

**Total
Environmental
Concepts, Inc.**

Setting the Standard in Comprehensive Environmental Solutions

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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

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Abbreviations and Acronyms

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

Abbreviations involving scientific volume and measurements involving media or water sampling

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

1. Executive Summary

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

- Alexandria City High School (AC)
- AC Satellie Campus, Central Offices (CO)
- Charles Barrett Elementary School (BC)
- Cora Kelly School for Math (CK)
- Frances C. Hammond Elementary School (FH)
- George Mason Elementary School (GM)
- **George 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 MacArthur Elementary School (Out of Service)
- Jefferson-Houston Elementary School (JH)
- Ferdinand T. Day Elementary School (FD)
- Patrick Henry Elementary School (PH)
- Mount Vernon Community School (MV)

This IAQ assessment was conducted at 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

Summary of findings and recommendations during this limited IAQ investigation:

- **Radon** – levels recorded in all locations were less than 4pCi/L, as recommended by EPA and HUD.
- **Mold** – spore levels recorded in all locations were within acceptable ranges as compared to site-specific background mold spore counts.
 - Classroom A124 staff reported water issues. TEC observed staining on floors and ceiling tiles and other signs of water intrusion. TEC performed an additional mold sampling in this location. Results were normal when compared to site-specific baseline counts. TEC would recommend that ACPS investigate the source of the water intrusion.
 - TEC observed water stains on ceiling tiles in Classroom A 109. No evidence of active water intrusion was observed. TEC would recommend that ACPS investigate the source of the water staining.
- **VOCs** – The levels of volatile organic compounds (VOCs) recorded at each location were within acceptable ranges, when compared to EPA Regional Screening Levels (RSLs).
- **4-pch** – levels recorded during this investigation were within the LEED (Leadership of Energy and Environmental Design) IAQ guideline of 6.5 ug/m³.
- **Formaldehyde** – the levels of formaldehyde recorded at each location were within an acceptable range, compared to EPA Regional Screening Level (RSLs) of 1ug/m³.
- **Carbon monoxide** – concentrations in all areas were less than the EPA and ASHRAE recommended limit of 9 ppm.
- **Carbon dioxide** – concentrations in all tested spaces were less than the ASHRAE limit of 1,092 ppm.
- **RH** – the relative humidity in all tested spaces was within the ASHRAE guidelines of ≤ 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.

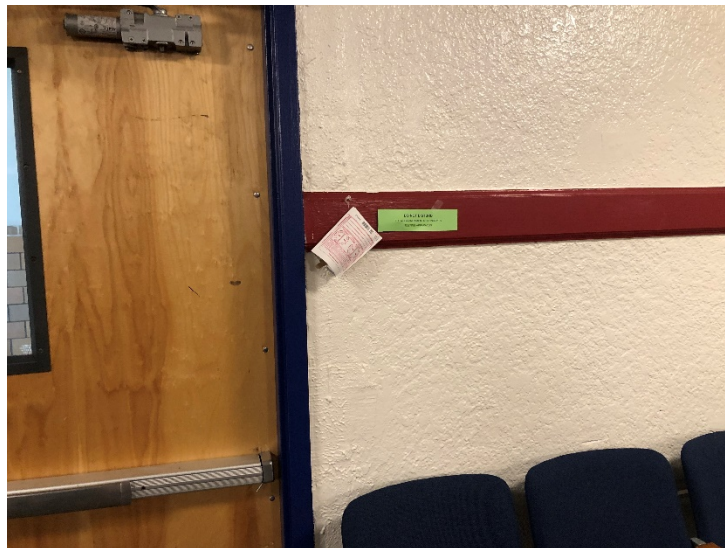
2. Assessment Methods

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.






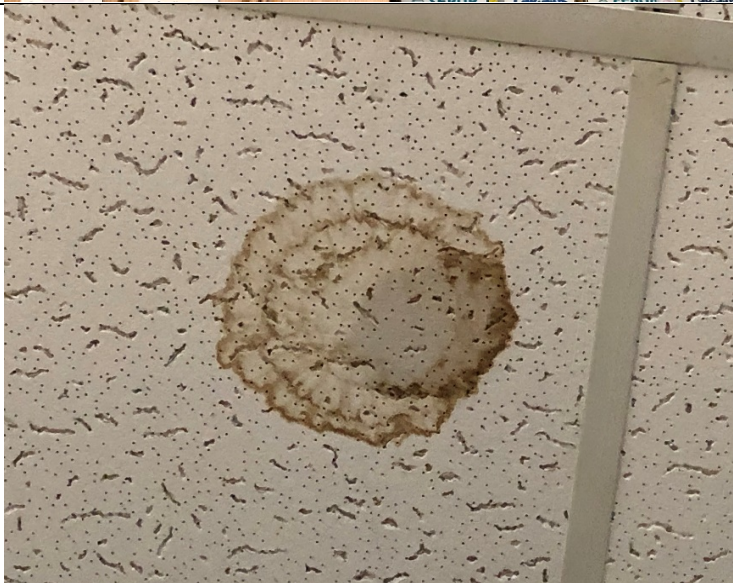
The temperature and relative humidity were taken with the AcuRite Digital Indoor Temperature and Humidity Monitor in the lobby of each school. Temperature and relative humidity readings can be found in Section 5 Mold Sampling Results, below.

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



3. Visual Observations

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.	

<p>A109</p>	<p>Water stain observed on the ceiling tile of classromm A109.</p>	
<p>A109</p>	<p>Water Stain in room A109 close up.</p>	

4. Conditions for Human Occupancy

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

4.1 Temperature

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

4.2 Relative Humidity

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

4.3 Carbon Dioxide

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

4.4 Carbon Monoxide

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

4.5 Multi-gas Detector Readings

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

5. Mold Sampling Results

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 indicated 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	CO	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 th 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	Mold		TO+15 VOCs	4PCH	Formaldehyde
		AVG: 77 F	AVG: 60 %			
Gym	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Media Center	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Cafeteria	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Cafe-Hall A126	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
A109	< 4 pCi/L	Spore Count 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

Appendix A: Laboratory Report and Chain 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



Lab ID: #188863



DPH License: #PH-0198

Sample Number	1	GW4318817			2	GW4318816			3	GW4318814			4	GW4318820		
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 ³			13 spores/m ³			13 spores/m ³			13 spores/m ³						
Background	1			2			2			2						
Fragments	ND			ND			ND			ND						
Organism	Raw Count	Count / m ³	% of Total	Raw Count	Count / m ³	% of Total	Raw Count	Count / m ³	% of Total	Raw Count	Count / m ³	% of Total				
Alternaria																
Ascospores	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%				

Water Damage Indicator	Common Allergen	Slightly Higher than Baseline	Significantly Higher than Baseline	Ratio Abnormality
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Collected: **Aug 13, 2021**

Received: **Aug 16, 2021**

Reported: **Aug 16, 2021**



Project Analyst:
 Ramesh Poluri, PhD

P. Ramesh

Date:
08 - 16 - 2021

Reviewed By:
 Steve Hayes, BSMT

Stephen N. Hayes

Date:
08 - 16 - 2021

Sample Number	5 GW4318815			6 Gw4318825			7 GW4318819			8 GW4318838		
Sample Name	GW A212			W A242			GW A219 Aud			GW Hallway A232		
Sample Volume	75.00 liter			75.00 liter			75.00 liter			75.00 liter		
Reporting Limit	13 spores/m ³			13 spores/m ³			13 spores/m ³			13 spores/m ³		
Background	2			1			2			2		
Fragments	ND			ND			ND			ND		
Organism	Raw Count	Count / m ³	% of Total	Raw Count	Count / m ³	% of Total	Raw Count	Count / m ³	% of Total	Raw Count	Count / m ³	% of Total
Alternaria												
Ascospores	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%

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



Collected: **Aug 13, 2021**

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Project Analyst:
 Ramesh Poluri, PhD *P. Ramesh*

Date:
08 - 16 - 2021

Reviewed By:
 Steve Hayes, BSMT *Stephen N. Hayes*

Date:
08 - 16 - 2021

Sample Number	9 GW4318829			10 GW4315347			11 GW4318830			12 GW4318826		
Sample Name	GW A219 Aud			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 ³			13 spores/m ³			13 spores/m ³			13 spores/m ³		
Background	2			2			2			2		
Fragments	ND			ND			ND			ND		
Organism	Raw Count	Count / m ³	% of Total	Raw Count	Count / m ³	% of Total	Raw Count	Count / m ³	% of Total	Raw Count	Count / m ³	% of Total
Alternaria												
Ascospores	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%

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

Collected: **Aug 13, 2021**

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Project Analyst:
 Ramesh Poluri, PhD

P. Ramesh

Date:
08 - 16 - 2021

Reviewed By:
 Steve Hayes, BSMT

Stephen N. Hayes

Date:
08 - 16 - 2021

Sample Number	13	GW4318837		14	GW4318831		15	GW4318836		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 ³			13 spores/m ³			13 spores/m ³			13 spores/m ³		
Background	2			2			2			2		
Fragments	ND			ND			ND			ND		
Organism	Raw Count	Count / m ³	% of Total	Raw Count	Count / m ³	% of Total	Raw Count	Count / m ³	% of Total	Raw Count	Count / m ³	% of Total
Alternaria												
Ascospores	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%

Water Damage Indicator	Common Allergen	Slightly Higher than Baseline	Significantly Higher than Baseline	Ratio Abnormality
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08 - 16 - 2021

Reviewed By:
 Steve Hayes, BSMT

Stephen N. Hayes

Date:
08 - 16 - 2021

Sample Number	17	GW4318835			18	GW4318834			19	GW4315351		
Sample Name	GW Cafeteria			GW Hallway R A12 RG			GW A124					
Sample Volume	75.00 liter			75.00 liter			75.00 liter					
Reporting Limit	13 spores/m ³			13 spores/m ³			13 spores/m ³					
Background	2			2			2					
Fragments	ND			ND			ND					
Organism	Raw Count	Count / m ³	% of Total	Raw Count	Count / m ³	% of Total	Raw Count	Count / m ³	% of Total			
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%			

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

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

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 disseminated infection, primarily in the immunocompromised.

Epicoccum

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

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

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.

Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723539 Result: ????

Location: library B102

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 B102

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 B102

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 B library B102

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

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

Gym

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 Result: < 0.3 pCi/l

Location:

Gw Ms

Gym

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

A212

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

Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723556 Result: < 0.3 pCi/l

Location:

Gw Ms

A-324

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

Kit #: 9723559 Result: < 0.3 pCi/l

Location:

Gw Ms

A242

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

Kit #: 9723560 Result: < 0.3 pCi/l

Location:

Gw Ms

A242

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

Kit #: 9723561 Result: < 0.3 pCi/l

Location:

Gw Ms

A 302 hall

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

Kit #: 9723562 Result: < 0.3 pCi/l

Location:

Gw Ms

Cafe N

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

Kit #: 9723565 Result: < 0.3 pCi/l

Location:

Gw Ms

hall A 232

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

Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723566 Result: < 0.3 pCi/l

Location:

Gw Ms

C-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

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**.

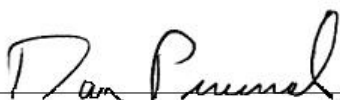
All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis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

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 contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Explanation of Qualifiers

Project Name: ACPS IAQ Testing

PSS Project No.: 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.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

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

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

Enclosure(s)

Terms and Conditions & General Disclaimers

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

Analytical Disclaimers

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

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

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

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

Legend

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



LABORATORY ANALYSIS REPORT

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

Client : Phase Separation Science, Inc. Account No.: 15354
 Site : GEORGE WASHINGTON SCHOOL Login No. : L545200
 Project No. : ACPS IAQ TESTING-4920002
 Date Sampled : 16-AUG-21 Date Analyzed : 31-AUG-21
 Date Received : 27-AUG-21 Report ID : 1262675

Formaldehyde

Sample ID	Lab ID	Time minutes	Total ug	Conc mg/m3	Conc ppm
GW-CAFETERIA	L545200-1	240	<0.4	<0.01	<0.01
GW-CLASS A109	L545200-2	240	0.9	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
 Analytical Method : mod. OSHA 1007; HPLC/UV
 Collection Media : Assay 581

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

Approved by: NKP



GALSON

LABORATORY FOOTNOTE REPORT

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

Client Name : Phase Separation Science, Inc.
Site : GEORGE WASHINGTON SCHOOL
Project No. : ACPS IAQ TESTING-4920002
Date Sampled : 16-AUG-21
Date Received: 27-AUG-21
Date Analyzed: 31-AUG-21
Account No.: 15354
Login No. : I545200

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):

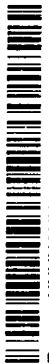
There is an interfering peak present in the chromatography that could not be separated from the analyte peak.
The reported result may be biased high.

L545200 (Report ID: 1262675):

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

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

122313E401654B1239
 Date: 08/27/21
 Shipper: UPS
 Initials: BGF
 Pre-ep: UNKNOWN



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

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

Client Account No.*:

Phone No.* : 410-747-8770

Cel No.:

Email Results to : Amber Conifer

Email address: reporting@phaseonline.com

Phone No.: 410-747-8770

Email : invoicing@phaseonline.com

P.O. No.:

Credit Card : Card on File Call for Credit Card Info.

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

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

Comments :

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

Public grade school building

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

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

Need Results By:	(surcharge)	Sample Identification* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units* L, ml, min, in2, cm2, ft2	Analysis Requested*	Method Reference ^A	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
<input checked="" type="checkbox"/> Standard	0%	GW - Cafeteria	08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5441
<input type="checkbox"/> 4 Business Days	35%	GW - Class A109	08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5527
<input type="checkbox"/> 3 Business Days	50%	GW - Hall A124	08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5039
<input type="checkbox"/> 2 Business Days	75%	GW - Class C120	08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5254
<input type="checkbox"/> Next Day by 6pm	100%	GW - Class C125	08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4374
<input type="checkbox"/> Next Day by Noon	150%	GW - Gym	08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5049
<input type="checkbox"/> Same Day	200%	GW - Library	08/16/20	Assay N581 Aldehyde Badge	241	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5060
		GW - 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	OZ4157
		GW - Auditorium	08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5031
		GW - Hall A230	08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4969

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

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

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

Chain of Custody	Print Name/Signature	Date	Time	Received by:	Received by:	Print Name/Signature	Date	Time
	Client	8/25/21	1735	Amber Conifer		Amber Conifer		
Relinquished by:	Amber Conifer	8/24/21		Amber Conifer		Amber Conifer	8/27/21	1136
Relinquished by:	Amber Conifer	8/24/21		Amber Conifer		Amber Conifer	8/27/21	1136

* Required fields, failure to complete these fields may result in a delay in your samples being processed.
 Report Reference: Generated: 02-SEP-21 14:06

21082528

SGS GALSON

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

Invoice To*: Phase Separation Science

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

Phone No.*: 410-747-8770

Phone No.: 410-747-8770

Cell No.:

Email: invoicing@phaseonline.com

Email Results to: Amber Confer

P.O. No.:

Email address: reporting@phaseonline.com

Credit Card: Card on File Call for Credit Card Info.

www.sgsgalson.com

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

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

Comments:

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

Public grade school building

State samples were collected in (e.g., NY) VA
Please indicate which OEL this data will be used for:
 OSHA PEL ACGIH TLV Cal OSHA
 MSHA Other (specify):

Sample Identification* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units* L, ml, min, in ² , cm ² , ft ²	Analysis Requested*	Method Reference ^A	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
GW - Class A242	08/16/21	Assay N581 Aldehyde Badge	240 min	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ-5159
GW - Class A336	08/16/21	Assay N581 Aldehyde Badge	240 min	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4792
GW - Class A324	08/16/21	Assay N581 Aldehyde Badge	240 min	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5410
GW - Hall A303	08/16/21	Assay N581 Aldehyde Badge	180 min	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5474
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	

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

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

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

Chain of Custody	Print Name/Signature	Date	Time	Received by:	Print Name/Signature	Date	Time
Relinquished by:	Client	8/25/21	1735	Received by:	Amber Confer		
Relinquished by:	Amber Confer	8/26/21		Received by:	Brett Grenert-Fischer	8/27/21	1126

Samples received after 3pm will be considered as next day's business
* Required fields, failure to complete these fields may result in a delay in your samples being processed.
Page 6 of 7 Report Reference: Generated: 02-SEP-21 14:06

Page 1000 of



Chain of Custody Form for Subcontracted Analyses

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

W.O. No.: **21082528**

Project Location: George Washington School

Project Number: 4920002

Report To LOD: No

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

For Questions or issues please contact: Amber Confer

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

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

Data Deliverables Required: COA

Perform Q.C. on Sample :

Send Report Attn : reporting@phaseonline.com

Send Invoice Attn : invoicing@phaseonline.com

Airbill No.:

Carrier: **UPS**

Condition Upon Receipt:

Comments:

Samples Relinquished By: *Amber Confer*

Date: *8/26/21*

Samples Received By: *Brett Grenert-Fischer*

Brett Grenert-Fischer 8/27/21 1126

Samples Relinquished By:

Date:

Samples Received By:

Samples Relinquished By:

Date: *Page 7 of 7, Report Reference: 02-SEP-21 14:06*

Case Narrative

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.

21082528

SGS GALSON

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

www.sggalsion.com

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

Client Account No.*:

Phone No.* : 410-747-8770

Cell No.:

Email Results to: Amber Confer

Email address: reporting@phaseonline.com

Invoice To*: Phase Separation Science

Phone No.: 410-747-8770

Email: invoicing@phaseonline.com

P.O. No.:

Credit Card: Card on File Call for Credit Card Info.

Samples submitted using the FreePumpLoan™ Program

Samples submitted using the FreeSamplingBadges™ Program

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

Comments:

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

Public grade school building

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

VA

Please indicate which OEL this data will be used for:

OSHA PEL ACGIH TLV Cal OSHA
 MSHA Other (specify):

Sample Identification* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units* L, ml, min, in2, cm2, ft2	Analysis Requested*	Method Reference*	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
GW - Cafeteria	08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ54903
GW - Class A109	08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5527
GW - Hall A124	08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5039
GW - Class C120	08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5254
GW - Class C125	08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4374
GW - Gym	08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5049
GW - Library	08/16/20	Assay N581 Aldehyde Badge	241	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5060
GW - 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	OZ4157
GW - Auditorium	08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5031
GW - Hall A230	08/16/20	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ4969

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

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

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

Chain of Custody	Print Name/Signature	Date	Time	Print Name/Signature	Date	Time
Relinquished by:	Client	8/25/20	1735	Amber Confer		
Relinquished by:	Client	8/24/20				

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.

21082528

SGS GALSON

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

www.sgsgalson.com

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

Client Account No.*:

Phone No.* : 410-747-8770
Cell No. :

Email Results to : Amber Confer
Email address: reporting@phaseonline.com

Invoice To* : Phase Separation Science

Phone No.: 410-747-8770

Email : invoicing@phaseonline.com

P.O. No. :

Credit Card : Card on File Call for Credit Card Info.

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

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

Site Name : George Washington School Project : ACPs IAQ testing - 4920002 Sampled by :

Comments :

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

Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units* L, ml, min, in ² , cm ² , ft ²	Analysis Requested*	Method Reference ^A	Hexavalent Chromium Process (e.g., welding plating, painting, etc.) ^B
08/16/21	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLCUUV	OZ-5159
08/16/21	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLCUUV	OZ4792
08/16/21	Assay N581 Aldehyde Badge	240	min	Formaldehyde	mod. OSHA 1007: TPLCUUV	OZ5410
08/16/21	Assay N581 Aldehyde Badge	180	min	Formaldehyde	mod. OSHA 1007: TPLCUUV	OZ5474
	Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLCUUV	
	Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLCUUV	
	Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLCUUV	
	Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLCUUV	
	Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLCUUV	
	Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLCUUV	

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

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

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

Chain of Custody	Print Name/Signature	Date	Time	Print Name/Signature	Date	Time
Relinquished by:	Client	8/15/21	1735	Amber Confer		
Relinquished by:	Amber Confer	8/24/21				

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.

Sample Receipt Checklist

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

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

Shipping Container(s)

No. of Coolers 0

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

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

Documentation

COC agrees with sample labels? Yes
Chain of Custody Yes

Sampler Name Not Provided
N/A

Sample Container

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

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

Holding Time

All Samples Received Within Holding Time(s)? Yes

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

Preservation

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

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

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

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

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

Project Name: ACPS IAQ 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**.

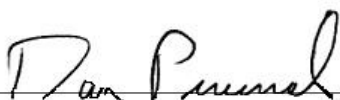
All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis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

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 contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Explanation of Qualifiers

Project Name: ACPS IAQ Testing

PSS Project No.: 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.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

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

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

Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

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



Rabecka Koons, Quality Assurance Officer

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

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

Rabecka Koons, Quality Assurance Officer

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

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

Rabecka Koons, Quality Assurance Officer

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

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

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Rabecka Koons, Quality Assurance Officer

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	09/08/21	09/08/21 17:16	WB
n-Heptane	0.37	J	ug/m ³	0.82	0.21	1	09/08/21	09/08/21 17:16	WB
Hexachlorobutadiene	ND		ug/m ³	2.10	2.10	1	09/08/21	09/08/21 17:16	WB
Hexane	ND		ug/m ³	14.0	14.0	1	09/08/21	09/08/21 17:16	WB
2-Hexanone	ND		ug/m ³	0.82	0.15	1	09/08/21	09/08/21 17:16	WB
Isopropylbenzene (Cumene)	ND		ug/m ³	1.10	0.40	1	09/08/21	09/08/21 17:16	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.72	0.21	1	09/08/21	09/08/21 17:16	WB
Methylene chloride	27.2	L	ug/m ³	18.0	18.0	1	09/08/21	09/08/21 17:16	WB
Methyl ethyl ketone (2-Butanone)	1.21		ug/m ³	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/m ³	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/m ³	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/m ³	1.70	0.43	1	09/08/21	09/08/21 17:16	WB
Surrogate: 4-Bromofluorobenzene			73-115	98 %	09/08/21		09/08/21 17:16		



Rabecka Koons, Quality Assurance Officer

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	15.6		ug/m ³	2.40	2.40	1	09/08/21	09/08/21 17:50	WB
Benzene	0.45	J	ug/m ³	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/m ³	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/m ³	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/m ³	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/m ³	1.20	0.30	1	09/08/21	09/08/21 17:50	WB
Dichlorodifluoromethane	2.57		ug/m ³	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/m ³	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/m ³	0.91	0.23	1	09/08/21	09/08/21 17:50	WB
1,4-Dioxane	ND		ug/m ³	0.72	0.18	1	09/08/21	09/08/21 17:50	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	09/08/21	09/08/21 17:50	WB
Ethylbenzene	ND		ug/m ³	0.87	0.22	1	09/08/21	09/08/21 17:50	WB
4-Ethyltoluene	ND		ug/m ³	0.98	0.25	1	09/08/21	09/08/21 17:50	WB
Freon 113	0.54	J	ug/m ³	1.50	0.38	1	09/08/21	09/08/21 17:50	WB

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Rabecka Koons, Quality Assurance Officer

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:

09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	09/08/21	09/08/21 17:50	WB
n-Heptane	0.33	J	ug/m ³	0.82	0.21	1	09/08/21	09/08/21 17:50	WB
Hexachlorobutadiene	ND		ug/m ³	2.10	2.10	1	09/08/21	09/08/21 17:50	WB
Hexane	ND		ug/m ³	14.0	14.0	1	09/08/21	09/08/21 17:50	WB
2-Hexanone	ND		ug/m ³	0.82	0.15	1	09/08/21	09/08/21 17:50	WB
Isopropylbenzene (Cumene)	ND		ug/m ³	1.10	0.40	1	09/08/21	09/08/21 17:50	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.72	0.21	1	09/08/21	09/08/21 17:50	WB
Methylene chloride	ND		ug/m ³	18.0	18.0	1	09/08/21	09/08/21 17:50	WB
Methyl ethyl ketone (2-Butanone)	1.12		ug/m ³	0.59	0.34	1	09/08/21	09/08/21 17:50	WB
Methyl isobutyl ketone	ND		ug/m ³	0.82	0.82	1	09/08/21	09/08/21 17:50	WB
Naphthalene	ND		ug/m ³	1.10	0.70	1	09/08/21	09/08/21 17:50	WB
Propene	ND		ug/m ³	0.34	0.34	1	09/08/21	09/08/21 17:50	WB
n-Propylbenzene	ND		ug/m ³	0.98	0.40	1	09/08/21	09/08/21 17:50	WB
Styrene	0.43	J	ug/m ³	0.85	0.15	1	09/08/21	09/08/21 17:50	WB
1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.40	0.35	1	09/08/21	09/08/21 17:50	WB
Tetrachloroethene	ND		ug/m ³	1.40	0.70	1	09/08/21	09/08/21 17:50	WB
Tetrahydrofuran	0.32	J	ug/m ³	0.59	0.15	1	09/08/21	09/08/21 17:50	WB
Toluene	2.45		ug/m ³	0.75	0.35	1	09/08/21	09/08/21 17:50	WB
1,2,4-Trichlorobenzene	ND		ug/m ³	1.50	0.38	1	09/08/21	09/08/21 17:50	WB
1,1,1-Trichloroethane	ND		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 17:50	WB
1,1,2-Trichloroethane	ND		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 17:50	WB
Trichloroethene	ND		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 17:50	WB
Trichlorofluoromethane (Freon 11)	1.74		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 17:50	WB
1,2,4-Trimethylbenzene	ND		ug/m ³	0.98	0.25	1	09/08/21	09/08/21 17:50	WB
1,3,5-Trimethylbenzene	ND		ug/m ³	0.98	0.25	1	09/08/21	09/08/21 17:50	WB
2,2,4-Trimethylpentane	0.37	J	ug/m ³	0.93	0.23	1	09/08/21	09/08/21 17:50	WB
Vinyl acetate	ND		ug/m ³	0.70	0.70	1	09/08/21	09/08/21 17:50	WB
Vinyl bromide	ND		ug/m ³	0.87	0.22	1	09/08/21	09/08/21 17:50	WB
Vinyl chloride	ND		ug/m ³	0.51	0.13	1	09/08/21	09/08/21 17:50	WB
o-Xylene	ND		ug/m ³	0.87	0.22	1	09/08/21	09/08/21 17:50	WB
m- & p-Xylenes	0.43	J	ug/m ³	1.70	0.43	1	09/08/21	09/08/21 17:50	WB
Surrogate: 4-Bromofluorobenzene			73-115	99 %	09/08/21		09/08/21 17:50		

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	13.2		ug/m ³	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/m ³	1.00	0.25	1	09/08/21	09/08/21 18:24	WB
Bromodichloromethane	ND		ug/m ³	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/m ³	1.30	0.33	1	09/08/21	09/08/21 18:24	WB
Chlorobenzene	ND		ug/m ³	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/m ³	0.63	0.16	1	09/08/21	09/08/21 18:24	WB
Cyclohexane	ND		ug/m ³	0.69	0.17	1	09/08/21	09/08/21 18:24	WB
Dibromochloromethane	ND		ug/m ³	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/m ³	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/m ³	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/m ³	0.72	0.18	1	09/08/21	09/08/21 18:24	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	09/08/21	09/08/21 18:24	WB
Ethylbenzene	ND		ug/m ³	0.87	0.22	1	09/08/21	09/08/21 18:24	WB
4-Ethyltoluene	ND		ug/m ³	0.98	0.25	1	09/08/21	09/08/21 18:24	WB
Freon 113	0.54	J	ug/m ³	1.50	0.38	1	09/08/21	09/08/21 18:24	WB

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

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

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	14.4		ug/m ³	2.40	2.40	1	09/08/21	09/08/21 18:58	WB
Benzene	0.38	J	ug/m ³	0.64	0.16	1	09/08/21	09/08/21 18:58	WB
Benzyl chloride	ND		ug/m ³	1.00	0.25	1	09/08/21	09/08/21 18:58	WB
Bromodichloromethane	ND		ug/m ³	1.30	0.33	1	09/08/21	09/08/21 18:58	WB
Bromoform	ND		ug/m ³	2.10	0.53	1	09/08/21	09/08/21 18:58	WB
Bromomethane	ND		ug/m ³	0.78	0.20	1	09/08/21	09/08/21 18:58	WB
1,3-Butadiene	ND		ug/m ³	0.44	0.44	1	09/08/21	09/08/21 18:58	WB
Carbon disulfide	ND		ug/m ³	1.56	1.56	1	09/08/21	09/08/21 18:58	WB
Carbon tetrachloride	0.50	J	ug/m ³	1.30	0.33	1	09/08/21	09/08/21 18:58	WB
Chlorobenzene	ND		ug/m ³	0.92	0.23	1	09/08/21	09/08/21 18:58	WB
Chloroethane	ND		ug/m ³	0.53	0.27	1	09/08/21	09/08/21 18:58	WB
Chloroform	ND		ug/m ³	0.97	0.24	1	09/08/21	09/08/21 18:58	WB
Chloromethane	1.18		ug/m ³	0.41	0.10	1	09/08/21	09/08/21 18:58	WB
3-Chloropropene	ND		ug/m ³	0.63	0.16	1	09/08/21	09/08/21 18:58	WB
Cyclohexane	ND		ug/m ³	0.69	0.17	1	09/08/21	09/08/21 18:58	WB
Dibromochloromethane	ND		ug/m ³	1.30	0.33	1	09/08/21	09/08/21 18:58	WB
1,2-Dibromoethane (EDB)	ND		ug/m ³	1.40	0.35	1	09/08/21	09/08/21 18:58	WB
1,2-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	09/08/21	09/08/21 18:58	WB
1,3-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	09/08/21	09/08/21 18:58	WB
1,4-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	09/08/21	09/08/21 18:58	WB
Dichlorodifluoromethane	2.57		ug/m ³	0.99	0.99	1	09/08/21	09/08/21 18:58	WB
1,1-Dichloroethane	ND		ug/m ³	0.81	0.20	1	09/08/21	09/08/21 18:58	WB
1,2-Dichloroethane	ND		ug/m ³	0.81	0.20	1	09/08/21	09/08/21 18:58	WB
1,1-Dichloroethene	ND		ug/m ³	0.79	0.20	1	09/08/21	09/08/21 18:58	WB
cis-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	09/08/21	09/08/21 18:58	WB
trans-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	09/08/21	09/08/21 18:58	WB
1,2-Dichloropropane	ND		ug/m ³	0.92	0.23	1	09/08/21	09/08/21 18:58	WB
cis-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	09/08/21	09/08/21 18:58	WB
trans-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	09/08/21	09/08/21 18:58	WB
1,4-Dioxane	ND		ug/m ³	0.72	0.18	1	09/08/21	09/08/21 18:58	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	09/08/21	09/08/21 18:58	WB
Ethylbenzene	ND		ug/m ³	0.87	0.22	1	09/08/21	09/08/21 18:58	WB
4-Ethyltoluene	ND		ug/m ³	0.98	0.25	1	09/08/21	09/08/21 18:58	WB
Freon 113	0.61	J	ug/m ³	1.50	0.38	1	09/08/21	09/08/21 18:58	WB

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Rabecka Koons, Quality Assurance Officer

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	09/08/21	09/08/21 18:58	WB
n-Heptane	ND		ug/m ³	0.82	0.21	1	09/08/21	09/08/21 18:58	WB
Hexachlorobutadiene	ND		ug/m ³	2.10	2.10	1	09/08/21	09/08/21 18:58	WB
Hexane	ND		ug/m ³	14.0	14.0	1	09/08/21	09/08/21 18:58	WB
2-Hexanone	ND		ug/m ³	0.82	0.15	1	09/08/21	09/08/21 18:58	WB
Isopropylbenzene (Cumene)	ND		ug/m ³	1.10	0.40	1	09/08/21	09/08/21 18:58	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.72	0.21	1	09/08/21	09/08/21 18:58	WB
Methylene chloride	ND		ug/m ³	18.0	18.0	1	09/08/21	09/08/21 18:58	WB
Methyl ethyl ketone (2-Butanone)	0.83		ug/m ³	0.59	0.34	1	09/08/21	09/08/21 18:58	WB
Methyl isobutyl ketone	ND		ug/m ³	0.82	0.82	1	09/08/21	09/08/21 18:58	WB
Naphthalene	ND		ug/m ³	1.10	0.70	1	09/08/21	09/08/21 18:58	WB
Propene	ND		ug/m ³	0.34	0.34	1	09/08/21	09/08/21 18:58	WB
n-Propylbenzene	ND		ug/m ³	0.98	0.40	1	09/08/21	09/08/21 18:58	WB
Styrene	ND		ug/m ³	0.85	0.15	1	09/08/21	09/08/21 18:58	WB
1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.40	0.35	1	09/08/21	09/08/21 18:58	WB
Tetrachloroethene	ND		ug/m ³	1.40	0.70	1	09/08/21	09/08/21 18:58	WB
Tetrahydrofuran	ND		ug/m ³	0.59	0.15	1	09/08/21	09/08/21 18:58	WB
Toluene	0.72	J	ug/m ³	0.75	0.35	1	09/08/21	09/08/21 18:58	WB
1,2,4-Trichlorobenzene	ND		ug/m ³	1.50	0.38	1	09/08/21	09/08/21 18:58	WB
1,1,1-Trichloroethane	ND		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 18:58	WB
1,1,2-Trichloroethane	ND		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 18:58	WB
Trichloroethene	ND		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 18:58	WB
Trichlorofluoromethane (Freon 11)	1.52		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 18:58	WB
1,2,4-Trimethylbenzene	ND		ug/m ³	0.98	0.25	1	09/08/21	09/08/21 18:58	WB
1,3,5-Trimethylbenzene	ND		ug/m ³	0.98	0.25	1	09/08/21	09/08/21 18:58	WB
2,2,4-Trimethylpentane	0.23	J	ug/m ³	0.93	0.23	1	09/08/21	09/08/21 18:58	WB
Vinyl acetate	ND		ug/m ³	0.70	0.70	1	09/08/21	09/08/21 18:58	WB
Vinyl bromide	ND		ug/m ³	0.87	0.22	1	09/08/21	09/08/21 18:58	WB
Vinyl chloride	ND		ug/m ³	0.51	0.13	1	09/08/21	09/08/21 18:58	WB
o-Xylene	ND		ug/m ³	0.87	0.22	1	09/08/21	09/08/21 18:58	WB
m- & p-Xylenes	ND		ug/m ³	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

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	13.6		ug/m ³	2.40	2.40	1	09/08/21	09/08/21 19:32	WB
Benzene	0.48	J	ug/m ³	0.64	0.16	1	09/08/21	09/08/21 19:32	WB
Benzyl chloride	ND		ug/m ³	1.00	0.25	1	09/08/21	09/08/21 19:32	WB
Bromodichloromethane	ND		ug/m ³	1.30	0.33	1	09/08/21	09/08/21 19:32	WB
Bromoform	ND		ug/m ³	2.10	0.53	1	09/08/21	09/08/21 19:32	WB
Bromomethane	ND		ug/m ³	0.78	0.20	1	09/08/21	09/08/21 19:32	WB
1,3-Butadiene	ND		ug/m ³	0.44	0.44	1	09/08/21	09/08/21 19:32	WB
Carbon disulfide	1.90		ug/m ³	1.56	1.56	1	09/08/21	09/08/21 19:32	WB
Carbon tetrachloride	0.50	J	ug/m ³	1.30	0.33	1	09/08/21	09/08/21 19:32	WB
Chlorobenzene	ND		ug/m ³	0.92	0.23	1	09/08/21	09/08/21 19:32	WB
Chloroethane	ND		ug/m ³	0.53	0.27	1	09/08/21	09/08/21 19:32	WB
Chloroform	ND		ug/m ³	0.97	0.24	1	09/08/21	09/08/21 19:32	WB
Chloromethane	1.26		ug/m ³	0.41	0.10	1	09/08/21	09/08/21 19:32	WB
3-Chloropropene	ND		ug/m ³	0.63	0.16	1	09/08/21	09/08/21 19:32	WB
Cyclohexane	ND		ug/m ³	0.69	0.17	1	09/08/21	09/08/21 19:32	WB
Dibromochloromethane	ND		ug/m ³	1.30	0.33	1	09/08/21	09/08/21 19:32	WB
1,2-Dibromoethane (EDB)	ND		ug/m ³	1.40	0.35	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
1,3-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	09/08/21	09/08/21 19:32	WB
1,4-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	09/08/21	09/08/21 19:32	WB
Dichlorodifluoromethane	2.62		ug/m ³	0.99	0.99	1	09/08/21	09/08/21 19:32	WB
1,1-Dichloroethane	ND		ug/m ³	0.81	0.20	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
1,1-Dichloroethene	ND		ug/m ³	0.79	0.20	1	09/08/21	09/08/21 19:32	WB
cis-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	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
1,2-Dichloropropane	ND		ug/m ³	0.92	0.23	1	09/08/21	09/08/21 19:32	WB
cis-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	09/08/21	09/08/21 19:32	WB
trans-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	09/08/21	09/08/21 19:32	WB
1,4-Dioxane	ND		ug/m ³	0.72	0.18	1	09/08/21	09/08/21 19:32	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	09/08/21	09/08/21 19:32	WB
Ethylbenzene	0.48	J	ug/m ³	0.87	0.22	1	09/08/21	09/08/21 19:32	WB
4-Ethyltoluene	0.69	J	ug/m ³	0.98	0.25	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

Rabecka Koons, Quality Assurance Officer

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	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/m ³	0.72	0.21	1	09/08/21	09/08/21 19:32	WB
Methylene chloride	ND		ug/m ³	18.0	18.0	1	09/08/21	09/08/21 19:32	WB
Methyl ethyl ketone (2-Butanone)	1.27		ug/m ³	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/m ³	0.85	0.15	1	09/08/21	09/08/21 19:32	WB
1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.40	0.35	1	09/08/21	09/08/21 19:32	WB
Tetrachloroethene	ND		ug/m ³	1.40	0.70	1	09/08/21	09/08/21 19:32	WB
Tetrahydrofuran	0.27	J	ug/m ³	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/m ³	0.93	0.23	1	09/08/21	09/08/21 19:32	WB
Vinyl acetate	ND		ug/m ³	0.70	0.70	1	09/08/21	09/08/21 19:32	WB
Vinyl bromide	ND		ug/m ³	0.87	0.22	1	09/08/21	09/08/21 19:32	WB
Vinyl chloride	ND		ug/m ³	0.51	0.13	1	09/08/21	09/08/21 19:32	WB
o-Xylene	0.56	J	ug/m ³	0.87	0.22	1	09/08/21	09/08/21 19:32	WB
m- & p-Xylenes	1.52	J	ug/m ³	1.70	0.43	1	09/08/21	09/08/21 19:32	WB
Surrogate: 4-Bromofluorobenzene			73-115	98 %			09/08/21	09/08/21 19:32	



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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	13.5		ug/m ³	2.40	2.40	1	09/08/21	09/08/21 20:06	WB
Benzene	0.38	J	ug/m ³	0.64	0.16	1	09/08/21	09/08/21 20:06	WB
Benzyl chloride	ND		ug/m ³	1.00	0.25	1	09/08/21	09/08/21 20:06	WB
Bromodichloromethane	ND		ug/m ³	1.30	0.33	1	09/08/21	09/08/21 20:06	WB
Bromoform	ND		ug/m ³	2.10	0.53	1	09/08/21	09/08/21 20:06	WB
Bromomethane	ND		ug/m ³	0.78	0.20	1	09/08/21	09/08/21 20:06	WB
1,3-Butadiene	ND		ug/m ³	0.44	0.44	1	09/08/21	09/08/21 20:06	WB
Carbon disulfide	ND		ug/m ³	1.56	1.56	1	09/08/21	09/08/21 20:06	WB
Carbon tetrachloride	0.57	J	ug/m ³	1.30	0.33	1	09/08/21	09/08/21 20:06	WB
Chlorobenzene	ND		ug/m ³	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/m ³	0.41	0.10	1	09/08/21	09/08/21 20:06	WB
3-Chloropropene	ND		ug/m ³	0.63	0.16	1	09/08/21	09/08/21 20:06	WB
Cyclohexane	ND		ug/m ³	0.69	0.17	1	09/08/21	09/08/21 20:06	WB
Dibromochloromethane	ND		ug/m ³	1.30	0.33	1	09/08/21	09/08/21 20:06	WB
1,2-Dibromoethane (EDB)	ND		ug/m ³	1.40	0.35	1	09/08/21	09/08/21 20:06	WB
1,2-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	09/08/21	09/08/21 20:06	WB
1,3-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	09/08/21	09/08/21 20:06	WB
1,4-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	09/08/21	09/08/21 20:06	WB
Dichlorodifluoromethane	2.72		ug/m ³	0.99	0.99	1	09/08/21	09/08/21 20:06	WB
1,1-Dichloroethane	ND		ug/m ³	0.81	0.20	1	09/08/21	09/08/21 20:06	WB
1,2-Dichloroethane	ND		ug/m ³	0.81	0.20	1	09/08/21	09/08/21 20:06	WB
1,1-Dichloroethene	ND		ug/m ³	0.79	0.20	1	09/08/21	09/08/21 20:06	WB
cis-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	09/08/21	09/08/21 20:06	WB
trans-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	09/08/21	09/08/21 20:06	WB
1,2-Dichloropropane	ND		ug/m ³	0.92	0.23	1	09/08/21	09/08/21 20:06	WB
cis-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	09/08/21	09/08/21 20:06	WB
trans-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	09/08/21	09/08/21 20:06	WB
1,4-Dioxane	ND		ug/m ³	0.72	0.18	1	09/08/21	09/08/21 20:06	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	09/08/21	09/08/21 20:06	WB
Ethylbenzene	ND		ug/m ³	0.87	0.22	1	09/08/21	09/08/21 20:06	WB
4-Ethyltoluene	ND		ug/m ³	0.98	0.25	1	09/08/21	09/08/21 20:06	WB
Freon 113	0.61	J	ug/m ³	1.50	0.38	1	09/08/21	09/08/21 20:06	WB

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	09/08/21	09/08/21 20:06	WB
n-Heptane	ND		ug/m ³	0.82	0.21	1	09/08/21	09/08/21 20:06	WB
Hexachlorobutadiene	ND		ug/m ³	2.10	2.10	1	09/08/21	09/08/21 20:06	WB
Hexane	ND		ug/m ³	14.0	14.0	1	09/08/21	09/08/21 20:06	WB
2-Hexanone	ND		ug/m ³	0.82	0.15	1	09/08/21	09/08/21 20:06	WB
Isopropylbenzene (Cumene)	ND		ug/m ³	1.10	0.40	1	09/08/21	09/08/21 20:06	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.72	0.21	1	09/08/21	09/08/21 20:06	WB
Methylene chloride	ND		ug/m ³	18.0	18.0	1	09/08/21	09/08/21 20:06	WB
Methyl ethyl ketone (2-Butanone)	0.94		ug/m ³	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/m ³	0.34	0.34	1	09/08/21	09/08/21 20:06	WB
n-Propylbenzene	ND		ug/m ³	0.98	0.40	1	09/08/21	09/08/21 20:06	WB
Styrene	ND		ug/m ³	0.85	0.15	1	09/08/21	09/08/21 20:06	WB
1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.40	0.35	1	09/08/21	09/08/21 20:06	WB
Tetrachloroethene	ND		ug/m ³	1.40	0.70	1	09/08/21	09/08/21 20:06	WB
Tetrahydrofuran	ND		ug/m ³	0.59	0.15	1	09/08/21	09/08/21 20:06	WB
Toluene	0.75		ug/m ³	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/m ³	1.10	0.28	1	09/08/21	09/08/21 20:06	WB
Trichloroethene	ND		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 20:06	WB
Trichlorofluoromethane (Freon 11)	1.40		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 20:06	WB
1,2,4-Trimethylbenzene	ND		ug/m ³	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/m ³	0.70	0.70	1	09/08/21	09/08/21 20:06	WB
Vinyl bromide	ND		ug/m ³	0.87	0.22	1	09/08/21	09/08/21 20:06	WB
Vinyl chloride	ND		ug/m ³	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/m ³	1.70	0.43	1	09/08/21	09/08/21 20:06	WB

Surrogate: 4-Bromofluorobenzene 73-115 99 % 09/08/21 09/08/21 20:06

Rabecka Koons, Quality Assurance Officer

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	12.2		ug/m ³	2.40	2.40	1	09/08/21	09/08/21 20:41	WB
Benzene	0.45	J	ug/m ³	0.64	0.16	1	09/08/21	09/08/21 20:41	WB
Benzyl chloride	ND		ug/m ³	1.00	0.25	1	09/08/21	09/08/21 20:41	WB
Bromodichloromethane	ND		ug/m ³	1.30	0.33	1	09/08/21	09/08/21 20:41	WB
Bromoform	ND		ug/m ³	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/m ³	0.63	0.16	1	09/08/21	09/08/21 20:41	WB
Cyclohexane	ND		ug/m ³	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/m ³	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/m ³	0.79	0.20	1	09/08/21	09/08/21 20:41	WB
1,2-Dichloropropane	ND		ug/m ³	0.92	0.23	1	09/08/21	09/08/21 20:41	WB
cis-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	09/08/21	09/08/21 20:41	WB
trans-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	09/08/21	09/08/21 20:41	WB
1,4-Dioxane	ND		ug/m ³	0.72	0.18	1	09/08/21	09/08/21 20:41	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	09/08/21	09/08/21 20:41	WB
Ethylbenzene	ND		ug/m ³	0.87	0.22	1	09/08/21	09/08/21 20:41	WB
4-Ethyltoluene	ND		ug/m ³	0.98	0.25	1	09/08/21	09/08/21 20:41	WB
Freon 113	0.61	J	ug/m ³	1.50	0.38	1	09/08/21	09/08/21 20:41	WB

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Rabecka Koons, Quality Assurance Officer

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	09/08/21	09/08/21 20:41	WB
n-Heptane	ND		ug/m ³	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/m ³	14.0	14.0	1	09/08/21	09/08/21 20:41	WB
2-Hexanone	ND		ug/m ³	0.82	0.15	1	09/08/21	09/08/21 20:41	WB
Isopropylbenzene (Cumene)	ND		ug/m ³	1.10	0.40	1	09/08/21	09/08/21 20:41	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.72	0.21	1	09/08/21	09/08/21 20:41	WB
Methylene chloride	ND		ug/m ³	18.0	18.0	1	09/08/21	09/08/21 20:41	WB
Methyl ethyl ketone (2-Butanone)	0.97		ug/m ³	0.59	0.34	1	09/08/21	09/08/21 20:41	WB
Methyl isobutyl ketone	ND		ug/m ³	0.82	0.82	1	09/08/21	09/08/21 20:41	WB
Naphthalene	ND		ug/m ³	1.10	0.70	1	09/08/21	09/08/21 20:41	WB
Propene	ND		ug/m ³	0.34	0.34	1	09/08/21	09/08/21 20:41	WB
n-Propylbenzene	ND		ug/m ³	0.98	0.40	1	09/08/21	09/08/21 20:41	WB
Styrene	ND		ug/m ³	0.85	0.15	1	09/08/21	09/08/21 20:41	WB
1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.40	0.35	1	09/08/21	09/08/21 20:41	WB
Tetrachloroethene	ND		ug/m ³	1.40	0.70	1	09/08/21	09/08/21 20:41	WB
Tetrahydrofuran	ND		ug/m ³	0.59	0.15	1	09/08/21	09/08/21 20:41	WB
Toluene	0.83		ug/m ³	0.75	0.35	1	09/08/21	09/08/21 20:41	WB
1,2,4-Trichlorobenzene	ND		ug/m ³	1.50	0.38	1	09/08/21	09/08/21 20:41	WB
1,1,1-Trichloroethane	ND		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 20:41	WB
1,1,2-Trichloroethane	ND		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 20:41	WB
Trichloroethene	ND		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 20:41	WB
Trichlorofluoromethane (Freon 11)	1.57		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 20:41	WB
1,2,4-Trimethylbenzene	ND		ug/m ³	0.98	0.25	1	09/08/21	09/08/21 20:41	WB
1,3,5-Trimethylbenzene	ND		ug/m ³	0.98	0.25	1	09/08/21	09/08/21 20:41	WB
2,2,4-Trimethylpentane	0.28	J	ug/m ³	0.93	0.23	1	09/08/21	09/08/21 20:41	WB
Vinyl acetate	ND		ug/m ³	0.70	0.70	1	09/08/21	09/08/21 20:41	WB
Vinyl bromide	ND		ug/m ³	0.87	0.22	1	09/08/21	09/08/21 20:41	WB
Vinyl chloride	ND		ug/m ³	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/m ³	1.70	0.43	1	09/08/21	09/08/21 20:41	WB
Surrogate: 4-Bromofluorobenzene				73-115	98 %		09/08/21	09/08/21 20:41	



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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

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

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	09/08/21	09/08/21 21:15	WB
n-Heptane	ND		ug/m ³	0.82	0.21	1	09/08/21	09/08/21 21:15	WB
Hexachlorobutadiene	ND		ug/m ³	2.10	2.10	1	09/08/21	09/08/21 21:15	WB
Hexane	ND		ug/m ³	14.0	14.0	1	09/08/21	09/08/21 21:15	WB
2-Hexanone	ND		ug/m ³	0.82	0.15	1	09/08/21	09/08/21 21:15	WB
Isopropylbenzene (Cumene)	ND		ug/m ³	1.10	0.40	1	09/08/21	09/08/21 21:15	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.72	0.21	1	09/08/21	09/08/21 21:15	WB
Methylene chloride	18.4	L	ug/m ³	18.0	18.0	1	09/08/21	09/08/21 21:15	WB
Methyl ethyl ketone (2-Butanone)	1.03		ug/m ³	0.59	0.34	1	09/08/21	09/08/21 21:15	WB
Methyl isobutyl ketone	ND		ug/m ³	0.82	0.82	1	09/08/21	09/08/21 21:15	WB
Naphthalene	ND		ug/m ³	1.10	0.70	1	09/08/21	09/08/21 21:15	WB
Propene	ND		ug/m ³	0.34	0.34	1	09/08/21	09/08/21 21:15	WB
n-Propylbenzene	ND		ug/m ³	0.98	0.40	1	09/08/21	09/08/21 21:15	WB
Styrene	ND		ug/m ³	0.85	0.15	1	09/08/21	09/08/21 21:15	WB
1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.40	0.35	1	09/08/21	09/08/21 21:15	WB
Tetrachloroethene	ND		ug/m ³	1.40	0.70	1	09/08/21	09/08/21 21:15	WB
Tetrahydrofuran	0.59	J	ug/m ³	0.59	0.15	1	09/08/21	09/08/21 21:15	WB
Toluene	0.83		ug/m ³	0.75	0.35	1	09/08/21	09/08/21 21:15	WB
1,2,4-Trichlorobenzene	ND		ug/m ³	1.50	0.38	1	09/08/21	09/08/21 21:15	WB
1,1,1-Trichloroethane	ND		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 21:15	WB
1,1,2-Trichloroethane	ND		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 21:15	WB
Trichloroethene	ND		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 21:15	WB
Trichlorofluoromethane (Freon 11)	1.80		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 21:15	WB
1,2,4-Trimethylbenzene	ND		ug/m ³	0.98	0.25	1	09/08/21	09/08/21 21:15	WB
1,3,5-Trimethylbenzene	ND		ug/m ³	0.98	0.25	1	09/08/21	09/08/21 21:15	WB
2,2,4-Trimethylpentane	0.28	J	ug/m ³	0.93	0.23	1	09/08/21	09/08/21 21:15	WB
Vinyl acetate	ND		ug/m ³	0.70	0.70	1	09/08/21	09/08/21 21:15	WB
Vinyl bromide	ND		ug/m ³	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/m ³	1.70	0.43	1	09/08/21	09/08/21 21:15	WB
Surrogate: 4-Bromofluorobenzene				73-115	98 %		09/08/21	09/08/21 21:15	

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	12.2		ug/m ³	2.40	2.40	1	09/08/21	09/08/21 21:49	WB
Benzene	0.42	J	ug/m ³	0.64	0.16	1	09/08/21	09/08/21 21:49	WB
Benzyl chloride	ND		ug/m ³	1.00	0.25	1	09/08/21	09/08/21 21:49	WB
Bromodichloromethane	ND		ug/m ³	1.30	0.33	1	09/08/21	09/08/21 21:49	WB
Bromoform	ND		ug/m ³	2.10	0.53	1	09/08/21	09/08/21 21:49	WB
Bromomethane	ND		ug/m ³	0.78	0.20	1	09/08/21	09/08/21 21:49	WB
1,3-Butadiene	ND		ug/m ³	0.44	0.44	1	09/08/21	09/08/21 21:49	WB
Carbon disulfide	ND		ug/m ³	1.56	1.56	1	09/08/21	09/08/21 21:49	WB
Carbon tetrachloride	0.50	J	ug/m ³	1.30	0.33	1	09/08/21	09/08/21 21:49	WB
Chlorobenzene	ND		ug/m ³	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/m ³	0.41	0.10	1	09/08/21	09/08/21 21:49	WB
3-Chloropropene	ND		ug/m ³	0.63	0.16	1	09/08/21	09/08/21 21:49	WB
Cyclohexane	ND		ug/m ³	0.69	0.17	1	09/08/21	09/08/21 21:49	WB
Dibromochloromethane	ND		ug/m ³	1.30	0.33	1	09/08/21	09/08/21 21:49	WB
1,2-Dibromoethane (EDB)	ND		ug/m ³	1.40	0.35	1	09/08/21	09/08/21 21:49	WB
1,2-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	09/08/21	09/08/21 21:49	WB
1,3-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	09/08/21	09/08/21 21:49	WB
1,4-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	09/08/21	09/08/21 21:49	WB
Dichlorodifluoromethane	2.72		ug/m ³	0.99	0.99	1	09/08/21	09/08/21 21:49	WB
1,1-Dichloroethane	ND		ug/m ³	0.81	0.20	1	09/08/21	09/08/21 21:49	WB
1,2-Dichloroethane	ND		ug/m ³	0.81	0.20	1	09/08/21	09/08/21 21:49	WB
1,1-Dichloroethene	ND		ug/m ³	0.79	0.20	1	09/08/21	09/08/21 21:49	WB
cis-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	09/08/21	09/08/21 21:49	WB
trans-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	09/08/21	09/08/21 21:49	WB
1,2-Dichloropropane	ND		ug/m ³	0.92	0.23	1	09/08/21	09/08/21 21:49	WB
cis-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	09/08/21	09/08/21 21:49	WB
trans-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	09/08/21	09/08/21 21:49	WB
1,4-Dioxane	ND		ug/m ³	0.72	0.18	1	09/08/21	09/08/21 21:49	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	09/08/21	09/08/21 21:49	WB
Ethylbenzene	ND		ug/m ³	0.87	0.22	1	09/08/21	09/08/21 21:49	WB
4-Ethyltoluene	ND		ug/m ³	0.98	0.25	1	09/08/21	09/08/21 21:49	WB
Freon 113	0.54	J	ug/m ³	1.50	0.38	1	09/08/21	09/08/21 21:49	WB

Rabecka Koons, Quality Assurance Officer

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	09/08/21	09/08/21 21:49	WB
n-Heptane	ND		ug/m ³	0.82	0.21	1	09/08/21	09/08/21 21:49	WB
Hexachlorobutadiene	ND		ug/m ³	2.10	2.10	1	09/08/21	09/08/21 21:49	WB
Hexane	ND		ug/m ³	14.0	14.0	1	09/08/21	09/08/21 21:49	WB
2-Hexanone	ND		ug/m ³	0.82	0.15	1	09/08/21	09/08/21 21:49	WB
Isopropylbenzene (Cumene)	ND		ug/m ³	1.10	0.40	1	09/08/21	09/08/21 21:49	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.72	0.21	1	09/08/21	09/08/21 21:49	WB
Methylene chloride	ND		ug/m ³	18.0	18.0	1	09/08/21	09/08/21 21:49	WB
Methyl ethyl ketone (2-Butanone)	0.80		ug/m ³	0.59	0.34	1	09/08/21	09/08/21 21:49	WB
Methyl isobutyl ketone	ND		ug/m ³	0.82	0.82	1	09/08/21	09/08/21 21:49	WB
Naphthalene	ND		ug/m ³	1.10	0.70	1	09/08/21	09/08/21 21:49	WB
Propene	ND		ug/m ³	0.34	0.34	1	09/08/21	09/08/21 21:49	WB
n-Propylbenzene	ND		ug/m ³	0.98	0.40	1	09/08/21	09/08/21 21:49	WB
Styrene	ND		ug/m ³	0.85	0.15	1	09/08/21	09/08/21 21:49	WB
1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.40	0.35	1	09/08/21	09/08/21 21:49	WB
Tetrachloroethene	ND		ug/m ³	1.40	0.70	1	09/08/21	09/08/21 21:49	WB
Tetrahydrofuran	ND		ug/m ³	0.59	0.15	1	09/08/21	09/08/21 21:49	WB
Toluene	0.83		ug/m ³	0.75	0.35	1	09/08/21	09/08/21 21:49	WB
1,2,4-Trichlorobenzene	ND		ug/m ³	1.50	0.38	1	09/08/21	09/08/21 21:49	WB
1,1,1-Trichloroethane	ND		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 21:49	WB
1,1,2-Trichloroethane	ND		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 21:49	WB
Trichloroethene	ND		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 21:49	WB
Trichlorofluoromethane (Freon 11)	1.52		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 21:49	WB
1,2,4-Trimethylbenzene	ND		ug/m ³	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/m ³	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/m ³	0.87	0.22	1	09/08/21	09/08/21 21:49	WB
m- & p-Xylenes	ND		ug/m ³	1.70	0.43	1	09/08/21	09/08/21 21:49	WB

Surrogate: 4-Bromofluorobenzene 73-115 100 % 09/08/21 09/08/21 21:49

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA TO-15 (GC/MS) Prepared by TO-15 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/m ³	0.64	0.16	1	09/08/21	09/08/21 22:23	WB
Benzyl chloride	ND		ug/m ³	1.00	0.25	1	09/08/21	09/08/21 22:23	WB
Bromodichloromethane	ND		ug/m ³	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/m ³	1.56	1.56	1	09/08/21	09/08/21 22:23	WB
Carbon tetrachloride	0.57	J	ug/m ³	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/m ³	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/m ³	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/m ³	1.20	0.30	1	09/08/21	09/08/21 22:23	WB
Dichlorodifluoromethane	2.57		ug/m ³	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/m ³	0.79	0.20	1	09/08/21	09/08/21 22:23	WB
cis-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	09/08/21	09/08/21 22:23	WB
trans-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	09/08/21	09/08/21 22:23	WB
1,2-Dichloropropane	ND		ug/m ³	0.92	0.23	1	09/08/21	09/08/21 22:23	WB
cis-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	09/08/21	09/08/21 22:23	WB
trans-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	09/08/21	09/08/21 22:23	WB
1,4-Dioxane	ND		ug/m ³	0.72	0.18	1	09/08/21	09/08/21 22:23	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	09/08/21	09/08/21 22:23	WB
Ethylbenzene	ND		ug/m ³	0.87	0.22	1	09/08/21	09/08/21 22:23	WB
4-Ethyltoluene	ND		ug/m ³	0.98	0.25	1	09/08/21	09/08/21 22:23	WB
Freon 113	0.61	J	ug/m ³	1.50	0.38	1	09/08/21	09/08/21 22:23	WB



Rabecka Koons, Quality Assurance Officer

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	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/m ³	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/m ³	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/m ³	0.98	0.40	1	09/08/21	09/08/21 22:23	WB
Styrene	0.17	J	ug/m ³	0.85	0.15	1	09/08/21	09/08/21 22:23	WB
1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.40	0.35	1	09/08/21	09/08/21 22:23	WB
Tetrachloroethene	ND		ug/m ³	1.40	0.70	1	09/08/21	09/08/21 22:23	WB
Tetrahydrofuran	0.24	J	ug/m ³	0.59	0.15	1	09/08/21	09/08/21 22:23	WB
Toluene	1.09		ug/m ³	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/m ³	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/m ³	0.98	0.25	1	09/08/21	09/08/21 22:23	WB
1,3,5-Trimethylbenzene	ND		ug/m ³	0.98	0.25	1	09/08/21	09/08/21 22:23	WB
2,2,4-Trimethylpentane	0.42	J	ug/m ³	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/m ³	0.51	0.13	1	09/08/21	09/08/21 22:23	WB
o-Xylene	ND		ug/m ³	0.87	0.22	1	09/08/21	09/08/21 22:23	WB
m- & p-Xylenes	ND		ug/m ³	1.70	0.43	1	09/08/21	09/08/21 22:23	WB
<i>Surrogate: 4-Bromofluorobenzene</i>			73-115	99 %	09/08/21	09/08/21 22:23			

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	18.7		ug/m ³	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/m ³	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/m ³	0.63	0.16	1	09/08/21	09/08/21 22:57	WB
Cyclohexane	ND		ug/m ³	0.69	0.17	1	09/08/21	09/08/21 22:57	WB
Dibromochloromethane	ND		ug/m ³	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/m ³	0.72	0.18	1	09/08/21	09/08/21 22:57	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	09/08/21	09/08/21 22:57	WB
Ethylbenzene	ND		ug/m ³	0.87	0.22	1	09/08/21	09/08/21 22:57	WB
4-Ethyltoluene	0.29	J	ug/m ³	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

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Rabecka Koons, Quality Assurance Officer

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	09/08/21	09/08/21 22:57	WB
n-Heptane	0.49	J	ug/m ³	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/m ³	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/m ³	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/m ³	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/m ³	1.70	0.43	1	09/08/21	09/08/21 22:57	WB
Surrogate: 4-Bromofluorobenzene			73-115	100 %	09/08/21		09/08/21 22:57		

Rabecka Koons, Quality Assurance Officer

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatiles Organics by EPA TO-15 (GC/MS) Prepared by TO-15 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/m ³	0.64	0.16	1	09/08/21	09/08/21 23:31	WB
Benzyl chloride	ND		ug/m ³	1.00	0.25	1	09/08/21	09/08/21 23:31	WB
Bromodichloromethane	ND		ug/m ³	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/m ³	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/m ³	0.41	0.10	1	09/08/21	09/08/21 23:31	WB
3-Chloropropene	ND		ug/m ³	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/m ³	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/m ³	0.79	0.20	1	09/08/21	09/08/21 23:31	WB
1,2-Dichloropropane	ND		ug/m ³	0.92	0.23	1	09/08/21	09/08/21 23:31	WB
cis-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	09/08/21	09/08/21 23:31	WB
trans-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	09/08/21	09/08/21 23:31	WB
1,4-Dioxane	ND		ug/m ³	0.72	0.18	1	09/08/21	09/08/21 23:31	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	09/08/21	09/08/21 23:31	WB
Ethylbenzene	0.39	J	ug/m ³	0.87	0.22	1	09/08/21	09/08/21 23:31	WB
4-Ethyltoluene	0.34	J	ug/m ³	0.98	0.25	1	09/08/21	09/08/21 23:31	WB
Freon 113	0.54	J	ug/m ³	1.50	0.38	1	09/08/21	09/08/21 23:31	WB

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	09/08/21	09/08/21 23:31	WB
n-Heptane	2.66		ug/m ³	0.82	0.21	1	09/08/21	09/08/21 23:31	WB
Hexachlorobutadiene	ND		ug/m ³	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/m ³	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/m ³	0.72	0.21	1	09/08/21	09/08/21 23:31	WB
Methylene chloride	ND		ug/m ³	18.0	18.0	1	09/08/21	09/08/21 23:31	WB
Methyl ethyl ketone (2-Butanone)	2.74		ug/m ³	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/m ³	0.34	0.34	1	09/08/21	09/08/21 23:31	WB
n-Propylbenzene	ND		ug/m ³	0.98	0.40	1	09/08/21	09/08/21 23:31	WB
Styrene	1.02		ug/m ³	0.85	0.15	1	09/08/21	09/08/21 23:31	WB
1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.40	0.35	1	09/08/21	09/08/21 23:31	WB
Tetrachloroethene	ND		ug/m ³	1.40	0.70	1	09/08/21	09/08/21 23:31	WB
Tetrahydrofuran	0.68		ug/m ³	0.59	0.15	1	09/08/21	09/08/21 23:31	WB
Toluene	3.01		ug/m ³	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/m ³	1.10	0.28	1	09/08/21	09/08/21 23:31	WB
Trichloroethene	ND		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 23:31	WB
Trichlorofluoromethane (Freon 11)	1.69		ug/m ³	1.10	0.28	1	09/08/21	09/08/21 23:31	WB
1,2,4-Trimethylbenzene	0.44	J	ug/m ³	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/m ³	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/m ³	0.51	0.13	1	09/08/21	09/08/21 23:31	WB
o-Xylene	0.52	J	ug/m ³	0.87	0.22	1	09/08/21	09/08/21 23:31	WB
m- & p-Xylenes	1.30	J	ug/m ³	1.70	0.43	1	09/08/21	09/08/21 23:31	WB
Surrogate: 4-Bromofluorobenzene			73-115	100 %	09/08/21		09/08/21 23:31		

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	13.1		ug/m ³	2.40	2.40	1	09/09/21	09/09/21 00:06	WB
Benzene	0.38	J	ug/m ³	0.64	0.16	1	09/09/21	09/09/21 00:06	WB
Benzyl chloride	ND		ug/m ³	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/m ³	0.78	0.20	1	09/09/21	09/09/21 00:06	WB
1,3-Butadiene	ND		ug/m ³	0.44	0.44	1	09/09/21	09/09/21 00:06	WB
Carbon disulfide	ND		ug/m ³	1.56	1.56	1	09/09/21	09/09/21 00:06	WB
Carbon tetrachloride	0.57	J	ug/m ³	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/m ³	0.53	0.27	1	09/09/21	09/09/21 00:06	WB
Chloroform	0.59	J	ug/m ³	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/m ³	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/m ³	1.20	0.30	1	09/09/21	09/09/21 00:06	WB
1,3-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	09/09/21	09/09/21 00:06	WB
1,4-Dichlorobenzene	ND		ug/m ³	1.20	0.30	1	09/09/21	09/09/21 00:06	WB
Dichlorodifluoromethane	2.72		ug/m ³	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/m ³	0.81	0.20	1	09/09/21	09/09/21 00:06	WB
1,1-Dichloroethene	ND		ug/m ³	0.79	0.20	1	09/09/21	09/09/21 00:06	WB
cis-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	09/09/21	09/09/21 00:06	WB
trans-1,2-Dichloroethene	ND		ug/m ³	0.79	0.20	1	09/09/21	09/09/21 00:06	WB
1,2-Dichloropropane	ND		ug/m ³	0.92	0.23	1	09/09/21	09/09/21 00:06	WB
cis-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	09/09/21	09/09/21 00:06	WB
trans-1,3-Dichloropropene	ND		ug/m ³	0.91	0.23	1	09/09/21	09/09/21 00:06	WB
1,4-Dioxane	ND		ug/m ³	0.72	0.18	1	09/09/21	09/09/21 00:06	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	09/09/21	09/09/21 00:06	WB
Ethylbenzene	ND		ug/m ³	0.87	0.22	1	09/09/21	09/09/21 00:06	WB
4-Ethyltoluene	ND		ug/m ³	0.98	0.25	1	09/09/21	09/09/21 00:06	WB
Freon 113	0.61	J	ug/m ³	1.50	0.38	1	09/09/21	09/09/21 00:06	WB

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m ³	1.40	1.40	1	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/m ³	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/m ³	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/m ³	0.98	0.25	1	09/09/21	09/09/21 00:06	WB
1,3,5-Trimethylbenzene	ND		ug/m ³	0.98	0.25	1	09/09/21	09/09/21 00:06	WB
2,2,4-Trimethylpentane	0.33	J	ug/m ³	0.93	0.23	1	09/09/21	09/09/21 00:06	WB
Vinyl acetate	ND		ug/m ³	0.70	0.70	1	09/09/21	09/09/21 00:06	WB
Vinyl bromide	ND		ug/m ³	0.87	0.22	1	09/09/21	09/09/21 00:06	WB
Vinyl chloride	ND		ug/m ³	0.51	0.13	1	09/09/21	09/09/21 00:06	WB
o-Xylene	ND		ug/m ³	0.87	0.22	1	09/09/21	09/09/21 00:06	WB
m- & p-Xylenes	ND		ug/m ³	1.70	0.43	1	09/09/21	09/09/21 00:06	WB

Surrogate: 4-Bromofluorobenzene 73-115 100 % 09/09/21 09/09/21 00:06



Rabecka Koons, Quality Assurance Officer

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	12.3		ug/m ³	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/m ³	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/m ³	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/m ³	0.91	0.23	1	09/09/21	09/09/21 00:40	WB
1,4-Dioxane	ND		ug/m ³	0.72	0.18	1	09/09/21	09/09/21 00:40	WB
Ethyl acetate	ND		ug/m ³	3.60	3.60	1	09/09/21	09/09/21 00:40	WB
Ethylbenzene	ND		ug/m ³	0.87	0.22	1	09/09/21	09/09/21 00:40	WB
4-Ethyltoluene	ND		ug/m ³	0.98	0.25	1	09/09/21	09/09/21 00:40	WB
Freon 113	0.61	J	ug/m ³	1.50	0.38	1	09/09/21	09/09/21 00:40	WB

Rabecka Koons, Quality Assurance Officer

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

Reported:
09/10/21 12:44

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

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

Rabecka Koons, Quality Assurance Officer

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Analytical Results

Project: 4920002

Project Number: [none]
Project Manager: Amber Confer

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




Rabecka Koons, Quality Assurance Officer

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Air Analysis by TO-15

Chain of Custody

Client Contact Information		Project Manager: <u>Amber Confer</u>		Carrier:		1 of 2 COCs									
Company: <u>PSS</u>		Phone:		Samplers Name(s)		Analysis / Matrix									
		Site Contact:													
Project Name:		Analysis Turnaround Time													
Site:		Standard (Specify) <u>Sidney</u>													
PO #		Rush (Specify)													
Client Sample ID	Sample Date Start	Time Start (24 hr clock)	Sample Date Stop	Time Stop (24 hr clock)	Canister Pressure in Field ("Hg) (Start)	Canister Pressure in Field ("Hg) (Stop)	Incoming Canister Pressure ("Hg) (Lab)	Sample Regulator ID	Can ID	Can Size (L)	TO-15 FULL LIST	TO-15 ABRVIATED LIST	Indoor / Ambient Air	Soil Gas / Subslab	Comments
21090701-001	9/3/21	1025	9/3/21	1413	30	0		04687	613	1.4	X	X			1090814 - 01
-002		1019		1409	30	2		14028	3683						- 02
-003		1023		1415	30	1		03465	10177						- 03
-004		1023		1421	30	0		04501	9846						- 04
-005		1025		1423	30	2		10232	10173						- 05
-006		1019		1419	30	1		4743	10182						- 06
-007		1029		1425	30	4		10285	10194						- 07
-008		1012		1412	30	4		04720	3662						- 08
-009		1035		1430	30	2		04691	589						- 09
-010		1021		1408	30	0		04706	3679						- 10
-011		1025		1418	30	4		03464	10187						- 11
-012		1027		1423	27	0		04500	10176						- 12
-013		1039		1433	30	2		10512	584						- 13
-014		1039		1431	30	3		04782	9612						- 14
Special Instructions/QC Requirements & Comments:															
Canisters Shipped by:		Date/Time:		Canisters Received by:		Date/Time:									
						9/8/21 13:58									
Samples Relinquished by:		Date/Time:		Received by:		Date/Time:									
Relinquished by:		Date/Time:		Received by:		Date/Time:									

Case Narrative

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 taken 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 #: 21090701				PAGE <u>1</u> OF <u>2</u>						
*PROJECT MGR: Karl Ford						3 *	Can ID *	Sample Reg. ID *	Canister Pressure * in field ("Hg) Start	Canister Pressure * in field ("Hg) Stop	Incoming Canister Pressure ("Hg) Lab	Soil Gas / Subslab *	Indoor/Ambient Air *	TO-15 Full List	Special List	REMARKS
EMAIL: kford@teci.pro *PHONE NO.: (703) 567-4346																
*PROJECT NAME: ACPS IAQ testing PROJECT NO.: 4920002																
SITE LOCATION: George Washington MS P.O. NO.:																
SAMPLER(S):																
2 LAB #	*SAMPLE IDENTIFICATION	*DATE START	*Time Start (24hr clock)	*DATE STOP	*Time Stop (24hr clock)	Can ID *	Sample Reg. ID *	Canister Pressure * in field ("Hg) Start	Canister Pressure * in field ("Hg) Stop	Incoming Canister Pressure ("Hg) Lab	Soil Gas / Subslab *	Indoor/Ambient Air *	TO-15 Full List	Special List	REMARKS	
1	GW - Cafeteria	9/3/21	10:25	9/3/21	14:13	613	04687	30+	0				<input checked="" type="checkbox"/>			
2	GW - Class A109	9/3/21	10:19	9/3/21	14:09	3683	14028	30+	2				<input checked="" type="checkbox"/>			
3	GW - Hall ^{Cafeteria}	9/3/21	10:23	9/3/21	14:15	10177	03465	30	1				<input checked="" type="checkbox"/>			
4	GW - Class C120	9/3/21	10:23	9/3/21	14:21	9846	04501	30	0				<input checked="" type="checkbox"/>			
5	GW - Class C125	9/3/21	10:25	9/3/21	14:23	10173	10232	30+	2				<input checked="" type="checkbox"/>			
6	GW - Gym	9/3/21	10:19	9/3/21	14:19	10182	04743	30+	1				<input checked="" type="checkbox"/>			
7	GW - Library	9/3/21	10:29	9/3/21	14:25	10184	10285	30+	4				<input checked="" type="checkbox"/>			
8	GW - Outdoor	9/3/21	10:12	9/3/21	14:12	3662	04720	30	4				<input checked="" type="checkbox"/>			
9	GW - Class A212	9/3/21	10:35	9/3/21	14:30	589	04691	30+	2				<input checked="" type="checkbox"/>			
10	GW Auditorium	9/3/21	10:21	9/3/21	14:08	3679	04706	30+	0				<input checked="" type="checkbox"/>			
5 Relinquished By: (1) Channing Jackson Date: 9/3/21 Time: 16:00 Received By: Derrick Johnson						4 *Requested TAT (One TAT per COC) <input checked="" type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Other Shipping Carrier: Cnext										
Relinquished By: (2) Derrick Johnson Date: 9/7/21 Time: 10:37 Received By:						Data Deliverables Required:										
Relinquished By: (3) Date: Time: Received By:						Special Instructions:										
Relinquished By: (4) Date: Time: Received By:																

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



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15

PHASE SEPARATION SCIENCE, INC.

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

1 *CLIENT: Total Environmental Concepts, Inc. *OFFICE LOC.: Lorton						PSS Work Order #: 21090701				PAGE <u>2</u> OF <u>2</u>					
*PROJECT MGR: Karl Ford						3 * Can ID *	Sample Reg. ID *	Canister Pressure * in field ("Hg) Start	Canister Pressure * in field ("Hg) Stop	Incoming Canister Pressure ("Hg) Lab	Soil Gas / Subslab *	Indoor/Ambient Air *	TO-15 Full List	Special List	REMARKS
EMAIL: kford@teci.pro *PHONE NO.: (703) 567-4346															
*PROJECT NAME: ACPS IAQ testing PROJECT NO.: 4920002															
SITE LOCATION: George Washington MS P.O. NO.:															
SAMPLER(S):															
LAB #	*SAMPLE IDENTIFICATION	*DATE START	*Time Start (24hr clock)	*DATE STOP	*Time Stop (24hr clock)										
11	GW - Stair 232	9/3/21	10:25	9/3/21	14:18	10187	03464	30+	4			<input checked="" type="checkbox"/>			
12	GW - Class A242	9/3/21	10:27	9/3/21	14:23	10176	04500	27	0			<input checked="" type="checkbox"/>			
13	GW - Class A336	9/3/21	10:39	9/3/21	14:33	584	10512	30+	2			<input checked="" type="checkbox"/>			
14	GW - Class A324 ^{332R}	9/3/21	10:39	9/3/21	14:31	9612	04702	30	3			<input checked="" type="checkbox"/>			
15	GW - Hall A303	9/3/21	10:35	9/3/21	14:29	10179	04724	31	0			<input checked="" type="checkbox"/>			
5 Relinquished By: (1) Channing Jackson Date 9/3/21 Time 16:00 Received By: Derrick Johnson						4 *Requested TAT (One TAT per COC) <input type="checkbox"/> 5-Day <input type="checkbox"/> 3-Day <input type="checkbox"/> 2-Day <input type="checkbox"/> Next Day <input type="checkbox"/> Emergency <input type="checkbox"/> Other				Shipping Carrier: Client					
Relinquished By: (2) Derrick Johnson Date 9/7/21 Time 10:37 Received By: [Signature]						Data Deliverables Required:									
Relinquished By: (3)						Special Instructions:									
Relinquished By: (4)															

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

Project Name: ACPS IAQ Testing

PSS Project No.: 21090701

Client Name	Total Environmental Concepts - Lortc	Received By	Thomas Wingate
Disposal Date	10/12/2021	Date Received	09/07/2021 10:37:00 AM
		Delivered By	Client
		Tracking No	Not Applicable
		Logged In By	Thomas Wingate

Shipping Container(s)

No. of Coolers 0

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

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

Documentation

COC agrees with sample labels? Yes
 Chain of Custody Yes

Sampler Name Not Provided
N/A

Sample Container

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

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

Holding Time

All Samples Received Within Holding Time(s)? Yes

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

Preservation


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

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

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

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

Samples Inspected/Checklist Completed By:



 Thomas Wingate

Date: 09/07/2021

PM Review and Approval:



 Amber J. Cooper

Date: 09/07/2021

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**.

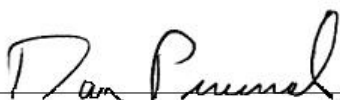
All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis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



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 contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Explanation of Qualifiers

Project Name: ACPS IAQ Testing

PSS Project No.: 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.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Certifications:

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



GALSON

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

September 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**

Enclosure(s)

Terms and Conditions & General Disclaimers

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

Analytical Disclaimers

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

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

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

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

Legend

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



GALSON

LABORATORY ANALYSIS REPORT

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

Client : Phase Separation Science, Inc. Account No.: 15354
 Site : GEORGE WASHTINGTON Login No. : L545229
 Project No. : ACPS IAQ TESTING-4920002
 Date Sampled : 16-AUG-21 Date Analyzed : 02-SEP-21
 Date Received : 27-AUG-21 Report ID : 1263239

4-Phenylcyclohexene (4PCH low LOQ)

Sample ID	Lab ID	Air Vol liter	Front ug	Back ug	Total ug	Conc mg/m3	ppm
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
 Analytical Method : mod. NIOSH 1501; GC/PID
 Collection Media : 226-01

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

Approved by: MLN



GALSON

LABORATORY FOOTNOTE REPORT

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

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

Date Sampled : 16-AUG-21
Date Received: 27-AUG-21
Date Analyzed: 02-SEP-21

Account No.: 15354
Login No. : L545229

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-Phenylcyclohexene (4PCH low LOQ)	+/-18%	88.2%

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

Tel: (315) 432-5227
 888-432-LABS (5227)
 www.sgsgalson.com

L545279 210 82529

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

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

84

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

18

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

Site Name: George Washington Project: ACPS IAQ testing - 4920002 Sampled by:

Comments:

List description of industry or Process/interferences present in sampling area:
Public grade school all NG B6F 6/27/21
 State samples were collected in (e.g., NY): VA
 Please indicate which OEL this data will be used for:
 OSHA PEL ACGIH TLV Cal OSHA
 MSHA Other (specify):

Sample Identification* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units* L, ml, min, in2, cm2, ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
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 A124	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 substitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: Use method(s) listed on COC

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

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

Chain of Custody	Print Name/Signature	Date	Time	Print Name/Signature	Date	Time
Relinquished by:	<u>Client</u>	<u>9/25/21</u>	<u>1735</u>	Received by:	<u>alter</u>	
Relinquished by:	<u>alter</u>	<u>9/26/21</u>		Received by:	<u>Brett Grenert-Fischer</u>	<u>1126</u>

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 5 of 7 Report Reference: 1 Generated: 03-SEP-21 12:56

21082529



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

Invoice To* : Phase Separation Science

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

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

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

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

Site Name : George Washington Project : ACPS IAQ testing - 4920002 Sampled by : _____

Comments : _____

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

Sample Identification* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units* L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
GW - Class A342	08/16/21	Sm Charcoal tubes / 226-01	48	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GW - Class A336	08/16/21	Sm Charcoal tubes / 226-01	48	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GW - Class A324	08/16/21	Sm Charcoal tubes / 226-01	48	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GW - Hall A303	08/16/21	Sm Charcoal tubes / 226-01	36	L	4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01		L	4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01		L	4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01		L	4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01		L	4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01		L	4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01		L	4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01		L	4-Phenylcyclohexene	mod. NIOSH 1501	

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

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

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

Chain of Custody	Print Name/Signature	Date	Time	Print Name/Signature	Date	Time
Relinquished by:	<u>Client</u>	<u>8/26/21</u>	<u>1735</u>	Received by:	<u>Amber Confer</u>	
Relinquished by:	<u>Amber Confer</u>	<u>8/26/21</u>		Received by:	<u>Brett Grenert-Fischer</u>	<u>1126</u>

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 6 of 7 Report Reference: 1 Generated: 03-SEP-21 12:56



Chain of Custody Form for Subcontracted Analyses

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

W.O. No. : 21082529
Project Location : George Washington
Project Number : 4920002
Report To LOD : No

Samples Transferred To:
SGS North America - NY

6601 Kirkville Road
East Syracuse, NY 13057

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

For Questions or issues please contact: Amber Confer

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

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	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082529-015	GW- Class A303	08/16/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON

Data Deliverables Required: COA

Send Report Attn : reporting@phasconline.com

Perform Q.C. on Sample : _____

Send Invoice Attn : invoicing@phaseonline.com

Airbill No.: _____ Carrier : UPS

Condition Upon Receipt : _____

Comments : _____

Samples Relinquished By : Amber Confer Date : 8/16/21 Time : _____ Samples Received By : Brett Grenert-Fischer Brett Grenert-Fischer 1126 8/27/21

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

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

Case Narrative

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.

210 82529



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

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

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

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

Need Results By:	(surcharge)	Site Name : George Washington Project : ACPS IAQ testing - 4920002 Sampled by :	
<input checked="" type="checkbox"/> Standard	0%	Comments :	
<input type="checkbox"/> 4 Business Days	35%		
<input type="checkbox"/> 3 Business Days	50%		
<input type="checkbox"/> 2 Business Days	75%		
<input type="checkbox"/> Next Day by 6pm	100%		
<input type="checkbox"/> Next Day by Noon	150%	List description of industry or Process/interferences present in sampling area :	State samples were collected in (e.g., NY)
<input type="checkbox"/> Same Day	200%	Public grade school	VA
		Please indicate which OEL this data will be used for :	
		<input checked="" type="checkbox"/> OSHA PEL <input type="checkbox"/> ACGIH TLV <input type="checkbox"/> Cal OSHA <input type="checkbox"/> MSHA <input type="checkbox"/> Other (specify):	

Sample Identification* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
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 A124	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 substitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: Use method(s) listed on COC

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

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

Chain of Custody	Print Name/Signature	Date	Time	Print Name/Signature	Date	Time
Relinquished by :	Client	8/25/21	1735	Received by : Amber Confer		
Relinquished by :	Amber Confer	8/26/21		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



New Client? Report To* : Phase Separation Science
6630 Baltimore National Pike
Client Account No.*: Baltimore, MD 21228

Invoice To* : Phase Separation Science

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

Phone No.* : 410-747-8770

Phone No.: 410-747-8770

Cell No. :

Email : invoicing@phaseonline.com

Email Results to : Amber Confer

P.O. No. :

www.sgsgalson.com

Email address: reporting@phaseonline.com

Credit Card : Card on File Call for Credit Card Info.

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

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

Site Name : George Washington Project : ACPS IAQ testing - 4920002 Sampled by :

Comments :

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

Sample Identification* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
GW - Class A242	08/16/21	Sm Charcoal tubes / 226-01	48	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GW - Class A336	08/16/21	Sm Charcoal tubes / 226-01	48	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GW - Class A324	08/16/21	Sm Charcoal tubes / 226-01	48	L	4-Phenylcyclohexene	mod. NIOSH 1501	
GW - Hall A303	08/16/21	Sm Charcoal tubes / 226-01	36	L	4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01		L	4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01		L	4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01		L	4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01		L	4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01		L	4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01		L	4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01		L	4-Phenylcyclohexene	mod. NIOSH 1501	
		Sm Charcoal tubes / 226-01		L	4-Phenylcyclohexene	mod. NIOSH 1501	

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

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

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

Chain of Custody	Print Name/Signature	Date	Time	Print Name/Signature	Date	Time
Relinquished by :	<u>Client</u>	<u>8/26/21</u>	<u>1735</u>	Received by : <u>Amber Confer</u>		
Relinquished by :	<u>Amber Confer</u>	<u>8/26/21</u>		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 ___

Sample Receipt Checklist

Project Name: ACPS IAQ Testing

PSS Project No.: 21082529

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

Shipping Container(s)

No. of Coolers 0

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

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

Documentation

COC agrees with sample labels? Yes
 Chain of Custody Yes

Sampler Name Not Provided
N/A

Sample Container

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

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

Holding Time

All Samples Received Within Holding Time(s)? Yes

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

Preservation

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

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

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

Samples Inspected/Checklist Completed By:

Amber J Confer

 Amber Confer

Date: 08/26/2021

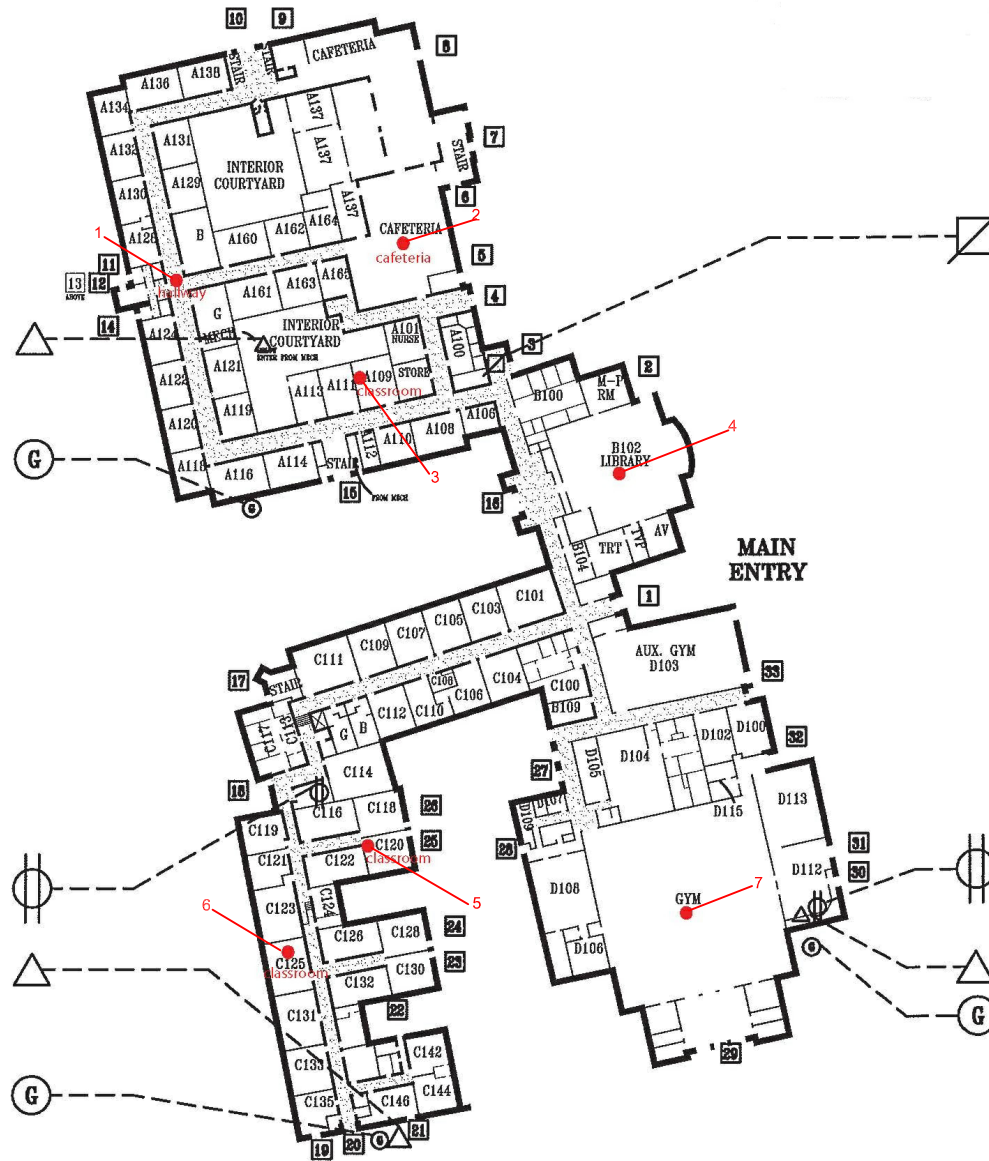
PM Review and Approval:

Lynn Jackson

 Lynn Jackson
 Page 14 of 14

Date: 08/26/2021

Appendix B: Site Plans and Sampling Locations



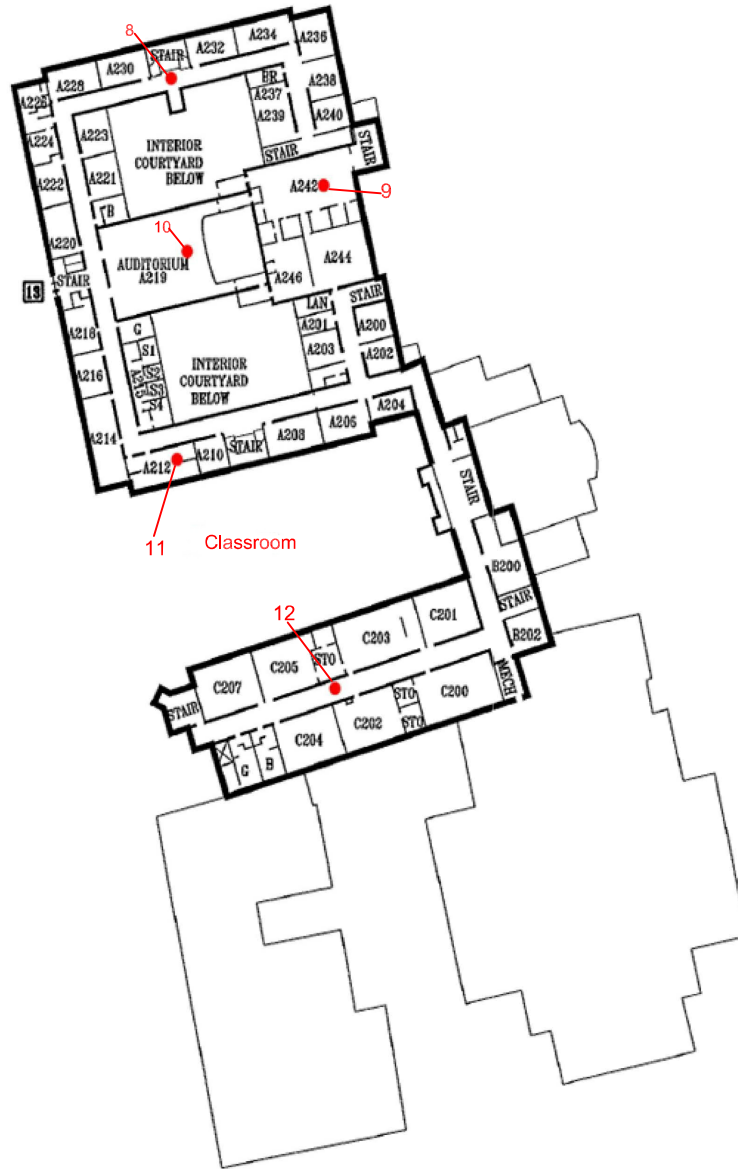
GEORGE WASHINGTON MIDDLE SCHOOL
 1005 Mount Vernon Ave.
 Alexandria, Va 22301

FIRST FLOOR

LEGEND
 ● Sample Location Analyzed For:
 Mold
 Radon
 Formaldehyde
 VOC's (TO-15)

Total Environmental Concepts, Inc.
 8302 Terminal Road, Suite B
 Loudon, VA 22079
 Phone: 703-567-4346
 Fax: 703-567-3487

Figure
1



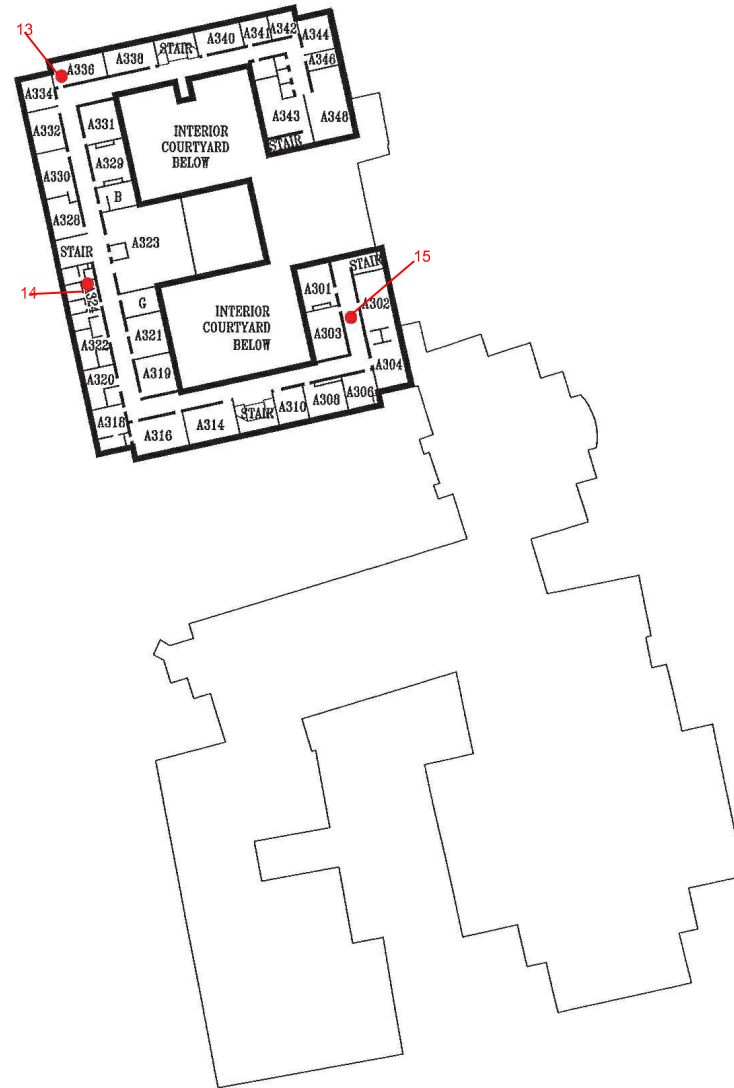
GEORGE WASHINGTON MIDDLE SCHOOL
 1005 Mount Vernon Ave.
 Alexandria, Va 22301

SECOND FLOOR

LEGEND
 ● Sample Location Analyzed For:
 Methyl 4-ethylcyclohexane
 Pesticide
 VOC's (TO-15)

Total Environmental Concepts, Inc.
 8382 Terminal Road, Suite B
 orton, VA 22379
 Phone: 703-567-4346
 Fax: 703-567-3487

Figure **2**



GEORGE WASHINGTON MIDDLE SCHOOL

1005 Mount Vernon Ave.
Alexandria, Va 22301

THIRD
FLOOR

LEGEND
 ● Sample Location Analyzed For:
 MCH
 P
 F
 VOC's (TO+15)

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

Figure
3

Appendix C: Representative Photographs



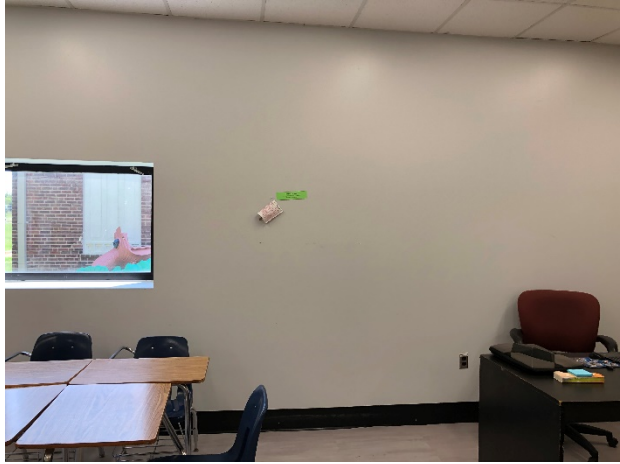
George Washington, Media Center



George Washington, Cafeteria



George Washington, Auditorium



George Washington, Classroom



George Washington, Gym



George Washington, Hallway