPLC/UV OZ5031 mod. OSHA 1807: TPLC/UV OZ4969

mod. OSHA 1007: TPLC/JV | OZ4157

mod. OSHA 1007: TPLC/UV OZ5060

Formaldehyde Formaldehyde Hi. E L Assay N581 Aldehyde Badge 240 Assay N581 Aldehyde Badge 240 08/16/20 08/16/20 GW - Class A212 **GW - Auditorium GW - Hall C203** 

Agalson Laboratories will subsititute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: 🔽 Use method(s) listed on COC For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):

Assay N581 Aldehyde Badge 240

08/16/20

**GW - Hall A230** 

Formaldehyde

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

Time 2011 12(12)81 Date inchus Marmal Print Name/Signature Prott Cronert Fischer 1/2/ Samples received after 3pm will be considered as next day's business Received by: Received by: 732 Time 4/m/2 n 15218 S P Print Name/Signature Chain of Custody Relinquished by: Relinquished by:

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

Page 8 of 14

₹

# 21087528

SGS GALSON	ALSON	New Client? F	Report To*: Ph 66 B3	Report To*: Phase Separation Science 6630 Baltimore National Pike Baltimore, MD 21228	ience nal Pike	Invoice To*: Phase Separation Science	ase Separa	tion Science	
6601 Kirkville Rd East Syracuse, NY 13 Tel: (315) 432-5227 888-432-LABS (5 www.sgsgalson.com	6601 Kirkville Rd 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@ph	Phone No.*: 410-747-8770  Cell No.: nail Results to: Amber Confer  Email address: reporting@phaseonline.com	woo.e		ne No.: 410-747-8770  Email : invoicing@phaseonline.com  D. No. :  Card : Card on File Call for Cree	conline.com	Info.
Need Results By:	(surcharge)		<b>Z</b>	Samples submitted using the FreePumpLoan <sup>™</sup> Program	g the FreePumpLoan <sup>™</sup> I		using the FreeSar	Samples submitted using the FreeSamplingBadges™ Program	ram
Standard	%0	Site Name: George	George Washington School		Project: ACPS IAQ te	ACPS IAQ testing - 4920002 sampled by:			
4 Business Days	35%	Comments :							
3 Business Days	20%								
2 Business Days	75%								
Next Day by 6pm	100%	List description of indu	stry or Process/interfer	List description of industry or Process/Interferences present in sampling area	ng area :	State samples were	dicate which OEL	ıta will i	1 for :
Next Day by Noon Same Day	150%	Public grade school building	chool building			1.50	ᆵ	☐ ACGIH TLV ☐ Ca ☐Other (specify):	Cal OSHA
Sample Identification* (Maxmium of 20 Characters)	ication* haracters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method	Hexava Method Reference <sup>A</sup> Proces	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
3W - Class A242		08/16/21	Assay N581 Aldehyde Badge	240	min	Formaldehyde	HOO. OSH.	mod. OSHA 1007: TPLC/UV OZ. 515.9	851
3W - Class A336		08/16/21	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSH,	mod. OSHA 1007; TPLC/UV OZ4792	.92
3W - Class A324		08/16/21	Assay N581 Aldehyde Badge	240	min	Formaldehyde	HSO. DOM	mod. OSHA 1007: TPLC/UV OZ5410	10
3W - Hall A303		08/16/21	Assay N581 Aldehyde Badge	180	min	Formaldehyde	mod. OSH,	mod. OSHA 1007: TPLC/JUV OZ5474	74
			Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSH,	mod. OSHA 1007: TPLC/JV	
			Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSH.	mod. OSHA 1007: TPLC/JUV	
			Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSH.	mod. OSHA 1007: TPLC/UV	
			Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSH.	mod. OSHA 1007: TPLC/UV	
			Assay N581 Aldehyde Badge		min	Formaldehyde	mod, OSH	mod, OSHA 1007: TPLC/UV	
			Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSH,	mod. OSHA 1007: TPLC/UV	
			Assay N581 Aldehyde Badge		min	Formaldehyde	mod, OSH,	mod. OSHA 1007: TPLC/UV	
AGalson Laboratories w.	ill subsititute our	routine/preferred metho	od if it does not match	the method listed on the	e COC unless this box is	AGalson Laboratories will subsititute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: 🖊 Use method(s) listed on COC	JOD U		
For metals analysis: if re	questing an analy	rte with the option of a	lower LOQ, please indi	cate if the lower LOQ is	required (only available	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,	m(s) of silica need	ed must be indicated ((		and/or Tridymite)*:		/			
Chain of Custody	Prir	Print Name/Signature	0			Print Name/Signature	ure	Date	Time
Refinguished by:	5	にかけ	2/8	8/25/21/13/5	Received by:	0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4	1,	
Relinquished by:	O Les	ろうり	2	7507	Received by:	Brett Grenert-Fischer	Jumi Jumin	3	126
		* Re	Samples equired figlds, failure	Samples received after 3pm will be considered as next day's business Is, failure to complete these fields may result in a delay in your sample	will be considered as	Samples received after 3pm will be considered as next day's business * Required figlds, failure to complete these fields กาสุy result in a delay in ชูญหารูลุกทุฎโคร being processed.	essed.	Page_	
			m cayerum	rsiskiningsu /		U.UZ=SEF=2   14.00			

Page 9 of 14

Version 1.000

# Chain of Custody Form for Subcontracted Analyses

Page 1 of 1

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

21082528 W.O. No. :

Project Location : George Washington School

Project Number: 4920002 Report To LOD: No

East Syracuse, NY 13057 6601 Kirkville Road

SGS North America - NY Samples Transferred To:

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

For Questions or issues please contact: Amber Confer

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

Į g	•		Γ			Γ						<u> </u>		Γ	<u> </u>	T
Preservative		NON														
Type of	Container	NONSC														
Method		VARIOUS														
Analyses Required	•	Formaldehyde (mod. OSHA 1007; HPLC/UV)														
Matrix		Air														
Time	Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
Date	Sampled	08/16/21	08/16/21	08/16/21	08/16/21	08/16/21	08/16/21	08/16/21	08/16/21	08/16/21	08/16/21	08/16/21	08/16/21	08/16/21	08/16/21	08/16/21
Field	Sample ID	GW- Cafeteria	GW- Class A109	GW- Hall A124	GW- Class C120	GW- Class C125	GW- Gym	GW- Library	GW- Hall C203	GW- Class A212	GW- Auditorium	GW- Hall A230	GW- Hall A242	GW- Class A336	GW- Class A324	GW- Class A303
Lab	Sample ID	21082528-001	21082528-002	21082528-003	21082528-004	21082528-005	21082528-006	21082528-007	21082528-008	21082528-009	21082528-010	21082528-011	21082528-012	21082528-013	21082528-014	21082528-015

COA	
ed:	
quire	
Red	4
bles	
<u>ख</u>	
liver	
De	
ata	

292 reporting@phaseonline.com Send Report Attn:

invoicing@phaseonline.com

Send InvoiceAttn:

Perform Q.C. on Sample:

Carrier : Airbill No.:

Condition Upon Receipt:

Comments:

Time: \_ Wer Date: Speln Samples Relinquished By:

Samples Relinquished By: Samples Relinquished By:

Page 7 of Time Report Reference: 1 Generaled: 02-SEP-21 14:06 Samples Received By: Time: Date: Date:

Page 10 of 14

Brett Grenert-Fischer But Burut - Shuhu 8127121

Samples Received By:\_

Version 1.000



### **Case Narrative**

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

Project Name: ACPS IAQ Testing

PSS Project No.: 21082528

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.

21082528: Analyses associated with analyst code 4051 were performed by SGS North America - NY, 6601 Kirkville Road, East Syracuse, NY 13057 - NY 11626

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

## 

SGS GALSON	GALSON	New Client?	Report To*:	Report To*: Phase Separation Science	cience onal Pike	Invoice To*: Phasi	Invoice To*: Phase Separation Science	ence
-		Client Account No.*:		Baitimore, IMD 21228	8			
6601 Kirk East Syra Tel: (315) 888~	6601 Kirkville Rd East Syracuse, NY 13057 Tel: (315) 432-5227 888-432-LABS (5227)		Phone No.* :410-747-8770 Cell No. :	0-747-8770 nber Confer		Phone No.: 410-747-8770  Email : invoicing@pha	ne No.: 410-747-8770 Email : invoicing@phaseonline.com D. No. :	
www.sgs	www.sgsgalson.com		Email address <u>: rep</u>	Email address: <u>reporting@phaseonline.com</u> —	ne.com		on File Call for Cre	Call for Credit Card Info.
Need Results By:	(surcharge)		7	Samples submitted using the FreePumpLoan™ Program	ng the FreePumpLoan™	Program Samples submitted using the FreeSamplingBadges <sup>™</sup> Program	ng the FreeSamplingBadge	s <sup>n</sup> Program
Z Standard	%0 p	Site Name: Georg	George Washington School		Project: ACPS IAQ testing - 4920002	sting - 4920002 sampled by :		
4 Business Days	s 35%	Comments:						
3 Business Days								
2 Business Days	rs 75%							
Next Day by 6pm	n 100%	List description of inc	List description of industry or Process/interferences present in sampling area:	rences present in samp	ling area :		₹'	be used for:
Next Day by Noon	n 150%	Public grade	Public grade school building			collected in (e.g., NY)  VA  MSHA PEL  VA	PEL	Cal OSHA
Sample Identification* (Maxmium of 20 Characters)	tification*   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.)*
3W - Cafeteria		08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod, OSHA 1007; TPLC/UV	- 銀 5 20
GW - Class A109		08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	025527
3W - Hall A124		08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/JV OZ5039	025039
3W - Class C120		08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007; TPLC/UV OZ5254	OZ5254
GW - Class C125		08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod, OSHA 1007; TPLC/UV	0Z4374
GW - Gym		08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007; TPLC/UV	0Z5049
GW - Library		08/16/20	Assay N581 Aldehyde Badge	241	min	Formaldehyde	mod. OSHA 1007; TPLC/UV	025060
3W - Hall C203		08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4070
GW - Class A212		08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	0Z4157
3W - Auditorium		08/16/20	Assay N581 Adehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5031
3W - Hall A230		08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007; TPLC/JV	0Z4969
AGalson Laboratories v	will subsititute our	routine/preferred metl	AGalson Laboratories will subsititute our routine/preferred method if it does not match the method listed on the COC unless this box is checked:	the method listed on th	e COC unless this box is	s checked: 🗸 Use method(s) listed on COC	Ç	
For metals analysis: if	requesting an analy	yte with the option of a	s lower LOO, please indi	icate if the lower LOQ is	required (only available	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: fo	ırm(s) of silica need	ded must be indicated	For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)* :	nd/or Tridymite)*:				
Chain of Custody	Prir	Print Name/Signature				Print Name/Signature	Date	e Time
Relinquished by:	(T)	Jent	415218	511 173S	Received by:	are of when		
Relinquished by :	73	2 4 2	July 14/241	イル	Received by:	2		
		« *	Samples equired fields, failure	Samples received after 3pm will be considered as next day's business Is, failure to complete these fields may result in a delay in your sample	will be considered as ields may result in a	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 of
				Page	Page 12 of 14	Version 1.000		

2
23
po
, 0
$\sim$

SGS GALSON	ALSON	New Client? F	Report To*: PP 66 BZ	Report To*: Phase Separation Science 6630 Baltimore National Pike Baltimore, MD 21228	cience onal Pike	Invoice To*:	Phase Sep	Invoice To*: Phase Separation Science	ce
6601 Kirkville Rd East Syracuse, NY 13 Tel: (315) 432-5227 888-432-LABS (5 www.sgsgalson.com	6601 Kirkville Rd 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@pha	Phone No.*:410-747-8770  Cell No.: nail Results to:Amber Confer Email address:reporting@phaseonline.com	ne.com	Phone No.: Email : P.O. No. : Credit Card :	Phone No.: 410-747-8770 Email: invoicing@phi P.O. No.:	ne No.: 410-747-8770  Email : invoicing@phaseonline.com  D. No. : Card : Card on File Call for Credit Card Info.	Card Info.
Need Results By:	(surcharde)		2	Samples submitted usir	Samples submitted using the FreePumpLoan $^{ extsf{TM}}$ Program		nitted using the Fre	Samples submitted using the FreeSamplingBadges $^{\mathrm{n}}$ Program	Program -
Standard	1-	Site Name: George	George Washington School		Project: ACPS IAQ te	ACPS IAQ testing - 4920002 sampled by	by:		
4 Business Days	35%	Comments:							
3 Business Days	20%								
2 Business Days	75%						:		
Next Day by 6pm	100%	List description of ind	List description of industry or Process/interferences present in sampling area	rences present in samp	ling area :		ase indicate which	ıta will	e used for:
Next Day by Noon	150%	Public grade s	Public grade school building			collected in (e.g., NY)	OSHA PEL	☐ ACGIH TLV ☐ ☐Other (specify):	Cal OSHA
Sample Identification* (Maxmium of 20 Characters)	cation* haracters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*		Method Reference <sup>A</sup>	Hexavalent Chromlum Process (e.g., welding plating, painting, etc.)*
GW - Class AZ 42		08/16/21	Assay N581 Aldehyde Badge	240	min	Formaldehyde	шос	mod. OSHA 1007: TPLC/UV	0Z:515.9
GW - Class A336		08/16/21	Assay N581 Aldehyde Badge	240	min	Formaldehyde	рош	mod. OSHA 1007: TPLC/UV	0Z4792
GW - Class A324		08/16/21	Assay N581 Aldehyde Badge	240	min	Formaldehyde	рош	mod, OSHA 1007: TPLC/UV	0Z5410
GW - Hall A303		08/16/21	Assay N581 Aldehyde Badge	180	min	Formaldehyde	mod	mod. OSHA 1007: TPLC/JUV OZ5474	25474
			Assay N581 Aldehyde Badge		min	Formaldehyde	шод	mod. OSHA 1007: TPLC/JV	
			Assay N581 Aldehyde Badge		min	Formaldehyde	pom	mod. OSHA 1007: TPLC/UV	
			Assay N581 Aldehyde Badge		min	Formaldehyde	mod	mod. OSHA 1007: TPLC/UV	
			Assay N581 Aldehyde Badge		min	Formaldehyde	mod	mod. OSHA 1007: TPLC/J/V	
			Assay N581 Aidehyde Badge		min	Formaldehyde	рош	mod. OSHA 1007: TPLC/UV	
			Assay N581 Aldehyde Badge		min	Formaldehyde	mod	mod. OSHA 1007: TPLC/UV	
			Assay N581 Aldehyde Badge		min	Formaldehyde	тор	mod, OSHA 1007: TPLC/UV	
AGalson Laboratories will substittute our routine/preferred method if it does not match the method listed on the COC unless this box is checked:	I subsititute our r	routine/preferred meth	od if it does not match	the method listed on th	e COC unless this box is	checked: 🗸 Use method(s) listed on COC	ad on COC		
For metals analysis: if re	questing an analy	te with the option of a	lower LOQ, please indi	cate if the lower LOQ is	required (only available	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,	n(s) of silica need	led must be indicated (	Quartz, Cristobalite, an	and/or Tridymite)*:					
Chain of Custody	Prin	Print Name/Signature	]	I		Print Name/Signature	gnature	Date	Time
Relinquished by:	77	にかけ		12/21 1/35	Received by:	1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7		
Relinquished by :	G les	からかり	2	7,27	Received by:				
		*	Samples squired fields, failure	received after 3pm to complete these f	Samples received after 3pm will be considered as next day's business Is, failure to complete these fields may result in a delay in your sample	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.	orocessed.	Page_	Je of
				Page	Page 13 of 14	Version 1.000			

<u>1</u>



### Sample Receipt Checklist

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

Project Name: ACPS IAQ Testing PSS Project No.: 21082528

Client Name Total Environmental Concepts - Lorto Received By Amber Confer

**Delivered By** Client

Tracking No Not Applicable

Logged In By Amber Confer

Shipping Container(s)

No. of Coolers 0

Ice N/A

Custody Seal(s) Intact? N/A Temp (deg C)

Seal(s) Signed / Dated?

N/A Temp Blank Present No

**Documentation** Sampler Name <u>Not Provided</u>

COC agrees with sample labels?

Yes

N/A

Chain of Custody Yes

Sample Container Custody Seal(s) Intact? Not Applicable

Appropriate for Specified Analysis? Yes Seal(s) Signed / Dated Not Applicable

Intact? Yes

Labeled and Labels Legible? Yes

Holding Time Total No. of Samples Received 15

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

**Preservation** 

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

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

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

Samples Inspected/Checklist Completed By:	Outer I loger	Date: 08/26/2021
	Amber Confer	

PM Review and Approval:

Lynn Jackson
Page 14 of 14

Date: 08/26/2021

Version 1.000

SGS	ALSOI	New Client?	Report To* :					Invoice To	o*:				
343	ALSUI	Client Account											
		Cheffit Account											
6601 Kirkvi	lle Rd use, NY 13057		 Phone No.* :					Phone N	 lo.:				
Tel: (315) 4	32-5227		Cell No. :					Ema	lo.: ail :				
888-43	2-LABS (5227)							P.O. N	0.:				
www.sgsga	alson.com							Credit Car	rd : Card on F	ile 🗌	Call for Cred	dit Card I	nfo.
			_										
Need Results By:	(surcharge)			Samples subn	nitted usin	g the FreePumpLoan <sup>™</sup>	Program	Samples s	submitted using th	ie FreeSam	plingBadge	s™ Progra	am
Standard	0%	Site Name :			Pro	ject :		Samp	oled by :				
4 Business Days	35%	Comments :											
3 Business Days	50%												
2 Business Days	75%						_						
Next Day by 6pm	100%	List description of ind	ustry or Process/interfer	ences presen	t in sampl	ing area :	State samples w		Please indicate v				
Next Day by Noon	150%						collected in (e.g.,	, NY)	OSHA PEL	_		Cal	OSHA
Same Day	200%								MSHA	Other (	specify):		
Sample Identifi (Maxmium of 20 Cl		Date Sampled	Collection Medium	Sample \ Sample Sample	Time	Sample Units*: L, ml,min,in2,cm2,ft2	Ana	alysis Reque	ested*	Method F	Reference^	Process (	ent Chromium e.g., welding painting, etc.)*
^Galson Laboratories wil	II subsititute ou	r routine/preferred meth	I nod if it does not match	the method li	sted on the	e COC unless this box is	s checked: U	se method(s	s) listed on COC	<u> </u>		l	
For metals analysis: if re-	questing an ana	lyte with the option of a	lower LOQ, please indi	cate if the lov	ver LOQ is	required (only availabl	e for certain analy	tes - see SA	.G):				
For crystalline silica: forn	n(s) of silica nee	eded must be indicated	(Quartz, Cristobalite, an	d/or Tridymit	e)*:		<u>-</u>						
Chain of Custody	Pr	int Name/Signature	Г	Date	Time			Print Nam	e/Signature		Da	te	Time
Relinquished by :		-				Received by :							
Relinquished by:						Received by :							
		* R	Samples equired fields, failure			will be considered as elds may result in a			ng processed.	_	P	age	of

SGS	ALSOI	New Client?	Report To* :					Invoice To	o*:				
343	ALSUI	Client Account											
		Cheffit Account											
6601 Kirkvi	lle Rd use, NY 13057		 Phone No.* :					Phone N	 lo.:				
Tel: (315) 4	32-5227		Cell No. :					Ema	lo.: ail :				
888-43	2-LABS (5227)							P.O. N	0.:				
www.sgsga	alson.com							Credit Car	rd : Card on F	ile 🗌	Call for Cred	dit Card I	nfo.
			_										
Need Results By:	(surcharge)			Samples subn	nitted usin	g the FreePumpLoan <sup>™</sup>	Program	Samples s	submitted using th	ie FreeSam	plingBadge	s™ Progra	am
Standard	0%	Site Name :			Pro	ject :		Samp	oled by :				
4 Business Days	35%	Comments :											
3 Business Days	50%												
2 Business Days	75%						_						
Next Day by 6pm	100%	List description of ind	ustry or Process/interfer	ences presen	t in sampl	ing area :	State samples w		Please indicate v				
Next Day by Noon	150%						collected in (e.g.,	, NY)	OSHA PEL	_		Cal	OSHA
Same Day	200%								MSHA	Other (	specify):		
Sample Identifi (Maxmium of 20 Cl		Date Sampled	Collection Medium	Sample \ Sample Sample	Time	Sample Units*: L, ml,min,in2,cm2,ft2	Ana	alysis Reque	ested*	Method F	Reference^	Process (	ent Chromium e.g., welding painting, etc.)*
^Galson Laboratories wil	II subsititute ou	r routine/preferred meth	I nod if it does not match	the method li	sted on the	e COC unless this box is	s checked: U	se method(s	s) listed on COC	<u> </u>		I	
For metals analysis: if re-	questing an ana	lyte with the option of a	lower LOQ, please indi	cate if the lov	ver LOQ is	required (only availabl	e for certain analy	tes - see SA	.G):				
For crystalline silica: forn	n(s) of silica nee	eded must be indicated	(Quartz, Cristobalite, an	d/or Tridymit	e)*:		<u>-</u>						
Chain of Custody	Pr	int Name/Signature	Г	Date	Time			Print Nam	e/Signature		Da	te	Time
Relinquished by :		-				Received by :							
Relinquished by:						Received by :							
		* R	Samples equired fields, failure			will be considered as elds may result in a			ng processed.	_	P	age	of



### **Certificate of Analysis**

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

Project Name: ACPS IAO Testing

PSS Project No.: 21090701

September 15, 2021

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

Reference: PSS Project No: 21090701

Project Name: ACPS IAQ Testing

Project Location: George Washington MS

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) **21090701**.

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 12, 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**

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

Project Name: ACPS IAQ Testing

PSS Project No.: 21090701

### **Project ID: 4920002**

The following samples were received under chain of custody by Phase Separation Science (PSS) on 09/07/2021 at 10:37 am

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
21090701-001	GW - Cafeteria	AIR	09/03/21 14:13
21090701-002	GW - Class A109	AIR	09/03/21 14:09
21090701-003	GW - Hall Cafe A161	AIR	09/03/21 14:15
21090701-004	GW - Class C120	AIR	09/03/21 14:21
21090701-005	GW - Class C125	AIR	09/03/21 14:23
21090701-006	GW - Gym	AIR	09/03/21 14:19
21090701-007	GW - Library	AIR	09/03/21 14:25
21090701-008	GW - Outdoor	AIR	09/03/21 14:12
21090701-009	GW - Class A212	AIR	09/03/21 14:30
21090701-010	GW - Auditorium	AIR	09/03/21 14:08
21090701-011	GW - Stair 232	AIR	09/03/21 14:18
21090701-012	GW - Class A242	AIR	09/03/21 14:23
21090701-013	GW - Class A336	AIR	09/03/21 14:33
21090701-014	GW - Class 332R	AIR	09/03/21 14:31
21090701-015	GW - Hall A303	AIR	09/03/21 14:29

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

### Notes:

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



### **Explanation of Qualifiers**

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

SCIENCE

Project Name: ACPS IAQ Testing

PSS Project No.: 21090701

### 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.
- 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





1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com VELAP ID 460040

10 September 2021

Amber Confer
Phase Separation Science, Inc.
6630 Baltimore National Pike, Route 40 West
Baltimore, MD 21228

RE: 4920002

Enclosed are the results of analyses for samples received by the laboratory on 09/08/21 13:58.

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** 

lakecka Koms



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**

nelac .

1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW - CAFETERIA	21090701-001	1090814-01	Vapor	09/03/21 14:13	09/08/21 13:58
GW - CLASS A109	21090701-002	1090814-02	Vapor	09/03/21 14:09	09/08/21 13:58
GW - HALL CAFE A161	21090701-003	1090814-03	Vapor	09/03/21 14:15	09/08/21 13:58
GW - CLASS C120	21090701-004	1090814-04	Vapor	09/03/21 14:21	09/08/21 13:58
GW - CLASS C125	21090701-005	1090814-05	Vapor	09/03/21 14:23	09/08/21 13:58
GW - GYM	21090701-006	1090814-06	Vapor	09/03/21 14:19	09/08/21 13:58
GW - LIBRARY	21090701-007	1090814-07	Vapor	09/03/21 14:25	09/08/21 13:58
GW - OUTDOOR	21090701-008	1090814-08	Vapor	09/03/21 14:12	09/08/21 13:58
GW - CLASS A212	21090701-009	1090814-09	Vapor	09/03/21 14:30	09/08/21 13:58
GW - AUDITORIUM	21090701-010	1090814-10	Vapor	09/03/21 14:08	09/08/21 13:58
GW - STAIR 232	21090701-011	1090814-11	Vapor	09/03/21 14:18	09/08/21 13:58
GW - CLASS A242	21090701-012	1090814-12	Vapor	09/03/21 14:23	09/08/21 13:58
GW - CLASS A336	21090701-013	1090814-13	Vapor	09/03/21 14:33	09/08/21 13:58
GW - CLASS 332R	21090701-014	1090814-14	Vapor	09/03/21 14:31	09/08/21 13:58
GW - HALL A303	21090701-015	1090814-15	Vapor	09/03/21 14:29	09/08/21 13:58

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.



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - CAFETERIA 21090701-001 1090814-01 (Vapor) Sample Date: 09/03/21

				Sample Date. 0.					
				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
<b>Volatile Organics by EPA TO-15 (Go</b>	C/MS) Pi	repared by							
Acetone	24.0		ug/m³	2.40	2.40	1	09/08/21	09/08/21 16:42	WB
Benzene	0.54	J	ug/m³	0.64	0.16	1	09/08/21	09/08/21 16:42	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/08/21	09/08/21 16:42	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	09/08/21	09/08/21 16:42	WB
Bromoform	ND		ug/m³	2.10	0.53	1	09/08/21	09/08/21 16:42	WB
Bromomethane	ND		ug/m³	0.78	0.20	1	09/08/21	09/08/21 16:42	WB
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	09/08/21	09/08/21 16:42	WB
Carbon disulfide	ND		ug/m³	1.56	1.56	1	09/08/21	09/08/21 16:42	WB
Carbon tetrachloride	0.50	J	ug/m³	1.30	0.33	1	09/08/21	09/08/21 16:42	WB
Chlorobenzene	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 16:42	WB
Chloroethane	ND		ug/m³	0.53	0.27	1	09/08/21	09/08/21 16:42	WB
Chloroform	0.44	J	ug/m³	0.97	0.24	1	09/08/21	09/08/21 16:42	WB
Chloromethane	1.20		ug/m³	0.41	0.10	1	09/08/21	09/08/21 16:42	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/08/21	09/08/21 16:42	WB
Cyclohexane	ND		ug/m³	0.69	0.17	1	09/08/21	09/08/21 16:42	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/08/21	09/08/21 16:42	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 16:42	WB
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 16:42	WB
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 16:42	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 16:42	WB
Dichlorodifluoromethane	2.52		ug/m³	0.99	0.99	1	09/08/21	09/08/21 16:42	WB
1,1-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/08/21	09/08/21 16:42	WB
1,2-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/08/21	09/08/21 16:42	WB
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 16:42	WB
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 16:42	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 16:42	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 16:42	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 16:42	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 16:42	WB
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	09/08/21	09/08/21 16:42	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/08/21	09/08/21 16:42	WB
Ethylbenzene	0.39	J	ug/m³	0.87	0.22	1	09/08/21	09/08/21 16:42	WB
4-Ethyltoluene	0.44	J	ug/m³	0.98	0.25	1	09/08/21	09/08/21 16:42	WB
Freon 113	0.69	J	ug/m³	1.50	0.38	1	09/08/21	09/08/21 16:42	WB

fakefa Koms

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.



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**

nela de la proposición dela proposición de la proposición dela proposición de la proposición de la proposición de la pro

1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - CAFETERIA 21090701-001 1090814-01 (Vapor) Sample Date: 09/03/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
<b>Volatile Organics by EPA TO-15 (G</b>	C/MS) Pi	repared by	7 TO-15 P	rep (continued)					
Freon 114	ND		ug/m³	1.40	1.40	1	09/08/21	09/08/21 16:42	WB
n-Heptane	0.78	J	ug/m³	0.82	0.21	1	09/08/21	09/08/21 16:42	WB
Hexachlorobutadiene	ND		ug/m³	2.10	2.10	1	09/08/21	09/08/21 16:42	WB
Hexane	ND		ug/m³	14.0	14.0	1	09/08/21	09/08/21 16:42	WB
2-Hexanone	0.53	J	ug/m³	0.82	0.15	1	09/08/21	09/08/21 16:42	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	09/08/21	09/08/21 16:42	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/08/21	09/08/21 16:42	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	09/08/21	09/08/21 16:42	WB
Methyl ethyl ketone (2-Butanone)	2.65		ug/m³	0.59	0.34	1	09/08/21	09/08/21 16:42	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	09/08/21	09/08/21 16:42	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	09/08/21	09/08/21 16:42	WB
Propene	ND		ug/m³	0.34	0.34	1	09/08/21	09/08/21 16:42	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/08/21	09/08/21 16:42	WB
Styrene	0.94		ug/m³	0.85	0.15	1	09/08/21	09/08/21 16:42	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 16:42	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	09/08/21	09/08/21 16:42	WB
Tetrahydrofuran	0.44	J	ug/m³	0.59	0.15	1	09/08/21	09/08/21 16:42	WB
Toluene	2.11		ug/m³	0.75	0.35	1	09/08/21	09/08/21 16:42	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	09/08/21	09/08/21 16:42	WB
1,1,1-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 16:42	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 16:42	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 16:42	WB
Trichlorofluoromethane (Freon 11)	1.63		ug/m³	1.10	0.28	1	09/08/21	09/08/21 16:42	WB
1,2,4-Trimethylbenzene	0.49	J	ug/m³	0.98	0.25	1	09/08/21	09/08/21 16:42	WB
1,3,5-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 16:42	WB
2,2,4-Trimethylpentane	0.70	J	ug/m³	0.93	0.23	1	09/08/21	09/08/21 16:42	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	09/08/21	09/08/21 16:42	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 16:42	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	09/08/21	09/08/21 16:42	WB
o-Xylene	0.39	J	ug/m³	0.87	0.22	1	09/08/21	09/08/21 16:42	WB
m- & p-Xylenes	1.00	J	ug/m³	1.70	0.43	1	09/08/21	09/08/21 16:42	WB
Surrogate: 4-Bromofluorobenzene		73	-115	98 %	09/08/21		09/08/21 16:42		

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.



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - CLASS A109 21090701-002 1090814-02 (Vapor) Sample Date: 09/03/21

				Sample Date. 0.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-	15 (GC/MS) Pi	repared by	y TO-15 P	rep					
Acetone	15.3		$ug/m^3$	2.40	2.40	1	09/08/21	09/08/21 17:16	WB
Benzene	0.48	J	ug/m³	0.64	0.16	1	09/08/21	09/08/21 17:16	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/08/21	09/08/21 17:16	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	09/08/21	09/08/21 17:16	WB
Bromoform	ND		ug/m³	2.10	0.53	1	09/08/21	09/08/21 17:16	WB
Bromomethane	ND		ug/m³	0.78	0.20	1	09/08/21	09/08/21 17:16	WB
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	09/08/21	09/08/21 17:16	WB
Carbon disulfide	ND		ug/m³	1.56	1.56	1	09/08/21	09/08/21 17:16	WB
Carbon tetrachloride	0.50	J	ug/m³	1.30	0.33	1	09/08/21	09/08/21 17:16	WB
Chlorobenzene	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 17:16	WB
Chloroethane	ND		ug/m³	0.53	0.27	1	09/08/21	09/08/21 17:16	WB
Chloroform	ND		ug/m³	0.97	0.24	1	09/08/21	09/08/21 17:16	WB
Chloromethane	1.16		ug/m³	0.41	0.10	1	09/08/21	09/08/21 17:16	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/08/21	09/08/21 17:16	WB
Cyclohexane	ND		ug/m³	0.69	0.17	1	09/08/21	09/08/21 17:16	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/08/21	09/08/21 17:16	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 17:16	WB
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 17:16	WB
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 17:16	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 17:16	WB
Dichlorodifluoromethane	2.62		$ug/m^3$	0.99	0.99	1	09/08/21	09/08/21 17:16	WB
1,1-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/08/21	09/08/21 17:16	WB
1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/08/21	09/08/21 17:16	WB
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 17:16	WB
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 17:16	WB
trans-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/08/21	09/08/21 17:16	WB
1,2-Dichloropropane	ND		$ug/m^3$	0.92	0.23	1	09/08/21	09/08/21 17:16	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 17:16	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 17:16	WB
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	09/08/21	09/08/21 17:16	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/08/21	09/08/21 17:16	WB
Ethylbenzene	0.26	J	ug/m³	0.87	0.22	1	09/08/21	09/08/21 17:16	WB
4-Ethyltoluene	0.25	J	ug/m³	0.98	0.25	1	09/08/21	09/08/21 17:16	WB
Freon 113	0.54	J	ug/m³	1.50	0.38	1	09/08/21	09/08/21 17:16	WB

Rabecka Koons, Quality Assurance Officer

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

Page 5 of 36

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.



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - CLASS A109 21090701-002 1090814-02 (Vapor) Sample Date: 09/03/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (C					(202)	J. Harrish	- 10pmen		
Freon 114	ND	epareu b	ug/m³	1.40	1.40	1	09/08/21	09/08/21 17:16	WB
n-Heptane	0.37	J	ug/m³	0.82	0.21	1	09/08/21	09/08/21 17:16	WB
Hexachlorobutadiene	ND		ug/m³	2.10	2.10	1	09/08/21	09/08/21 17:16	WB
Hexane	ND		ug/m³	14.0	14.0	1	09/08/21	09/08/21 17:16	WB
2-Hexanone	ND		ug/m³	0.82	0.15	1	09/08/21	09/08/21 17:16	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	09/08/21	09/08/21 17:16	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/08/21	09/08/21 17:16	WB
Methylene chloride	27.2	L	ug/m³	18.0	18.0	1	09/08/21	09/08/21 17:16	WB
Methyl ethyl ketone (2-Butanone)	1.21		ug/m³	0.59	0.34	1	09/08/21	09/08/21 17:16	WB
Methyl isobutyl ketone	ND		$ug/m^3$	0.82	0.82	1	09/08/21	09/08/21 17:16	WB
Naphthalene	ND		$ug/m^3$	1.10	0.70	1	09/08/21	09/08/21 17:16	WB
Propene	ND		$ug/m^3$	0.34	0.34	1	09/08/21	09/08/21 17:16	WB
n-Propylbenzene	ND		$ug/m^3$	0.98	0.40	1	09/08/21	09/08/21 17:16	WB
Styrene	ND		$ug/m^3$	0.85	0.15	1	09/08/21	09/08/21 17:16	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 17:16	WB
Tetrachloroethene	ND		$ug/m^3$	1.40	0.70	1	09/08/21	09/08/21 17:16	WB
Tetrahydrofuran	0.27	J	ug/m³	0.59	0.15	1	09/08/21	09/08/21 17:16	WB
Toluene	1.28		$ug/m^3$	0.75	0.35	1	09/08/21	09/08/21 17:16	WB
1,2,4-Trichlorobenzene	ND		$ug/m^3$	1.50	0.38	1	09/08/21	09/08/21 17:16	WB
1,1,1-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/08/21	09/08/21 17:16	WB
1,1,2-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/08/21	09/08/21 17:16	WB
Trichloroethene	ND		$ug/m^3$	1.10	0.28	1	09/08/21	09/08/21 17:16	WB
Trichlorofluoromethane (Freon 11)	3.09		$ug/m^3$	1.10	0.28	1	09/08/21	09/08/21 17:16	WB
1,2,4-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/08/21	09/08/21 17:16	WB
1,3,5-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/08/21	09/08/21 17:16	WB
2,2,4-Trimethylpentane	0.47	J	$ug/m^3$	0.93	0.23	1	09/08/21	09/08/21 17:16	WB
Vinyl acetate	ND		$ug/m^3$	0.70	0.70	1	09/08/21	09/08/21 17:16	WB
Vinyl bromide	ND		$ug/m^3$	0.87	0.22	1	09/08/21	09/08/21 17:16	WB
Vinyl chloride	ND		$ug/m^3$	0.51	0.13	1	09/08/21	09/08/21 17:16	WB
o-Xylene	0.26	J	$ug/m^3$	0.87	0.22	1	09/08/21	09/08/21 17:16	WB
m- & p-Xylenes	0.61	J	ug/m³	1.70	0.43	1	09/08/21	09/08/21 17:16	WB
Surrogate: 4-Bromofluorobenzene		73	3-115	98 %	09/08/21		09/08/21 17:16		

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.



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - HALL CAFE A161 21090701-003 1090814-03 (Vapor) Sample Date: 09/03/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
<b>Volatile Organics by EPA TO-15 (GC</b>	C/MS) Pi	repared by	y TO-15 P	rep					
Acetone	15.6		ug/m³	2.40	2.40	1	09/08/21	09/08/21 17:50	WB
Benzene	0.45	J	ug/m³	0.64	0.16	1	09/08/21	09/08/21 17:50	WB
Benzyl chloride	ND		$ug/m^3$	1.00	0.25	1	09/08/21	09/08/21 17:50	WB
Bromodichloromethane	ND		$ug/m^3$	1.30	0.33	1	09/08/21	09/08/21 17:50	WB
Bromoform	ND		$ug/m^3$	2.10	0.53	1	09/08/21	09/08/21 17:50	WB
Bromomethane	ND		$ug/m^3$	0.78	0.20	1	09/08/21	09/08/21 17:50	WB
1,3-Butadiene	ND		$ug/m^3$	0.44	0.44	1	09/08/21	09/08/21 17:50	WB
Carbon disulfide	ND		$ug/m^3$	1.56	1.56	1	09/08/21	09/08/21 17:50	WB
Carbon tetrachloride	0.50	J	ug/m³	1.30	0.33	1	09/08/21	09/08/21 17:50	WB
Chlorobenzene	ND		$ug/m^3$	0.92	0.23	1	09/08/21	09/08/21 17:50	WB
Chloroethane	ND		$ug/m^3$	0.53	0.27	1	09/08/21	09/08/21 17:50	WB
Chloroform	0.24	J	ug/m³	0.97	0.24	1	09/08/21	09/08/21 17:50	WB
Chloromethane	1.12		$ug/m^3$	0.41	0.10	1	09/08/21	09/08/21 17:50	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/08/21	09/08/21 17:50	WB
Cyclohexane	ND		$ug/m^3$	0.69	0.17	1	09/08/21	09/08/21 17:50	WB
Dibromochloromethane	ND		$ug/m^3$	1.30	0.33	1	09/08/21	09/08/21 17:50	WB
1,2-Dibromoethane (EDB)	ND		$ug/m^3$	1.40	0.35	1	09/08/21	09/08/21 17:50	WB
1,2-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 17:50	WB
1,3-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 17:50	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 17:50	WB
Dichlorodifluoromethane	2.57		ug/m³	0.99	0.99	1	09/08/21	09/08/21 17:50	WB
1,1-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/08/21	09/08/21 17:50	WB
1,2-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/08/21	09/08/21 17:50	WB
1,1-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/08/21	09/08/21 17:50	WB
cis-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/08/21	09/08/21 17:50	WB
trans-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/08/21	09/08/21 17:50	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 17:50	WB
cis-1,3-Dichloropropene	ND		$ug/m^3$	0.91	0.23	1	09/08/21	09/08/21 17:50	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 17:50	WB
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	09/08/21	09/08/21 17:50	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/08/21	09/08/21 17:50	WB
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 17:50	WB
4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 17:50	WB
Freon 113	0.54	J	ug/m³	1.50	0.38	1	09/08/21	09/08/21 17:50	WB

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.

Rabecka Koons, Quality Assurance Officer



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - HALL CAFE A161 21090701-003 1090814-03 (Vapor) Sample Date: 09/03/21

Γ				Paratina					
Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
						Dilution	Trepared	Anaryzeu	Anaryst
Volatile Organics by EPA TO-15 (C		reparea b				1	00/09/21	00/09/21 17:50	WB
Freon 114	ND		ug/m³	1.40	1.40	1	09/08/21	09/08/21 17:50	
n-Heptane Hexachlorobutadiene	<b>0.33</b> ND	J	ug/m³ ug/m³	0.82 2.10	0.21 2.10	1 1	09/08/21 09/08/21	09/08/21 17:50 09/08/21 17:50	WB WB
	ND ND		ug/m³	14.0		1	09/08/21	09/08/21 17:50	WB
Hexane			_		14.0		09/08/21		WB
2-Hexanone	ND		ug/m³	0.82	0.15	1		09/08/21 17:50	
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	09/08/21	09/08/21 17:50	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/08/21	09/08/21 17:50	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	09/08/21	09/08/21 17:50	WB
Methyl ethyl ketone (2-Butanone)	1.12		ug/m³	0.59	0.34	1	09/08/21	09/08/21 17:50	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	09/08/21	09/08/21 17:50	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	09/08/21	09/08/21 17:50	WB
Propene	ND		ug/m³	0.34	0.34	1	09/08/21	09/08/21 17:50	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/08/21	09/08/21 17:50	WB
Styrene	0.43	J	ug/m³	0.85	0.15	1	09/08/21	09/08/21 17:50	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 17:50	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	09/08/21	09/08/21 17:50	WB
Tetrahydrofuran	0.32	J	ug/m³	0.59	0.15	1	09/08/21	09/08/21 17:50	WB
Toluene	2.45		ug/m³	0.75	0.35	1	09/08/21	09/08/21 17:50	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	09/08/21	09/08/21 17:50	WB
1,1,1-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 17:50	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 17:50	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 17:50	WB
Trichlorofluoromethane (Freon 11)	1.74		ug/m³	1.10	0.28	1	09/08/21	09/08/21 17:50	WB
1,2,4-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 17:50	WB
1,3,5-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 17:50	WB
2,2,4-Trimethylpentane	0.37	J	ug/m³	0.93	0.23	1	09/08/21	09/08/21 17:50	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	09/08/21	09/08/21 17:50	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 17:50	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	09/08/21	09/08/21 17:50	WB
o-Xylene	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 17:50	WB
m- & p-Xylenes	0.43	J	ug/m³	1.70	0.43	1	09/08/21	09/08/21 17:50	WB
Surrogate: 4-Bromofluorobenzene		7.	3-115	99 %	09/08/21	!	09/08/21 17:50		

akecka Koms

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.



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - CLASS C120 21090701-004 1090814-04 (Vapor) Sample Date: 09/03/21

				Sample Date: 09	9/03/21				
				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-1	15 (GC/MS) P1	repared b	y TO-15 I	Prep					
Acetone	13.2		ug/m³	2.40	2.40	1	09/08/21	09/08/21 18:24	WB
Benzene	0.38	J	$ug/m^3$	0.64	0.16	1	09/08/21	09/08/21 18:24	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/08/21	09/08/21 18:24	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	09/08/21	09/08/21 18:24	WB
Bromoform	ND		$ug/m^3$	2.10	0.53	1	09/08/21	09/08/21 18:24	WB
Bromomethane	ND		$ug/m^3$	0.78	0.20	1	09/08/21	09/08/21 18:24	WB
1,3-Butadiene	ND		$ug/m^3$	0.44	0.44	1	09/08/21	09/08/21 18:24	WB
Carbon disulfide	ND		$ug/m^3$	1.56	1.56	1	09/08/21	09/08/21 18:24	WB
Carbon tetrachloride	0.50	J	ug/m³	1.30	0.33	1	09/08/21	09/08/21 18:24	WB
Chlorobenzene	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 18:24	WB
Chloroethane	ND		$ug/m^3$	0.53	0.27	1	09/08/21	09/08/21 18:24	WB
Chloroform	ND		$ug/m^3$	0.97	0.24	1	09/08/21	09/08/21 18:24	WB
Chloromethane	1.12		$ug/m^3$	0.41	0.10	1	09/08/21	09/08/21 18:24	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/08/21	09/08/21 18:24	WB
Cyclohexane	ND		ug/m³	0.69	0.17	1	09/08/21	09/08/21 18:24	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/08/21	09/08/21 18:24	WB
1,2-Dibromoethane (EDB)	ND		$ug/m^3$	1.40	0.35	1	09/08/21	09/08/21 18:24	WB
1,2-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 18:24	WB
1,3-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 18:24	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 18:24	WB
Dichlorodifluoromethane	2.67		$ug/m^3$	0.99	0.99	1	09/08/21	09/08/21 18:24	WB
1,1-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/08/21	09/08/21 18:24	WB
1,2-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/08/21	09/08/21 18:24	WB
1,1-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/08/21	09/08/21 18:24	WB
cis-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/08/21	09/08/21 18:24	WB
trans-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/08/21	09/08/21 18:24	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 18:24	WB
cis-1,3-Dichloropropene	ND		$ug/m^3$	0.91	0.23	1	09/08/21	09/08/21 18:24	WB
trans-1,3-Dichloropropene	ND		$ug/m^3$	0.91	0.23	1	09/08/21	09/08/21 18:24	WB
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	09/08/21	09/08/21 18:24	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/08/21	09/08/21 18:24	WB
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 18:24	WB
4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 18:24	WB
Freon 113	0.54	J	ug/m³	1.50	0.38	1	09/08/21	09/08/21 18:24	WB

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.

Rabecka Koons, Quality Assurance Officer



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**

nela de la proposición dela proposición de la proposición dela proposición de la proposición de la proposición de la pro

1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - CLASS C120 21090701-004 1090814-04 (Vapor) Sample Date: 09/03/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (G	C/MS) Pı	repared by	y TO-15 P	rep (continued)					
Freon 114	ND		ug/m³	1.40	1.40	1	09/08/21	09/08/21 18:24	WB
n-Heptane	0.25	J	ug/m³	0.82	0.21	1	09/08/21	09/08/21 18:24	WB
Hexachlorobutadiene	ND		$ug/m^3$	2.10	2.10	1	09/08/21	09/08/21 18:24	WB
Hexane	ND		$ug/m^3$	14.0	14.0	1	09/08/21	09/08/21 18:24	WB
2-Hexanone	ND		ug/m³	0.82	0.15	1	09/08/21	09/08/21 18:24	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	09/08/21	09/08/21 18:24	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/08/21	09/08/21 18:24	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	09/08/21	09/08/21 18:24	WB
Methyl ethyl ketone (2-Butanone)	1.06		ug/m³	0.59	0.34	1	09/08/21	09/08/21 18:24	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	09/08/21	09/08/21 18:24	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	09/08/21	09/08/21 18:24	WB
Propene	ND		ug/m³	0.34	0.34	1	09/08/21	09/08/21 18:24	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/08/21	09/08/21 18:24	WB
Styrene	ND		ug/m³	0.85	0.15	1	09/08/21	09/08/21 18:24	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 18:24	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	09/08/21	09/08/21 18:24	WB
Tetrahydrofuran	ND		ug/m³	0.59	0.15	1	09/08/21	09/08/21 18:24	WB
Toluene	0.79		ug/m³	0.75	0.35	1	09/08/21	09/08/21 18:24	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	09/08/21	09/08/21 18:24	WB
1,1,1-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 18:24	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 18:24	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 18:24	WB
Trichlorofluoromethane (Freon 11)	1.52		ug/m³	1.10	0.28	1	09/08/21	09/08/21 18:24	WB
1,2,4-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 18:24	WB
1,3,5-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 18:24	WB
2,2,4-Trimethylpentane	0.28	J	ug/m³	0.93	0.23	1	09/08/21	09/08/21 18:24	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	09/08/21	09/08/21 18:24	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 18:24	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	09/08/21	09/08/21 18:24	WB
o-Xylene	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 18:24	WB
m- & p-Xylenes	0.43	J	ug/m³	1.70	0.43	1	09/08/21	09/08/21 18:24	WB
Surrogate: 4-Bromofluorobenzene		73	R-115	98 %	09/08/21	!	09/08/21 18:24		

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.

Rabecka Koons, Quality Assurance Officer



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - CLASS C125 21090701-005 1090814-05 (Vapor) Sample Date: 09/03/21

Name					Sample Date: 0.					
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep		<u>.</u> .	NT .	TT 1:	Reporting	Detection	D.11 - 1	ъ .		
Marctone   1.4.4						Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Benzere	Volatile Organics by EPA TO-1		epared by							
Benzyl chloride	Acetone			·						
Bromodichloromethane			J	_						
Bromoform   ND	•			-						
Bromomethane										
1,3-Butadiene   ND	Bromoform			-			1		09/08/21 18:58	
Carbon disulfide	Bromomethane	ND		ug/m³	0.78	0.20	1	09/08/21	09/08/21 18:58	WB
Carbon tetrachloride         0.50         J         ug/m²         1.30         0.33         1         09/08/21         09/08/21 ls/58         WB           Chlorobenzene         ND         ug/m²         0.92         0.23         1         09/08/21         09/08/21 ls/58         WB           Chlorofethane         ND         ug/m²         0.53         0.27         1         09/08/21         09/08/21 ls/58         WB           Chloroffethane         1.18         ug/m²         0.97         0.24         1         09/08/21         09/08/21 ls/58         WB           Chloropropene         ND         ug/m²         0.63         0.16         1         09/08/21         09/08/21 ls/58         WB           Ocyclockane         ND         ug/m²         0.69         0.17         1         09/08/21         09/08/21 ls/58         WB           1,2-Dichlorobentane         ND         ug/m²         1.30         0.33         1         09/08/21         09/08/21 ls/58         WB           1,2-Dichlorobenzene         ND         ug/m²         1.20         0.30         1         09/08/21         09/08/21 ls/58         WB           1,3-Dichlorobenzene         ND         ug/m²         1.20         0.30 <td>1,3-Butadiene</td> <td>ND</td> <td></td> <td>ug/m³</td> <td>0.44</td> <td>0.44</td> <td>1</td> <td>09/08/21</td> <td>09/08/21 18:58</td> <td>WB</td>	1,3-Butadiene	ND		ug/m³	0.44	0.44	1	09/08/21	09/08/21 18:58	WB
Chlorobenzene ND ug/m² 0.92 0.23 1 09/08/21 09/08/21 18:58 WB Chlorothane ND ug/m² 0.53 0.27 1 09/08/21 09/08/21 18:58 WB Chlorothane ND ug/m² 0.53 0.27 1 09/08/21 09/08/21 18:58 WB Chlorothane ND ug/m² 0.97 0.24 1 09/08/21 09/08/21 18:58 WB Chloromethane 1.18 ug/m² 0.41 0.10 1 09/08/21 09/08/21 18:58 WB Chloromethane ND ug/m² 0.63 0.16 1 09/08/21 09/08/21 18:58 WB Cyclohexane ND ug/m² 0.69 0.17 1 09/08/21 09/08/21 18:58 WB Cyclohexane ND ug/m² 1.30 0.33 1 09/08/21 09/08/21 18:58 WB Cyclohexane ND ug/m² 1.40 0.55 1 09/08/21 09/08/21 18:58 WB Cyclohexane ND ug/m² 1.20 0.30 1 09/08/21 09/08/21 18:58 WB Cyclohexane ND ug/m² 1.20 0.30 1 09/08/21 09/08/21 18:58 WB Cyclohexane ND ug/m² 1.20 0.30 1 09/08/21 09/08/21 18:58 WB Cyclohexane ND ug/m² 1.20 0.30 1 09/08/21 09/08/21 18:58 WB Cyclohexane ND ug/m² 1.20 0.30 1 09/08/21 09/08/21 18:58 WB Cyclohexane ND ug/m² 1.20 0.30 1 09/08/21 09/08/21 18:58 WB Cyclohexane ND ug/m² 0.99 0.99 1 09/08/21 09/08/21 18:58 WB Cyclohexane ND ug/m² 0.81 0.20 1 09/08/21 09/08/21 18:58 WB Cyclohexane ND ug/m² 0.81 0.20 1 09/08/21 09/08/21 18:58 WB Cyclohexane ND ug/m² 0.81 0.20 1 09/08/21 09/08/21 18:58 WB Cyclohexane ND ug/m² 0.81 0.20 1 09/08/21 09/08/21 18:58 WB Cyclohexane ND ug/m² 0.81 0.20 1 09/08/21 09/08/21 18:58 WB Cyclohexane ND ug/m² 0.81 0.20 1 09/08/21 09/08/21 18:58 WB Cyclohexane ND ug/m² 0.79 0.20 1 09/08/21 09/08/21 18:58 WB Cycloherothane ND ug/m² 0.79 0.20 1 09/08/21 09/08/21 18:58 WB Cycloherothane ND ug/m² 0.79 0.20 1 09/08/21 09/08/21 18:58 WB Cycloherothane ND ug/m² 0.79 0.20 1 09/08/21 09/08/21 18:58 WB Cycloherothane ND ug/m² 0.79 0.20 1 09/08/21 09/08/21 18:58 WB Cycloherothane ND ug/m² 0.79 0.20 1 09/08/21 09/08/21 18:58 WB Cycloherothane ND ug/m² 0.79 0.20 1 09/08/21 09/08/21 18:58 WB Cycloherothane ND ug/m² 0.79 0.20 1 09/08/21 09/08/21 18:58 WB Cycloherothane ND ug/m² 0.79 0.20 1 09/08/21 09/08/21 18:58 WB Cycloherothane ND ug/m² 0.79 0.20 1 09/08/21 09/08/21 18:58 WB Cycloherothane ND ug/m² 0.79 0.20 1 09/08/21 09/08/21 18:58 WB Cycloherothane ND ug/m² 0.79	Carbon disulfide	ND		ug/m³	1.56	1.56	1	09/08/21	09/08/21 18:58	WB
Chloroethane ND ug/m³ 0.53 0.27 1 0908/21 0908/21 18:58 WB Chloroform ND ug/m³ 0.97 0.24 1 0908/21 0908/21 18:58 WB Chloroform ND ug/m³ 0.41 0.10 1 0908/21 0908/21 18:58 WB Chloropropene ND ug/m³ 0.63 0.16 1 0908/21 0908/21 18:58 WB Cyclohexane ND ug/m³ 0.69 0.17 1 0908/21 0908/21 18:58 WB Cyclohexane ND ug/m³ 0.69 0.17 1 0908/21 0908/21 18:58 WB Cyclohexane ND ug/m³ 1.30 0.33 1 0908/21 0908/21 18:58 WB 1,2-Dibrhomochlane (EDB) ND ug/m³ 1.40 0.35 1 0908/21 0908/21 18:58 WB 1,2-Dibrhomochlane (EDB) ND ug/m³ 1.20 0.30 1 0908/21 0908/21 18:58 WB 1,3-Dichlorobenzene ND ug/m³ 1.20 0.30 1 0908/21 0908/21 18:58 WB 1,4-Dichlorobenzene ND ug/m³ 1.20 0.30 1 0908/21 0908/21 18:58 WB 1,4-Dichlorodifluoromethane 2.57 ug/m³ 0.99 0.99 1 0908/21 0908/21 18:58 WB 1,1-Dichlorodifluoromethane ND ug/m³ 0.81 0.20 1 0908/21 0908/21 18:58 WB 1,1-Dichlorocthane ND ug/m³ 0.81 0.20 1 0908/21 0908/21 18:58 WB 1,1-Dichlorocthane ND ug/m³ 0.81 0.20 1 0908/21 0908/21 18:58 WB 1,1-Dichlorocthane ND ug/m³ 0.81 0.20 1 0908/21 0908/21 18:58 WB 1,1-Dichlorocthane ND ug/m³ 0.81 0.20 1 0908/21 0908/21 18:58 WB 1,1-Dichlorocthane ND ug/m³ 0.81 0.20 1 0908/21 0908/21 18:58 WB 1,1-Dichlorocthane ND ug/m³ 0.79 0.20 1 0908/21 0908/21 18:58 WB 1,1-Dichlorocthane ND ug/m³ 0.79 0.20 1 0908/21 0908/21 18:58 WB 1,1-Dichlorocthane ND ug/m³ 0.79 0.20 1 0908/21 0908/21 18:58 WB 1,1-Dichlorocthane ND ug/m³ 0.79 0.20 1 0908/21 0908/21 18:58 WB 1,1-Dichlorocthane ND ug/m³ 0.79 0.20 1 0908/21 0908/21 18:58 WB 1,1-Dichlorocthane ND ug/m³ 0.79 0.20 1 0908/21 0908/21 18:58 WB 1,1-Dichloropropene ND ug/m³ 0.79 0.20 1 0908/21 0908/21 18:58 WB 1,1-Dichloropropene ND ug/m³ 0.79 0.20 1 0908/21 0908/21 18:58 WB 1,1-Dichloropropene ND ug/m³ 0.79 0.20 1 0908/21 0908/21 18:58 WB 1,1-Dichloropropene ND ug/m³ 0.79 0.20 1 0908/21 0908/21 18:58 WB 1,1-Dichloropropene ND ug/m³ 0.79 0.20 1 0908/21 0908/21 18:58 WB 1,1-Dichloropropene ND ug/m³ 0.72 0.18 1 0908/21 0908/21 18:58 WB 1,1-Dichloropropene ND ug/m³ 0.72 0.18 1 0908/21 0908/21 18:58 WB 1,1-Dichloropropene ND ug/m³ 0.72 0.18	Carbon tetrachloride	0.50	J	ug/m³	1.30	0.33	1	09/08/21	09/08/21 18:58	WB
Chloroform         ND         ug/m²         0.97         0.24         1         09/08/21         09/08/21 18:58         WB           Chloromethane         1.18         ug/m³         0.41         0.10         1         09/08/21         09/08/21 18:58         WB           3-Chloropropene         ND         ug/m³         0.63         0.16         1         09/08/21         09/08/21 18:58         WB           Cyclohexane         ND         ug/m³         0.69         0.17         1         09/08/21         09/08/21 18:58         WB           Dibromochloromethane         ND         ug/m³         1.30         0.33         1         09/08/21         09/08/21 18:58         WB           1,2-Dichlorobenzene         ND         ug/m³         1.40         0.35         1         09/08/21         09/08/21 18:58         WB           1,3-Dichlorobenzene         ND         ug/m³         1.20         0.30         1         09/08/21         09/08/21 18:58         WB           1,4-Dichlorobenzene         ND         ug/m³         1.20         0.30         1         09/08/21         09/08/21 18:58         WB           Dichlorodifluoromethane         2.57         ug/m³         0.99         0.99         <	Chlorobenzene	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 18:58	WB
Chloromethane         1.18         ug/m³         0.41         0.10         1         09/08/21         09/08/21 18:58         WB           3-Chloropropene         ND         ug/m³         0.63         0.16         1         09/08/21         09/08/21 18:58         WB           Cyclohexane         ND         ug/m³         0.69         0.17         1         09/08/21         09/08/21 18:58         WB           Dibromochloromethane         ND         ug/m³         1.30         0.33         1         09/08/21         09/08/21 18:58         WB           1,2-Dibromochloromethane (EDB)         ND         ug/m³         1.40         0.35         1         09/08/21         09/08/21 18:58         WB           1,2-Dichlorobenzene         ND         ug/m³         1.20         0.30         1         09/08/21         09/08/21 18:58         WB           1,4-Dichlorobenzene         ND         ug/m³         1.20         0.30         1         09/08/21         09/08/21 18:58         WB           1,4-Dichlorobenzene         ND         ug/m³         0.99         0.99         1         09/08/21         09/08/21 18:58         WB           Dichlorodifluoromethane         2.57         ug/m³         0.81 <td< td=""><td>Chloroethane</td><td>ND</td><td></td><td><math>ug/m^3</math></td><td>0.53</td><td>0.27</td><td>1</td><td>09/08/21</td><td>09/08/21 18:58</td><td>WB</td></td<>	Chloroethane	ND		$ug/m^3$	0.53	0.27	1	09/08/21	09/08/21 18:58	WB
3-Chloropropene   ND	Chloroform	ND		$ug/m^3$	0.97	0.24	1	09/08/21	09/08/21 18:58	WB
Cyclohexane         ND         ug/m³         0.69         0.17         1         09/08/21         09/08/21 18:58         WB           Dibromochloromethane         ND         ug/m³         1.30         0.33         1         09/08/21         09/08/21 18:58         WB           1,2-Dibromoethane (EDB)         ND         ug/m³         1.40         0.35         1         09/08/21         09/08/21 18:58         WB           1,2-Dichlorobenzene         ND         ug/m³         1.20         0.30         1         09/08/21         09/08/21 18:58         WB           1,3-Dichlorobenzene         ND         ug/m³         1.20         0.30         1         09/08/21         09/08/21 18:58         WB           1,4-Dichlorobenzene         ND         ug/m³         1.20         0.30         1         09/08/21         09/08/21 18:58         WB           1,4-Dichloroethane         ND         ug/m³         0.99         0.99         1         09/08/21         09/08/21 18:58         WB           1,1-Dichloroethane         ND         ug/m³         0.81         0.20         1         09/08/21         09/08/21 18:58         WB           1,1-Dichloroethane         ND         ug/m³         0.79         0.20 <td>Chloromethane</td> <td>1.18</td> <td></td> <td>ug/m³</td> <td>0.41</td> <td>0.10</td> <td>1</td> <td>09/08/21</td> <td>09/08/21 18:58</td> <td>WB</td>	Chloromethane	1.18		ug/m³	0.41	0.10	1	09/08/21	09/08/21 18:58	WB
Dibromochloromethane         ND         ug/m²         1.30         0.33         1         09/08/21         09/08/21 18:58         WB           1,2-Dibromoethane (EDB)         ND         ug/m²         1.40         0.35         1         09/08/21         09/08/21 18:58         WB           1,2-Dichlorobenzene         ND         ug/m²         1.20         0.30         1         09/08/21         09/08/21 18:58         WB           1,3-Dichlorobenzene         ND         ug/m²         1.20         0.30         1         09/08/21         09/08/21 18:58         WB           1,4-Dichlorobenzene         ND         ug/m²         1.20         0.30         1         09/08/21         09/08/21 18:58         WB           Dichlorodifluoromethane         2.57         ug/m²         0.99         0.99         1         09/08/21         09/08/21 18:58         WB           1,1-Dichloroethane         ND         ug/m²         0.81         0.20         1         09/08/21         09/08/21 18:58         WB           1,2-Dichloroethane         ND         ug/m²         0.81         0.20         1         09/08/21         09/08/21 18:58         WB           1,1-Dichloroethane         ND         ug/m²         0.79	3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/08/21	09/08/21 18:58	WB
1,2-Dibromoethane (EDB)       ND       ug/m³       1.40       0.35       1       09/08/21       09/08/21 l8:58       WB         1,2-Dibromoethane (EDB)       ND       ug/m³       1.20       0.30       1       09/08/21       09/08/21 l8:58       WB         1,3-Dichlorobenzene       ND       ug/m³       1.20       0.30       1       09/08/21       09/08/21 l8:58       WB         1,4-Dichlorobenzene       ND       ug/m³       1.20       0.30       1       09/08/21       09/08/21 l8:58       WB         1,4-Dichlorobenzene       ND       ug/m³       1.20       0.30       1       09/08/21       09/08/21 l8:58       WB         Dichlorodifluoromethane       2.57       ug/m³       0.99       0.99       1       09/08/21       09/08/21 l8:58       WB         1,1-Dichloroethane       ND       ug/m³       0.81       0.20       1       09/08/21       09/08/21 l8:58       WB         1,2-Dichloroethane       ND       ug/m³       0.81       0.20       1       09/08/21       09/08/21 l8:58       WB         1,1-Dichloroethene       ND       ug/m³       0.79       0.20       1       09/08/21       09/08/21 l8:58       WB         trans-	Cyclohexane	ND		ug/m³	0.69	0.17	1	09/08/21	09/08/21 18:58	WB
1,2-Dichlorobenzene         ND         ug/m³         1,20         0,30         1         09/08/21         09/08/21 18:58         WB           1,3-Dichlorobenzene         ND         ug/m³         1,20         0,30         1         09/08/21         09/08/21 18:58         WB           1,4-Dichlorobenzene         ND         ug/m³         1,20         0,30         1         09/08/21         09/08/21 18:58         WB           Dichlorodifluoromethane         2.57         ug/m³         0.99         0.99         1         09/08/21         09/08/21 18:58         WB           1,1-Dichloroethane         ND         ug/m³         0.81         0.20         1         09/08/21         09/08/21 18:58         WB           1,2-Dichloroethane         ND         ug/m³         0.81         0.20         1         09/08/21         09/08/21 18:58         WB           1,1-Dichloroethane         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 18:58         WB           1,1-Dichloroethane         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 18:58         WB           cis-1,2-Dichloroethane         ND         ug/m³         0.79	Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/08/21	09/08/21 18:58	WB
1,3-Dichlorobenzene ND ug/m³ 1.20 0.30 1 09/08/21 09/08/21 18:58 WB 1,4-Dichlorobenzene ND ug/m³ 0.99 0.99 1 09/08/21 09/08/21 18:58 WB Dichlorodifluoromethane 2.57 ug/m³ 0.99 0.99 1 09/08/21 09/08/21 18:58 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 18:58 WB 1,2-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 18:58 WB 1,1-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 18:58 WB 1,1-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 18:58 WB 1,1-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 18:58 WB 1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 18:58 WB 1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 18:58 WB 1,2-Dichloropropane ND ug/m³ 0.92 0.23 1 09/08/21 09/08/21 18:58 WB 1,2-Dichloropropane ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 18:58 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 1 09/08/21 09/08/21 18:58 WB 1,4-Dioxane ND ug/m³ 0.87 0.22 1 09/08/21 09/08/21 18:58 WB Ethyl acetate ND ug/m³ 0.87 0.22 1 09/08/21 09/08/21 18:58 WB Ethyl benzene ND ug/m³ 0.87 0.22 1 09/08/21 09/08/21 18:58 WB	1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 18:58	WB
1,4-Dichlorobenzene       ND       ug/m³       1.20       0.30       1       09/08/21       09/08/21 18:58       WB         Dichlorodifluoromethane       2.57       ug/m³       0.99       0.99       1       09/08/21       09/08/21 18:58       WB         1,1-Dichloroethane       ND       ug/m³       0.81       0.20       1       09/08/21       09/08/21 18:58       WB         1,2-Dichloroethane       ND       ug/m³       0.81       0.20       1       09/08/21       09/08/21 18:58       WB         1,1-Dichloroethene       ND       ug/m³       0.79       0.20       1       09/08/21       09/08/21 18:58       WB         cis-1,2-Dichloroethene       ND       ug/m³       0.79       0.20       1       09/08/21       09/08/21 18:58       WB         trans-1,2-Dichloroethene       ND       ug/m³       0.79       0.20       1       09/08/21       09/08/21 18:58       WB         1,2-Dichloropropane       ND       ug/m³       0.92       0.23       1       09/08/21       09/08/21 18:58       WB         cis-1,3-Dichloropropene       ND       ug/m³       0.91       0.23       1       09/08/21       09/08/21 18:58       WB         tr	1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 18:58	WB
Dichlorodifluoromethane         2.57         ug/m³         0.99         0.99         1         09/08/21         09/08/21 18:58         WB           1,1-Dichloroethane         ND         ug/m³         0.81         0.20         1         09/08/21         09/08/21 18:58         WB           1,2-Dichloroethane         ND         ug/m³         0.81         0.20         1         09/08/21         09/08/21 18:58         WB           1,1-Dichloroethane         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 18:58         WB           1,1-Dichloroethane         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 18:58         WB           cis-1,2-Dichloroethane         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 18:58         WB           1,2-Dichloroptoethane         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 18:58         WB           1,2-Dichloroptoethane         ND         ug/m³         0.92         0.23         1         09/08/21         09/08/21 18:58         WB           cis-1,3-Dichloroptopane         ND         ug/m³         0.91	1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 18:58	WB
1,1-Dichloroethane       ND       ug/m³       0.81       0.20       1       09/08/21       09/08/21 18:58       WB         1,2-Dichloroethane       ND       ug/m³       0.81       0.20       1       09/08/21       09/08/21 18:58       WB         1,1-Dichloroethene       ND       ug/m³       0.79       0.20       1       09/08/21       09/08/21 18:58       WB         cis-1,2-Dichloroethene       ND       ug/m³       0.79       0.20       1       09/08/21       09/08/21 18:58       WB         trans-1,2-Dichloroethene       ND       ug/m³       0.79       0.20       1       09/08/21       09/08/21 18:58       WB         1,2-Dichloropropane       ND       ug/m³       0.92       0.23       1       09/08/21       09/08/21 18:58       WB         cis-1,3-Dichloropropene       ND       ug/m³       0.91       0.23       1       09/08/21       09/08/21 18:58       WB         1,4-Dioxane       ND       ug/m³       0.72       0.18       1       09/08/21       09/08/21 18:58       WB         Ethyl acetate       ND       ug/m³       0.87       0.22       1       09/08/21       09/08/21 18:58       WB         4-Ethyltoluene	1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 18:58	WB
1,2-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 18:58 WB 1,1-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 18:58 WB cis-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 18:58 WB trans-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 18:58 WB 1,2-Dichloropropane ND ug/m³ 0.92 0.23 1 09/08/21 09/08/21 18:58 WB cis-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 18:58 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 18:58 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 1 09/08/21 09/08/21 18:58 WB Ethyl acetate ND ug/m³ 3.60 3.60 1 09/08/21 09/08/21 18:58 WB Ethyl benzene ND ug/m³ 0.87 0.22 1 09/08/21 09/08/21 18:58 WB Ethyl benzene ND ug/m³ 0.87 0.22 1 09/08/21 09/08/21 18:58 WB Ethyl benzene ND ug/m³ 0.87 0.22 1 09/08/21 09/08/21 18:58 WB Ethyl benzene ND ug/m³ 0.87 0.22 1 09/08/21 09/08/21 18:58 WB	Dichlorodifluoromethane	2.57		ug/m³	0.99	0.99	1	09/08/21	09/08/21 18:58	WB
1,1-Dichloroethene         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 18:58         WB           cis-1,2-Dichloroethene         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 18:58         WB           trans-1,2-Dichloroethene         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 18:58         WB           1,2-Dichloropropane         ND         ug/m³         0.92         0.23         1         09/08/21         09/08/21 18:58         WB           cis-1,3-Dichloropropene         ND         ug/m³         0.91         0.23         1         09/08/21         09/08/21 18:58         WB           trans-1,3-Dichloropropene         ND         ug/m³         0.91         0.23         1         09/08/21         09/08/21 18:58         WB           1,4-Dioxane         ND         ug/m³         0.72         0.18         1         09/08/21         09/08/21 18:58         WB           Ethyl acetate         ND         ug/m³         0.87         0.22         1         09/08/21         09/08/21 18:58         WB           4-Ethyltoluene         ND         ug/m³         0.98         0.2	1,1-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/08/21	09/08/21 18:58	WB
cis-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 18:58 WB trans-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 18:58 WB 1,2-Dichloropropane ND ug/m³ 0.92 0.23 1 09/08/21 09/08/21 18:58 WB cis-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 18:58 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 18:58 WB 1,4-Dioxane ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 18:58 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 1 09/08/21 09/08/21 18:58 WB Ethyl acetate ND ug/m³ 3.60 3.60 1 09/08/21 09/08/21 18:58 WB Ethyl benzene ND ug/m³ 0.87 0.22 1 09/08/21 09/08/21 18:58 WB 4-Ethyltoluene ND ug/m³ 0.98 0.25 1 09/08/21 09/08/21 18:58 WB	1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/08/21	09/08/21 18:58	WB
trans-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 18:58 WB 1,2-Dichloropropane ND ug/m³ 0.92 0.23 1 09/08/21 09/08/21 18:58 WB cis-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 18:58 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 18:58 WB 1,4-Dioxane ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 18:58 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 1 09/08/21 09/08/21 18:58 WB Ethyl acetate ND ug/m³ 3.60 3.60 1 09/08/21 09/08/21 18:58 WB Ethyl benzene ND ug/m³ 0.87 0.22 1 09/08/21 09/08/21 18:58 WB 4-Ethyltoluene ND ug/m³ 0.98 0.25 1 09/08/21 09/08/21 18:58 WB	1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 18:58	WB
1,2-Dichloropropane       ND       ug/m³       0.92       0.23       1       09/08/21       09/08/21 18:58       WB         cis-1,3-Dichloropropene       ND       ug/m³       0.91       0.23       1       09/08/21       09/08/21 18:58       WB         trans-1,3-Dichloropropene       ND       ug/m³       0.91       0.23       1       09/08/21       09/08/21 18:58       WB         1,4-Dioxane       ND       ug/m³       0.72       0.18       1       09/08/21       09/08/21 18:58       WB         Ethyl acetate       ND       ug/m³       3.60       3.60       1       09/08/21       09/08/21 18:58       WB         Ethylbenzene       ND       ug/m³       0.87       0.22       1       09/08/21       09/08/21 18:58       WB         4-Ethyltoluene       ND       ug/m³       0.98       0.25       1       09/08/21       09/08/21 18:58       WB	cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 18:58	WB
cis-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 18:58 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 18:58 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 1 09/08/21 09/08/21 18:58 WB Ethyl acetate ND ug/m³ 3.60 3.60 1 09/08/21 09/08/21 18:58 WB Ethylbenzene ND ug/m³ 0.87 0.22 1 09/08/21 09/08/21 18:58 WB 4-Ethyltoluene ND ug/m³ 0.98 0.25 1 09/08/21 09/08/21 18:58 WB	trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 18:58	WB
cis-1,3-Dichloropropene         ND         ug/m³         0.91         0.23         1         09/08/21         09/08/21 18:58         WB           trans-1,3-Dichloropropene         ND         ug/m³         0.91         0.23         1         09/08/21         09/08/21 18:58         WB           1,4-Dioxane         ND         ug/m³         0.72         0.18         1         09/08/21         09/08/21 18:58         WB           Ethyl acetate         ND         ug/m³         3.60         3.60         1         09/08/21         09/08/21 18:58         WB           Ethylbenzene         ND         ug/m³         0.87         0.22         1         09/08/21         09/08/21 18:58         WB           4-Ethyltoluene         ND         ug/m³         0.98         0.25         1         09/08/21         09/08/21 18:58         WB	1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 18:58	WB
trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 18:58 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 1 09/08/21 09/08/21 18:58 WB Ethyl acetate ND ug/m³ 3.60 3.60 1 09/08/21 09/08/21 18:58 WB Ethylbenzene ND ug/m³ 0.87 0.22 1 09/08/21 09/08/21 18:58 WB 4-Ethyltoluene ND ug/m³ 0.98 0.25 1 09/08/21 09/08/21 18:58 WB	cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 18:58	WB
1,4-Dioxane         ND         ug/m³         0.72         0.18         1         09/08/21         09/08/21 18:58         WB           Ethyl acetate         ND         ug/m³         3.60         3.60         1         09/08/21         09/08/21 18:58         WB           Ethylbenzene         ND         ug/m³         0.87         0.22         1         09/08/21         09/08/21 18:58         WB           4-Ethyltoluene         ND         ug/m³         0.98         0.25         1         09/08/21         09/08/21 18:58         WB		ND		ug/m³	0.91		1	09/08/21	09/08/21 18:58	WB
Ethyl acetate         ND         ug/m³         3.60         3.60         1         09/08/21         09/08/21 18:58         WB           Ethylbenzene         ND         ug/m³         0.87         0.22         1         09/08/21         09/08/21 18:58         WB           4-Ethyltoluene         ND         ug/m³         0.98         0.25         1         09/08/21         09/08/21 18:58         WB	1,4-Dioxane	ND		ug/m³			1	09/08/21	09/08/21 18:58	WB
Ethylbenzene ND ug/m³ 0.87 0.22 1 09/08/21 09/08/21 18:58 WB 4-Ethyltoluene ND ug/m³ 0.98 0.25 1 09/08/21 09/08/21 18:58 WB	,			-			1			WB
4-Ethyltoluene ND ug/m³ 0.98 0.25 1 09/08/21 09/08/21 18:58 WB	•			Ü			1	09/08/21		WB
-	•									
	Freon 113	0.61	J	ug/m³	1.50	0.23	1	09/08/21	09/08/21 18:58	WB

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.

Rabecka Koons, Quality Assurance Officer



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - CLASS C125 21090701-005 1090814-05 (Vapor) Sample Date: 09/03/21

			Reporting	Detection				
Analyte	Result No	tes Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (C	GC/MS) Prepa	red by TO-15 P	rep (continued)	_	_	_	-	_
Freon 114	ND	ug/m³	1.40	1.40	1	09/08/21	09/08/21 18:58	WB
n-Heptane	ND	ug/m³	0.82	0.21	1	09/08/21	09/08/21 18:58	WB
Hexachlorobutadiene	ND	ug/m³	2.10	2.10	1	09/08/21	09/08/21 18:58	WB
Hexane	ND	ug/m³	14.0	14.0	1	09/08/21	09/08/21 18:58	WB
2-Hexanone	ND	ug/m³	0.82	0.15	1	09/08/21	09/08/21 18:58	WB
Isopropylbenzene (Cumene)	ND	ug/m³	1.10	0.40	1	09/08/21	09/08/21 18:58	WB
Methyl tert-butyl ether (MTBE)	ND	ug/m³	0.72	0.21	1	09/08/21	09/08/21 18:58	WB
Methylene chloride	ND	ug/m³	18.0	18.0	1	09/08/21	09/08/21 18:58	WB
Methyl ethyl ketone (2-Butanone)	0.83	ug/m³	0.59	0.34	1	09/08/21	09/08/21 18:58	WB
Methyl isobutyl ketone	ND	ug/m³	0.82	0.82	1	09/08/21	09/08/21 18:58	WB
Naphthalene	ND	ug/m³	1.10	0.70	1	09/08/21	09/08/21 18:58	WB
Propene	ND	ug/m³	0.34	0.34	1	09/08/21	09/08/21 18:58	WB
n-Propylbenzene	ND	ug/m³	0.98	0.40	1	09/08/21	09/08/21 18:58	WB
Styrene	ND	ug/m³	0.85	0.15	1	09/08/21	09/08/21 18:58	WB
1,1,2,2-Tetrachloroethane	ND	ug/m³	1.40	0.35	1	09/08/21	09/08/21 18:58	WB
Tetrachloroethene	ND	ug/m³	1.40	0.70	1	09/08/21	09/08/21 18:58	WB
Tetrahydrofuran	ND	ug/m³	0.59	0.15	1	09/08/21	09/08/21 18:58	WB
Toluene	0.72	J ug/m³	0.75	0.35	1	09/08/21	09/08/21 18:58	WB
1,2,4-Trichlorobenzene	ND	ug/m³	1.50	0.38	1	09/08/21	09/08/21 18:58	WB
1,1,1-Trichloroethane	ND	ug/m³	1.10	0.28	1	09/08/21	09/08/21 18:58	WB
1,1,2-Trichloroethane	ND	ug/m³	1.10	0.28	1	09/08/21	09/08/21 18:58	WB
Trichloroethene	ND	ug/m³	1.10	0.28	1	09/08/21	09/08/21 18:58	WB
Trichlorofluoromethane (Freon 11)	1.52	ug/m³	1.10	0.28	1	09/08/21	09/08/21 18:58	WB
1,2,4-Trimethylbenzene	ND	ug/m³	0.98	0.25	1	09/08/21	09/08/21 18:58	WB
1,3,5-Trimethylbenzene	ND	ug/m³	0.98	0.25	1	09/08/21	09/08/21 18:58	WB
2,2,4-Trimethylpentane	0.23	$J \qquad ug/m^3$	0.93	0.23	1	09/08/21	09/08/21 18:58	WB
Vinyl acetate	ND	ug/m³	0.70	0.70	1	09/08/21	09/08/21 18:58	WB
Vinyl bromide	ND	ug/m³	0.87	0.22	1	09/08/21	09/08/21 18:58	WB
Vinyl chloride	ND	ug/m³	0.51	0.13	1	09/08/21	09/08/21 18:58	WB
o-Xylene	ND	ug/m³	0.87	0.22	1	09/08/21	09/08/21 18:58	WB
m- & p-Xylenes	ND	ug/m³	1.70	0.43	1	09/08/21	09/08/21 18:58	WB
Surrogate: 4-Bromofluorobenzene		73-115	99 %	09/08/21		09/08/21 18:58		

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.

Rabecka Koons, Quality Assurance Officer



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - GYM 21090701-006 1090814-06 (Vapor) Sample Date: 09/03/21

Name					Sample Date: 0.					
Notatile Organies by EPATO-15 (GC/MS) Prepared by TO-15 Prep   Acetone						Detection		_		
Name						Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Benzele         0.48         J         wgm²         0.64         0.16         1         090821         0908211932         WB           Benzyle foltoride         ND         wgm²         1.00         0.25         1         090821         1932         WB           Bromodichloromethane         ND         wgm²         1.30         0.33         1         090821         090821         932         WB           Bromomethane         ND         wgm²         0.78         0.20         1         090821         090821 1932         WB           Bromomethane         ND         wgm²         0.78         0.20         1         090821         090821 1932         WB           L3-Butadicne         ND         wgm²         1.56         1.56         1         090821         090821 1932         WB           Carbon distilife         1.90         ygm²         1.56         1.56         1         090821         090821 1932         WB           Chlorothane         ND         ygm²         0.53         0.27         1         090821         090821 1932         WB           Chlorothane         ND         ygm²         0.41         0.10         0         090821         090821										
Bernyl chloride	Acetone									
Bromodichloromethane   ND	Benzene		J	_						
Bromoform   ND	•			-						
Bromomethane				Ü						
1,3-Butadiene   ND	Bromoform	ND		ug/m³	2.10	0.53	1	09/08/21	09/08/21 19:32	WB
Carbon disulfide         1.90         ug/m²         1.56         1.56         1         0908/21         0908/21         1932         WB           Carbon tetrachloride         0.50         J         ug/m²         1.30         0.33         1         0908/21         09/08/21         1932         WB           Chlorobenzene         ND         ug/m²         0.92         0.23         1         0908/21         09/08/21         1932         WB           Chlorobethane         ND         ug/m²         0.97         0.24         1         0908/21         09/08/21 19:32         WB           Chloromethane         1.26         ug/m²         0.41         0.10         1         0908/21         09/08/21 19:32         WB           Chloromethane         1.26         ug/m²         0.41         0.10         1         0908/21         09/08/21 19:32         WB           Chloromethane         ND         ug/m²         0.63         0.16         1         0908/21         09/08/21 19:32         WB           Ocyclochexane         ND         ug/m²         0.69         0.17         1         0908/21         09/08/21 19:32         WB           1,2-Dibromethane         ND         ug/m² <t< td=""><td>Bromomethane</td><td>ND</td><td></td><td>ug/m³</td><td>0.78</td><td>0.20</td><td>1</td><td>09/08/21</td><td>09/08/21 19:32</td><td>WB</td></t<>	Bromomethane	ND		ug/m³	0.78	0.20	1	09/08/21	09/08/21 19:32	WB
Carbon tetrachloride         0.50         J         ug/m²         1.30         0.33         1         090821         090821 19:32         WB           Chlorobenzene         ND         ug/m²         0.92         0.23         1         090821         09/08/21 19:32         WB           Chlorocthane         ND         ug/m²         0.53         0.27         1         090821         09/08/21 19:32         WB           Chlorofform         ND         ug/m²         0.53         0.27         1         090821         09/08/21 19:32         WB           Chloromethane         1.26         ug/m²         0.41         0.10         1         0908/21         09/08/21 19:32         WB           Chloromethane         ND         ug/m²         0.63         0.16         1         0908/21         09/08/21 19:32         WB           Cyclockane         ND         ug/m²         0.69         0.17         1         0908/21         09/08/21 19:32         WB           1,2-Dichlorobendenden (EDB)         ND         ug/m²         1.30         0.33         1         0908/21         09/08/21 19:32         WB           1,2-Dichlorobenzene         ND         ug/m²         1.20         0.30         1 </td <td>1,3-Butadiene</td> <td>ND</td> <td></td> <td>ug/m³</td> <td>0.44</td> <td>0.44</td> <td>1</td> <td>09/08/21</td> <td>09/08/21 19:32</td> <td>WB</td>	1,3-Butadiene	ND		ug/m³	0.44	0.44	1	09/08/21	09/08/21 19:32	WB
Chlorobenzene ND ug/m³ 0.92 0.23 1 09/08/21 09/08/21 19:32 WB Chloroethane ND ug/m³ 0.53 0.27 1 09/08/21 09/08/21 19:32 WB Chloroethane ND ug/m³ 0.53 0.27 1 09/08/21 09/08/21 19:32 WB Chloroethane ND ug/m³ 0.97 0.24 1 09/08/21 09/08/21 19:32 WB Chloromethane 1.26 ug/m³ 0.41 0.10 1 09/08/21 09/08/21 19:32 WB Chloromethane ND ug/m³ 0.63 0.16 1 09/08/21 09/08/21 19:32 WB Cyclohexane ND ug/m³ 0.69 0.17 1 09/08/21 09/08/21 19:32 WB Cyclohexane ND ug/m³ 1.30 0.33 1 09/08/21 09/08/21 19:32 WB Cyclohexane ND ug/m³ 1.40 0.35 1 09/08/21 09/08/21 19:32 WB L3-Dibromoethane (EDB) ND ug/m³ 1.40 0.35 1 09/08/21 09/08/21 19:32 WB L3-Dibromoethane (EDB) ND ug/m³ 1.20 0.30 1 09/08/21 09/08/21 19:32 WB L3-Dibromoethane ND ug/m³ 1.20 0.30 1 09/08/21 09/08/21 19:32 WB L3-Dibromoethane ND ug/m³ 1.20 0.30 1 09/08/21 09/08/21 09/08/21 WB L3-Dibromoethane ND ug/m³ 1.20 0.30 1 09/08/21 09/08/21 19:32 WB L3-Dibromoethane ND ug/m³ 0.99 0.99 1 09/08/21 09/08/21 19:32 WB L3-Dibromoethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB L3-Dibromoethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB L3-Dibromoethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB L3-Dibromoethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB L3-Dibromoethane ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB L3-Dibroroethane ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB L3-Dibroroethane ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB L3-Dibroroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB L3-Dibroroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB L3-Dibroroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB L3-Dibroroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB L3-Dibroroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB L3-Dibroroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB L3-Dibroroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB L3-Dibroroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB L3-Dibroroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB L3-Dibroroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/	Carbon disulfide	1.90		$ug/m^3$	1.56	1.56	1	09/08/21	09/08/21 19:32	WB
Chloroethane ND ug/m³ 0.53 0.27 1 09/08/21 09/08/21 19:32 WB Chloroform ND ug/m³ 0.97 0.24 1 09/08/21 09/08/21 19:32 WB Chloroform ND ug/m³ 0.41 0.10 1 09/08/21 09/08/21 19:32 WB Chloropropene ND ug/m³ 0.63 0.16 1 09/08/21 09/08/21 19:32 WB Cyclohexane ND ug/m³ 0.69 0.17 1 09/08/21 09/08/21 19:32 WB Cyclohexane ND ug/m³ 1.30 0.33 1 09/08/21 09/08/21 19:32 WB Cyclohexane ND ug/m³ 1.40 0.35 1 09/08/21 09/08/21 19:32 WB 1,2-Dichlorobenzene ND ug/m³ 1.20 0.30 1 09/08/21 09/08/21 19:32 WB 1,3-Dichlorobenzene ND ug/m³ 1.20 0.30 1 09/08/21 09/08/21 19:32 WB 1,3-Dichlorobenzene ND ug/m³ 1.20 0.30 1 09/08/21 09/08/21 19:32 WB 1,4-Dichlorobenzene ND ug/m³ 1.20 0.30 1 09/08/21 09/08/21 19:32 WB 1,1-Dichlorodifluoromethane ND ug/m³ 0.99 0.99 1 09/08/21 09/08/21 19:32 WB 1,1-Dichlorodifluoromethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.89 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.90 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.90 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.90 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.90 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.90 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.90 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.90 0.20 1 09/08/21 09/08/21 09/0	Carbon tetrachloride		J			0.33				
Chloroform ND ug/m³ 0.97 0.24 1 09/08/21 09/08/21 19:32 WB 1-12-0 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Chlorobenzene	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 19:32	WB
Chloromethane 1.26	Chloroethane	ND		ug/m³	0.53	0.27	1	09/08/21	09/08/21 19:32	
3-Chloropropene ND ug/m³ 0.63 0.16 1 09/08/21 19:32 WB Cyclohexane ND ug/m³ 0.69 0.17 1 09/08/21 09/08/21 19:32 WB Dibromochloromethane ND ug/m³ 1.30 0.33 1 09/08/21 09/08/21 19:32 WB 1,2-Dibromochlane (EDB) ND ug/m³ 1.40 0.35 1 09/08/21 09/08/21 19:32 WB 1,2-Dichlorobenzene ND ug/m³ 1.20 0.30 1 09/08/21 09/08/21 19:32 WB 1,3-Dichlorobenzene ND ug/m³ 1.20 0.30 1 09/08/21 09/08/21 19:32 WB 1,4-Dichlorobenzene ND ug/m³ 1.20 0.30 1 09/08/21 09/08/21 19:32 WB 1,4-Dichlorodifluoromethane 2.62 ug/m³ 0.99 0.99 1 09/08/21 09/08/21 19:32 WB 1,1-Dichlorothane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,2-Dichlorothane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichlorothane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichlorothane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichlorothane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichlorothane ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichlorothene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,2-Dichlorothene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,3-Dichlorothene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,3-Dichlorothene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,3-Dichlorothene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,3-Dichlorothene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,3-Dichlorothene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,3-Dichloropropene ND ug/m³ 0.72 0.18 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 0.90 0.20 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 0.90 0.20 1 09/08/21 09/08/21 19:32 WB	Chloroform	ND		ug/m³	0.97	0.24	1	09/08/21	09/08/21 19:32	WB
Cyclohexane ND ug/m³ 0.69 0.17 1 09/08/21 09/08/21 19:32 WB 1,2-Dibromochloromethane (EDB) ND ug/m³ 1.30 0.33 1 09/08/21 09/08/21 19:32 WB 1,2-Dichlorobenzene ND ug/m³ 1.20 0.30 1 09/08/21 09/08/21 19:32 WB 1,3-Dichlorobenzene ND ug/m³ 1.20 0.30 1 09/08/21 09/08/21 19:32 WB 1,3-Dichlorobenzene ND ug/m³ 1.20 0.30 1 09/08/21 09/08/21 19:32 WB 1,4-Dichlorobenzene ND ug/m³ 1.20 0.30 1 09/08/21 09/08/21 19:32 WB 1,4-Dichlorobenzene ND ug/m³ 0.99 0.99 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB cis-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,2-Dichloroptopene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,2-Dichloroptopene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,3-Dichloroptopene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,3-Dichloroptopene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,3-Dichloroptopene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 09/08/21 09/08/21 09/08/21 09/08/21 09/08/21 09/08/21 09/08/21 09/08/21 09/08/21 09/08/21 09/08/21 09/08/21 09/08/21 09/08/21 09/08/21 09/08/21 09/08/21 0	Chloromethane	1.26		ug/m³	0.41	0.10	1		09/08/21 19:32	
Dibromochloromethane   ND	3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/08/21	09/08/21 19:32	WB
1,2-Dibromoethane (EDB)   ND   ug/m³   1,40   0,35   1   09/08/21   09/08/21   932   WB     1,2-Dichlorobenzene   ND   ug/m³   1,20   0,30   1   09/08/21   09/08/21   1932   WB     1,3-Dichlorobenzene   ND   ug/m³   1,20   0,30   1   09/08/21   09/08/21   1932   WB     1,4-Dichlorobenzene   ND   ug/m³   1,20   0,30   1   09/08/21   09/08/21   1932   WB     1,4-Dichlorodifluoromethane   2,62   ug/m³   0,99   0,99   1   09/08/21   09/08/21   1932   WB     1,1-Dichloroethane   ND   ug/m³   0,81   0,20   1   09/08/21   09/08/21   1932   WB     1,2-Dichloroethane   ND   ug/m³   0,81   0,20   1   09/08/21   09/08/21   1932   WB     1,1-Dichloroethane   ND   ug/m³   0,81   0,20   1   09/08/21   09/08/21   1932   WB     1,1-Dichloroethene   ND   ug/m³   0,79   0,20   1   09/08/21   09/08/21   1932   WB     1,2-Dichloroethene   ND   ug/m³   0,79   0,20   1   09/08/21   09/08/21   1932   WB     1,2-Dichloroethene   ND   ug/m³   0,79   0,20   1   09/08/21   09/08/21   1932   WB     1,2-Dichloropropane   ND   ug/m³   0,79   0,20   1   09/08/21   09/08/21   1932   WB     1,2-Dichloropropane   ND   ug/m³   0,92   0,23   1   09/08/21   09/08/21   1932   WB     1,2-Dichloropropene   ND   ug/m³   0,91   0,23   1   09/08/21   09/08/21   1932   WB     1,4-Dioxane   ND   ug/m³   0,91   0,23   1   09/08/21   09/08/21   1932   WB     1,4-Dioxane   ND   ug/m³   0,72   0,18   1   09/08/21   09/08/21   1932   WB     1,4-Dioxane   ND   ug/m³   0,72   0,18   1   09/08/21   09/08/21   1932   WB     1,4-Dioxane   ND   ug/m³   0,72   0,18   1   09/08/21   09/08/21   1932   WB     1,4-Dioxane   ND   ug/m³   0,87   0,22   1   09/08/21   09/08/21   1932   WB     1,4-Dioxane   0,48   J ug/m³   0,87   0,22   1   09/08/21   09/08/21   1932   WB     1,4-Dioxane   0,48   J ug/m³   0,87   0,22   1   09/08/21   09/08/21   1932   WB     1,4-Dioxane   0,48   J ug/m³   0,98   0,25   1   09/08/21   09/08/21   1932   WB	Cyclohexane	ND		ug/m³	0.69	0.17	1	09/08/21	09/08/21 19:32	WB
1,2-Dichlorobenzene       ND       ug/m³       1,20       0,30       1       09/08/21       09/08/21       19:32       WB         1,3-Dichlorobenzene       ND       ug/m³       1,20       0,30       1       09/08/21       09/08/21       19:32       WB         1,4-Dichlorobenzene       ND       ug/m³       1,20       0,30       1       09/08/21       09/08/21       19:32       WB         Dichlorodifluoromethane       2,62       ug/m³       0,99       0,99       1       09/08/21       09/08/21       19:32       WB         1,1-Dichloroethane       ND       ug/m³       0,81       0,20       1       09/08/21       09/08/21       19:32       WB         1,2-Dichloroethane       ND       ug/m³       0,81       0,20       1       09/08/21       09/08/21       19:32       WB         1,1-Dichloroethane       ND       ug/m³       0,79       0,20       1       09/08/21       09/08/21       19:32       WB         1,2-Dichloroethene       ND       ug/m³       0,79       0,20       1       09/08/21       09/08/21       19:32       WB         trans-1,2-Dichloropropane       ND       ug/m³       0,99       0,20       <	Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/08/21	09/08/21 19:32	WB
1,3-Dichlorobenzene         ND         ug/m³         1.20         0.30         1         09/08/21         09/08/21 19:32         WB           1,4-Dichlorobenzene         ND         ug/m³         1.20         0.30         1         09/08/21         09/08/21 19:32         WB           Dichlorodifluoromethane         2.62         ug/m³         0.99         0.99         1         09/08/21         09/08/21 19:32         WB           1,1-Dichloroethane         ND         ug/m³         0.81         0.20         1         09/08/21         09/08/21 19:32         WB           1,2-Dichloroethane         ND         ug/m³         0.81         0.20         1         09/08/21         09/08/21 19:32         WB           1,1-Dichloroethene         ND         ug/m³         0.81         0.20         1         09/08/21         09/08/21 19:32         WB           1,1-Dichloroethene         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 19:32         WB           cis-1,2-Dichloroethene         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 19:32         WB           trans-1,2-Dichloropropene         ND         ug/m³         0.92	1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 19:32	WB
1,4-Dichlorobenzene ND ug/m³ 1.20 0.30 1 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,2-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB cis-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,2-Dichloropropane ND ug/m³ 0.92 0.23 1 09/08/21 09/08/21 19:32 WB cis-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 1 09/08/21 09/08/21 19:32 WB Ethyl acetate ND ug/m³ 3.60 3.60 1 09/08/21 09/08/21 19:32 WB Ethyl acetate ND ug/m³ 0.87 0.22 1 09/08/21 09/08/21 19:32 WB Ethyl acetate ND ug/m³ 0.87 0.22 1 09/08/21 09/08/21 19:32 WB Ethyl benzene 0.48 J ug/m³ 0.87 0.22 1 09/08/21 09/08/21 19:32 WB Ethyl benzene 0.69 J ug/m³ 0.98 0.25 1 09/08/21 09/08/21 19:32 WB	1,2-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 19:32	WB
Dichlorodifluoromethane         2.62         ug/m³         0.99         0.99         1         09/08/21         09/08/21 19:32         WB           1,1-Dichloroethane         ND         ug/m³         0.81         0.20         1         09/08/21         09/08/21 19:32         WB           1,2-Dichloroethane         ND         ug/m³         0.81         0.20         1         09/08/21         09/08/21 19:32         WB           1,1-Dichloroethane         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 19:32         WB           cis-1,2-Dichloroethene         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 19:32         WB           trans-1,2-Dichloroethene         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 19:32         WB           1,2-Dichloropropane         ND         ug/m³         0.92         0.23         1         09/08/21         09/08/21 19:32         WB           cis-1,3-Dichloropropene         ND         ug/m³         0.91         0.23         1         09/08/21         09/08/21 19:32         WB           trans-1,3-Dichloropropene         ND         ug/m³         0.	1,3-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 19:32	WB
1,1-Dichloroethane         ND         ug/m³         0.81         0.20         1         09/08/21         09/08/21 19:32         WB           1,2-Dichloroethane         ND         ug/m³         0.81         0.20         1         09/08/21         09/08/21 19:32         WB           1,1-Dichloroethane         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 19:32         WB           cis-1,2-Dichloroethane         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 19:32         WB           trans-1,2-Dichloroethane         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 19:32         WB           1,2-Dichloroethane         ND         ug/m³         0.79         0.20         1         09/08/21         09/08/21 19:32         WB           1,2-Dichloroptopane         ND         ug/m³         0.92         0.23         1         09/08/21         09/08/21 19:32         WB           cis-1,3-Dichloroptopane         ND         ug/m³         0.91         0.23         1         09/08/21         09/08/21 19:32         WB           ttrans-1,3-Dichloroptopane         ND         ug/m³         0.91 <td>1,4-Dichlorobenzene</td> <td>ND</td> <td></td> <td>ug/m³</td> <td>1.20</td> <td>0.30</td> <td>1</td> <td>09/08/21</td> <td>09/08/21 19:32</td> <td>WB</td>	1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 19:32	WB
1,2-Dichloroethane ND ug/m³ 0.81 0.20 1 09/08/21 09/08/21 19:32 WB 1,1-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB cis-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 19:32 WB trans-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 19:32 WB 1,2-Dichloroptopane ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,2-Dichloropropane ND ug/m³ 0.92 0.23 1 09/08/21 09/08/21 19:32 WB cis-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 1 09/08/21 09/08/21 19:32 WB Ethyl acetate ND ug/m³ 0.67 0.72 0.18 1 09/08/21 09/08/21 19:32 WB Ethyl acetate ND ug/m³ 0.87 0.22 1 09/08/21 09/08/21 19:32 WB 4-Ethyl oliene 0.69 J ug/m³ 0.98 0.25 1 09/08/21 09/08/21 19:32 WB	Dichlorodifluoromethane	2.62		ug/m³	0.99	0.99	1	09/08/21	09/08/21 19:32	WB
1,1-Dichloroethene       ND       ug/m³       0.79       0.20       1       09/08/21       09/08/21 19:32       WB         cis-1,2-Dichloroethene       ND       ug/m³       0.79       0.20       1       09/08/21       09/08/21 19:32       WB         trans-1,2-Dichloroethene       ND       ug/m³       0.79       0.20       1       09/08/21       09/08/21 19:32       WB         1,2-Dichloropropane       ND       ug/m³       0.92       0.23       1       09/08/21       09/08/21 19:32       WB         cis-1,3-Dichloropropene       ND       ug/m³       0.91       0.23       1       09/08/21       09/08/21 19:32       WB         trans-1,3-Dichloropropene       ND       ug/m³       0.91       0.23       1       09/08/21       09/08/21 19:32       WB         1,4-Dioxane       ND       ug/m³       0.72       0.18       1       09/08/21       09/08/21 19:32       WB         Ethylacetate       ND       ug/m³       0.87       0.22       1       09/08/21       09/08/21 19:32       WB         Ethylbenzene       0.48       J       ug/m³       0.87       0.22       1       09/08/21       09/08/21 19:32       WB         4-E	1,1-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/08/21	09/08/21 19:32	WB
cis-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB trans-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,2-Dichloropropane ND ug/m³ 0.92 0.23 1 09/08/21 09/08/21 19:32 WB cis-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 1 09/08/21 09/08/21 19:32 WB Ethyl acetate ND ug/m³ 3.60 3.60 1 09/08/21 09/08/21 19:32 WB Ethyl acetate ND ug/m³ 0.87 0.22 1 09/08/21 09/08/21 19:32 WB 4-Ethyltoluene 0.69 J ug/m³ 0.98 0.25 1 09/08/21 09/08/21 19:32 WB	1,2-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/08/21	09/08/21 19:32	WB
trans-1,2-Dichloroptopene ND ug/m³ 0.79 0.20 1 09/08/21 09/08/21 19:32 WB 1,2-Dichloroptopene ND ug/m³ 0.92 0.23 1 09/08/21 09/08/21 19:32 WB cis-1,3-Dichloroptopene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB trans-1,3-Dichloroptopene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB Ethyl acetate ND ug/m³ 0.72 0.18 1 09/08/21 09/08/21 19:32 WB Ethyl acetate ND ug/m³ 3.60 3.60 1 09/08/21 09/08/21 19:32 WB Ethyl acetate ND ug/m³ 0.87 0.22 1 09/08/21 09/08/21 19:32 WB 4-Ethyl toluene 0.69 J ug/m³ 0.98 0.25 1 09/08/21 09/08/21 19:32 WB	1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 19:32	WB
1,2-Dichloropropane ND ug/m³ 0.92 0.23 1 09/08/21 09/08/21 19:32 WB cis-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 1 09/08/21 09/08/21 19:32 WB Ethyl acetate ND ug/m³ 3.60 3.60 1 09/08/21 09/08/21 19:32 WB Ethylbenzene 0.48 J ug/m³ 0.87 0.22 1 09/08/21 09/08/21 19:32 WB 4-Ethyltoluene 0.69 J ug/m³ 0.98 0.25 1 09/08/21 09/08/21 19:32 WB	cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 19:32	WB
cis-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 1 09/08/21 09/08/21 19:32 WB Ethyl acetate ND ug/m³ 3.60 3.60 1 09/08/21 09/08/21 19:32 WB Ethylbenzene 0.48 J ug/m³ 0.87 0.22 1 09/08/21 09/08/21 19:32 WB 4-Ethyltoluene 0.69 J ug/m³ 0.98 0.25 1 09/08/21 09/08/21 19:32 WB	trans-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/08/21	09/08/21 19:32	WB
trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/08/21 09/08/21 19:32 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 1 09/08/21 09/08/21 19:32 WB Ethyl acetate ND ug/m³ 3.60 3.60 1 09/08/21 09/08/21 19:32 WB Ethylbenzene 0.48 J ug/m³ 0.87 0.22 1 09/08/21 09/08/21 19:32 WB 4-Ethyltoluene 0.69 J ug/m³ 0.98 0.25 1 09/08/21 09/08/21 19:32 WB	1,2-Dichloropropane	ND		$ug/m^3$	0.92	0.23	1	09/08/21	09/08/21 19:32	WB
1,4-Dioxane         ND         ug/m³         0.72         0.18         1         09/08/21         09/08/21 19:32         WB           Ethyl acetate         ND         ug/m³         3.60         3.60         1         09/08/21         09/08/21 19:32         WB           Ethylbenzene         0.48         J         ug/m³         0.87         0.22         1         09/08/21         09/08/21 19:32         WB           4-Ethyltoluene         0.69         J         ug/m³         0.98         0.25         1         09/08/21         09/08/21 19:32         WB	cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 19:32	WB
Ethyl acetate ND ug/m³ 3.60 3.60 1 09/08/21 09/08/21 19:32 WB  Ethylbenzene 0.48 J ug/m³ 0.87 0.22 1 09/08/21 09/08/21 19:32 WB  4-Ethyltoluene 0.69 J ug/m³ 0.98 0.25 1 09/08/21 09/08/21 19:32 WB	trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 19:32	WB
Ethyl acetate         ND         ug/m³         3.60         3.60         1         09/08/21         09/08/21 19:32         WB           Ethylbenzene         0.48         J         ug/m³         0.87         0.22         1         09/08/21         09/08/21 19:32         WB           4-Ethyltoluene         0.69         J         ug/m³         0.98         0.25         1         09/08/21         09/08/21 19:32         WB	1,4-Dioxane	ND		ug/m³	0.72	0.18	1	09/08/21	09/08/21 19:32	WB
Ethylbenzene         0.48         J         ug/m³         0.87         0.22         1         09/08/21         09/08/21         19:32         WB           4-Ethyltoluene         0.69         J         ug/m³         0.98         0.25         1         09/08/21         09/08/21         19:32         WB	Ethyl acetate	ND		ug/m³	3.60		1	09/08/21	09/08/21 19:32	WB
<b>4-Ethyltoluene 0.69</b> J ug/m³ 0.98 0.25 1 09/08/21 09/08/21 19:32 WB	Ethylbenzene	0.48	J	ug/m³			1	09/08/21	09/08/21 19:32	WB
·	4-Ethyltoluene		J	_			1	09/08/21	09/08/21 19:32	WB
	Freon 113	0.54	J	$ug/m^3$	1.50	0.38	1	09/08/21	09/08/21 19:32	WB

Palacka Koms

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.



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**

nelso IN ACCORDANCE

1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - GYM 21090701-006 1090814-06 (Vapor) Sample Date: 09/03/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
<b>Volatile Organics by EPA TO-15 (G</b>	C/MS) Pi	repared by	y TO-15 I	Prep (continued)					
Freon 114	ND		$ug/m^3$	1.40	1.40	1	09/08/21	09/08/21 19:32	WB
n-Heptane	0.37	J	$ug/m^3$	0.82	0.21	1	09/08/21	09/08/21 19:32	WB
Hexachlorobutadiene	ND		$ug/m^3$	2.10	2.10	1	09/08/21	09/08/21 19:32	WB
Hexane	ND		$ug/m^3$	14.0	14.0	1	09/08/21	09/08/21 19:32	WB
2-Hexanone	ND		$ug/m^3$	0.82	0.15	1	09/08/21	09/08/21 19:32	WB
Isopropylbenzene (Cumene)	ND		$ug/m^3$	1.10	0.40	1	09/08/21	09/08/21 19:32	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/08/21	09/08/21 19:32	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	09/08/21	09/08/21 19:32	WB
Methyl ethyl ketone (2-Butanone)	1.27		ug/m³	0.59	0.34	1	09/08/21	09/08/21 19:32	WB
Methyl isobutyl ketone	ND		$ug/m^3$	0.82	0.82	1	09/08/21	09/08/21 19:32	WB
Naphthalene	ND		$ug/m^3$	1.10	0.70	1	09/08/21	09/08/21 19:32	WB
Propene	ND		$ug/m^3$	0.34	0.34	1	09/08/21	09/08/21 19:32	WB
n-Propylbenzene	ND		$ug/m^3$	0.98	0.40	1	09/08/21	09/08/21 19:32	WB
Styrene	ND		ug/m³	0.85	0.15	1	09/08/21	09/08/21 19:32	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 19:32	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	09/08/21	09/08/21 19:32	WB
Tetrahydrofuran	0.27	J	ug/m³	0.59	0.15	1	09/08/21	09/08/21 19:32	WB
Toluene	1.17		$ug/m^3$	0.75	0.35	1	09/08/21	09/08/21 19:32	WB
1,2,4-Trichlorobenzene	ND		$ug/m^3$	1.50	0.38	1	09/08/21	09/08/21 19:32	WB
1,1,1-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/08/21	09/08/21 19:32	WB
1,1,2-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/08/21	09/08/21 19:32	WB
Trichloroethene	ND		$ug/m^3$	1.10	0.28	1	09/08/21	09/08/21 19:32	WB
Trichlorofluoromethane (Freon 11)	1.52		$ug/m^3$	1.10	0.28	1	09/08/21	09/08/21 19:32	WB
1,2,4-Trimethylbenzene	1.43		$ug/m^3$	0.98	0.25	1	09/08/21	09/08/21 19:32	WB
1,3,5-Trimethylbenzene	0.34	J	$ug/m^3$	0.98	0.25	1	09/08/21	09/08/21 19:32	WB
2,2,4-Trimethylpentane	0.33	J	ug/m³	0.93	0.23	1	09/08/21	09/08/21 19:32	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	09/08/21	09/08/21 19:32	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 19:32	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	09/08/21	09/08/21 19:32	WB
o-Xylene	0.56	J	ug/m³	0.87	0.22	1	09/08/21	09/08/21 19:32	WB
m- & p-Xylenes	1.52	J	ug/m³	1.70	0.43	1	09/08/21	09/08/21 19:32	WB
Surrogate: 4-Bromofluorobenzene		73	3-115	98 %	09/08/21	!	09/08/21 19:32		

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.



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - LIBRARY 21090701-007 1090814-07 (Vapor) Sample Date: 09/03/21

				Sample Date: 0.						
	<b>D</b> 1:	37.	TT 1.	Reporting	Detection	D'1 -:	D 1			
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst	
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep										
Acetone	13.5	_	ug/m³	2.40	2.40	1	09/08/21	09/08/21 20:06	WB	
Benzene	0.38	J	ug/m³	0.64	0.16	1	09/08/21	09/08/21 20:06	WB	
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/08/21	09/08/21 20:06	WB	
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	09/08/21	09/08/21 20:06	WB	
Bromoform	ND		ug/m³	2.10	0.53	1	09/08/21	09/08/21 20:06	WB	
Bromomethane	ND		ug/m³	0.78	0.20	1	09/08/21	09/08/21 20:06	WB	
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	09/08/21	09/08/21 20:06	WB	
Carbon disulfide	ND		ug/m³	1.56	1.56	1	09/08/21	09/08/21 20:06	WB	
Carbon tetrachloride	0.57	J	ug/m³	1.30	0.33	1	09/08/21	09/08/21 20:06	WB	
Chlorobenzene	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 20:06	WB	
Chloroethane	ND		$ug/m^3$	0.53	0.27	1	09/08/21	09/08/21 20:06	WB	
Chloroform	ND		$ug/m^3$	0.97	0.24	1	09/08/21	09/08/21 20:06	WB	
Chloromethane	1.07		ug/m³	0.41	0.10	1	09/08/21	09/08/21 20:06	WB	
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/08/21	09/08/21 20:06	WB	
Cyclohexane	ND		ug/m³	0.69	0.17	1	09/08/21	09/08/21 20:06	WB	
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/08/21	09/08/21 20:06	WB	
1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 20:06	WB	
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 20:06	WB	
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 20:06	WB	
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 20:06	WB	
Dichlorodifluoromethane	2.72		ug/m³	0.99	0.99	1	09/08/21	09/08/21 20:06	WB	
1,1-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/08/21	09/08/21 20:06	WB	
1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/08/21	09/08/21 20:06	WB	
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 20:06	WB	
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 20:06	WB	
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 20:06	WB	
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 20:06	WB	
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 20:06	WB	
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 20:06	WB	
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	09/08/21	09/08/21 20:06	WB	
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/08/21	09/08/21 20:06	WB	
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 20:06	WB	
4-Ethyltoluene	ND ND		ug/m³	0.87	0.25	1	09/08/21	09/08/21 20:06	WB	
•	0.61	J	ug/m³		0.23	1	09/08/21	09/08/21 20:06	WB	
Freon 113	0.61	J	ug/III-	1.50	0.38	1	09/08/21	09/06/21 20:00	WD	

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.

Rabecka Koons, Quality Assurance Officer



### **Analytical Results**

1500 Caton Center Dr Suite G **Baltimore MD 21227** 410-247-7600 www.mdspectral.com

> Reported: 09/10/21 12:44

Project Number: [none] Project Manager: Amber Confer

> **GW - LIBRARY** 21090701-007 1090814-07 (Vapor) Sample Date: 09/03/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (C	GC/MS) Pi	repared by	y TO-15 P	rep (continued)					
Freon 114	ND		ug/m³	1.40	1.40	1	09/08/21	09/08/21 20:06	WB
n-Heptane	ND		ug/m³	0.82	0.21	1	09/08/21	09/08/21 20:06	WB
Hexachlorobutadiene	ND		ug/m³	2.10	2.10	1	09/08/21	09/08/21 20:06	WB
Hexane	ND		ug/m³	14.0	14.0	1	09/08/21	09/08/21 20:06	WB
2-Hexanone	ND		ug/m³	0.82	0.15	1	09/08/21	09/08/21 20:06	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	09/08/21	09/08/21 20:06	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/08/21	09/08/21 20:06	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	09/08/21	09/08/21 20:06	WB
Methyl ethyl ketone (2-Butanone)	0.94		ug/m³	0.59	0.34	1	09/08/21	09/08/21 20:06	WB
Methyl isobutyl ketone	ND		$ug/m^3$	0.82	0.82	1	09/08/21	09/08/21 20:06	WB
Naphthalene	ND		$ug/m^3$	1.10	0.70	1	09/08/21	09/08/21 20:06	WB
Propene	ND		ug/m³	0.34	0.34	1	09/08/21	09/08/21 20:06	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/08/21	09/08/21 20:06	WB
Styrene	ND		ug/m³	0.85	0.15	1	09/08/21	09/08/21 20:06	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 20:06	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	09/08/21	09/08/21 20:06	WB
Tetrahydrofuran	ND		ug/m³	0.59	0.15	1	09/08/21	09/08/21 20:06	WB
Toluene	0.75		ug/m³	0.75	0.35	1	09/08/21	09/08/21 20:06	WB
1,2,4-Trichlorobenzene	ND		$ug/m^3$	1.50	0.38	1	09/08/21	09/08/21 20:06	WB
1,1,1-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/08/21	09/08/21 20:06	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 20:06	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 20:06	WB
Trichlorofluoromethane (Freon 11)	1.40		ug/m³	1.10	0.28	1	09/08/21	09/08/21 20:06	WB
1,2,4-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 20:06	WB
1,3,5-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/08/21	09/08/21 20:06	WB
2,2,4-Trimethylpentane	0.33	J	$ug/m^3$	0.93	0.23	1	09/08/21	09/08/21 20:06	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	09/08/21	09/08/21 20:06	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 20:06	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	09/08/21	09/08/21 20:06	WB
o-Xylene	ND		$ug/m^3$	0.87	0.22	1	09/08/21	09/08/21 20:06	WB
m- & p-Xylenes	ND		ug/m³	1.70	0.43	1	09/08/21	09/08/21 20:06	WB
Surrogate: 4-Bromofluorobenzene		73	R-115	99 %	09/08/21	!	09/08/21 20:06		

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.

Rabecka Koons, Quality Assurance Officer



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**

enela de

1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - OUTDOOR 21090701-008 1090814-08 (Vapor) Sample Date: 09/03/21

Sample Date: 09/03/21												
				Reporting	Detection							
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst			
Volatile Organics by EPA TO-1	15 (GC/MS) P	repared by	y TO-15 F	rep								
Acetone	12.2		$ug/m^3$	2.40	2.40	1	09/08/21	09/08/21 20:41	WB			
Benzene	0.45	J	ug/m³	0.64	0.16	1	09/08/21	09/08/21 20:41	WB			
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/08/21	09/08/21 20:41	WB			
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	09/08/21	09/08/21 20:41	WB			
Bromoform	ND		ug/m³	2.10	0.53	1	09/08/21	09/08/21 20:41	WB			
Bromomethane	ND		$ug/m^3$	0.78	0.20	1	09/08/21	09/08/21 20:41	WB			
1,3-Butadiene	ND		$ug/m^3$	0.44	0.44	1	09/08/21	09/08/21 20:41	WB			
Carbon disulfide	ND		$ug/m^3$	1.56	1.56	1	09/08/21	09/08/21 20:41	WB			
Carbon tetrachloride	0.50	J	$ug/m^3$	1.30	0.33	1	09/08/21	09/08/21 20:41	WB			
Chlorobenzene	ND		$ug/m^3$	0.92	0.23	1	09/08/21	09/08/21 20:41	WB			
Chloroethane	ND		$ug/m^3$	0.53	0.27	1	09/08/21	09/08/21 20:41	WB			
Chloroform	0.29	J	$ug/m^3$	0.97	0.24	1	09/08/21	09/08/21 20:41	WB			
Chloromethane	1.14		$ug/m^3$	0.41	0.10	1	09/08/21	09/08/21 20:41	WB			
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/08/21	09/08/21 20:41	WB			
Cyclohexane	ND		ug/m³	0.69	0.17	1	09/08/21	09/08/21 20:41	WB			
Dibromochloromethane	ND		$ug/m^3$	1.30	0.33	1	09/08/21	09/08/21 20:41	WB			
1,2-Dibromoethane (EDB)	ND		$ug/m^3$	1.40	0.35	1	09/08/21	09/08/21 20:41	WB			
1,2-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 20:41	WB			
1,3-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 20:41	WB			
1,4-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 20:41	WB			
Dichlorodifluoromethane	2.67		ug/m³	0.99	0.99	1	09/08/21	09/08/21 20:41	WB			
1,1-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/08/21	09/08/21 20:41	WB			
1,2-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/08/21	09/08/21 20:41	WB			
1,1-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/08/21	09/08/21 20:41	WB			
cis-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/08/21	09/08/21 20:41	WB			
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 20:41	WB			
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 20:41	WB			
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 20:41	WB			
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 20:41	WB			
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	09/08/21	09/08/21 20:41	WB			
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/08/21	09/08/21 20:41	WB			
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 20:41	WB			
4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 20:41	WB			
Freon 113	0.61	J	ug/m³	1.50	0.38	1	09/08/21	09/08/21 20:41	WB			

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.



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - OUTDOOR 21090701-008 1090814-08 (Vapor) Sample Date: 09/03/21

				Sample Date: 05					
				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (C	GC/MS) Pi	repared b	<u>y TO-15 I</u>	Prep (continued)					
Freon 114	ND		ug/m³	1.40	1.40	1	09/08/21	09/08/21 20:41	WB
n-Heptane	ND		ug/m³	0.82	0.21	1	09/08/21	09/08/21 20:41	WB
Hexachlorobutadiene	ND		$ug/m^3$	2.10	2.10	1	09/08/21	09/08/21 20:41	WB
Hexane	ND		ug/m³	14.0	14.0	1	09/08/21	09/08/21 20:41	WB
2-Hexanone	ND		ug/m³	0.82	0.15	1	09/08/21	09/08/21 20:41	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	09/08/21	09/08/21 20:41	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/08/21	09/08/21 20:41	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	09/08/21	09/08/21 20:41	WB
Methyl ethyl ketone (2-Butanone)	0.97		ug/m³	0.59	0.34	1	09/08/21	09/08/21 20:41	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	09/08/21	09/08/21 20:41	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	09/08/21	09/08/21 20:41	WB
Propene	ND		ug/m³	0.34	0.34	1	09/08/21	09/08/21 20:41	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/08/21	09/08/21 20:41	WB
Styrene	ND		ug/m³	0.85	0.15	1	09/08/21	09/08/21 20:41	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 20:41	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	09/08/21	09/08/21 20:41	WB
Tetrahydrofuran	ND		ug/m³	0.59	0.15	1	09/08/21	09/08/21 20:41	WB
Toluene	0.83		ug/m³	0.75	0.35	1	09/08/21	09/08/21 20:41	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	09/08/21	09/08/21 20:41	WB
1,1,1-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 20:41	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 20:41	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 20:41	WB
Trichlorofluoromethane (Freon 11)	1.57		ug/m³	1.10	0.28	1	09/08/21	09/08/21 20:41	WB
1,2,4-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 20:41	WB
1,3,5-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 20:41	WB
2,2,4-Trimethylpentane	0.28	J	ug/m³	0.93	0.23	1	09/08/21	09/08/21 20:41	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	09/08/21	09/08/21 20:41	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 20:41	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	09/08/21	09/08/21 20:41	WB
o-Xylene	ND		$ug/m^3$	0.87	0.22	1	09/08/21	09/08/21 20:41	WB
m- & p-Xylenes	ND		ug/m³	1.70	0.43	1	09/08/21	09/08/21 20:41	WB
Surrogate: 4-Bromofluorobenzene		7.	3-115	98 %	09/08/21		09/08/21 20:41		

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.



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - CLASS A212 21090701-009 1090814-09 (Vapor) Sample Date: 09/03/21

				Reporting	Detection					
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst	
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep										
Acetone	13.4		ug/m³	2.40	2.40	1	09/08/21	09/08/21 21:15	WB	
Benzene	0.42	J	ug/m³	0.64	0.16	1	09/08/21	09/08/21 21:15	WB	
Benzyl chloride	ND		$ug/m^3$	1.00	0.25	1	09/08/21	09/08/21 21:15	WB	
Bromodichloromethane	ND		$ug/m^3$	1.30	0.33	1	09/08/21	09/08/21 21:15	WB	
Bromoform	ND		$ug/m^3$	2.10	0.53	1	09/08/21	09/08/21 21:15	WB	
Bromomethane	ND		ug/m³	0.78	0.20	1	09/08/21	09/08/21 21:15	WB	
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	09/08/21	09/08/21 21:15	WB	
Carbon disulfide	ND		ug/m³	1.56	1.56	1	09/08/21	09/08/21 21:15	WB	
Carbon tetrachloride	0.50	J	ug/m³	1.30	0.33	1	09/08/21	09/08/21 21:15	WB	
Chlorobenzene	ND		$ug/m^3$	0.92	0.23	1	09/08/21	09/08/21 21:15	WB	
Chloroethane	ND		$ug/m^3$	0.53	0.27	1	09/08/21	09/08/21 21:15	WB	
Chloroform	0.24	J	$ug/m^3$	0.97	0.24	1	09/08/21	09/08/21 21:15	WB	
Chloromethane	1.09		ug/m³	0.41	0.10	1	09/08/21	09/08/21 21:15	WB	
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/08/21	09/08/21 21:15	WB	
Cyclohexane	ND		ug/m³	0.69	0.17	1	09/08/21	09/08/21 21:15	WB	
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/08/21	09/08/21 21:15	WB	
1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 21:15	WB	
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 21:15	WB	
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 21:15	WB	
1,4-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 21:15	WB	
Dichlorodifluoromethane	2.72		$ug/m^3$	0.99	0.99	1	09/08/21	09/08/21 21:15	WB	
1,1-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/08/21	09/08/21 21:15	WB	
1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/08/21	09/08/21 21:15	WB	
1,1-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/08/21	09/08/21 21:15	WB	
cis-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/08/21	09/08/21 21:15	WB	
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 21:15	WB	
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 21:15	WB	
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 21:15	WB	
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 21:15	WB	
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	09/08/21	09/08/21 21:15	WB	
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/08/21	09/08/21 21:15	WB	
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 21:15	WB	
4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 21:15	WB	
Freon 113	0.61	J	ug/m³	1.50	0.38	1	09/08/21	09/08/21 21:15	WB	

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.

Rabecka Koons, Quality Assurance Officer



Project Manager: Amber Confer

Project Number: [none]

### **Analytical Results**

enela C

1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - CLASS A212 21090701-009 1090814-09 (Vapor) Sample Date: 09/03/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
<b>Volatile Organics by EPA TO-15 (C</b>	GC/MS) Pi	repared b	y TO-15 F	rep (continued)					
Freon 114	ND		$ug/m^3$	1.40	1.40	1	09/08/21	09/08/21 21:15	WB
n-Heptane	ND		ug/m³	0.82	0.21	1	09/08/21	09/08/21 21:15	WB
Hexachlorobutadiene	ND		ug/m³	2.10	2.10	1	09/08/21	09/08/21 21:15	WB
Hexane	ND		ug/m³	14.0	14.0	1	09/08/21	09/08/21 21:15	WB
2-Hexanone	ND		ug/m³	0.82	0.15	1	09/08/21	09/08/21 21:15	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	09/08/21	09/08/21 21:15	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/08/21	09/08/21 21:15	WB
Methylene chloride	18.4	L	ug/m³	18.0	18.0	1	09/08/21	09/08/21 21:15	WB
Methyl ethyl ketone (2-Butanone)	1.03		ug/m³	0.59	0.34	1	09/08/21	09/08/21 21:15	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	09/08/21	09/08/21 21:15	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	09/08/21	09/08/21 21:15	WB
Propene	ND		ug/m³	0.34	0.34	1	09/08/21	09/08/21 21:15	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/08/21	09/08/21 21:15	WB
Styrene	ND		ug/m³	0.85	0.15	1	09/08/21	09/08/21 21:15	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 21:15	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	09/08/21	09/08/21 21:15	WB
Tetrahydrofuran	0.59	J	ug/m³	0.59	0.15	1	09/08/21	09/08/21 21:15	WB
Toluene	0.83		ug/m³	0.75	0.35	1	09/08/21	09/08/21 21:15	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	09/08/21	09/08/21 21:15	WB
1,1,1-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 21:15	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 21:15	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 21:15	WB
Trichlorofluoromethane (Freon 11)	1.80		ug/m³	1.10	0.28	1	09/08/21	09/08/21 21:15	WB
1,2,4-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 21:15	WB
1,3,5-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 21:15	WB
2,2,4-Trimethylpentane	0.28	J	ug/m³	0.93	0.23	1	09/08/21	09/08/21 21:15	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	09/08/21	09/08/21 21:15	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 21:15	WB
Vinyl chloride	ND		$ug/m^3$	0.51	0.13	1	09/08/21	09/08/21 21:15	WB
o-Xylene	ND		$ug/m^3$	0.87	0.22	1	09/08/21	09/08/21 21:15	WB
m- & p-Xylenes	ND		ug/m³	1.70	0.43	1	09/08/21	09/08/21 21:15	WB
Surrogate: 4-Bromofluorobenzene		7	3-115	98 %	09/08/21		09/08/21 21:15		

ecka Koms

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.



Project Manager: Amber Confer

Project Number: [none]

## **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - AUDITORIUM 21090701-010 1090814-10 (Vapor) Sample Date: 09/03/21

Sample Date: 07/03/21											
	<b>5</b> . •	NT 4	TT	Reporting	Detection	D31 - 2	D 1				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst		
Volatile Organics by EPA TO-		epared by									
Acetone	12.2	_	ug/m³	2.40	2.40	1	09/08/21	09/08/21 21:49	WB		
Benzene	0.42	J	ug/m³	0.64	0.16	1	09/08/21	09/08/21 21:49	WB		
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/08/21	09/08/21 21:49	WB		
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	09/08/21	09/08/21 21:49	WB		
Bromoform	ND		ug/m³	2.10	0.53	1	09/08/21	09/08/21 21:49	WB		
Bromomethane	ND		ug/m³	0.78	0.20	1	09/08/21	09/08/21 21:49	WB		
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	09/08/21	09/08/21 21:49	WB		
Carbon disulfide	ND		ug/m³	1.56	1.56	1	09/08/21	09/08/21 21:49	WB		
Carbon tetrachloride	0.50	J	ug/m³	1.30	0.33	1	09/08/21	09/08/21 21:49	WB		
Chlorobenzene	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 21:49	WB		
Chloroethane	ND		$ug/m^3$	0.53	0.27	1	09/08/21	09/08/21 21:49	WB		
Chloroform	ND		$ug/m^3$	0.97	0.24	1	09/08/21	09/08/21 21:49	WB		
Chloromethane	1.14		ug/m³	0.41	0.10	1	09/08/21	09/08/21 21:49	WB		
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/08/21	09/08/21 21:49	WB		
Cyclohexane	ND		ug/m³	0.69	0.17	1	09/08/21	09/08/21 21:49	WB		
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/08/21	09/08/21 21:49	WB		
1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 21:49	WB		
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 21:49	WB		
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 21:49	WB		
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 21:49	WB		
Dichlorodifluoromethane	2.72		ug/m³	0.99	0.99	1	09/08/21	09/08/21 21:49	WB		
1,1-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/08/21	09/08/21 21:49	WB		
1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/08/21	09/08/21 21:49	WB		
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 21:49	WB		
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 21:49	WB		
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 21:49	WB		
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 21:49	WB		
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 21:49	WB		
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 21:49	WB		
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	09/08/21	09/08/21 21:49	WB		
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/08/21	09/08/21 21:49	WB		
Ethylbenzene	ND ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 21:49	WB		
4-Ethyltoluene	ND ND		ug/m³	0.87	0.25	1	09/08/21	09/08/21 21:49	WB		
	0.54	J	ug/m³		0.23	1	09/08/21	09/08/21 21:49	WB		
Freon 113	0.54	J	ug/III-	1.50	0.38	1	09/06/21	09/06/21 21:49	WD		

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.

Rabecka Koons, Quality Assurance Officer

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



Project Manager: Amber Confer

Project Number: [none]

## **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - AUDITORIUM 21090701-010 1090814-10 (Vapor) Sample Date: 09/03/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
<b>Volatile Organics by EPA TO-15 (G</b>	GC/MS) Pr	epared b	y TO-15 P	rep (continued)					
Freon 114	ND		ug/m³	1.40	1.40	1	09/08/21	09/08/21 21:49	WB
n-Heptane	ND		ug/m³	0.82	0.21	1	09/08/21	09/08/21 21:49	WB
Hexachlorobutadiene	ND		ug/m³	2.10	2.10	1	09/08/21	09/08/21 21:49	WB
Hexane	ND		ug/m³	14.0	14.0	1	09/08/21	09/08/21 21:49	WB
2-Hexanone	ND		ug/m³	0.82	0.15	1	09/08/21	09/08/21 21:49	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	09/08/21	09/08/21 21:49	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/08/21	09/08/21 21:49	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	09/08/21	09/08/21 21:49	WB
Methyl ethyl ketone (2-Butanone)	0.80		ug/m³	0.59	0.34	1	09/08/21	09/08/21 21:49	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	09/08/21	09/08/21 21:49	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	09/08/21	09/08/21 21:49	WB
Propene	ND		ug/m³	0.34	0.34	1	09/08/21	09/08/21 21:49	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/08/21	09/08/21 21:49	WB
Styrene	ND		ug/m³	0.85	0.15	1	09/08/21	09/08/21 21:49	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 21:49	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	09/08/21	09/08/21 21:49	WB
Tetrahydrofuran	ND		ug/m³	0.59	0.15	1	09/08/21	09/08/21 21:49	WB
Toluene	0.83		ug/m³	0.75	0.35	1	09/08/21	09/08/21 21:49	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	09/08/21	09/08/21 21:49	WB
1,1,1-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 21:49	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 21:49	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 21:49	WB
Trichlorofluoromethane (Freon 11)	1.52		ug/m³	1.10	0.28	1	09/08/21	09/08/21 21:49	WB
1,2,4-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 21:49	WB
1,3,5-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/08/21	09/08/21 21:49	WB
2,2,4-Trimethylpentane	0.23	J	$ug/m^3$	0.93	0.23	1	09/08/21	09/08/21 21:49	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	09/08/21	09/08/21 21:49	WB
Vinyl bromide	ND		$ug/m^3$	0.87	0.22	1	09/08/21	09/08/21 21:49	WB
Vinyl chloride	ND		$ug/m^3$	0.51	0.13	1	09/08/21	09/08/21 21:49	WB
o-Xylene	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 21:49	WB
m- & p-Xylenes	ND		ug/m³	1.70	0.43	1	09/08/21	09/08/21 21:49	WB
Surrogate: 4-Bromofluorobenzene		7	3-115	100 %	09/08/21		09/08/21 21:49		

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.



Project Manager: Amber Confer

Project Number: [none]

## **Analytical Results**

nela de la proposición dela proposición de la pr

1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - STAIR 232 21090701-011 1090814-11 (Vapor) Sample Date: 09/03/21

				Sample Date: 0	7/03/21				
				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-1	5 (GC/MS) P	repared b	<u>y TO-15 F</u>	Prep					
Acetone	14.7		$ug/m^3$	2.40	2.40	1	09/08/21	09/08/21 22:23	WB
Benzene	0.42	J	ug/m³	0.64	0.16	1	09/08/21	09/08/21 22:23	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/08/21	09/08/21 22:23	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	09/08/21	09/08/21 22:23	WB
Bromoform	ND		$ug/m^3$	2.10	0.53	1	09/08/21	09/08/21 22:23	WB
Bromomethane	ND		$ug/m^3$	0.78	0.20	1	09/08/21	09/08/21 22:23	WB
1,3-Butadiene	ND		$ug/m^3$	0.44	0.44	1	09/08/21	09/08/21 22:23	WB
Carbon disulfide	ND		ug/m³	1.56	1.56	1	09/08/21	09/08/21 22:23	WB
Carbon tetrachloride	0.57	J	ug/m³	1.30	0.33	1	09/08/21	09/08/21 22:23	WB
Chlorobenzene	ND		$ug/m^3$	0.92	0.23	1	09/08/21	09/08/21 22:23	WB
Chloroethane	ND		$ug/m^3$	0.53	0.27	1	09/08/21	09/08/21 22:23	WB
Chloroform	0.59	J	ug/m³	0.97	0.24	1	09/08/21	09/08/21 22:23	WB
Chloromethane	1.20		$ug/m^3$	0.41	0.10	1	09/08/21	09/08/21 22:23	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/08/21	09/08/21 22:23	WB
Cyclohexane	ND		$ug/m^3$	0.69	0.17	1	09/08/21	09/08/21 22:23	WB
Dibromochloromethane	ND		$ug/m^3$	1.30	0.33	1	09/08/21	09/08/21 22:23	WB
1,2-Dibromoethane (EDB)	ND		$ug/m^3$	1.40	0.35	1	09/08/21	09/08/21 22:23	WB
1,2-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 22:23	WB
1,3-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 22:23	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/08/21	09/08/21 22:23	WB
Dichlorodifluoromethane	2.57		ug/m³	0.99	0.99	1	09/08/21	09/08/21 22:23	WB
1,1-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/08/21	09/08/21 22:23	WB
1,2-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/08/21	09/08/21 22:23	WB
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 22:23	WB
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 22:23	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 22:23	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 22:23	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 22:23	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 22:23	WB
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	09/08/21	09/08/21 22:23	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/08/21	09/08/21 22:23	WB
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 22:23	WB
4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 22:23	WB
Freon 113	0.61	J	ug/m³	1.50	0.38	1	09/08/21	09/08/21 22:23	WB

lakecha Korns

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.



Project Manager: Amber Confer

Project Number: [none]

## **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - STAIR 232 21090701-011 1090814-11 (Vapor) Sample Date: 09/03/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (Go	C/MS) Pi	repared by	y TO-15 F	Prep (continued)					
Freon 114	ND		ug/m³	1.40	1.40	1	09/08/21	09/08/21 22:23	WB
n-Heptane	0.37	J	$ug/m^3$	0.82	0.21	1	09/08/21	09/08/21 22:23	WB
Hexachlorobutadiene	ND		$ug/m^3$	2.10	2.10	1	09/08/21	09/08/21 22:23	WB
Hexane	ND		$ug/m^3$	14.0	14.0	1	09/08/21	09/08/21 22:23	WB
2-Hexanone	0.25	J	$ug/m^3$	0.82	0.15	1	09/08/21	09/08/21 22:23	WB
Isopropylbenzene (Cumene)	ND		$ug/m^3$	1.10	0.40	1	09/08/21	09/08/21 22:23	WB
Methyl tert-butyl ether (MTBE)	ND		$ug/m^3$	0.72	0.21	1	09/08/21	09/08/21 22:23	WB
Methylene chloride	ND		$ug/m^3$	18.0	18.0	1	09/08/21	09/08/21 22:23	WB
Methyl ethyl ketone (2-Butanone)	1.15		ug/m³	0.59	0.34	1	09/08/21	09/08/21 22:23	WB
Methyl isobutyl ketone	ND		$ug/m^3$	0.82	0.82	1	09/08/21	09/08/21 22:23	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	09/08/21	09/08/21 22:23	WB
Propene	ND		$ug/m^3$	0.34	0.34	1	09/08/21	09/08/21 22:23	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/08/21	09/08/21 22:23	WB
Styrene	0.17	J	ug/m³	0.85	0.15	1	09/08/21	09/08/21 22:23	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 22:23	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	09/08/21	09/08/21 22:23	WB
Tetrahydrofuran	0.24	J	ug/m³	0.59	0.15	1	09/08/21	09/08/21 22:23	WB
Toluene	1.09		ug/m³	0.75	0.35	1	09/08/21	09/08/21 22:23	WB
1,2,4-Trichlorobenzene	ND		$ug/m^3$	1.50	0.38	1	09/08/21	09/08/21 22:23	WB
1,1,1-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/08/21	09/08/21 22:23	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 22:23	WB
Trichloroethene	ND		$ug/m^3$	1.10	0.28	1	09/08/21	09/08/21 22:23	WB
Trichlorofluoromethane (Freon 11)	1.57		$ug/m^3$	1.10	0.28	1	09/08/21	09/08/21 22:23	WB
1,2,4-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 22:23	WB
1,3,5-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/08/21	09/08/21 22:23	WB
2,2,4-Trimethylpentane	0.42	J	ug/m³	0.93	0.23	1	09/08/21	09/08/21 22:23	WB
Vinyl acetate	ND		$ug/m^3$	0.70	0.70	1	09/08/21	09/08/21 22:23	WB
Vinyl bromide	ND		$ug/m^3$	0.87	0.22	1	09/08/21	09/08/21 22:23	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	09/08/21	09/08/21 22:23	WB
o-Xylene	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 22:23	WB
m- & p-Xylenes	ND		ug/m³	1.70	0.43	1	09/08/21	09/08/21 22:23	WB
Surrogate: 4-Bromofluorobenzene		73	B-115	99 %	09/08/21		09/08/21 22:23		

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.



Project Manager: Amber Confer

Project Number: [none]

## **Analytical Results**

enela C

1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - CLASS A242 21090701-012 1090814-12 (Vapor) Sample Date: 09/03/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
<b>Volatile Organics by EPA TO-15 (G</b>	C/MS) Pi	repared b	y TO-15 F	Prep					
Acetone	18.7		ug/m³	2.40	2.40	1	09/08/21	09/08/21 22:57	WB
Benzene	0.45	J	$ug/m^3$	0.64	0.16	1	09/08/21	09/08/21 22:57	WB
Benzyl chloride	ND		$ug/m^3$	1.00	0.25	1	09/08/21	09/08/21 22:57	WB
Bromodichloromethane	ND		$ug/m^3$	1.30	0.33	1	09/08/21	09/08/21 22:57	WB
Bromoform	ND		$ug/m^3$	2.10	0.53	1	09/08/21	09/08/21 22:57	WB
Bromomethane	ND		$ug/m^3$	0.78	0.20	1	09/08/21	09/08/21 22:57	WB
1,3-Butadiene	ND		$ug/m^3$	0.44	0.44	1	09/08/21	09/08/21 22:57	WB
Carbon disulfide	ND		$ug/m^3$	1.56	1.56	1	09/08/21	09/08/21 22:57	WB
Carbon tetrachloride	0.50	J	$ug/m^3$	1.30	0.33	1	09/08/21	09/08/21 22:57	WB
Chlorobenzene	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 22:57	WB
Chloroethane	ND		$ug/m^3$	0.53	0.27	1	09/08/21	09/08/21 22:57	WB
Chloroform	0.44	J	$ug/m^3$	0.97	0.24	1	09/08/21	09/08/21 22:57	WB
Chloromethane	1.22		$ug/m^3$	0.41	0.10	1	09/08/21	09/08/21 22:57	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/08/21	09/08/21 22:57	WB
Cyclohexane	ND		ug/m³	0.69	0.17	1	09/08/21	09/08/21 22:57	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/08/21	09/08/21 22:57	WB
1,2-Dibromoethane (EDB)	ND		$ug/m^3$	1.40	0.35	1	09/08/21	09/08/21 22:57	WB
1,2-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 22:57	WB
1,3-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 22:57	WB
1,4-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 22:57	WB
Dichlorodifluoromethane	2.62		$ug/m^3$	0.99	0.99	1	09/08/21	09/08/21 22:57	WB
1,1-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/08/21	09/08/21 22:57	WB
1,2-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/08/21	09/08/21 22:57	WB
1,1-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/08/21	09/08/21 22:57	WB
cis-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/08/21	09/08/21 22:57	WB
trans-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/08/21	09/08/21 22:57	WB
1,2-Dichloropropane	ND		$ug/m^3$	0.92	0.23	1	09/08/21	09/08/21 22:57	WB
cis-1,3-Dichloropropene	ND		$ug/m^3$	0.91	0.23	1	09/08/21	09/08/21 22:57	WB
trans-1,3-Dichloropropene	ND		$ug/m^3$	0.91	0.23	1	09/08/21	09/08/21 22:57	WB
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	09/08/21	09/08/21 22:57	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/08/21	09/08/21 22:57	WB
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/08/21	09/08/21 22:57	WB
4-Ethyltoluene	0.29	J	ug/m³	0.98	0.25	1	09/08/21	09/08/21 22:57	WB
Freon 113	0.61	J	$ug/m^3$	1.50	0.38	1	09/08/21	09/08/21 22:57	WB

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.



Project Manager: Amber Confer

Project Number: [none]

## **Analytical Results**

enela C

1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - CLASS A242 21090701-012 1090814-12 (Vapor) Sample Date: 09/03/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (C	GC/MS) Pi	repared by	v TO-15 I	Prep (continued)	<u> </u>			<u> </u>	
Freon 114	ND		ug/m³	1.40	1.40	1	09/08/21	09/08/21 22:57	WB
n-Heptane	0.49	J	ug/m³	0.82	0.21	1	09/08/21	09/08/21 22:57	WB
Hexachlorobutadiene	ND		$ug/m^3$	2.10	2.10	1	09/08/21	09/08/21 22:57	WB
Hexane	ND		$ug/m^3$	14.0	14.0	1	09/08/21	09/08/21 22:57	WB
2-Hexanone	0.29	J	ug/m³	0.82	0.15	1	09/08/21	09/08/21 22:57	WB
Isopropylbenzene (Cumene)	ND		$ug/m^3$	1.10	0.40	1	09/08/21	09/08/21 22:57	WB
Methyl tert-butyl ether (MTBE)	ND		$ug/m^3$	0.72	0.21	1	09/08/21	09/08/21 22:57	WB
Methylene chloride	ND		$ug/m^3$	18.0	18.0	1	09/08/21	09/08/21 22:57	WB
Methyl ethyl ketone (2-Butanone)	1.36		$ug/m^3$	0.59	0.34	1	09/08/21	09/08/21 22:57	WB
Methyl isobutyl ketone	ND		$ug/m^3$	0.82	0.82	1	09/08/21	09/08/21 22:57	WB
Naphthalene	ND		$ug/m^3$	1.10	0.70	1	09/08/21	09/08/21 22:57	WB
Propene	ND		$ug/m^3$	0.34	0.34	1	09/08/21	09/08/21 22:57	WB
n-Propylbenzene	ND		$ug/m^3$	0.98	0.40	1	09/08/21	09/08/21 22:57	WB
Styrene	0.34	J	ug/m³	0.85	0.15	1	09/08/21	09/08/21 22:57	WB
1,1,2,2-Tetrachloroethane	ND		$ug/m^3$	1.40	0.35	1	09/08/21	09/08/21 22:57	WB
Tetrachloroethene	1.70		$ug/m^3$	1.40	0.70	1	09/08/21	09/08/21 22:57	WB
Tetrahydrofuran	0.27	J	$ug/m^3$	0.59	0.15	1	09/08/21	09/08/21 22:57	WB
Toluene	1.43		$ug/m^3$	0.75	0.35	1	09/08/21	09/08/21 22:57	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	09/08/21	09/08/21 22:57	WB
1,1,1-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/08/21	09/08/21 22:57	WB
1,1,2-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/08/21	09/08/21 22:57	WB
Trichloroethene	ND		$ug/m^3$	1.10	0.28	1	09/08/21	09/08/21 22:57	WB
Trichlorofluoromethane (Freon 11)	1.57		$ug/m^3$	1.10	0.28	1	09/08/21	09/08/21 22:57	WB
1,2,4-Trimethylbenzene	0.29	J	$ug/m^3$	0.98	0.25	1	09/08/21	09/08/21 22:57	WB
1,3,5-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/08/21	09/08/21 22:57	WB
2,2,4-Trimethylpentane	0.47	J	$ug/m^3$	0.93	0.23	1	09/08/21	09/08/21 22:57	WB
Vinyl acetate	ND		$ug/m^3$	0.70	0.70	1	09/08/21	09/08/21 22:57	WB
Vinyl bromide	ND		$ug/m^3$	0.87	0.22	1	09/08/21	09/08/21 22:57	WB
Vinyl chloride	ND		$ug/m^3$	0.51	0.13	1	09/08/21	09/08/21 22:57	WB
o-Xylene	0.26	J	$ug/m^3$	0.87	0.22	1	09/08/21	09/08/21 22:57	WB
m- & p-Xylenes	0.61	J	ug/m³	1.70	0.43	1	09/08/21	09/08/21 22:57	WB
Surrogate: 4-Bromofluorobenzene		73	R-115	100 %	09/08/21	!	09/08/21 22:57		

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.

Rabecka Koons, Quality Assurance Officer

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

Page 26 of 36



Project Manager: Amber Confer

Project Number: [none]

## **Analytical Results**

nela de la proposición dela proposición de la pr

1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - CLASS A336 21090701-013 1090814-13 (Vapor)

Sample Date: 09/03/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
<b>Volatile Organics by EPA TO-15 (GC</b>	Z/MS) Pı	repared b	y TO-15 I	Prep					
Acetone	31.9		$ug/m^3$	2.40	2.40	1	09/08/21	09/08/21 23:31	WB
Benzene	0.64	J	ug/m³	0.64	0.16	1	09/08/21	09/08/21 23:31	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/08/21	09/08/21 23:31	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	09/08/21	09/08/21 23:31	WB
Bromoform	ND		$ug/m^3$	2.10	0.53	1	09/08/21	09/08/21 23:31	WB
Bromomethane	ND		ug/m³	0.78	0.20	1	09/08/21	09/08/21 23:31	WB
1,3-Butadiene	ND		$ug/m^3$	0.44	0.44	1	09/08/21	09/08/21 23:31	WB
Carbon disulfide	ND		$ug/m^3$	1.56	1.56	1	09/08/21	09/08/21 23:31	WB
Carbon tetrachloride	0.57	J	$ug/m^3$	1.30	0.33	1	09/08/21	09/08/21 23:31	WB
Chlorobenzene	ND		$ug/m^3$	0.92	0.23	1	09/08/21	09/08/21 23:31	WB
Chloroethane	ND		$ug/m^3$	0.53	0.27	1	09/08/21	09/08/21 23:31	WB
Chloroform	0.54	J	$ug/m^3$	0.97	0.24	1	09/08/21	09/08/21 23:31	WB
Chloromethane	2.46		ug/m³	0.41	0.10	1	09/08/21	09/08/21 23:31	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/08/21	09/08/21 23:31	WB
Cyclohexane	ND		$ug/m^3$	0.69	0.17	1	09/08/21	09/08/21 23:31	WB
Dibromochloromethane	ND		$ug/m^3$	1.30	0.33	1	09/08/21	09/08/21 23:31	WB
1,2-Dibromoethane (EDB)	ND		$ug/m^3$	1.40	0.35	1	09/08/21	09/08/21 23:31	WB
1,2-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 23:31	WB
1,3-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 23:31	WB
1,4-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/08/21	09/08/21 23:31	WB
Dichlorodifluoromethane	2.57		$ug/m^3$	0.99	0.99	1	09/08/21	09/08/21 23:31	WB
1,1-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/08/21	09/08/21 23:31	WB
1,2-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/08/21	09/08/21 23:31	WB
1,1-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/08/21	09/08/21 23:31	WB
cis-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/08/21	09/08/21 23:31	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/08/21	09/08/21 23:31	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/08/21	09/08/21 23:31	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 23:31	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/08/21	09/08/21 23:31	WB
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	09/08/21	09/08/21 23:31	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/08/21	09/08/21 23:31	WB
Ethylbenzene	0.39	J	ug/m³	0.87	0.22	1	09/08/21	09/08/21 23:31	WB
4-Ethyltoluene	0.34	J	ug/m³	0.98	0.25	1	09/08/21	09/08/21 23:31	WB
Freon 113	0.54	J	ug/m³	1.50	0.38	1	09/08/21	09/08/21 23:31	WB

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.

Rabecka Koons, Quality Assurance Officer

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



Project Manager: Amber Confer

Project Number: [none]

## **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - CLASS A336 21090701-013 1090814-13 (Vapor) Sample Date: 09/03/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (C	GC/MS) Pi	repared b	y TO-15 I	Prep (continued)					
Freon 114	ND		ug/m³	1.40	1.40	1	09/08/21	09/08/21 23:31	WB
n-Heptane	2.66		ug/m³	0.82	0.21	1	09/08/21	09/08/21 23:31	WB
Hexachlorobutadiene	ND		ug/m³	2.10	2.10	1	09/08/21	09/08/21 23:31	WB
Hexane	ND		$ug/m^3$	14.0	14.0	1	09/08/21	09/08/21 23:31	WB
2-Hexanone	0.49	J	ug/m³	0.82	0.15	1	09/08/21	09/08/21 23:31	WB
Isopropylbenzene (Cumene)	ND		$ug/m^3$	1.10	0.40	1	09/08/21	09/08/21 23:31	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/08/21	09/08/21 23:31	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	09/08/21	09/08/21 23:31	WB
Methyl ethyl ketone (2-Butanone)	2.74		ug/m³	0.59	0.34	1	09/08/21	09/08/21 23:31	WB
Methyl isobutyl ketone	ND		$ug/m^3$	0.82	0.82	1	09/08/21	09/08/21 23:31	WB
Naphthalene	ND		$ug/m^3$	1.10	0.70	1	09/08/21	09/08/21 23:31	WB
Propene	ND		ug/m³	0.34	0.34	1	09/08/21	09/08/21 23:31	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/08/21	09/08/21 23:31	WB
Styrene	1.02		ug/m³	0.85	0.15	1	09/08/21	09/08/21 23:31	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/08/21	09/08/21 23:31	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	09/08/21	09/08/21 23:31	WB
Tetrahydrofuran	0.68		ug/m³	0.59	0.15	1	09/08/21	09/08/21 23:31	WB
Toluene	3.01		ug/m³	0.75	0.35	1	09/08/21	09/08/21 23:31	WB
1,2,4-Trichlorobenzene	ND		$ug/m^3$	1.50	0.38	1	09/08/21	09/08/21 23:31	WB
1,1,1-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/08/21	09/08/21 23:31	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 23:31	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	09/08/21	09/08/21 23:31	WB
Trichlorofluoromethane (Freon 11)	1.69		ug/m³	1.10	0.28	1	09/08/21	09/08/21 23:31	WB
1,2,4-Trimethylbenzene	0.44	J	ug/m³	0.98	0.25	1	09/08/21	09/08/21 23:31	WB
1,3,5-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/08/21	09/08/21 23:31	WB
2,2,4-Trimethylpentane	0.47	J	ug/m³	0.93	0.23	1	09/08/21	09/08/21 23:31	WB
Vinyl acetate	ND		$ug/m^3$	0.70	0.70	1	09/08/21	09/08/21 23:31	WB
Vinyl bromide	ND		$ug/m^3$	0.87	0.22	1	09/08/21	09/08/21 23:31	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	09/08/21	09/08/21 23:31	WB
o-Xylene	0.52	J	ug/m³	0.87	0.22	1	09/08/21	09/08/21 23:31	WB
m- & p-Xylenes	1.30	J	ug/m³	1.70	0.43	1	09/08/21	09/08/21 23:31	WB

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.

09/08/21

Rabecka Koons, Quality Assurance Officer

Surrogate: 4-Bromofluorobenzene

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

73-115

Page 28 of 36

100 %

09/08/21 23:31



Project Manager: Amber Confer

Project Number: [none]

## **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - CLASS 332R 21090701-014 1090814-14 (Vapor) Sample Date: 09/03/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC	C/MS) Pi	repared by	y TO-15 P	rep				·	
Acetone	13.1		ug/m³	2.40	2.40	1	09/09/21	09/09/21 00:06	WB
Benzene	0.38	J	ug/m³	0.64	0.16	1	09/09/21	09/09/21 00:06	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/09/21	09/09/21 00:06	WB
Bromodichloromethane	ND		$ug/m^3$	1.30	0.33	1	09/09/21	09/09/21 00:06	WB
Bromoform	ND		$ug/m^3$	2.10	0.53	1	09/09/21	09/09/21 00:06	WB
Bromomethane	ND		ug/m³	0.78	0.20	1	09/09/21	09/09/21 00:06	WB
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	09/09/21	09/09/21 00:06	WB
Carbon disulfide	ND		ug/m³	1.56	1.56	1	09/09/21	09/09/21 00:06	WB
Carbon tetrachloride	0.57	J	ug/m³	1.30	0.33	1	09/09/21	09/09/21 00:06	WB
Chlorobenzene	ND		$ug/m^3$	0.92	0.23	1	09/09/21	09/09/21 00:06	WB
Chloroethane	ND		ug/m³	0.53	0.27	1	09/09/21	09/09/21 00:06	WB
Chloroform	0.59	J	ug/m³	0.97	0.24	1	09/09/21	09/09/21 00:06	WB
Chloromethane	1.32		$ug/m^3$	0.41	0.10	1	09/09/21	09/09/21 00:06	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/09/21	09/09/21 00:06	WB
Cyclohexane	ND		$ug/m^3$	0.69	0.17	1	09/09/21	09/09/21 00:06	WB
Dibromochloromethane	ND		$ug/m^3$	1.30	0.33	1	09/09/21	09/09/21 00:06	WB
1,2-Dibromoethane (EDB)	ND		$ug/m^3$	1.40	0.35	1	09/09/21	09/09/21 00:06	WB
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/09/21	09/09/21 00:06	WB
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/09/21	09/09/21 00:06	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/09/21	09/09/21 00:06	WB
Dichlorodifluoromethane	2.72		ug/m³	0.99	0.99	1	09/09/21	09/09/21 00:06	WB
1,1-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/09/21	09/09/21 00:06	WB
1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/09/21	09/09/21 00:06	WB
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/09/21	09/09/21 00:06	WB
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/09/21	09/09/21 00:06	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/09/21	09/09/21 00:06	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/09/21	09/09/21 00:06	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/09/21	09/09/21 00:06	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/09/21	09/09/21 00:06	WB
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	09/09/21	09/09/21 00:06	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/09/21	09/09/21 00:06	WB
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/09/21	09/09/21 00:06	WB
4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	09/09/21	09/09/21 00:06	WB
Freon 113	0.61	J	ug/m³	1.50	0.38	1	09/09/21	09/09/21 00:06	WB

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.

Rabecka Koons, Quality Assurance Officer

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



Project Manager: Amber Confer

Project Number: [none]

## **Analytical Results**

nelso IN ACCORDANCE

1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - CLASS 332R 21090701-014 1090814-14 (Vapor) Sample Date: 09/03/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (G	GC/MS) Pi	repared b	y TO-15 P	rep (continued)					
Freon 114	ND		ug/m³	1.40	1.40	1	09/09/21	09/09/21 00:06	WB
n-Heptane	ND		$ug/m^3$	0.82	0.21	1	09/09/21	09/09/21 00:06	WB
Hexachlorobutadiene	ND		$ug/m^3$	2.10	2.10	1	09/09/21	09/09/21 00:06	WB
Hexane	ND		$ug/m^3$	14.0	14.0	1	09/09/21	09/09/21 00:06	WB
2-Hexanone	ND		$ug/m^3$	0.82	0.15	1	09/09/21	09/09/21 00:06	WB
Isopropylbenzene (Cumene)	ND		$ug/m^3$	1.10	0.40	1	09/09/21	09/09/21 00:06	WB
Methyl tert-butyl ether (MTBE)	ND		$ug/m^3$	0.72	0.21	1	09/09/21	09/09/21 00:06	WB
Methylene chloride	ND		$ug/m^3$	18.0	18.0	1	09/09/21	09/09/21 00:06	WB
Methyl ethyl ketone (2-Butanone)	0.97		ug/m³	0.59	0.34	1	09/09/21	09/09/21 00:06	WB
Methyl isobutyl ketone	ND		$ug/m^3$	0.82	0.82	1	09/09/21	09/09/21 00:06	WB
Naphthalene	ND		$ug/m^3$	1.10	0.70	1	09/09/21	09/09/21 00:06	WB
Propene	ND		$ug/m^3$	0.34	0.34	1	09/09/21	09/09/21 00:06	WB
n-Propylbenzene	ND		$ug/m^3$	0.98	0.40	1	09/09/21	09/09/21 00:06	WB
Styrene	ND		$ug/m^3$	0.85	0.15	1	09/09/21	09/09/21 00:06	WB
1,1,2,2-Tetrachloroethane	ND		$ug/m^3$	1.40	0.35	1	09/09/21	09/09/21 00:06	WB
Tetrachloroethene	ND		$ug/m^3$	1.40	0.70	1	09/09/21	09/09/21 00:06	WB
Tetrahydrofuran	0.32	J	$ug/m^3$	0.59	0.15	1	09/09/21	09/09/21 00:06	WB
Toluene	0.90		$ug/m^3$	0.75	0.35	1	09/09/21	09/09/21 00:06	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	09/09/21	09/09/21 00:06	WB
1,1,1-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/09/21	09/09/21 00:06	WB
1,1,2-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/09/21	09/09/21 00:06	WB
Trichloroethene	ND		$ug/m^3$	1.10	0.28	1	09/09/21	09/09/21 00:06	WB
Trichlorofluoromethane (Freon 11)	1.85		$ug/m^3$	1.10	0.28	1	09/09/21	09/09/21 00:06	WB
1,2,4-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/09/21	09/09/21 00:06	WB
1,3,5-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/09/21	09/09/21 00:06	WB
2,2,4-Trimethylpentane	0.33	J	ug/m³	0.93	0.23	1	09/09/21	09/09/21 00:06	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	09/09/21	09/09/21 00:06	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	09/09/21	09/09/21 00:06	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	09/09/21	09/09/21 00:06	WB
o-Xylene	ND		ug/m³	0.87	0.22	1	09/09/21	09/09/21 00:06	WB
m- & p-Xylenes	ND		ug/m³	1.70	0.43	1	09/09/21	09/09/21 00:06	WB
Surrogate: 4-Bromofluorobenzene		7.	3-115	100 %	09/09/21		09/09/21 00:06		

Pakecka Kons

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.



Project Manager: Amber Confer

Project Number: [none]

## **Analytical Results**

nela Car

1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - HALL A303 21090701-015 1090814-15 (Vapor) Sample Date: 09/03/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (G	C/MS) Pr	epared by	<u>/ TO-15 P</u>	rep				· · · · · · · · · · · · · · · · · · ·	
Acetone	12.3		ug/m³	2.40	2.40	1	09/09/21	09/09/21 00:40	WB
Benzene	0.45	J	$ug/m^3$	0.64	0.16	1	09/09/21	09/09/21 00:40	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/09/21	09/09/21 00:40	WB
Bromodichloromethane	ND		$ug/m^3$	1.30	0.33	1	09/09/21	09/09/21 00:40	WB
Bromoform	ND		$ug/m^3$	2.10	0.53	1	09/09/21	09/09/21 00:40	WB
Bromomethane	ND		$ug/m^3$	0.78	0.20	1	09/09/21	09/09/21 00:40	WB
1,3-Butadiene	ND		$ug/m^3$	0.44	0.44	1	09/09/21	09/09/21 00:40	WB
Carbon disulfide	ND		$ug/m^3$	1.56	1.56	1	09/09/21	09/09/21 00:40	WB
Carbon tetrachloride	0.50	J	$ug/m^3$	1.30	0.33	1	09/09/21	09/09/21 00:40	WB
Chlorobenzene	ND		$ug/m^3$	0.92	0.23	1	09/09/21	09/09/21 00:40	WB
Chloroethane	ND		$ug/m^3$	0.53	0.27	1	09/09/21	09/09/21 00:40	WB
Chloroform	0.24	J	$ug/m^3$	0.97	0.24	1	09/09/21	09/09/21 00:40	WB
Chloromethane	1.18		$ug/m^3$	0.41	0.10	1	09/09/21	09/09/21 00:40	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/09/21	09/09/21 00:40	WB
Cyclohexane	ND		$ug/m^3$	0.69	0.17	1	09/09/21	09/09/21 00:40	WB
Dibromochloromethane	ND		$ug/m^3$	1.30	0.33	1	09/09/21	09/09/21 00:40	WB
1,2-Dibromoethane (EDB)	ND		$ug/m^3$	1.40	0.35	1	09/09/21	09/09/21 00:40	WB
1,2-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/09/21	09/09/21 00:40	WB
1,3-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/09/21	09/09/21 00:40	WB
1,4-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/09/21	09/09/21 00:40	WB
Dichlorodifluoromethane	2.67		$ug/m^3$	0.99	0.99	1	09/09/21	09/09/21 00:40	WB
1,1-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/09/21	09/09/21 00:40	WB
1,2-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/09/21	09/09/21 00:40	WB
1,1-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/09/21	09/09/21 00:40	WB
cis-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/09/21	09/09/21 00:40	WB
trans-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/09/21	09/09/21 00:40	WB
1,2-Dichloropropane	ND		$ug/m^3$	0.92	0.23	1	09/09/21	09/09/21 00:40	WB
cis-1,3-Dichloropropene	ND		$ug/m^3$	0.91	0.23	1	09/09/21	09/09/21 00:40	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/09/21	09/09/21 00:40	WB
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	09/09/21	09/09/21 00:40	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/09/21	09/09/21 00:40	WB
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/09/21	09/09/21 00:40	WB
4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	09/09/21	09/09/21 00:40	WB
Freon 113	0.61	J	ug/m³	1.50	0.38	1	09/09/21	09/09/21 00:40	WB

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.

Rabecka Koons, Quality Assurance Officer

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



Project Manager: Amber Confer

Project Number: [none]

## **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

GW - HALL A303 21090701-015 1090814-15 (Vapor) Sample Date: 09/03/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (G	C/MS) Pi	repared by	7 TO-15 P	rep (continued)					
Freon 114	ND		ug/m³	1.40	1.40	1	09/09/21	09/09/21 00:40	WB
n-Heptane	0.29	J	ug/m³	0.82	0.21	1	09/09/21	09/09/21 00:40	WB
Hexachlorobutadiene	ND		ug/m³	2.10	2.10	1	09/09/21	09/09/21 00:40	WB
Hexane	ND		ug/m³	14.0	14.0	1	09/09/21	09/09/21 00:40	WB
2-Hexanone	ND		ug/m³	0.82	0.15	1	09/09/21	09/09/21 00:40	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	09/09/21	09/09/21 00:40	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/09/21	09/09/21 00:40	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	09/09/21	09/09/21 00:40	WB
Methyl ethyl ketone (2-Butanone)	1.00		ug/m³	0.59	0.34	1	09/09/21	09/09/21 00:40	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	09/09/21	09/09/21 00:40	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	09/09/21	09/09/21 00:40	WB
Propene	ND		ug/m³	0.34	0.34	1	09/09/21	09/09/21 00:40	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/09/21	09/09/21 00:40	WB
Styrene	ND		ug/m³	0.85	0.15	1	09/09/21	09/09/21 00:40	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/09/21	09/09/21 00:40	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	09/09/21	09/09/21 00:40	WB
Tetrahydrofuran	ND		ug/m³	0.59	0.15	1	09/09/21	09/09/21 00:40	WB
Toluene	0.94		ug/m³	0.75	0.35	1	09/09/21	09/09/21 00:40	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	09/09/21	09/09/21 00:40	WB
1,1,1-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/09/21	09/09/21 00:40	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/09/21	09/09/21 00:40	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	09/09/21	09/09/21 00:40	WB
Trichlorofluoromethane (Freon 11)	1.52		ug/m³	1.10	0.28	1	09/09/21	09/09/21 00:40	WB
1,2,4-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/09/21	09/09/21 00:40	WB
1,3,5-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/09/21	09/09/21 00:40	WB
2,2,4-Trimethylpentane	0.23	J	ug/m³	0.93	0.23	1	09/09/21	09/09/21 00:40	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	09/09/21	09/09/21 00:40	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	09/09/21	09/09/21 00:40	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	09/09/21	09/09/21 00:40	WB
o-Xylene	ND		ug/m³	0.87	0.22	1	09/09/21	09/09/21 00:40	WB
m- & p-Xylenes	ND		ug/m³	1.70	0.43	1	09/09/21	09/09/21 00:40	WB
Surrogate: 4-Bromofluorobenzene		73	-115	98 %	09/09/21		09/09/21 00:40		

Pakela Kons

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.



Project Manager: Amber Confer

Project Number: [none]

## **Analytical Results**

1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/10/21 12:44

## **Notes and Definitions**

L Analyte is a possible laboratory contaminant

J Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).

E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered

an estimate (CLP E-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

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

Page 1 of 1

hase Separation 1				). No. ;	21090701		pies Transterred To yland Spectral Servi		
630 Baltimore Na altimore, MD 21			Proi	ect Location	George Washington MS		Caton Center Driv		
none: (410) 747-				ect Number			more, MD 21227	c, salte c	
ıx: (410) 788-87	/23		<del>-</del>	ort To LOD			,		
or Questions o	or issues please contact: Ar	nber Confer	_			Phor	ne: 410-247-7600		
	-			Report L	Due On :09/15/21 05:00		410-247-7000		
Lab	Field	Date	Time	Matrix	Analyses Required	Method	Type of	Preservative	•
Sample ID	Sample ID	Sampled	Sampled				Container	16908	114
1090701-001	GW - Cafeteria	09/03/21	14:13	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	<b>-</b>
21090701-002	GW - Class A109	09/03/21	14:09	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	_ ,
1090701-003	GW - Hall Cafe A161	09/03/21	14:15	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	
21090701-004	GW - Class C120	09/03/21	14:21	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	
21090701-005	GW - Class C125	09/03/21	14:23	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	
1090701-006	GW - Gym	09/03/21	14:19	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	
1090701-007	GW - Library	09/03/21	14:25	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	-
1090701-008	GW - Outdoor	09/03/21	14:12	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	-
1090701-009	GW - Class A212	09/03/21	14:30	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	<b>-</b>
1090701-010	GW - Auditorium	09/03/21	14:08	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	
1090701-011	GW - Stair 232	09/03/21	14:18	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	┥
1090701-012	GW - Class A242	09/03/21	14:23	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	٦.
1090701-013	GW - Class A336	09/03/21	14:33	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	-
1090701-014	GW - Class 332R	09/03/21	14:31	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	
1090701-015	GW - Hall A303	09/03/21	14:29	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	┨.
end Repo	erables Required: rt Attn: reporting@p	phaseonline.co			<del>-</del>	C. on Sample : InvoiceAttn : i	nvoicing@phasec	online.com	
	eceipt :								
nments :	F 2 2								
nnlas Dolinguia	shod By	ام	1,	• -	$\sim$				
npies Relinguis	shed By: Jan Cate	Date : 78		ime: 1015	Samples Received By: Lor	i Faile Le	<b>-</b>		
						, , , , , , , , , , , , , , , , , , , ,			
ıptes Relinquis	shed By:	_ Date:	T	`ime:	Samples Received By:			P	age 34
					Page 37 of 43	Version 1.000			<u> </u>

Client Contact	Information			Project Ma	anag	er:	Amber	Confer	Carrier:									1 of Z cocs	
Company:	DS5			Phone:					Samplers	Name(s)				An	alysis	/ Mat	rix		
				Site Conta	ect:								·······			T			
								***************************************	]							1			
									-										•
Project Name:				Analysis 7	Turna	round	d Time	· · · · · · · · · · · · · · · · · · ·	1						IST				
Site:				Standard (			5004	************								Ąį			
PO #				Rush (Spe	cify)_			<del></del>	ļ	***************************************	<del>.,</del>			Į.	IAT	ent,	slat		
Client	t Sample ID		ample le Start	Time Start (24 hr clock)		mple e Stop	Time Stop	Canister Pressure in Field ("Hg) (Start)	Canister Pressure in Field ("Hg)	Incoming Canister Pressure ("Hg) (Lab)	Sample Regulator ID	Can ID	Can Size (L)	TO-15 FULL LIST	TO-15 ABREVIATED LIST	Indoor / Ambient Air	Soll Gas / Su	Comments	
210907		91	3 2	1025		121	1413	30	0		04687	613	1.4	Х		X		1090814	-01
	-002			१०११	١		1409	30	2		14028	3683	-	П			٦	- 6)	
	-003			1023			1415	30			03465		No.				7	- 6 Š	
and the same of th	-004			1023			1421	30	0		04501	9846	mercal programme				;	- 04	
	<u>-00 S</u>			1025			1423	30	2		10232	10173						- 05	
	-006			1019			1419	30	1		4743	10182	And the same					-06	
				1029			1425	30	4		1025	10194	*Authoroup <sub>less</sub>					-07	
	-005			1012			1412	30	4		04720	3665						- 68	:
	<u>-009</u>			1035			1430	30	2	٠.	04691	589		Щ				- 09	
	-010			1021		_	१५०४	30	0		04706	3679						-10	
	-011			1025			1418	30	lu-j		03464	10187						<u> </u>	
	-012			1027			1423	2-7	0		04500	10176						-12	
	-013		-	1039	<u> </u>		M 33	30	2.		10512.	584						_13	
V	-014		7	1039		V	1431	<b>3</b> 0	3		04702	9612	. V	V		V		- 14	
	ctions/QC Requireme	ents	& Cor	nments:													;		
Canisters Shipp	ped by:	Date	e/Time	:				Canisters	Received b	y:		Date/Time	181	1	)	13	}	53	=
Samples Relinq	quished by:	Date	e/Time	;				Received	by:	<del></del>	Date/Time:								
Relinquished by	λ:	Date	e/Time	:				Received	by:	***************************************		Date/Time	;		<b>,.,</b>		$\dashv$		

		,		····		1													-	
Client Contact Information		Project Ma	anager: f	mber	Confe	Carrier:							2 of 2 cocs							
Company: 055		Phone:				Samplers	Name(s)		, , , , , , , , , , , , , , , , , , , ,		An	alysis	s/ Ma	trix					1	
		Site Conta	not:					,						:						
						1														
						]														
Project Name:		L		1 975		-						<u>;</u>							1	
Site:		Analysis 7 Standard (	urnaround	I lime		-						21.5	_	:						
PO#		Rush (Spe		7 1144		1					1-	TE	it Ai	lab						
		110011 (Ope	<u> </u>		Ţ <del></del>			T	T T	[	=	EVI/	bje	sqn					Į.	
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 Fleid ("Hg):	Incoming Canister Pressure ("Hg) (Lab)	Sample Regulator ID	Can ID	Can Size	TO-15 FULL LIST	TO-15 ABREVIATED LIST	Indoor / Ambient Air	Soll Gas / S		Comments				
21090701-015	9/3/21	1035	9/3/4	1429	31	0		04724	10179	1.4	Х		X			90	9	4	_ \	5
21010101 013	1 1 1 1	1050	10/01	10 10 1	-	<del>                                     </del>		0-1101	1011	1 1	31	<del> </del>	/ .	,	10	, •	· ·	•	┨	•
									ļ		ļ									
															_					
																			Ī	
			<u> </u>								$\vdash$	-		·					1	
						<u> </u>					╆		_						-	
																			]	
									İ											
						· -				<b> </b>	1								1	
						<u> </u>				<u> </u>	-						····		1	
		ļ			ļ						ļ	ļ								
					İ								Π							
-										<b>-</b>	+-		$\vdash$	Н					1	
					<u> </u>	ļ				<u> </u>	╀		ļ						-	
					ļ		İ												]	
											Г									
Special Instructions/QC Requirer	nents & Cor	nments:	<u></u>		<u> </u>		<u> </u>	1			,I,	I	<u> </u>	:						
Canisters Shipped by:	Date/Time	);			Canisters	Received b	y:		Date/Time	9/	人	ı	13	3 .	5	θ			J	
Samples Relinquished by:	Date/Time	me: Received by:		by:																
Relinquished by:	Date/Time	»:			Received	ived by: Date/Time:														



#### **Case Narrative**

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

Project Name: ACPS IAQ Testing

PSS Project No.: 21090701

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:**

Soil gas/indoor air not indicated on COC; samples are indoor air. Incoming pressures not take upon receipt. Pressures will be taken by subcontractor.

21090701: Analyses associated with analyst code 4010 were performed by Maryland Spectral Services, Inc., 1500 Caton Center Drive, Suite G, Baltimore, MD 21227 - VA 460156

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

## **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 #:				PAGE 1 OF			2		
		<sub>ст мск:</sub> Karl Ford					6	2109070	(							
		kford@teci.pro		*PHONE NO:	(703) 567-	4346										
*PROJECT NAME: ACPS IAQ testing PROJECT NO.: 4920002						.3	*	* 9 ±	ه *	er .ab	* da	۸ir *				
SITE LOCATION: George Washington MS						g. D	ressul g) Sta	ressul g) Sto	Canist "Hg) L	Subsl	bient,	List	٠,			
SAMPLER(S):				<u>*</u>	Sample Reg. ID	Canister Pressure in field ("Hg) Start	Canister Pressure ' in field ("Hg) Stop	Incoming Canister Pressure ("Hg) Lab	Soil Gas / Subslab	ndoor/Ambient Air	TO-15 Full List	cial List				
2	LAB#	*SAMPLE IDENTIFICATION	*DATE START	*Time Start (24hr clock)	*DATE STOP	*Time Stop (24hr clock)	Can ID	San	Can in fie	Can in fie	Inco Pres	Soil	lndo	TO-	Special	REMARKS
	1	GW - Cafeteria	9/3/21	10:25	9/3/21	14:13	613	04687	30+	0				7		
	2	GW - Class A109	9/3/21	10:19	9/3/21	14:09	3683	14028	30+	2				V		2.6
	3	GW - Hall 124 12	9/3/21	10:23	9/3/21	14:15	10177	03465	30	1				V		
	7	GW - Class C120	9/3/21	10:23	9/3/21	14:21	9846	04501	30	0				~		
	5	GW - Class C125	9/3/21	10:25	9/3/21	14:23	10173	10232	30+	2				~		
	6	GW - Gym	9/3/21	10:19	9/3/21	14:19	10182	04743	30+	1				~		
	7	GW - Library	9/3/21	10:29	9/3/21	14:25	10184	10285	30+	4				1		
1	8	GW - Outdoor	9/3/21	10:12	9/3/21	14:12	3662	04720	30	4				V		
1	9	GW - Class A212	9/3/21	10:35	9/3/21	14:30	589	04691	30+	2				V		
	lo	GW Auditorium	9/3/21	10:21	9/3/21	14:08	3679	04706	30+	0			$\Box$	~	同	
5	,	shed By: (1)	Date	Time	Received By:	C 1		*Reque	ested TAT	(One TA	T per CO	C) 2-Da		86558866		Carrier:
ı		ning Jackson	9/3/21	16:00	Derri	ox Soh	noon	Next I		Emerg	ency	Othe	-		CI	real
١	-	shed By: (2)	Date 0/7/21	Time 10:3叉	Received By:	//_		Data Deliverabl	les Requi	red:						
ı	Relinqui	ICK Johnson shed By: (3)	9/7/21 Date	Time	Received By:	MA	-									
	·							Special Instruc	tions:							× 11
	Relinqui	shed By: (4)	Date	Time	Received By:											
		and the same								14						

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

# THE ALL CHEMICS IN THE PROPERTY OF THE PROPERT

## **SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15**

## PHASE SEPARATION SCIENCE, INC.

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

	*CLIENT: Total Environmental Concepts, Inc. *OFFICE LOC.: Lorton					PSS Work Order #: PAGE 2 OF 2									
*PROJ	ECT MGR: Karl Ford					d	0000								
EMAIL	kford@teci.pro		*PHONE NO:	(703) 567-	4346										
*PROJ	ECT NAME: ACPS IAQ to	esting	PROJECT N	o.: 492000	2	* ③	*	8 E	₽ ē	er ab	* qe	Air *			
SITE LOCATION: GEOVGE Washington MS P.O. NO.:					Sample Reg. ID	Canister Pressure * in field ("Hg) Start	Canister Pressure * in field ("Hg) Stop	Incoming Canister Pressure ("Hg) Lab	Soil Gas / Subslab	ndoor/Ambient Air	TO-15 Full List	Special List			
2		*DATE	*Time Start	*DATE	*Time Stop	Can ID *	ampl	anist	anist	ressu	oj G	door	0-15	pecia	
LAB#	*SAMPLE IDENTIFICATION GW - Stair 232	9/3/21	(24hr clock) 10:25	9/3/21	(24hr clock) 14:18	10187	03464	30+		느요	S	=		S	REMARKS
12	GW - Class A242	9/3/21	10:27	9/3/21	14:13	10176	04500	27	0		H	Н	ンレ	H	
13	GW - Class A336	9/3/21	10:39	9/3/21	14:33	584	10512	30+	2		H	H	1	H	
14	GW - Class A324	1490000-00-00-00-00-00-00-00-00-00-00-00-0	10:39	9/3/21	14:31	9612	04702	30	3		H	Н	V	Ħ	
15	GW - Hall A303	9/3/21	10:35	9/3/21	14:29	10179	04724	31	0				~		
												Щ	Щ	Ц	
5 Relinq	uished By: (1)	Date	Time	Received By:		(4	*Requ	ested TAT		AT per CC			Shipp	oing Ca	arrier:
	nning Jackson	9/3/21	16:00		K Sohr	7507	5-Day Next		3-Day Emerg	ency	2-Day	-	(	live	+
Reling	uished By: (2)	Date 9/7/21	Time 10,37	Received By:		Di	ata Deliverab	les Requi	100						
Relinq	uished By: (3)	Date	Time	Received By:	Will be	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 Receipt Checklist**

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

Project Name: ACPS IAQ Testing PSS Project No.: 21090701

Total Environmental Concepts - Lorto Received By **Client Name** Thomas Wingate

**Disposal Date** 10/12/2021 09/07/2021 10:37:00 AM Date Received

> **Delivered By** Client

Not Applicable **Tracking No** 

Thomas Wingate Logged In By

Shipping Container(s)

No. of Coolers

N/A Ice

Custody Seal(s) Intact? N/A Temp (deg C)

N/A Temp Blank Present No Seal(s) Signed / Dated?

Sampler Name Not Provided **Documentation** 

COC agrees with sample labels? Yes N/A

Chain of Custody Yes

Sample Container Custody Seal(s) Intact? Not Applicable

Appropriate for Specified Analysis? Yes Seal(s) Signed / Dated Not Applicable

Intact? Yes

Labeled and Labels Legible? Yes

Total No. of Samples Received **Holding Time** 15

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

Preservation

1esei valioii		
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.

Soil gas/indoor air not indicated on COC; s	samples are indoor air.	
Incoming pressures not take upon receipt.	Pressures will be taken by	/ subcontractor.

Samples Inspected/Checklist Completed By:	Time Winde	Date: 09/07/2021	
	Thomas Wingate		

PM Review and Approval:

Multiple Amilian Amil Date: 09/07/2021

Version 1.000



Relinquished By: (3)

Relinquished By: (4)

Date

Date

Time

Time

## **SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15**

PHASE SEPARATION SCIENCE, INC. www.phaseonline.com email: info@phaseonline.com

Data Deliverables Required:

**Special Instructions:** 

#### PSS Work Order #: PAGE OF \*CLIENT: \*OFFICE LOC.: \*PROJECT MGR: EMAIL: \*PHONE NO: ( \* (3) Canister Pressure \* in field ("Hg) Stop Incoming Canister Pressure ("Hg) Lab Indoor/Ambient Air Soil Gas / Subslab PROJECT NO .: Canister Pressure in field ("Hg) Start \*PROJECT NAME: Sample Reg. ID TO-15 Full List SITE LOCATION: P.O. NO.: Special List SAMPLER(S): \*DATE \*Time Start \*DATE \*Time Stop REMARKS LAB# \*SAMPLE IDENTIFICATION START (24hr clock) STOP (24hr clock) Relinquished By: (1) Date \*Requested TAT (One TAT per COC) Shipping Carrier: Time Received By: (4) 5-Day ☐ 3-Dav ☐ 2-Day ☐ Next Day ☐ Emergency ☐ Other Relinquished By: (2) Date Time Received By:

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

Received By:

Received By:



Relinquished By: (3)

Relinquished By: (4)

Date

Date

Time

Time

## **SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15**

PHASE SEPARATION SCIENCE, INC. www.phaseonline.com email: info@phaseonline.com

Data Deliverables Required:

**Special Instructions:** 

#### PSS Work Order #: PAGE OF \*CLIENT: \*OFFICE LOC.: \*PROJECT MGR: EMAIL: \*PHONE NO: ( \* (3) Canister Pressure \* in field ("Hg) Stop Incoming Canister Pressure ("Hg) Lab Indoor/Ambient Air Soil Gas / Subslab PROJECT NO .: Canister Pressure in field ("Hg) Start \*PROJECT NAME: Sample Reg. ID TO-15 Full List SITE LOCATION: P.O. NO.: Special List SAMPLER(S): \*DATE \*Time Start \*DATE \*Time Stop REMARKS LAB# \*SAMPLE IDENTIFICATION START (24hr clock) STOP (24hr clock) Relinquished By: (1) Date \*Requested TAT (One TAT per COC) Shipping Carrier: Time Received By: (4) 5-Day ☐ 3-Dav ☐ 2-Day ☐ Next Day ☐ Emergency ☐ Other Relinquished By: (2) Date Time Received By:

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

Received By:

Received By:



#### **Certificate of Analysis**

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

Project Name: ACPS IAQ Testing

PSS Project No.: 21082529

September 3, 2021

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

Reference: PSS Project No: 21082529

Project Name: ACPS IAQ Testing Project Location: George Washington

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) **21082529**.

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

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

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

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

Sincerely,

Dan Prucnal
Laboratory Manager





#### **Explanation of Qualifiers**

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

Project Name: ACPS IAQ Testing

PSS Project No.: 21082529

#### Project ID: 4920002

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

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
21082529-001	GW- Cafeteria	AIR	08/16/21 00:00
21082529-002	GW- Class A109	AIR	08/16/21 00:00
21082529-003	GW- Hall A124	AIR	08/16/21 00:00
21082529-004	GW- Class C120	AIR	08/16/21 00:00
21082529-005	GW- Class C125	AIR	08/16/21 00:00
21082529-006	GW- Gym	AIR	08/16/21 00:00
21082529-007	GW- Library	AIR	08/16/21 00:00
21082529-008	GW- Hall C203	AIR	08/16/21 00:00
21082529-009	GW- Class A212	AIR	08/16/21 00:00
21082529-010	GW- Auditorium	AIR	08/16/21 00:00
21082529-011	GW- Hall A230	AIR	08/16/21 00:00
21082529-012	GW- Hall A242	AIR	08/16/21 00:00
21082529-013	GW- Class A336	AIR	08/16/21 00:00
21082529-014	GW- Class A324	AIR	08/16/21 00:00
21082529-015	GW- Class A303	AIR	08/16/21 00:00

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

#### Notes:

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



### **Explanation of Qualifiers**

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

SCIENCE

Project Name: ACPS IAQ Testing

PSS Project No.: 21082529

#### 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.
- 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



Ms. Amber Confer Phase Separation Science, Inc. 6630 Baltimore National Pike Baltimore, MD 21228 September 03, 2021

Account# 15354 Login# L545229

**Dear Amber Confer:** 

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

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

Sincerely,

**SGS Galson** 

Lisa Swab Laboratory Director

Lisa Luab

**Enclosure(s)** 



#### ANALYTICAL REPORT

Account : 15354 Login No.: L545229

#### **Terms and Conditions & General Disclaimers**

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

#### **Analytical Disclaimers**

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

Accreditations SGS Galson holds a variety of accreditations and recognitions. Our quality management system conforms with the requirements of ISO/IEC 17025. Where applicable, samples may also be analyzed in accordance with the requirements of ELAP, NELAC, or LELAP under one of the state accrediting bodies listed below. Current Scopes of Accreditation can be viewed at <a href="http://www.sgsgalson.com">http://www.sgsgalson.com</a> 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	Lab ID: 1042	Mold Analysis Laboratory license

#### Legend

< - Less than MDL - Method Detection Limit mg - Milligrams ppb - Parts per Billion > - Greater than ug - Micrograms NA - Not Applicable ppm - Parts per Million I - 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 ng - Nanograms in2 - Square Inches



#### LABORATORY ANALYSIS REPORT

## GALSON

6601 Kirkville Road
East Syracuse, NY 13057

(315) 432-5227

FAX: (315) 437-0571 www.sqsqalson.com

Client : Phase Separation Science, Inc. Account No.: 15354 Site : GEORGE WASHTINGTON Login No. : L545229

Project No. : ACPS IAQ TESTING-4920002

Date Sampled : 16-AUG-21 Date Received : 27-AUG-21 Report ID : 1263239

#### 4-Phenylcyclohexene (4PCH low LOQ)

		Air Vol	Front	Back	Total	Conc	ppm
<u>Sample ID</u>	<u>Lab ID</u>	liter	uq	uq	uq	mq/m3	
GW-CAFETERIA	L545229-1	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GW-CLASS A109	L545229-2	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GW-HALL A124	L545229-3	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GW-CLASS C120	L545229-4	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GW-CLASS C125	L545229-5	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GW-GYM	L545229-6	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GW-LIBRARY	L545229-7	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GW-HALL C203	L545229-8	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GW-CLASS A212	L545229-9	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GW-AUDITORIUM	L545229-10	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GW-HALL A230	L545229-11	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GW-CLASS A242	L545229-12	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GW-CLASS A336	L545229-13	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GW-CLASS A324	L545229-14	48	<0.2	<0.2	<0.2	<0.004	<0.0007
GW-HALL A303	L545229-15	36	<0.2	<0.2	<0.2	<0.006	<0.0009

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

Level of Quantitation: 0.2 ug Submitted by: BDK Approved by: MLN

Analytical Method : mod. NIOSH 1501; GC/PID Date : 03-SEP-21

Collection Media : 226-01 Supervisor : KAG





## **GALSON**

Client Name : Phase Separation Science, Inc.

Site : GEORGE WASHTINGTON
Project No. : ACPS IAQ TESTING-4920002

Date Sampled: 16-AUG-21 Account No.: 15354
Date Received: 27-AUG-21 Login No.: L545229

Date Analyzed: 02-SEP-21

FAX: (315) 437-0571 www.sgsgalson.com

6601 Kirkville Road

East Syracuse, NY 13057 (315) 432-5227

L545229 (Report ID: 1263239):

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

L545229 (Report ID: 1263239):

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 Phanalanalahanana (4PQVI 1 100)	. / 108	00.28
4-Phenylcyclohexene (4PCH low LOQ)	+/-18%	88.2%

21082529 172313E40165461239 Date: 08/27/21 Invoice To\*: Phase Separation Science Shipper:UPS Report To\*: Phase Separation Science New Client? Initials:BGF 6630 Baltimore National Pike Baltimore, MD 21228 ient Account No \*: Prep:UNKNOWN Phone No.\*: 410-747-8770 Phone No.: 410-747-8770 CUCT TIPL SCHOOLSE Tel: (315) 432-5227 Cell No. : Email: invoicing@phaseonline.com 888-432-LABS (5227) P.O. No.: Email Results to : Amber Confer www.sgsgalson.com Credit Card : Card on File Email address: reporting@phaseonline.com Call for Credit Card Info. Samples submitted using the FreePumpLoan™ Program Samples submitted using the FreeSamplingBadges™ Program Need Results By: (surcharge) Project: ACPS IAQ testing - 4920002 Ø eora e Washing ton Sampled by: Site Name : Standard 0% 4 Business Days 35% Comments : 3 Business Days 50% 2 Business Days 75% State samples were Please indicate which OEL this data will be used for : List description of industry or Process/interferences present in sampling area: · Next Day by 6pm 100% collected in (e.g., NY) OSHA PEL ACGIH TLV Cal OSHA Next Day by Noon 150% Public grade school 6 27 121 all NG VA ☐ MSHA Other (specify): 200% Same Day Sample Volume Hexavalent Chromium Sample Units\*: Sample Identification\* Sample Time Analysis Requested\* Method Reference<sup>^</sup> Process (e.g., welding Date Sampled Collection Medium L. ml.min.in2.cm2.ft2 (Maxmium of 20 Characters) Sample Area plating, painting, etc.)\* 48.0 mod\_NIOSH 1501 08/16/21 Sm Charcoal tubes / 226-01 4-Phenvicvclohexene GW-Cafe terra mod. NIOSH 1501 GW - Class A109 08/16/21 Sm Charcoal tubes / 226-01 48.0 4-Phenvicvclohexene 48.0 4-Phenylcyclohexene mod, NIOSH 1501 08/16/21 GW - Hall A12ध Sm Charcoal tubes / 226-01 mod, NIOSH 1501 08/16/21 48.0 4-Phenylcyclohexene GW - Class C120 Sm Charcoal tubes / 226-01 mod, NIOSH 1501 GW - Class C125 08/16/21 Sm Charcoal tubes / 226-01 48.0 4-Phenylcyclohexene 08/16/21 Sm Charcoal tubes / 226-01 48 N 4-Phenylcyclohexene mod\_NIOSH 1501 GW - Gvm mod, NIOSH 1501 08/16/21 48.0 GW - Library Sm Charcoal tubes / 226-01 4-Phenylcyclohexene 08/16/21 48.0 mod, NIOSH 1501 GW - Hall C203 Sm Charcoal tubes / 226-01 4-Phenylcyclohexene 08/16/21 48.0 mod, NIOSH 1501 GW - Class A212 Sm Charcoal tubes / 226-01 4-Phenylcyclohexene 4-Phenvicvciohexene GW - Auditorium 08/16/21 Sm Charcoal tubes / 226-01 48.0 mod, NIOSH 1501 08/16/21 48.0 4-Phenylcyclohexene mod, NIOSH 1501 GW - Hall A230 Sm Charcoal tubes / 226-01 ^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)\*: Print Name/Signature Date Time Date Time Chain of Custody **Print Name/Signature** alex-9125171 1735 Received by: Relinguished by: Brett Grenert-Fischer Drill Brings -1126 Marit 1126M Relinquished by: Received by:

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

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

Page 8 of 14

4 27 121

Page

of \_

21082529

	SGS G	ALSON	New Client?	66	ase Sepa 30 Baltim Itimore, IV	ore Natio	nal Pike	Invoice T	o* : <u>Phase S</u>	eparatio	on Scie	ence	
	Tel: (315) 4	ise, NY 13057	E	Phone No.* : 411  Cell No. :					lo.: <u>410-747-87</u> ail : <u>invoicing@</u> lo. :		line.com		
ananalaan aam				Streporting@phaseonline.com  Credit Card : Card on File Call for Credit Card Info.						ıfo.			
	leed Results By:	(surcharge)			Samples sul		g the FreePumpLoan™ i	Program Samples submitted using the FreeSamplingBadges™ Program					
Ø	Standard	0%	Site Name: 6 e on	ge Washing	100	Pro	ject : ACPS IAQ te	sting - 4920002 sam	pled by :				
	4 Business Days	35%	Comments :	·									
	3 Business Days	50%											
	2 Business Days	75%							Ta	051.4			
	Next Day by 6pm	100%	List description of indu	ustry or Process/interfe	erences pres	ent in sampl	ing area :	State samples were collected in (e.g., NY)	Please indicate w OSHA PEL			De used to	
	Next Day by Noon Same Day	150% 200%	Public grade s	Public grade school					VA MSHA Other (specify):				
	Sample Identifi (Maxmium of 20 Ct	ication*	Date Sampled	Collection Medium	Samp	e Volume le Time le Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requ	ested*	Method R	eference^	Process (e	nt Chromium e.g., welding painting, etc.)*
GW	- Class A242		08/16/21	Sm Charcoal tubes / 226-01	48		L	4-Phenylcyclohexene		mod. NIC	OSH 1501		
	- Class A336		08/16/21	Sm Charcoal tubes / 226-01	48		L	4-Phenylcyclohexene		mod. NIC	OSH 1501		
GW	- Class A324		08/16/21	Sm Charcoal tubes / 226-0	48		L	4-Phenylcyclohexene		mod. NIC	OSH 1501		
GW	- Hall A303		08/16/21	Sm Charcoal tubes / 226-01	36		L	4-Phenylcyclohexene		mod. NIC	OSH 1501		
		· · · · · · · · · · · · · · · · · · ·		Sm Charcoal tubes / 226-01			L	4-Phenylcyclohexene		mod. NIC	OSH 1501		
		- :		Sm Charcoal tubes / 226-01	1		L	4-Phenylcyclohexene		mod. NIC	OSH 1501		
$\vdash$				Sm Charcoal tubes / 226-0	1		L	4-Phenylcyclohexene		mod. NIC	OSH 1501		
<del>                                     </del>				Sm Charcoal tubes / 226-0	1		L	4-Phenylcyclohexene	· · · · · · · · · · · · · · · · ·	mod. NIC	OSH 1501		
_				Sm Charcoal tubes / 226-0	1		L	4-Phenylcyclohexene		mod. NIC	OSH 1501		
				Sm Charcoal tubes / 226-0	1	··· <del>·</del>	L	4-Phenylcyclohexene		mod. NIC	OSH 1501		
			· . · · ·	Sm Charcoal tubes / 226-0	1		L	4-Phenylcyclohexene		mod. NIC	OSH 1501		
^Ga	alson Laboratories wi	ill subsititute our	routine/preferred meth	hod if it does not match	h the method	l listed on th	e COC unless this box is	s checked: 🔽 Use method	s) listed on COC				
								e for certain analytes - see S					
_			ded must be indicated								<u> </u>		
	in of Custody		nt Name/Signature		Date	Time		Print Nar	ne/Signature		Da	te	Time
Reli	nquished by :	C	hent	81	25/2n	1735	Received by :	au 96	of my		rist		
Reli	nquished by :	al	47 6/m		26/21	<u> </u>	Received by :	Brett Grenert-Fisc	her But !	)runut -	'Jischu		1156
			* R					s next day's business delay in မူလူ၊ နာကျာies be	ing processed.		812	J 1 2 1	of



### Chain of Custody Form for Subcontracted Analyses

Phase Separation So 6630 Baltimore Nat Baltimore, MD 212 Phone: (410) 747-8	ional Pike 28 770		W.O. No. : 21082529  Project Location : George Washington  Project Number : 4920002			SGS N	Samples Transferred To: SGS North America - NY 6601 Kirkville Road East Syracuse, NY 13057			
Fax: (410) 788-8723		•	ort To LOI		Old S Phone	GS Gaison Labs. b	sc			
For Questions or	issues please contact: A	Amber Confer		Report I	Oue On :09/03/21 05:00	- 10010	315-432-5227			
Lab Sample ID	Field Sample ID	Date Sampled	Time Sampled	Matrix	Analyses Required	Method	Type of Container	Preservative		
21082529-001	GW- Cafeteria	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
21082529-002	GW- Class A109	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
21082529-003	GW- Hall A124	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
21082529-004	GW- Class C120	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
21082529-005	GW- Class C125	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
21082529-006	GW- Gym	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
21082529-007	GW- Library	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
21082529-008	GW- Hall C203	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
21082529-009	GW- Class A212	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
21082529-010	GW- Auditorium	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
21082529-011	GW- Hall A230	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
21082529-012	GW- Hall A242	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
21082529-014	GW- Class A324			Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
21082529-015	GW- Class A303	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
		08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
end Report bill No.: addition Upon Recei	ables Required: Attn: reporting@ Cau	p <u>haseonline.co</u> n	<u>.es</u>		Perform Q.C Send		invoicing@phase	conline.com		
ples Relinquished I ples Relinquished I les Relinquished E	2,,,	Date: _ <b>V</b>		me:		Grenert-Fischer Bu	th Bunut - F	8/2 112 Anhari		
Relinquished E	Bv:				Samples Received By: deference:1 Generated:03-SEP-21 Samples Received By:					



#### **Case Narrative**

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

Project Name: ACPS IAQ Testing

PSS Project No.: 21082529

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.

21082529: Analyses associated with analyst code 4051 were performed by SGS North America - NY, 6601 Kirkville Road, East Syracuse, NY 13057 - NY 11626

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

21082529

SGS	GALSOI		66	nase Separation 330 Baltimore N altimore, MD 21	ational Pike	Invoice 7	<sup>™</sup> : <u>Phase S</u>	Separation Sci	ence		
		Client Account	t No.*:								
6601 Kirkville Rd											
Tol. (215) 422 5227				0-747-8770			No.: <u>410-747-8</u>				
888-43	32-LABS (5227)	•	Cell No. :					phaseonline.com	1		
www.sgsgs	alson.com		Email Results to : Ar			P.O. N					
			Email address.16	porting@phaseo	niine.com	Credit Ca	rd : Card on F	ile Call for Cre	dit Card Info.		
Need Results By:	(surcharge)			Samples submitted	using the FreePumpLoan™	Program Samples	submitted using th	ne FreeSamplingBadge	∍s™ Program		
☑ Standard	0%	Site Name: (e8	rge Washi	ng ton	Project: ACPS IAQ to	esting - 4920002 sam	pled by :				
4 Business Days	35%	Comments:	J								
3 Business Days	50%										
2 Business Days  Next Day by 6pm	75%					·					
	100%	List description of inc	dustry or Process/interfe	erences present in sa	mpling area:	State samples were collected in (e.g., NY)	· —	which OEL this data wil			
Next Day by Noon Same Day	150% 200%	Public grade	school			D car ostrik					
			<u> </u>	Sample Volume	. 1	VA	MSHA	Other (specify):	T		
Sample Identifi (Maxmium of 20 Ci		Date Sampled	Collection Medium	Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requ	ested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*		
GW-Cafe terra		08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene		mod. NIOSH 1501			
GW - Class A109		08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene		mod. NIOSH 1501			
GW - Hall AJટ્ય		08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene		mod. NIOSH 1501			
GW - Class C120		08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene		mod. NIOSH 1501			
GW - Class C125		08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene		mod. NIOSH 1501			
GW - Gym		08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene		mod. NIOSH 1501			
GW - Library		08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene		mod. NIOSH 1501			
GW - Hall C203		08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene		mod. NIOSH 1501			
GW - Class A212		08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene		mod. NIOSH 1501			
GW - Auditorium		08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene		mod. NIOSH 1501			
GW - Hall A230		08/16/21	Sm Charcoal tubes / 226-01	48.0	L	4-Phenylcyclohexene		mod. NIOSH 1501			
^Galson Laboratories will	subsititute our	routine/preferred meth	hod if it does not match	the method listed or	n the COC unless this box is	s checked: 🗾 Use method(s	) listed on COC				
For metals analysis: if req	uesting an analy	te with the option of a	a lower LOQ, please ind	icate if the lower LOC	is required (only available	e for certain analytes - see SA	G):				
For crystalline silica: form	n(s) of silica need	led must be indicated	(Quartz, Cristobalite, ar	nd/or Tridymite)*:			÷				
Chain of Custody	Pri	nt Name/Signature		Date Time			e/Signature	Dat	e Time		
Relinquished by :	$\mathcal{O}$	lient.	গু?	1514 173°	Received by:	alerto	fn				
Relinquished by :	ale	1 Juga		2614	Received by :						
	Samples received after 3pm will be considered as next day's business  * Required fields, failure to complete these fields may result in a delay in your samples being processed.  Page of										

## 21082529

6601 Kirkv East Syrac Tel: (315)	use, NY 13057 432-5227 32-LABS (5227	Client Account	Phone No.*:  Cell No.:  Email Results to:  Email address:	6630 Balti Baltimore, 410-747-8 Amber Cor reporting@	more Nation MD 21220 770 ofer phaseonling	onal Pike 8	Phone N Em P.O. N Credit Ca	No.: <u>410-747-8</u> ail : <u>invoicing@</u> lo. : rd : Card on F	phaseonline.	com Credit Care	d Info.
Standard	0%	Site Name: 6 e ø	rge Washi	ng ton	Pro	oject: ACPS IAQ te	esting - 4920002 samı	oled by :			
4 Business Days	35%	Comments:	<i></i>					· · · · · · · · · · · · · · · · · · ·			
3 Business Days	50%										
2 Business Days	75%										
Next Day by 6pm Next Day by Noon	100% 150%	List description of inc	dustry or Process/inte	rferences pre	sent in sampl	ling area :	State samples were collected in (e.g., NY)		which OEL this data		
Same Day	200%	Public grade	Public grade school					OSHA PEL MSHA	ACGIH TLV Other (specify		al OSHA
	L		Sample Volume			VA	L INIONA			alent Chromium	
(Maxmium of 20 Characters)		Collection Mediu	Sample Area*		Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*		Method Referen	e^ Proces	ss (e.g., welding g, painting, etc.)*	
GW - Class AZ42		08/16/21	Sm Charcoal tubes / 226-	01 48		L	4-Phenylcyclohexene		mod. NIOSH 1	501	
GW - Class A336		08/16/21	Sm Charcoal tubes / 226-	01 48		L	4-Phenylcyclohexene		mod, NIOSH 1	501	
GW - Class A324		08/16/21	Sm Charcoal tubes / 226-	-01 48		L	4-Phenylcyclohexene		mod. NIOSH 1	501	
GW - Hall A303		08/16/21	Sm Charcoal tubes / 226-	01 36		L	4-Phenylcyclohexene		mod. NIOSH 1	01	
			Sm Charcoal tubes / 226-	01		L	4-Phenylcyclohexene		mod. NIOSH 15	01	
			Sm Charcoal tubes / 226-	01		L	4-Phenylcyclohexene	· · · · · · · · · · · · · · · · · · ·	mod. NIOSH 15	01	
			Sm Charcoal tubes / 226-	01		L	4-Phenylcyclohexene		mod. NIOSH 15	01	
			Sm Charcoal tubes / 226-	01		L	4-Phenylcyclohexene		mod. NIOSH 15	01	-
			Sm Charcoal tubes / 226-	01		L	4-Phenylcyclohexene		mod. NIOSH 15		
			Sm Charcoal tubes / 226-	01		L	4-Phenylcyclohexene		mod. NIOSH 15	01	
			Sm Charcoal tubes / 226-	01		L	4-Phenylcyclohexene		mod, NIOSH 15	01	
^Galson Laboratories wil	l subsititute our	routine/preferred meth	nod if it does not mate	the metho	d listed on the	COC unless this box is	checked: 🔽 Use method(s)	listed on COC			
For metals analysis: if rec	questing an anal	yte with the option of a	lower LOQ, please in	dicate if the	lower LOQ is	required (only available	for certain analytes - see SAC	3):			
For crystalline silica: form	n(s) of silica need	ded must be indicated (	Quartz, Cristobalite,	and/or Tridyr	nite)*:						
Chain of Custody Print Name/Signature Date				Time		, Print Name	/Signature		Date	Time	
Relinquished by:	CI	nent	81'	26/2n	1735	Received by :	ale y b	fn			
Relinquished by :	ale	20pm	\$	26/21		Received by :					
		* R					next day's business delay in your samples bein	g processed.		Page_	of

Page 13 of 14

Version 1.000



#### **Sample Receipt Checklist**

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

Project Name: ACPS IAQ Testing PSS Project No.: 21082529

Client Name Total Environmental Concepts - Lort Received By Amber Confer

**Delivered By** Client

Tracking No Not Applicable

Logged In By Amber Confer

**Shipping Container(s)** 

No. of Coolers 0

Ice N/A

Custody Seal(s) Intact? N/A Temp (deg C)

Seal(s) Signed / Dated?

N/A Temp Blank Present No

**Documentation** Sampler Name <u>Not Provided</u>

COC agrees with sample labels?

Yes

N/A

Chain of Custody Yes

Sample Container Custody Seal(s) Intact? Not Applicable

Appropriate for Specified Analysis? Yes Seal(s) Signed / Dated Not Applicable

Intact? Yes

Labeled and Labels Legible? Yes

Holding Time Total No. of Samples Received 15

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

**Preservation** 

**Total Metals** (pH<2)N/A Dissolved Metals, filtered within 15 minutes of collection (pH<2)N/A Orthophosphorus, filtered within 15 minutes of collection N/A Cyanides (pH>12)N/A Sulfide (pH>9)N/A TOC, DOC (field filtered), COD, Phenols N/A (pH<2)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:	Outer I longer	Date:	08/26/2021
	Amber Confer		

PM Review and Approval:

Lynn Jackson
Page 14 of 14

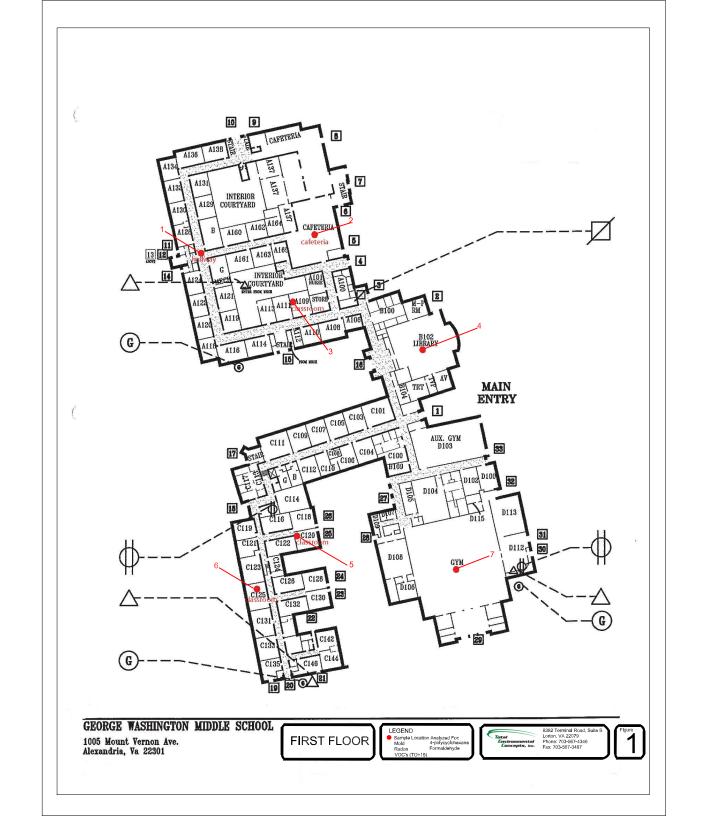
Date: 08/26/2021

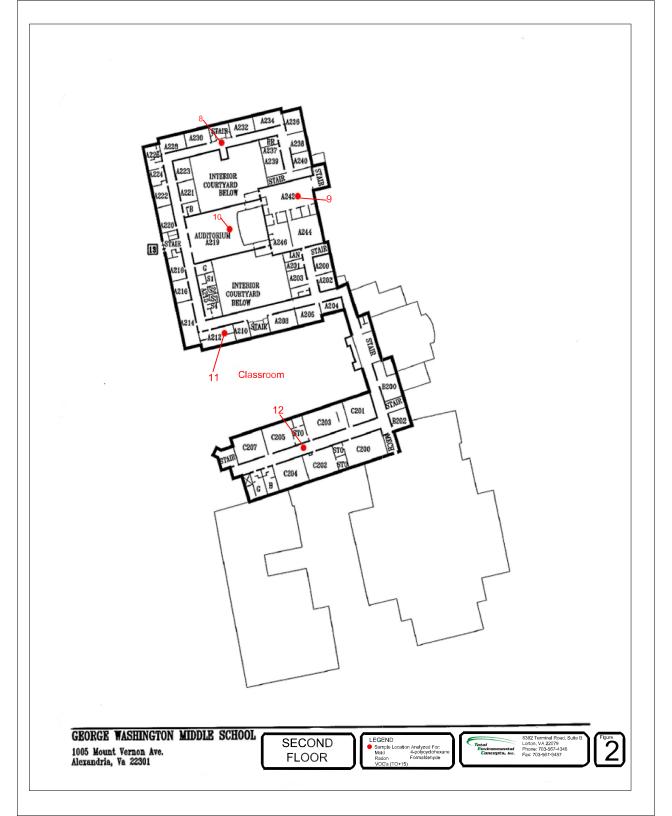
Version 1.000

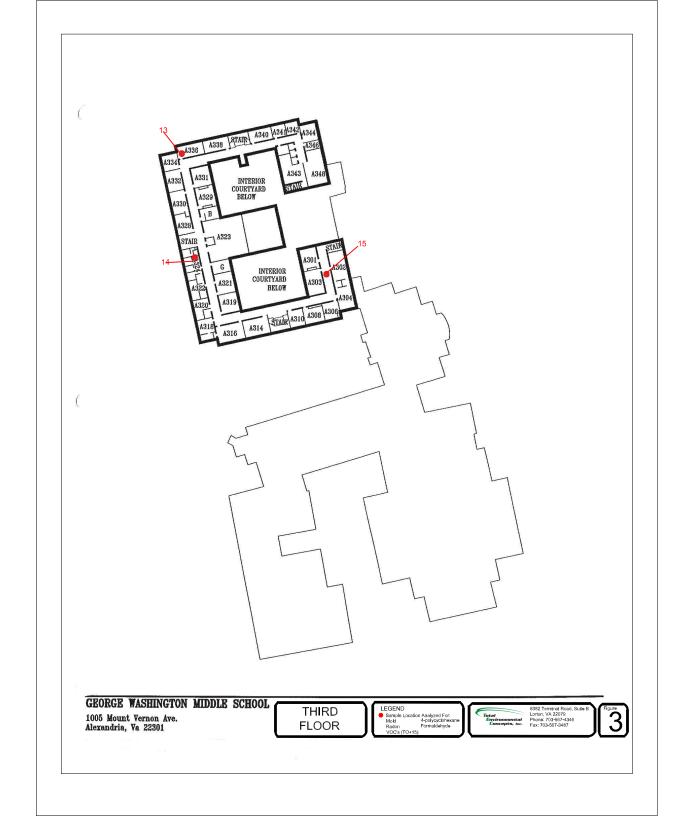
SGS	ALSOI	New Client?	Report To* :					Invoice To	o*:				
343	ALSUI	Client Account											
		Cheffit Account											
	6601 Kirkville Rd East Syracuse, NY 13057 Phone No.* :							Phone N	 lo.:				
Tel: (315) 4	East Syracuse, NY 13057 Phone No.* :							Fma	lo.: ail :				
888-43	2-LABS (5227)							P.O. N	0.:				
www.sgsga	alson.com							Credit Car	rd : Card on Fi	le 🗆	Call for Cred	dit Card Ir	nfo.
Need Results By:	(surcharge)			Samples subn	nitted usin	g the FreePumpLoan <sup>™</sup>	Program	Samples s	submitted using th	e FreeSam	plingBadge	s™ Progra	am.
Standard	0%	Site Name :			Pro	ject :		Samp	oled by :				
4 Business Days	35%	Comments:											
3 Business Days	50%												
2 Business Days	75%						_						
Next Day by 6pm	100%	List description of ind	ustry or Process/interfer	ences presen	t in sampli	ing area :	State samples we		Please indicate w				
Next Day by Noon	150%						collected in (e.g.,	NY)	OSHA PEL	_		Cal (	DSHA
Same Day	200%								MSHA	Other (	specify):		
Sample Identifi (Maxmium of 20 Cl		Date Sampled	Collection Medium	Sample \ Sample Sample	Time	Sample Units*: L, ml,min,in2,cm2,ft2	Ana	alysis Reque	ested*	Method F	Reference^	Process (	ent Chromium (e.g., welding painting, etc.)*
^Galson Laboratories wil	II subsititute ou	r routine/preferred meth	I nod if it does not match	the method li	sted on the	e COC unless this box is	s checked: Us	se method(s	s) listed on COC				
For metals analysis: if re-	questing an ana	lyte with the option of a	lower LOQ, please indi	cate if the low	ver LOQ is	required (only availabl	e for certain analyt	tes - see SA	G):				
For crystalline silica: forr	n(s) of silica nee	eded must be indicated	(Quartz, Cristobalite, an	d/or Tridymit	e)*:								
Chain of Custody	Pr	int Name/Signature		Date	Time			Print Nam	e/Signature		Da	te	Time
Relinquished by :		-				Received by :							
Relinquished by:						Received by :							
	Samples received after 3pm will be considered as next day's business  * Required fields, failure to complete these fields may result in a delay in your samples being processed.  Page of												

SGS	ALSOI	New Client?	Report To* :					Invoice To	o*:				
343	ALSUI	Client Account											
		Cheffit Account											
	6601 Kirkville Rd East Syracuse, NY 13057 Phone No.* :							Phone N	 lo.:				
Tel: (315) 4	East Syracuse, NY 13057 Phone No.* :							Fma	lo.: ail :				
888-43	2-LABS (5227)							P.O. N	0.:				
www.sgsga	alson.com							Credit Car	rd : Card on Fi	le 🗆	Call for Cred	dit Card Ir	nfo.
Need Results By:	(surcharge)			Samples subn	nitted usin	g the FreePumpLoan <sup>™</sup>	Program	Samples s	submitted using th	e FreeSam	plingBadge	s™ Progra	am.
Standard	0%	Site Name :			Pro	ject :		Samp	oled by :				
4 Business Days	35%	Comments :											
3 Business Days	50%												
2 Business Days	75%						_						
Next Day by 6pm	100%	List description of ind	ustry or Process/interfer	ences presen	t in sampli	ing area :	State samples we		Please indicate w				
Next Day by Noon	150%						collected in (e.g.,	NY)	OSHA PEL	_		Cal (	DSHA
Same Day	200%								MSHA	Other (	specify):		
Sample Identifi (Maxmium of 20 Cl		Date Sampled	Collection Medium	Sample \ Sample Sample	Time	Sample Units*: L, ml,min,in2,cm2,ft2	Ana	alysis Reque	ested*	Method F	Reference^	Process (	ent Chromium (e.g., welding painting, etc.)*
^Galson Laboratories wil	II subsititute ou	r routine/preferred meth	I nod if it does not match	the method li	sted on the	e COC unless this box is	s checked: Us	se method(s	s) listed on COC				
For metals analysis: if re-	questing an ana	lyte with the option of a	lower LOQ, please indi	cate if the low	ver LOQ is	required (only availabl	e for certain analyt	tes - see SA	G):				
For crystalline silica: forr	n(s) of silica nee	eded must be indicated	(Quartz, Cristobalite, an	d/or Tridymit	e)*:								
Chain of Custody	Pr	int Name/Signature		Date	Time			Print Nam	e/Signature		Da	te	Time
Relinquished by :		-				Received by :							
Relinquished by:						Received by :							
	Samples received after 3pm will be considered as next day's business  * Required fields, failure to complete these fields may result in a delay in your samples being processed.  Page of												

Appendix B: Site Plans and Sampling Locations	







Appendix C: Represer	ntative Photographs	



George Washington, Media Center



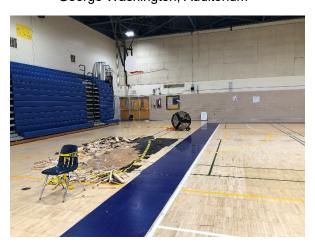
George Washington, Cafeteria



George Washington, Auditorium



George Washington, Classroom



George Washington, Gym



George Washington, Hallway