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

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

Indoor Air Quality Assessment Report

at

Douglas MacArthur Elementary School

4633 Taney Avenue
Alexandria, VA 22304

Report Prepared for:

John Contreras

Alexandria City Public Schools

2601 Cameron Mills Rd, Alexandria, VA 22302

Dated: October 14, 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. The original list is provided below:

- Alexandria City High School (AC)
- AC Satellie Campus, Central Offices (CO)
- Charles Barrett Elementary School (BC)
- Cora Kelly School for Math (CK)
- Frances C. Hammond Elementary School (FH)
- George Mason Elementary School (GM)
- George Mason Elementary School (GW)
- James Polk Elementary School (JP)
- John Adams Elementary School (JA)
- Lyles-Crouch Elementary School (LC)
- Minnie Howard High School (MH)
- Naomi Brooks Elementary School (NB)
- Samuel Tucker Elementary School (ST)
- William Ramsey Elementary School (WR)
- **Douglas MacAurthur Elementary School (DM)**
- 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 Douglas MacArthur Elementary School on Thursday, September 30, 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. An additional two (2) sampling locations were added for mold sampling at the request of the client, John Contreras. 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. ACPS required that TEC test for the following major indoor air pollutants:

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

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

- Carbon Monoxide
- Carbon Dioxide
- Humidity

- Temperature
- Oxygen

Summary of findings and recommendaitons during this limited IAQ investigation:

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

  Findings:

1. The number of spores detected of Aspergillus|Penicillium recorded in Classroom 1072, Classroom 1064, and in Hall 1053, were significantly higher than background outside mold spore counts. The actual number of Aspergillus|Penicillium spores detected inside was relatively low. No visible mold was observed.

2. A mold spore ratio anomaly of Aspergillus|Penicillium was recorded in Classroom 1072, Classroom 1064, and in Hall 1053. Aspergillus|Penicillium is not commonly found indoors and grows on plants and plant material. The Aspergillus|Penicillium spores detected were likely caused by open windows and doors and normal fluctuations in outside spore counts as there was no visible mold observed anywhere. This anomaly is not a health issue.

3. Additional sampling was conducted in Classroom 1068 and Classroom 1075. The results were below baseline readings and did not indicate mold issues.

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

   Recommendations:

   - The Aspergillus|Penicillium spores detected above basline numbers were likely caused by open windows and doors and normal fluctuations in outside spore counts and there was no visible mold observed. The spores detected of the genus Aspergillus|Penicillium are not a health issue.
   - Moving forward, any suspected mold growth should be inspected by a qualified professional.
   - Investigate sources of water leaks and any evidence of water staining.
   - Inspect above drop ceilings and replace stained ceiling tiles.
   - Inspect areas around the building foundation.
   - A detailed schedule of maintenance, for all HVAC and associated building systems, should be established, and adhered to.

- **Radon** – levels recorded in all locations were less than 4pCi/L, as recommended by EPA and HUD.
- **VOCs** – The levels of volitile organic compounds (VOCs) recorded at each location were within acceptable ranges, when compared to EPA Regional Screening Levels (RSLs).

- **4-PCH** – levels recorded during this investigation were within the LEED (Leadership of Energy and Environmental Design) IAQ guideline of 6.5 ug/m3.
- **Formaldehyde** – the levels of formaldehyde recorded at each location were within an acceptable range, compared to EPA Regional Screening Level (RSLs) of 1ug/m3.
- **Carbon monoxide** – concentrations in all areas were less than the EPA and ASHRAE recommended limit of 9 ppm.
- **Carbon dioxide** – concentrations in all tested spaces were less than the ASHRAE limit of 1,092 ppm.
- **RH** – the relative humidity in all tested spaces was within the ASHRAE guidelines of ≤ 67%, and for the purposes of this investigation ≤ 65%. None of the tested locations had a relative humidity greater than 65%.
- **Temperature** – none of the tested spaces had a temperatures greater than the ASHRAE recommended summer range of 75°F-80.5°F.

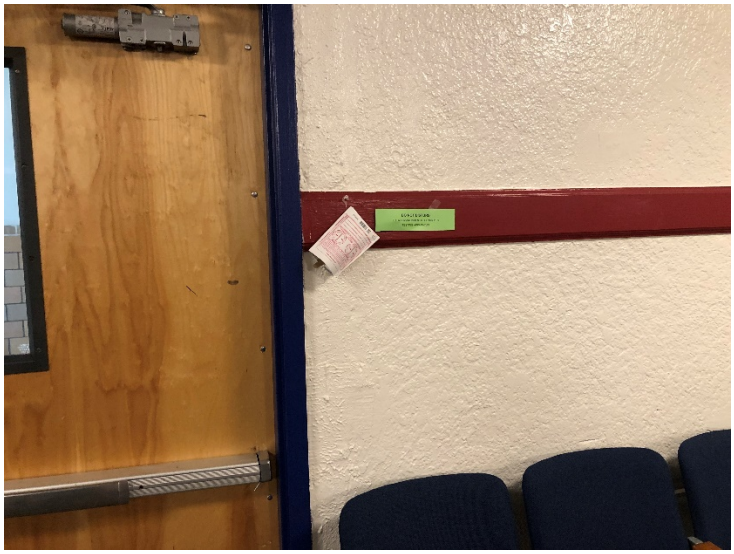
2. Assesment Methods

Under the direction of TEC Industrial Hygienist Nikki Satari; Margaret Stanger, Victoria Powers, and Channing Jackson, also of TEC, conducted IAQ inspections and air sampling on September 30, 2021. All air samples were collected three-six feet from floor level, the typical breathing zone for adults.

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

Radon gas samples were collected by securing Air Chek Radon Test Kits (photograph below). Samples were collected within the breathing zone (4-6ft from ground level) at each sample

location. In accordance with Air Chek's Radon Test Kit Instructions, kits were secured to walls inside the building and away from, open windows, doors to the outside, or interior air ventilation systems. Sampling time was 72 hours. Radon analytical results can be found in Appendix B.



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

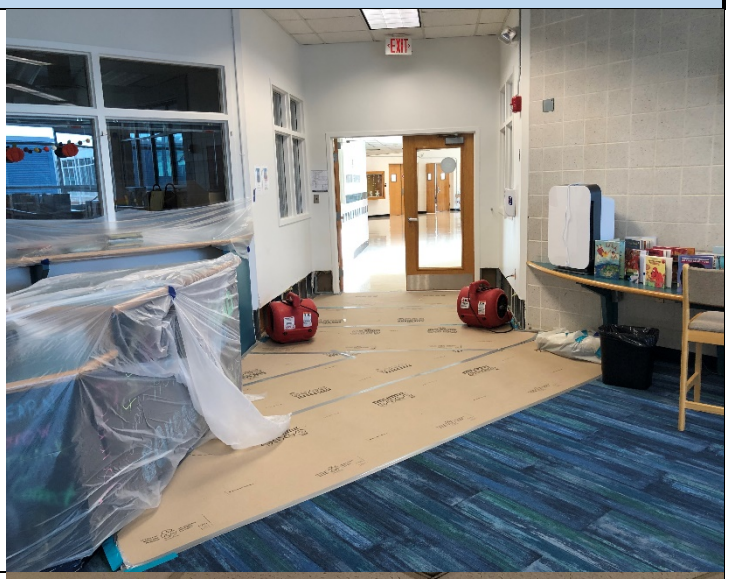
The 4-polycyclohexene (4-PCH) samples were collected in SKC's Anasorb CSC sorbent tubes through Gilian GilAir3 Air Sampling Pumps (photograph below). Pumps were placed within the breathing zone (4-6ft from ground level). Run times were eight (8) hours or time weighted four (4) hour runs. 4-PCH analytical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

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 eight (8) hours or a time weighted run time of four (4) hours. Internal pressure readings were recorded at the start and end of each sample run time. TO+15 (VOCs) analytical results can be found in Appendix C.

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

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

3. Visual Observations

Sample Location	September 30, 2021	Visual Observations
Media Center	TEC observed construction in the Media Center during sampling.	
Class 1072	TEC observed no visble water intrusion.	

Class 1064	TEC observed no visble water intrusion.	
Hall 1055	TEC observed no visble water intrusion.	
Addition: Kindergarden Wing	Classrooms 1064, 1068, 1072, and 1075 are located in an addition to Douglas MacArthur and separate from the main building.	

Addition: 4-5 Grade	Classrooms 1059 and 1064,are located in an addition to Douglas MacArthur and separate from the main building.	

4. Conditions for Human Occupancy

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

4.1 Temperature

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

4.2 Relative Humidity

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

4.3 Carbon Dioxide

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

4.4 Carbon Monoxide

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

4.5 Multi-gas Detector Readings

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

5. Mold Sampling Results

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

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

Findings:

1. The number of spores detected of Aspergillus|Penicillium recorded in Classroom 1072, Classroom 1064, and in Hall 1053, were significantly higher than background outside mold spore counts. The actual number of Aspergillus|Penicillium spores detected inside was relatively low. No visible mold was observed.

2. A mold spore ratio anomaly of Aspergillus|Penicillium was recorded in Classroom 1072, Classroom 1064, and in Hall 1053. Aspergillus|Penicillium is not commonly found indoors and grows on plants and plant material. The Aspergillus|Penicillium spores detected were likely caused by open windows and doors and normal fluctuations in outside spore counts as there was no visible mold observed anywhere. This anomaly is not a health issue.

3. Additional sampling was conducted in Classroom 1068 and Classroom 1075. The results were below baseline readings and did not indicte mold issues.

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

Recommendations:

- The Aspergillus|Penicillium spores detected above basline numbers were likely caused by open windows and doors and normal fluctuations in outside spore counts and there was no visible mold observed. The spores detected of the genus Aspergillus|Penicillium are not a health issue.
- Moving forward, any suspected mold growth should be inspected by a qualified professional.
- Investigate sources of water leaks and any evidence of water staining.
- Inspect above drop ceilings and replace stained ceiling tiles.
- Inspect areas around building foundations.
- A detailed schedule of maintenance, for all HVAC and associated building systems, should be established, and adhered to.

Mold analytical results can be found in Appendix A.

6. Radon Gas Sampling Results

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

7. Formaldehyde Gas Sampling Results

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

8. TO+15 (VOC) Sampling Results

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

9. 4-PCH Sampling Results

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

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

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

Table 1

Multi-Gas Detector Readings				
Location	VOC	CO	OXYGEN	H2S
Main Office	0.0	0.0	20.8	0.0
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
Class 1072	0.0	0.0	20.8	0.0
Class 1032	0.0	0.0	20.8	0.0
Hall 1035/Cafeteria	0.0	0.0	20.8	0.0
Hall 1115	0.0	0.0	20.8	0.0
Class 1117	0.0	0.0	20.8	0.0
Class 1055	0.0	0.0	20.8	0.0
Hall 1062	0.0	0.0	20.8	0.0
Class 1064	0.0	0.0	20.8	0.0
Class 1055	0.0	0.0	20.8	0.0
Hall 1055	0.0	0.0	20.8	0.0
Class 1125	0.0	0.0	20.8	0.0

Table 2

Results of Analytes by Location						
Location	Radon	Mold		TO+15 VOCs	4PCH	Formaldehyde
		AVG: 75 F	AVG: 41 %			
Main Office	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Gym	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Media Center	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Class 1055	< 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
Class 1032	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Hall 1035/Cafeteria	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Hall 1115	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Class 1117	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Class 1055	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Hall 1062	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Class 1125	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Class 1064	< 4 pCi/L	*Spore Ratio Anomaly*		< RSL	< 6.5 ug/m3	< RSL
Hall 1055	< 4 pCi/L	*Spore Ratio Anomaly*		< RSL	< 6.5 ug/m3	< RSL
Class 1072	< 4 pCi/L	*Spore Ratio Anomaly*		< RSL	< 6.5 ug/m3	< RSL
Class 1068	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Class 1075	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL

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

11. Quality Control Program

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

Appendix A: Mold Analytical Results

HAYES MICROBIAL CONSULTING

#21038976

Analysis Report prepared for

Total Environmental Concepts, Inc.

8382 Terminal Road
Suite B
Lorton, VA 22079

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

4633 Taney Ave.
Alexandria, VA 22304

Collected: **September 30, 2021**
Received: **October 4, 2021**
Reported: **October 4, 2021**

We would like to thank you for trusting Hayes Microbial for your analytical needs!
We received 16 samples by FedEx in good condition for this project on October 4th, 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

Gary Lewis
Total Environmental Concepts, Inc.
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4633 Taney Ave.
Alexandria, VA 22304

#21038976

Spore Trap
SOP - HMC#101

Sample Number	1	4318798		2	4318808		3	4318792		4	4315619	
Sample Name	Main Office			Gym			Outdoor			Media Center		
Sample Volume	75.00 liter			75.00 liter			75.00 liter			75.00 liter		
Reporting Limit	13 spores/m³			13 spores/m³			13 spores/m³			13 spores/m³		
Background	3			2			2			2		
Fragments	13/m³			ND			53/m³			13/m³		
Organism	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**
Alternaria							2	27	<1%			
Ascospores	3	40	42.9%	2	27	66.7%	512	6827	57.4%	2	27	50.0%
Aspergillus|Penicillium							3	40	<1%			
Basidiospores	1	13	14.3%				224	2987	25.1%	1	13	25.0%
Bipolaris|Drechslera												
Chaetomium												
Cladosporium							128	1707	14.3%			
Curvularia	1	13	14.3%	1	13	33.3%	1	13	<1%			
Epicoccum							10	133	1.1%			
Fusarium												
Memnoniella												
Myxomycetes	2	27	28.6%				12	160	1.3%			
Pithomyces										1	13	25.0%
Stachybotrys												
Stemphylium												
Torula												
Ulocladium												
Total	7	93	100%	3	40	100%	892	11894	100%	4	53	100%

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

Collected: **Sep 30, 2021** Received: **Oct 4, 2021** Reported: **Oct 4, 2021**

Project Analyst: Ramesh Poluri, PhD P. Ramesh Date: **10 - 04 - 2021**

Reviewed By: Steve Hayes, BSMT Stephen N. Hayes Date: **10 - 04 - 2021**

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#21038976

Spore Trap
SOP - HMC#101

Sample Number	5	4315629		6	4315123		7	4315139		8	4315635	
Sample Name	**Cafeteria**			**Hall 1035/Cafe**			**Class 1072**			**Class 1032**		
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			3			2		
Fragments	ND			13/m^3			13/m^3			ND		
Organism	**Raw Count**	**Count / m^3**	**% of Total**	**Raw Count**	**Count / m^3**	**% of Total**	**Raw Count**	**Count / m^3**	**% of Total**	**Raw Count**	**Count / m^3**	**% of Total**
Alternaria												
Ascospores	6	80	100.0%	1	13	7.7%	1	13	<1%	5	67	50.0%
Aspergillus|Penicillium				3	40	23.1%	288	3840	99.3%			
Basidiospores				1	13	7.7%				3	40	30.0%
Bipolaris|Drechslera												
Chaetomium												
Cladosporium				6	80	46.2%	1	13	<1%	2	27	20.0%
Curvularia												
Epicoccum												
Fusarium												
Memnoniella												
Myxomycetes				1	13	7.7%						
Pithomyces				1	13	7.7%						
Stachybotrys												
Stemphylium												
Torula												
Ulocladium												
Total	6	80	100%	13	172	100%	290	3866	100%	10	134	100%

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

Collected: **Sep 30, 2021** Received: **Oct 4, 2021** Reported: **Oct 4, 2021**

HAYES MICROBIAL CONSULTING

Project Analyst: Ramesh Poluri, PhD P. Ramesh Date: **10 - 04 - 2021**

Reviewed By: Steve Hayes, BSMT Stephen N. Hayes Date: **10 - 04 - 2021**

Gary Lewis
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Lorton, VA 22079
(571) 289-2173

4633 Taney Ave.
Alexandria, VA 22304

#21038976

Spore Trap
SOP - HMC#101

Sample Number	9	4315118		10	4315129		11	4315140		12	4318797	
Sample Name	Hall 1055			Class 1055			Hall 1115			Class 1117		
Sample Volume	75.00 liter			75.00 liter			75.00 liter			75.00 liter		
Reporting Limit	13 spores/m³			13 spores/m³			13 spores/m³			13 spores/m³		
Background	2			2			2			2		
Fragments	ND			13/m³			ND			ND		
Organism	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**
Alternaria												
Ascospores	2	27	33.3%	3	40	42.9%	3	40	75.0%	1	13	50.0%
Aspergillus|Penicillium												
Basidiospores							1	13	25.0%	1	13	50.0%
Bipolaris|Drechslera												
Chaetomium												
Cladosporium	3	40	50.0%	1	13	14.3%						
Curvularia	1	13	16.7%	2	27	28.6%						
Epicoccum												
Fusarium												
Memnoniella												
Myxomycetes				1	13	14.3%						
Pithomyces												
Stachybotrys												
Stemphylium												
Torula												
Ulocladium												
Total	6	80	100%	7	93	100%	4	53	100%	2	26	100%

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

Collected: **Sep 30, 2021** Received: **Oct 4, 2021** Reported: **Oct 4, 2021**

Project Analyst: Ramesh Poluri, PhD P. Ramesh Date: **10 - 04 - 2021**

Reviewed By: Steve Hayes, BSMT Stephen N. Hayes Date: **10 - 04 - 2021**

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

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

4633 Taney Ave.
Alexandria, VA 22304

#21038976

Spore Trap
SOP - HMC#101

Sample Number	13	4315639		14	4315130		15	4315160		16	4318803	
Sample Name	Hall 1053			Class 1059			Class 1064			Class 1125		
Sample Volume	75.00 liter			75.00 liter			75.00 liter			75.00 liter		
Reporting Limit	13 spores/m³			13 spores/m³			13 spores/m³			13 spores/m³		
Background	2			2			2			2		
Fragments	ND			ND			ND			ND		
Organism	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**
Alternaria												
Ascospores	1	13	2.3%	1	13	16.7%	3	40	7.0%	1	13	50.0%
Aspergillus|Penicillium	43	573	97.7%	4	53	66.7%	40	533	93.0%			
Basidiospores												
Bipolaris|Drechslera												
Chaetomium												
Cladosporium												
Curvularia												
Epicoccum												
Fusarium												
Memnoniella												
Myxomycetes				1	13	16.7%				1	13	50.0%
Pithomyces												
Stachybotrys												
Stemphylium												
Torula												
Ulocladium												
Total	44	586	100%	6	79	100%	43	573	100%	2	26	100%

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#21038976

Spore Trap Information

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

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#21038976

Organism Descriptions

Alternaria

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

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

Ascospores

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

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

Aspergillus|Penicillium

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

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

Basidiospores

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

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

Cladosporium

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

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

Curvularia

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

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

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#21038976

Organism Descriptions

Epicoccum

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

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

Myxomycetes

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

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

Pithomyces

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

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

HAYES MICROBIAL CONSULTING

#21039542

Analysis Report prepared for

Total Environmental Concepts, Inc.

8382 Terminal Road
Suite B
Lorton, VA 22079

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

Douglas MacArthur

Collected:
Received: **October 6, 2021**
Reported: **October 6, 2021**

We would like to thank you for trusting Hayes Microbial for your analytical needs!
We received 3 samples by FedEx in good condition for this project on October 6th, 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

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

Douglas MacArthur

#21039542

Spore Trap
SOP - HMC#101

Sample Number	1	DM-4318813	2	DM-4318793	3	DM-4318812
Sample Name	**OM - Outdoor**		**OM - Class 1068**		**OM- Class 1075**	
Sample Volume	75.00 liter		75.00 liter		75.00 liter	
Reporting Limit	13 spores/m³		13 spores/m³		13 spores/m³	
Background	2		2		2	
Fragments	27/m³		ND		ND	

Organism	Raw Count	Count / m³	% of Total	Raw Count	Count / m³	% of Total	Raw Count	Count / m³	% of Total
Alternaria	2	27	1.4%	1	13	6.3%			
Ascospores	74	987	52.9%	8	107	50.0%	4	53	66.7%
Aspergillus|Penicillium	14	187	10.0%	2	27	12.5%			
Basidiospores	9	120	6.4%						
Bipolaris|Drechslera									
Chaetomium									
Cladosporium	34	453	24.3%	5	67	31.3%	2	27	33.3%
Curvularia	2	27	1.4%						
Epicoccum	3	40	2.1%						
Fusarium									
Memnoniella									
Myxomycetes	2	27	1.4%						
Pithomyces									
Stachybotrys									
Stemphylium									
Torula									
Ulocladium									
Total	140	1868	100%	16	214	100%	6	80	100%

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

Collected: Received: **Oct 6, 2021** Reported: **Oct 6, 2021**

HAYES MICROBIAL CONSULTING

Project Analyst: Ronzo Lee, Date: **10 - 06 - 2021**

Reviewed By: Steve Hayes, BSMT Date: **10 - 06 - 2021**

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Douglas MacArthur

#21039542

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Organism Descriptions

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

Myxomycetes

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

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

T: 75 F
H: 41%

Douglas Mac Arthur

Total Environmental Concepts, Inc.

Placement Tech	Maggie + Channing	Sample Type	Mold
Placement Date	1/30/21	Email	
Address			

Sample #	Location/ room	Flow Rate	Sampling Time	Pump Start Time	Pump End Time	Comments
4318798	DM - main office	10 l/m	7.5min	18:15	18:22	
4318808	DM - Gym	↓	↓	18:29	18:36	
4318792	DM - outdoor			18:26	18:33	
4315619	DM - media center			18:44	18:51	
4315629	DM - cafeteria			18:46	18:54	
4315123	DM - Hall 1035/ cafe			18:56	19:04	
4315139	DM - Class 1072			18:59	19:07	
4315635	DM - Class 1032			19:06	19:13	
4315118	DM - Hall 1055			19:13	19:20	
4315129	DM - class 1055			19:17	19:24	
4315140	DM - Hall 1115			18:34	18:41	
4318797	DM - Class 1117			18:45	18:52	
4318803	DM - Class 1125			18:54	19:02	
4315639	DM - Hall 1053			19:09	19:16	
4315130	DM - Class 1059			19:19	19:26	
4315160	DM - Class 1064			19:23	19:30	

Appendix B: Radon Analytical Results

Attention:

Kit #: 9731161 Result: < 0.3 pCi/l
Location:

Dm-1072
,

Analysis Note :
Analyzed : 2021-10-06 at 11:00 am
Started : 2021-09-30 at 6:00 pm
Ended : 2021-10-04 at 4:00 pm
Hours/MST% : 94 hours 11.6% 70°F

Kit #: 9731162 Result: < 0.3 pCi/l
Location:

Dm-Cafe 1
,

Analysis Note :
Analyzed : 2021-10-06 at 11:00 am
Started : 2021-09-30 at 6:00 pm
Ended : 2021-10-04 at 4:00 pm
Hours/MST% : 94 hours 10.3% 70°F

Kit #: 9731163 Result: 0.5 ± 0.3 pCi/l
Location:

Dm-1125
,

Analysis Note :
Analyzed : 2021-10-06 at 11:00 am
Started : 2021-09-30 at 5:00 pm
Ended : 2021-10-04 at 4:00 pm
Hours/MST% : 95 hours 11.7% 70°F

Kit #: 9731165 Result: 0.6 ± 0.3 pCi/l
Location:

Dm-Media Center 2
,

Analysis Note :
Analyzed : 2021-10-06 at 11:00 am
Started : 2021-09-30 at 5:00 pm
Ended : 2021-10-04 at 4:00 pm
Hours/MST% : 95 hours 9.6% 70°F

Kit #: 9731168 Result: < 0.3 pCi/l
Location:

Dm-1032
,

Analysis Note :
Analyzed : 2021-10-06 at 11:00 am
Started : 2021-09-30 at 6:00 pm
Ended : 2021-10-04 at 4:00 pm
Hours/MST% : 94 hours 9.6% 70°F

Kit #: 9731169 Result: 0.7 ± 0.3 pCi/l
Location:

Dm-1117
,

Analysis Note :
Analyzed : 2021-10-06 at 11:00 am
Started : 2021-09-30 at 5:00 pm
Ended : 2021-10-04 at 4:00 pm
Hours/MST% : 95 hours 10.3% 70°F

Attention:

Kit #: 9731171	Result: < 0.3 pCi/l	Analysis Note :
Location:		Analyzed : 2021-10-06 at 11:00 am
		Started : 2021-09-30 at 5:00 pm
Dm-1125 B		Ended : 2021-10-04 at 4:00 pm
,		Hours/MST% : 95 hours 5.2% 70°F

Kit #: 9731172	Result: 0.6 ± 0.3 pCi/l	Analysis Note :
Location:		Analyzed : 2021-10-06 at 11:00 am
		Started : 2021-09-30 at 5:00 pm
Dm-1064 D		Ended : 2021-10-04 at 4:00 pm
,		Hours/MST% : 95 hours 11.6% 70°F

Kit #: 9731173	Result: < 0.3 pCi/l	Analysis Note :
Location:		Analyzed : 2021-10-06 at 11:00 am
		Started : 2021-09-30 at 5:00 pm
Dm-Media Center 1		Ended : 2021-10-04 at 4:00 pm
,		Hours/MST% : 95 hours 7.5% 70°F

Kit #: 9731184	Result: 0.5 ± 0.3 pCi/l	Analysis Note :
Location:		Analyzed : 2021-10-06 at 11:00 am
		Started : 2021-09-30 at 5:00 pm
Dm-Gym		Ended : 2021-10-04 at 4:00 pm
,		Hours/MST% : 95 hours 12.3% 70°F

Kit #: 9731185	Result: < 0.3 pCi/l	Analysis Note :
Location:		Analyzed : 2021-10-06 at 11:00 am
		Started : 2021-09-30 at 5:00 pm
Dm-1059		Ended : 2021-10-04 at 4:00 pm
,		Hours/MST% : 95 hours 11.5% 70°F

Kit #: 9731186	Result: ????	Analysis Note : IB2
Location:		Analyzed : 2021-10-06 at 11:00 am
		Started : 2021-10-04 at 5:00 pm
Dm-Blank		Ended : 2021-10-04 at 5:00 pm
,		Hours/MST% : 0 hours 9.6% 70°F

Attention:

Kit #: 9731187	Result: < 0.3 pCi/l	Analysis Note :
Location:		Analyzed : 2021-10-06 at 11:00 am
		Started : 2021-09-30 at 6:00 pm
Dm-Hall 1055		Ended : 2021-10-04 at 4:00 pm
,		Hours/MST% : 94 hours 10.9% 70°F
Kit #: 9731188	Result: < 0.3 pCi/l	Analysis Note :
Location:		Analyzed : 2021-10-06 at 11:00 am
		Started : 2021-09-30 at 5:00 pm
Dm-Gym		Ended : 2021-10-04 at 4:00 pm
,		Hours/MST% : 95 hours 12.2% 70°F
Kit #: 9731189	Result: 0.5 ± 0.3 pCi/l	Analysis Note :
Location:		Analyzed : 2021-10-06 at 11:00 am
		Started : 2021-09-30 at 5:00 pm
Dm-1117 D		Ended : 2021-10-04 at 4:00 pm
,		Hours/MST% : 95 hours 10.9% 70°F
Kit #: 9731190	Result: 0.5 ± 0.3 pCi/l	Analysis Note :
Location:		Analyzed : 2021-10-06 at 11:00 am
		Started : 2021-09-30 at 5:00 pm
Dm-Hall 1053		Ended : 2021-10-04 at 4:00 pm
,		Hours/MST% : 95 hours 12.1% 70°F
Kit #: 9731193	Result: < 0.3 pCi/l	Analysis Note :
Location:		Analyzed : 2021-10-06 at 11:00 am
		Started : 2021-09-30 at 6:00 pm
Dm-Cafe 2		Ended : 2021-10-04 at 4:00 pm
,		Hours/MST% : 94 hours 8.8% 70°F
Kit #: 9731194	Result: < 0.3 pCi/l	Analysis Note :
Location:		Analyzed : 2021-10-06 at 11:00 am
		Started : 2021-09-30 at 5:00 pm
Dm-1055		Ended : 2021-10-04 at 4:00 pm
,		Hours/MST% : 95 hours 11.7% 70°F

Attention:

Kit #: 9731195 Result: 0.7 ± 0.3 pCi/l
Location:

Dm-Main Admin
,

Analysis Note :
Analyzed : 2021-10-06 at 11:00 am
Started : 2021-09-30 at 5:00 pm
Ended : 2021-10-04 at 4:00 pm
Hours/MST% : 95 hours 8.9% 70°F

Kit #: 9731196 Result: 0.7 ± 0.3 pCi/l
Location:

Dm-Hall 1115
,

Analysis Note :
Analyzed : 2021-10-06 at 11:00 am
Started : 2021-09-30 at 5:00 pm
Ended : 2021-10-04 at 4:00 pm
Hours/MST% : 95 hours 9.7% 70°F

Kit #: 9731198 Result: 0.6 ± 0.3 pCi/l
Location:

Dm-1064
,

Analysis Note :
Analyzed : 2021-10-06 at 11:00 am
Started : 2021-09-30 at 5:00 pm
Ended : 2021-10-04 at 4:00 pm
Hours/MST% : 95 hours 10.9% 70°F

Kit #: 9731200 Result: 0.7 ± 0.3 pCi/l
Location:

Dm-Hall 1035/Cafe
,

Analysis Note :
Analyzed : 2021-10-06 at 11:00 am
Started : 2021-09-30 at 6:00 pm
Ended : 2021-10-04 at 4:00 pm
Hours/MST% : 94 hours 9.6% 70°F

Douglas MacArthur

Total Environmental Concepts, Inc.

Placement Tech	Margaret	Sample Type	Radon	Pickup Tech	
Placement Date	9/30/21	Sample Media		Pickup Date	
Address				Email	

Sample #	Location/ room	SQFT >2000	HVAC Y/N	Window Y/N	Fan Y/N	Time in	Time out	Comment
DM 9731195	DM - Math Admin	N	Y	Y	N	4:10		
DM 9731188	DM- Gym	Y	Y	N	N	4:30		
DM 9731184	DM- Gym	Y	Y	N	N	4:30		
DM 9731173	DM- media center-1	Y	Y	Y	N	4:35		
DM 9731165	DM- media center-2	Y	Y	Y	Y	4:35		
DM 9731196	DM- Hall 1115	N	Y	N	N	4:41		
DM 9731169	DM- 1117	N	Y	Y	N	4:43		
DM 9731189	DM- 1117 D	N	Y	Y	N	4:43		
DM 9731163	DM- 1125	N	Y	Y	N	4:56		
DM 9731171	DM - 1125 B	N	Y	Y	N	4:50		
DM 9731185	DM - 1059	N	Y	Y	N	5:06		
DM 9731194	DM - 1055	N	Y	Y	N	4:53		
DM 9731187	DM- Hall 1055	N	Y	N	N	4:57		
DM 9731190	DM - Hall 1053	N	Y	N	N	5:03		
DM 9731198	DM- 1064	N	Y	Y	N	5:10		
DM 9731172	DM - 1064 D	N	Y	Y	N	5:10		
DM 9731161	DM - 1072	N	Y	Y	N	5:35		
DM 9731168	DM- 1032	N	Y	N	N	5:40		
DM 9731162	DM- Cafe-1	Y	Y	Y	N	5:42		
DM 9731193	DM - Cafe-2	Y	Y	Y	N	5:47		
DM 9731200	DM-Hall/Cafe 1035	N	Y	N	N	5:51		

Appendix C: VOCs (TO+15) Analytical Results

PHASE SEPARATION SCIENCE

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

Certificate of Analysis

Project Name: ACPS IAQ
PSS Project No.: 21100120

October 12, 2021

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

Reference: PSS Project No: **21100120**
Project Name: ACPS IAQ
Project Location: Douglass MacArthur
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) **21100120**.

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 November 5, 2021, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

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

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

Sincerely,

Dan Prucnal
Laboratory Manager

PHASE SEPARATION SCIENCE

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Baltimore, MD 21228
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Explanation of Qualifiers

Project Name: ACPS IAQ
PSS Project No.: 21100120

Project ID: 4920002

The following samples were received under chain of custody by Phase Separation Science (PSS) on 10/01/2021 at 05:30 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
21100120-001	DM- Main Admin	AIR	09/30/21 20:05
21100120-002	DM- Gym	AIR	09/30/21 20:06
21100120-003	DM- Media Center	AIR	09/30/21 20:08
21100120-004	DM- Cafeteria	AIR	09/30/21 20:11
21100120-005	DM- Class 1072	AIR	09/30/21 20:13
21100120-006	DM- Class 1032	AIR	09/30/21 20:15
21100120-007	DM- Hall 1115	AIR	09/30/21 20:08
21100120-008	DM- Class 1117	AIR	09/30/21 20:09
21100120-009	DM- Class 1125	AIR	09/30/21 20:10
21100120-010	DM- Class 1059	AIR	09/30/21 20:12
21100120-011	DM- Hall 1061-1062	AIR	09/30/21 20:13
21100120-012	DM- Class 1064	AIR	09/30/21 20:16
21100120-013	DM- Class 1055	AIR	09/30/21 20:19
21100120-014	DM- Hall 1053	AIR	09/30/21 20:21
21100120-015	DM- Outdoor	AIR	09/30/21 19:56

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

Notes:

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

PHASE SEPARATION SCIENCE

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Explanation of Qualifiers

Project Name: ACPS IAQ

PSS Project No.: 21100120

Standard Flags/Abbreviations:

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

Certifications:

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

SGS GALSON

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

October 12, 2021

Account# 15354

Login# L548280

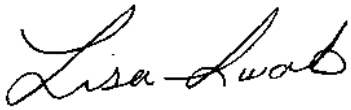
Dear Amber Confer:

Enclosed are the analytical results for the samples received by our laboratory on October 05, 2021. All samples on the chain of custody were received in good condition unless otherwise noted. Any additional observations will be noted on the chain of custody.

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

Sincerely,

SGS Galson



Lisa Swab
Laboratory Director

Enclosure(s)

Terms and Conditions & General Disclaimers

- This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

- Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Analytical Disclaimers

- Unless otherwise noted within the report, all quality control results associated with the samples were within established control limits or did not impact reported results.

- Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process, including but not limited to the use of field equipment and collection media, as well as the sampling duration, collection volume or any other collection parameter used by the Client. The findings herein constitute no warranty of the sample's representativeness of any sampled environment, and strictly relate to the samples as they were presented to the laboratory. For recommended sampling collection parameters, please refer to the Sampling and Analysis Guide at www.sgsgalson.com.

- Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

- The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

- Unless otherwise noted within the report, results have not been blank corrected for any field blank or method blank data.

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

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

State	Accreditation/Recognition	Lab ID#	Program/Sector
New York (NYSDOH)	ELAP and NELAC (TNI)	Lab ID: 11626	Air Analysis, Solid and Hazardous Waste
New Jersey (NJDEP)	NELAC (TNI)	Lab ID: NY024	Air Analysis
Louisiana (LDEQ)	LELAP	Lab ID: 04083	Air Analysis, Solid Chemical Materials

Legend

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

SGS GALSON

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

LELAP Lab ID #04083

LABORATORY ANALYSIS REPORT

Client : Phase Separation Science, Inc. Account No.: 15354
Site : DOUGLASS MACARTHUR Login No. : L548280
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21 Date Analyzed : 11-OCT-21 - 12-OCT-21
Date Received : 05-OCT-21 Report ID : 1269213

TO15 List

Galson ID:			L548280-1		L548280-2		L548280-3	
Client ID:			DM-MAIN ADMIN		DM-GYM		DM-MEDIA CENTER	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Propylene	5.0	8.6	<5.0	<8.6	<5.0	<8.6	<5.0	<8.6
Freon-12	0.80	4.0	<0.80	<4.0	1.6	8.0	<0.80	<4.0
Chloromethane	0.80	1.7	<0.80	<1.7	<0.80	<1.7	<0.80	<1.7
Freon-114	0.80	5.6	<0.80	<5.6	<0.80	<5.6	<0.80	<5.6
Vinyl Chloride	0.80	2.0	<0.80	<2.0	<0.80	<2.0	<0.80	<2.0
1,3-Butadiene	0.80	1.8	<0.80	<1.8	<0.80	<1.8	<0.80	<1.8
n-Butane	0.80	1.9	1.1	2.6	<0.80	<1.9	1.2	2.7
Bromomethane	0.80	3.1	<0.80	<3.1	<0.80	<3.1	<0.80	<3.1
Chloroethane	0.80	2.1	<0.80	<2.1	<0.80	<2.1	<0.80	<2.1
Acetonitrile	5.0	8.4	<5.0	<8.4	<5.0	<8.4	<5.0	<8.4
Vinyl Bromide	0.80	3.5	<0.80	<3.5	<0.80	<3.5	<0.80	<3.5
Acrolein	0.80	1.8	<0.80	<1.8	<0.80	<1.8	<0.80	<1.8
Acetone	5.0	12	17	40	8.6	21	15	35

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
Submitted by : SAP Date : 12-OCT-21

SGS GALSON

LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
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www.sgsgalson.com

Client : Phase Separation Science, Inc.
Site : DOUGLASS MACARTHUR
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21
Date Received : 05-OCT-21

Account No.: 15354
Login No. : L548280
Date Analyzed : 11-OCT-21 - 12-OCT-21
Report ID : 1269213

TO15 List

Galson ID:			L548280-1		L548280-2		L548280-3	
Client ID:			DM-MAIN ADMIN		DM-GYM		DM-MEDIA CENTER	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Freon-11	0.80	4.5	<0.80	<4.5	<0.80	<4.5	<0.80	<4.5
Isopropyl Alcohol	5.0	12	63	160	23	57	51	130
Acrylonitrile	0.80	1.7	<0.80	<1.7	<0.80	<1.7	<0.80	<1.7
Pentane	0.80	2.4	4.7	14	2.1	6.2	2.3	6.8
Ethyl Bromide	0.80	3.6	<0.80	<3.6	<0.80	<3.6	<0.80	<3.6
1,1-Dichloroethene	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
tert-Butyl Alcohol	5.0	15	<5.0	<15	<5.0	<15	<5.0	<15
Methylene Chloride	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8
Freon-113	0.80	6.1	<0.80	<6.1	<0.80	<6.1	<0.80	<6.1
Carbon Disulfide	5.0	16	<5.0	<16	<5.0	<16	<5.0	<16
Allyl Chloride	0.80	2.5	<0.80	<2.5	<0.80	<2.5	<0.80	<2.5
trans-1,2-Dichloroethene	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
1,1-Dichloroethane	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS
Collection Media : Mini Can
Submitted by : SAP

Supervisor: BLD
Approved by : JMR
Date : 12-OCT-21

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Client : Phase Separation Science, Inc.
Site : DOUGLASS MACARTHUR
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21
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Account No.: 15354
Login No. : L548280
Date Analyzed : 11-OCT-21 - 12-OCT-21
Report ID : 1269213

TO15 List

Galson ID:			L548280-1		L548280-2		L548280-3	
Client ID:			DM-MAIN ADMIN		DM-GYM		DM-MEDIA CENTER	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Methyl tert-Butyl Ether	0.80	2.9	<0.80	<2.9	<0.80	<2.9	<0.80	<2.9
Vinyl Acetate	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8
Methyl Ethyl Ketone	0.80	2.4	<0.80	<2.4	<0.80	<2.4	<0.80	<2.4
cis-1,2-Dichloroethylene	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
Hexane	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8
Ethyl Acetate	0.80	2.9	1.0	3.6	<0.80	<2.9	<0.80	<2.9
Chloroform	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
Tetrahydrofuran	0.80	2.4	<0.80	<2.4	<0.80	<2.4	<0.80	<2.4
1,2-Dichloroethane	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
1,1,1-Trichloroethane	0.80	4.4	<0.80	<4.4	<0.80	<4.4	<0.80	<4.4
Benzene	0.80	2.6	<0.80	<2.6	<0.80	<2.6	<0.80	<2.6
Carbon Tetrachloride	0.80	5.0	<0.80	<5.0	<0.80	<5.0	<0.80	<5.0
Cyclohexane	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS
Collection Media : Mini Can
Submitted by : SAP

Approved by : JMR
Date : 12-OCT-21

Supervisor: BLD

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Client : Phase Separation Science, Inc. Account No.: 15354
Site : DOUGLASS MACARTHUR Login No. : L548280
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21 Date Analyzed : 11-OCT-21 - 12-OCT-21
Date Received : 05-OCT-21 Report ID : 1269213

TO15 List

Galson ID:			L548280-1		L548280-2		L548280-3	
Client ID:			DM-MAIN ADMIN		DM-GYM		DM-MEDIA CENTER	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
1,2-Dichloropropane	0.80	3.7	<0.80	<3.7	<0.80	<3.7	<0.80	<3.7
Bromodichloromethane	0.80	5.4	<0.80	<5.4	<0.80	<5.4	<0.80	<5.4
1,4-Dioxane	0.80	2.9	<0.80	<2.9	<0.80	<2.9	<0.80	<2.9
Trichloroethylene	0.80	4.3	<0.80	<4.3	<0.80	<4.3	<0.80	<4.3
2,2,4-Trimethylpentane	0.80	3.7	<0.80	<3.7	<0.80	<3.7	<0.80	<3.7
Methyl Methacrylate	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3
Heptane	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3
cis-1,3-Dichloropropene	0.80	3.6	<0.80	<3.6	<0.80	<3.6	<0.80	<3.6
trans-1,3-Dichloropropene	0.80	3.6	<0.80	<3.6	<0.80	<3.6	<0.80	<3.6
1,1,2-Trichloroethane	0.80	4.4	<0.80	<4.4	<0.80	<4.4	<0.80	<4.4
Methyl Isobutyl Ketone	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3
Toluene	0.80	3.0	1.0	3.9	1.1	4.0	<0.80	<3.0
Methyl Butyl Ketone	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
Submitted by : SAP Date : 12-OCT-21

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Client : Phase Separation Science, Inc. Account No.: 15354
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Date Sampled : 30-SEP-21 Date Analyzed : 11-OCT-21 - 12-OCT-21
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TO15 List

Galson ID:			L548280-1		L548280-2		L548280-3	
Client ID:			DM-MAIN ADMIN		DM-GYM		DM-MEDIA CENTER	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Dibromochloromethane	0.80	6.8	<0.80	<6.8	<0.80	<6.8	<0.80	<6.8
1,2-Dibromoethane	0.80	6.1	<0.80	<6.1	<0.80	<6.1	<0.80	<6.1
Tetrachloroethylene	0.80	5.4	<0.80	<5.4	<0.80	<5.4	<0.80	<5.4
Chlorobenzene	0.80	3.7	<0.80	<3.7	<0.80	<3.7	<0.80	<3.7
Ethylbenzene	0.80	3.5	<0.80	<3.5	<0.80	<3.5	<0.80	<3.5
m & p-Xylene	1.6	6.9	<1.6	<6.9	<1.6	<6.9	<1.6	<6.9
Bromoform	0.80	8.3	<0.80	<8.3	<0.80	<8.3	<0.80	<8.3
Styrene	0.80	3.4	<0.80	<3.4	<0.80	<3.4	<0.80	<3.4
1,1,2,2-Tetrachloroethane	0.80	5.5	<0.80	<5.5	<0.80	<5.5	<0.80	<5.5
o-Xylene	0.80	3.5	<0.80	<3.5	<0.80	<3.5	<0.80	<3.5
Nonane	0.80	4.2	<0.80	<4.2	<0.80	<4.2	<0.80	<4.2
Cumene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
2-Chlorotoluene	0.80	4.1	<0.80	<4.1	<0.80	<4.1	<0.80	<4.1

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
Submitted by : SAP Date : 12-OCT-21

LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
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Client : Phase Separation Science, Inc.
Site : DOUGLASS MACARTHUR
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21
Date Received : 05-OCT-21

Account No.: 15354
Login No. : L548280
Date Analyzed : 11-OCT-21 - 12-OCT-21
Report ID : 1269213

TO15 List

Galson ID:			L548280-1		L548280-2		L548280-3	
Client ID:			DM-MAIN ADMIN		DM-GYM		DM-MEDIA CENTER	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
n-Propylbenzene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
4-Ethyltoluene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
1,3,5-Trimethylbenzene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
1,2,4-Trimethylbenzene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
Benzyl Chloride	0.80	4.1	<0.80	<4.1	<0.80	<4.1	<0.80	<4.1
1,3-Dichlorobenzene	0.80	4.8	<0.80	<4.8	<0.80	<4.8	<0.80	<4.8
1,4-Dichlorobenzene	0.80	4.8	<0.80	<4.8	<0.80	<4.8	<0.80	<4.8
1,2-Dichlorobenzene	0.80	4.8	<0.80	<4.8	<0.80	<4.8	<0.80	<4.8
Naphthalene	0.80	4.2	<0.80	<4.2	<0.80	<4.2	<0.80	<4.2

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS
Collection Media : Mini Can
Submitted by : SAP

Supervisor: BLD
Approved by : JMR
Date : 12-OCT-21

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LELAP Lab ID #04083

LABORATORY ANALYSIS REPORT

Client : Phase Separation Science, Inc.
Site : DOUGLASS MACARTHUR
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21
Date Received : 05-OCT-21

Account No.: 15354
Login No. : L548280
Date Analyzed : 11-OCT-21 - 12-OCT-21
Report ID : 1269213

TO15 List

Galson ID:			L548280-4		L548280-5		L548280-6	
Client ID:			DM-CAFETERIA		DM-CLASS 1072		DM-CLASS 1032	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Propylene	5.0	8.6	7.0	12	<5.0	<8.6	<5.0	<8.6
Freon-12	0.80	4.0	<0.80	<4.0	<0.80	<4.0	<0.80	<4.0
Chloromethane	0.80	1.7	<0.80	<1.7	<0.80	<1.7	<0.80	<1.7
Freon-114	0.80	5.6	<0.80	<5.6	<0.80	<5.6	<0.80	<5.6
Vinyl Chloride	0.80	2.0	<0.80	<2.0	<0.80	<2.0	<0.80	<2.0
1,3-Butadiene	0.80	1.8	<0.80	<1.8	<0.80	<1.8	<0.80	<1.8
n-Butane	0.80	1.9	2.3	5.5	1.7	4.1	<0.80	<1.9
Bromomethane	0.80	3.1	<0.80	<3.1	<0.80	<3.1	<0.80	<3.1
Chloroethane	0.80	2.1	<0.80	<2.1	<0.80	<2.1	<0.80	<2.1
Acetonitrile	5.0	8.4	<5.0	<8.4	<5.0	<8.4	<5.0	<8.4
Vinyl Bromide	0.80	3.5	<0.80	<3.5	<0.80	<3.5	<0.80	<3.5
Acrolein	0.80	1.8	<0.80	<1.8	<0.80	<1.8	<0.80	<1.8
Acetone	5.0	12	13	30	14	32	11	27

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS
Collection Media : Mini Can
Submitted by : SAP

Approved by : JMR
Date : 12-OCT-21

Supervisor: BLD

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Client : Phase Separation Science, Inc. Account No.: 15354
Site : DOUGLASS MACARTHUR Login No. : L548280
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21 Date Analyzed : 11-OCT-21 - 12-OCT-21
Date Received : 05-OCT-21 Report ID : 1269213

TO15 List

Galson ID:			L548280-4		L548280-5		L548280-6	
Client ID:			DM-CAFETERIA		DM-CLASS 1072		DM-CLASS 1032	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Freon-11	0.80	4.5	<0.80	<4.5	<0.80	<4.5	<0.80	<4.5
Isopropyl Alcohol	5.0	12	30	74	13	33	30	73
Acrylonitrile	0.80	1.7	<0.80	<1.7	<0.80	<1.7	<0.80	<1.7
Pentane	0.80	2.4	3.2	9.4	1.8	5.2	3.2	9.4
Ethyl Bromide	0.80	3.6	<0.80	<3.6	<0.80	<3.6	<0.80	<3.6
1,1-Dichloroethene	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
tert-Butyl Alcohol	5.0	15	<5.0	<15	<5.0	<15	<5.0	<15
Methylene Chloride	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8
Freon-113	0.80	6.1	<0.80	<6.1	<0.80	<6.1	<0.80	<6.1
Carbon Disulfide	5.0	16	<5.0	<16	<5.0	<16	<5.0	<16
Allyl Chloride	0.80	2.5	<0.80	<2.5	<0.80	<2.5	<0.80	<2.5
trans-1,2-Dichloroethene	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
1,1-Dichloroethane	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
Submitted by : SAP Date : 12-OCT-21

LABORATORY ANALYSIS REPORT

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Client : Phase Separation Science, Inc.
Site : DOUGLASS MACARTHUR
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21
Date Received : 05-OCT-21

Account No.: 15354
Login No. : L548280
Date Analyzed : 11-OCT-21 - 12-OCT-21
Report ID : 1269213

TO15 List

Galson ID:			L548280-4		L548280-5		L548280-6	
Client ID:			DM-CAFETERIA		DM-CLASS 1072		DM-CLASS 1032	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Methyl tert-Butyl Ether	0.80	2.9	<0.80	<2.9	<0.80	<2.9	<0.80	<2.9
Vinyl Acetate	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8
Methyl Ethyl Ketone	0.80	2.4	<0.80	<2.4	<0.80	<2.4	<0.80	<2.4
cis-1,2-Dichloroethylene	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
Hexane	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8
Ethyl Acetate	0.80	2.9	1.3	4.8	<0.80	<2.9	<0.80	<2.9
Chloroform	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
Tetrahydrofuran	0.80	2.4	<0.80	<2.4	<0.80	<2.4	<0.80	<2.4
1,2-Dichloroethane	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
1,1,1-Trichloroethane	0.80	4.4	<0.80	<4.4	<0.80	<4.4	<0.80	<4.4
Benzene	0.80	2.6	<0.80	<2.6	<0.80	<2.6	<0.80	<2.6
Carbon Tetrachloride	0.80	5.0	<0.80	<5.0	<0.80	<5.0	<0.80	<5.0
Cyclohexane	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS
Collection Media : Mini Can
Submitted by : SAP

Approved by : JMR
Date : 12-OCT-21

Supervisor: BLD

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Client : Phase Separation Science, Inc. Account No.: 15354
Site : DOUGLASS MACARTHUR Login No. : L548280
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21 Date Analyzed : 11-OCT-21 - 12-OCT-21
Date Received : 05-OCT-21 Report ID : 1269213

TO15 List

Galson ID:			L548280-4		L548280-5		L548280-6	
Client ID:			DM-CAFETERIA		DM-CLASS 1072		DM-CLASS 1032	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
1,2-Dichloropropane	0.80	3.7	<0.80	<3.7	<0.80	<3.7	<0.80	<3.7
Bromodichloromethane	0.80	5.4	<0.80	<5.4	<0.80	<5.4	<0.80	<5.4
1,4-Dioxane	0.80	2.9	<0.80	<2.9	<0.80	<2.9	<0.80	<2.9
Trichloroethylene	0.80	4.3	<0.80	<4.3	<0.80	<4.3	<0.80	<4.3
2,2,4-Trimethylpentane	0.80	3.7	<0.80	<3.7	<0.80	<3.7	<0.80	<3.7
Methyl Methacrylate	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3
Heptane	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3
cis-1,3-Dichloropropene	0.80	3.6	<0.80	<3.6	<0.80	<3.6	<0.80	<3.6
trans-1,3-Dichloropropene	0.80	3.6	<0.80	<3.6	<0.80	<3.6	<0.80	<3.6
1,1,2-Trichloroethane	0.80	4.4	<0.80	<4.4	<0.80	<4.4	<0.80	<4.4
Methyl Isobutyl Ketone	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3
Toluene	0.80	3.0	<0.80	<3.0	<0.80	<3.0	0.90	3.5
Methyl Butyl Ketone	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
Submitted by : SAP Date : 12-OCT-21

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Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21 Date Analyzed : 11-OCT-21 - 12-OCT-21
Date Received : 05-OCT-21 Report ID : 1269213

TO15 List

Galson ID:			L548280-4		L548280-5		L548280-6	
Client ID:			DM-CAFETERIA		DM-CLASS 1072		DM-CLASS 1032	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Dibromochloromethane	0.80	6.8	<0.80	<6.8	<0.80	<6.8	<0.80	<6.8
1,2-Dibromoethane	0.80	6.1	<0.80	<6.1	<0.80	<6.1	<0.80	<6.1
Tetrachloroethylene	0.80	5.4	<0.80	<5.4	<0.80	<5.4	<0.80	<5.4
Chlorobenzene	0.80	3.7	<0.80	<3.7	<0.80	<3.7	<0.80	<3.7
Ethylbenzene	0.80	3.5	<0.80	<3.5	<0.80	<3.5	<0.80	<3.5
m & p-Xylene	1.6	6.9	<1.6	<6.9	<1.6	<6.9	<1.6	<6.9
Bromoform	0.80	8.3	<0.80	<8.3	<0.80	<8.3	<0.80	<8.3
Styrene	0.80	3.4	<0.80	<3.4	<0.80	<3.4	<0.80	<3.4
1,1,2,2-Tetrachloroethane	0.80	5.5	<0.80	<5.5	<0.80	<5.5	<0.80	<5.5
o-Xylene	0.80	3.5	<0.80	<3.5	<0.80	<3.5	<0.80	<3.5
Nonane	0.80	4.2	<0.80	<4.2	<0.80	<4.2	<0.80	<4.2
Cumene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
2-Chlorotoluene	0.80	4.1	<0.80	<4.1	<0.80	<4.1	<0.80	<4.1

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
Submitted by : SAP Date : 12-OCT-21

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LELAP Lab ID #04083

LABORATORY ANALYSIS REPORT

Client : Phase Separation Science, Inc. Account No.: 15354
Site : DOUGLASS MACARTHUR Login No. : L548280
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21 Date Analyzed : 11-OCT-21 - 12-OCT-21
Date Received : 05-OCT-21 Report ID : 1269213

TO15 List

Galson ID:			L548280-4		L548280-5		L548280-6	
Client ID:			DM-CAFETERIA		DM-CLASS 1072		DM-CLASS 1032	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
n-Propylbenzene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
4-Ethyltoluene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
1,3,5-Trimethylbenzene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
1,2,4-Trimethylbenzene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
Benzyl Chloride	0.80	4.1	<0.80	<4.1	<0.80	<4.1	<0.80	<4.1
1,3-Dichlorobenzene	0.80	4.8	<0.80	<4.8	<0.80	<4.8	<0.80	<4.8
1,4-Dichlorobenzene	0.80	4.8	<0.80	<4.8	<0.80	<4.8	<0.80	<4.8
1,2-Dichlorobenzene	0.80	4.8	<0.80	<4.8	<0.80	<4.8	<0.80	<4.8
Naphthalene	0.80	4.2	<0.80	<4.2	<0.80	<4.2	<0.80	<4.2

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
Submitted by : SAP Date : 12-OCT-21

LABORATORY ANALYSIS REPORT

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Client : Phase Separation Science, Inc.
Site : DOUGLASS MACARTHUR
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21
Date Received : 05-OCT-21

Account No.: 15354
Login No. : L548280
Date Analyzed : 11-OCT-21 - 12-OCT-21
Report ID : 1269213

TO15 List

Galson ID:			L548280-7		L548280-8		L548280-9	
Client ID:			DM-HALL 1115		DM-CLASS 1117		DM-CLASS 1125	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Propylene	5.0	8.6	<5.0	<8.6	<5.0	<8.6	<5.0	<8.6
Freon-12	0.80	4.0	<0.80	<4.0	<0.80	<4.0	<0.80	<4.0
Chloromethane	0.80	1.7	<0.80	<1.7	<0.80	<1.7	<0.80	<1.7
Freon-114	0.80	5.6	<0.80	<5.6	<0.80	<5.6	<0.80	<5.6
Vinyl Chloride	0.80	2.0	<0.80	<2.0	<0.80	<2.0	<0.80	<2.0
1,3-Butadiene	0.80	1.8	<0.80	<1.8	<0.80	<1.8	<0.80	<1.8
n-Butane	0.80	1.9	<0.80	<1.9	<0.80	<1.9	<0.80	<1.9
Bromomethane	0.80	3.1	<0.80	<3.1	<0.80	<3.1	<0.80	<3.1
Chloroethane	0.80	2.1	<0.80	<2.1	<0.80	<2.1	<0.80	<2.1
Acetonitrile	5.0	8.4	<5.0	<8.4	<5.0	<8.4	<5.0	<8.4
Vinyl Bromide	0.80	3.5	<0.80	<3.5	<0.80	<3.5	<0.80	<3.5
Acrolein	0.80	1.8	<0.80	<1.8	<0.80	<1.8	<0.80	<1.8
Acetone	5.0	12	15	36	16	39	9.5	23

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS
Collection Media : Mini Can
Submitted by : SAP

Approved by : JMR
Date : 12-OCT-21

Supervisor: BLD

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Client : Phase Separation Science, Inc. Account No.: 15354
Site : DOUGLASS MACARTHUR Login No. : L548280
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21 Date Analyzed : 11-OCT-21 - 12-OCT-21
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TO15 List

Galson ID:			L548280-7		L548280-8		L548280-9	
Client ID:			DM-HALL 1115		DM-CLASS 1117		DM-CLASS 1125	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Freon-11	0.80	4.5	<0.80	<4.5	<0.80	<4.5	<0.80	<4.5
Isopropyl Alcohol	5.0	12	57	140	69	170	33	81
Acrylonitrile	0.80	1.7	<0.80	<1.7	<0.80	<1.7	<0.80	<1.7
Pentane	0.80	2.4	7.9	23	7.4	22	5.9	17
Ethyl Bromide	0.80	3.6	<0.80	<3.6	<0.80	<3.6	<0.80	<3.6
1,1-Dichloroethene	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
tert-Butyl Alcohol	5.0	15	<5.0	<15	<5.0	<15	<5.0	<15
Methylene Chloride	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8
Freon-113	0.80	6.1	<0.80	<6.1	<0.80	<6.1	<0.80	<6.1
Carbon Disulfide	5.0	16	<5.0	<16	<5.0	<16	<5.0	<16
Allyl Chloride	0.80	2.5	<0.80	<2.5	<0.80	<2.5	<0.80	<2.5
trans-1,2-Dichloroethene	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
1,1-Dichloroethane	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
Submitted by : SAP Date : 12-OCT-21

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Client : Phase Separation Science, Inc. Account No.: 15354
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Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21 Date Analyzed : 11-OCT-21 - 12-OCT-21
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TO15 List

Galson ID:			L548280-7		L548280-8		L548280-9	
Client ID:			DM-HALL 1115		DM-CLASS 1117		DM-CLASS 1125	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Methyl tert-Butyl Ether	0.80	2.9	<0.80	<2.9	<0.80	<2.9	<0.80	<2.9
Vinyl Acetate	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8
Methyl Ethyl Ketone	0.80	2.4	<0.80	<2.4	<0.80	<2.4	<0.80	<2.4
cis-1,2-Dichloroethylene	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
Hexane	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8
Ethyl Acetate	0.80	2.9	1.1	3.8	1.0	3.7	<0.80	<2.9
Chloroform	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
Tetrahydrofuran	0.80	2.4	<0.80	<2.4	<0.80	<2.4	<0.80	<2.4
1,2-Dichloroethane	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
1,1,1-Trichloroethane	0.80	4.4	<0.80	<4.4	<0.80	<4.4	<0.80	<4.4
Benzene	0.80	2.6	<0.80	<2.6	<0.80	<2.6	<0.80	<2.6
Carbon Tetrachloride	0.80	5.0	<0.80	<5.0	<0.80	<5.0	<0.80	<5.0
Cyclohexane	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
Submitted by : SAP Date : 12-OCT-21

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Client : Phase Separation Science, Inc. Account No.: 15354
Site : DOUGLASS MACARTHUR Login No. : L548280
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21 Date Analyzed : 11-OCT-21 - 12-OCT-21
Date Received : 05-OCT-21 Report ID : 1269213

TO15 List

Galson ID:			L548280-7		L548280-8		L548280-9	
Client ID:			DM-HALL 1115		DM-CLASS 1117		DM-CLASS 1125	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
1,2-Dichloropropane	0.80	3.7	<0.80	<3.7	<0.80	<3.7	<0.80	<3.7
Bromodichloromethane	0.80	5.4	<0.80	<5.4	<0.80	<5.4	<0.80	<5.4
1,4-Dioxane	0.80	2.9	<0.80	<2.9	<0.80	<2.9	<0.80	<2.9
Trichloroethylene	0.80	4.3	<0.80	<4.3	<0.80	<4.3	<0.80	<4.3
2,2,4-Trimethylpentane	0.80	3.7	<0.80	<3.7	<0.80	<3.7	<0.80	<3.7
Methyl Methacrylate	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3
Heptane	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3
cis-1,3-Dichloropropene	0.80	3.6	<0.80	<3.6	<0.80	<3.6	<0.80	<3.6
trans-1,3-Dichloropropene	0.80	3.6	<0.80	<3.6	<0.80	<3.6	<0.80	<3.6
1,1,2-Trichloroethane	0.80	4.4	<0.80	<4.4	<0.80	<4.4	<0.80	<4.4
Methyl Isobutyl Ketone	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3
Toluene	0.80	3.0	0.90	3.3	0.90	3.2	1.3	5.0
Methyl Butyl Ketone	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
Submitted by : SAP Date : 12-OCT-21

LABORATORY ANALYSIS REPORT

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Client : Phase Separation Science, Inc.
Site : DOUGLASS MACARTHUR
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21
Date Received : 05-OCT-21

Account No.: 15354
Login No. : L548280
Date Analyzed : 11-OCT-21 - 12-OCT-21
Report ID : 1269213

TO15 List

Galson ID:			L548280-7		L548280-8		L548280-9	
Client ID:			DM-HALL 1115		DM-CLASS 1117		DM-CLASS 1125	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Dibromochloromethane	0.80	6.8	<0.80	<6.8	<0.80	<6.8	<0.80	<6.8
1,2-Dibromoethane	0.80	6.1	<0.80	<6.1	<0.80	<6.1	<0.80	<6.1
Tetrachloroethylene	0.80	5.4	<0.80	<5.4	<0.80	<5.4	<0.80	<5.4
Chlorobenzene	0.80	3.7	<0.80	<3.7	<0.80	<3.7	<0.80	<3.7
Ethylbenzene	0.80	3.5	<0.80	<3.5	<0.80	<3.5	<0.80	<3.5
m & p-Xylene	1.6	6.9	<1.6	<6.9	<1.6	<6.9	<1.6	<6.9
Bromoform	0.80	8.3	<0.80	<8.3	<0.80	<8.3	<0.80	<8.3
Styrene	0.80	3.4	<0.80	<3.4	<0.80	<3.4	<0.80	<3.4
1,1,2,2-Tetrachloroethane	0.80	5.5	<0.80	<5.5	<0.80	<5.5	<0.80	<5.5
o-Xylene	0.80	3.5	<0.80	<3.5	<0.80	<3.5	<0.80	<3.5
Nonane	0.80	4.2	<0.80	<4.2	<0.80	<4.2	<0.80	<4.2
Cumene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
2-Chlorotoluene	0.80	4.1	<0.80	<4.1	<0.80	<4.1	<0.80	<4.1

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS
Collection Media : Mini Can
Submitted by : SAP

Approved by : JMR
Date : 12-OCT-21

Supervisor: BLD

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LELAP Lab ID #04083

LABORATORY ANALYSIS REPORT

Client : Phase Separation Science, Inc. Account No.: 15354
Site : DOUGLASS MACARTHUR Login No. : L548280
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21 Date Analyzed : 11-OCT-21 - 12-OCT-21
Date Received : 05-OCT-21 Report ID : 1269213

TO15 List

Galson ID:			L548280-7		L548280-8		L548280-9	
Client ID:			DM-HALL 1115		DM-CLASS 1117		DM-CLASS 1125	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
n-Propylbenzene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
4-Ethyltoluene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
1,3,5-Trimethylbenzene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
1,2,4-Trimethylbenzene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
Benzyl Chloride	0.80	4.1	<0.80	<4.1	<0.80	<4.1	<0.80	<4.1
1,3-Dichlorobenzene	0.80	4.8	<0.80	<4.8	<0.80	<4.8	<0.80	<4.8
1,4-Dichlorobenzene	0.80	4.8	<0.80	<4.8	<0.80	<4.8	<0.80	<4.8
1,2-Dichlorobenzene	0.80	4.8	<0.80	<4.8	<0.80	<4.8	<0.80	<4.8
Naphthalene	0.80	4.2	<0.80	<4.2	<0.80	<4.2	<0.80	<4.2

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
Submitted by : SAP Date : 12-OCT-21

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LABORATORY ANALYSIS REPORT

Client : Phase Separation Science, Inc.
Site : DOUGLASS MACARTHUR
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21
Date Received : 05-OCT-21

Account No.: 15354
Login No. : L548280
Date Analyzed : 11-OCT-21 - 12-OCT-21
Report ID : 1269213

TO15 List

Galson ID:			L548280-10		L548280-11		L548280-12	
Client ID:			DM-CLASS 1059		DM-HALL 1061-1063		DM-CLASS 1064	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Propylene	5.0	8.6	<5.0	<8.6	<5.0	<8.6	<5.0	<8.6
Freon-12	0.80	4.0	<0.80	<4.0	<0.80	<4.0	<0.80	<4.0
Chloromethane	0.80	1.7	<0.80	<1.7	<0.80	<1.7	<0.80	<1.7
Freon-114	0.80	5.6	<0.80	<5.6	<0.80	<5.6	<0.80	<5.6
Vinyl Chloride	0.80	2.0	<0.80	<2.0	<0.80	<2.0	<0.80	<2.0
1,3-Butadiene	0.80	1.8	<0.80	<1.8	<0.80	<1.8	<0.80	<1.8
n-Butane	0.80	1.9	<0.80	<1.9	<0.80	<1.9	<0.80	<1.9
Bromomethane	0.80	3.1	<0.80	<3.1	<0.80	<3.1	<0.80	<3.1
Chloroethane	0.80	2.1	<0.80	<2.1	<0.80	<2.1	<0.80	<2.1
Acetonitrile	5.0	8.4	<5.0	<8.4	<5.0	<8.4	<5.0	<8.4
Vinyl Bromide	0.80	3.5	<0.80	<3.5	<0.80	<3.5	<0.80	<3.5
Acrolein	0.80	1.8	<0.80	<1.8	<0.80	<1.8	<0.80	<1.8
Acetone	5.0	12	25	58	19	46	20	47

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS
Collection Media : Mini Can
Submitted by : SAP

Supervisor: BLD
Approved by : JMR
Date : 12-OCT-21

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Client : Phase Separation Science, Inc. Account No.: 15354
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Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21 Date Analyzed : 11-OCT-21 - 12-OCT-21
Date Received : 05-OCT-21 Report ID : 1269213

TO15 List

Galson ID:			L548280-10		L548280-11		L548280-12	
Client ID:			DM-CLASS 1059		DM-HALL 1061-1063		DM-CLASS 1064	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Freon-11	0.80	4.5	<0.80	<4.5	<0.80	<4.5	<0.80	<4.5
Isopropyl Alcohol	5.0	12	72	180	55	140	51	120
Acrylonitrile	0.80	1.7	<0.80	<1.7	<0.80	<1.7	<0.80	<1.7
Pentane	0.80	2.4	28	83	23	69	24	70
Ethyl Bromide	0.80	3.6	<0.80	<3.6	<0.80	<3.6	<0.80	<3.6
1,1-Dichloroethene	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
tert-Butyl Alcohol	5.0	15	<5.0	<15	<5.0	<15	<5.0	<15
Methylene Chloride	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8
Freon-113	0.80	6.1	<0.80	<6.1	<0.80	<6.1	<0.80	<6.1
Carbon Disulfide	5.0	16	<5.0	<16	<5.0	<16	<5.0	<16
Allyl Chloride	0.80	2.5	<0.80	<2.5	<0.80	<2.5	<0.80	<2.5
trans-1,2-Dichloroethene	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
1,1-Dichloroethane	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
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TO15 List

Galson ID:			L548280-10		L548280-11		L548280-12	
Client ID:			DM-CLASS 1059		DM-HALL 1061-1063		DM-CLASS 1064	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Methyl tert-Butyl Ether	0.80	2.9	<0.80	<2.9	<0.80	<2.9	<0.80	<2.9
Vinyl Acetate	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8
Methyl Ethyl Ketone	0.80	2.4	<0.80	<2.4	<0.80	<2.4	<0.80	<2.4
cis-1,2-Dichloroethylene	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
Hexane	0.80	2.8	0.80	3.0	<0.80	<2.8	<0.80	<2.8
Ethyl Acetate	0.80	2.9	1.9	6.8	<0.80	<2.9	0.80	3.0
Chloroform	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
Tetrahydrofuran	0.80	2.4	<0.80	<2.4	<0.80	<2.4	<0.80	<2.4
1,2-Dichloroethane	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
1,1,1-Trichloroethane	0.80	4.4	<0.80	<4.4	<0.80	<4.4	<0.80	<4.4
Benzene	0.80	2.6	<0.80	<2.6	<0.80	<2.6	<0.80	<2.6
Carbon Tetrachloride	0.80	5.0	<0.80	<5.0	<0.80	<5.0	<0.80	<5.0
Cyclohexane	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
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LELAP Lab ID #04083

LABORATORY ANALYSIS REPORT

Client : Phase Separation Science, Inc. Account No.: 15354
Site : DOUGLASS MACARTHUR Login No. : L548280
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21 Date Analyzed : 11-OCT-21 - 12-OCT-21
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TO15 List

Galson ID:			L548280-10		L548280-11		L548280-12	
Client ID:			DM-CLASS 1059		DM-HALL 1061-1063		DM-CLASS 1064	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
1,2-Dichloropropane	0.80	3.7	<0.80	<3.7	<0.80	<3.7	<0.80	<3.7
Bromodichloromethane	0.80	5.4	<0.80	<5.4	<0.80	<5.4	<0.80	<5.4
1,4-Dioxane	0.80	2.9	<0.80	<2.9	<0.80	<2.9	<0.80	<2.9
Trichloroethylene	0.80	4.3	<0.80	<4.3	<0.80	<4.3	<0.80	<4.3
2,2,4-Trimethylpentane	0.80	3.7	<0.80	<3.7	<0.80	<3.7	<0.80	<3.7
Methyl Methacrylate	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3
Heptane	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3
cis-1,3-Dichloropropene	0.80	3.6	<0.80	<3.6	<0.80	<3.6	<0.80	<3.6
trans-1,3-Dichloropropene	0.80	3.6	<0.80	<3.6	<0.80	<3.6	<0.80	<3.6
1,1,2-Trichloroethane	0.80	4.4	<0.80	<4.4	<0.80	<4.4	<0.80	<4.4
Methyl Isobutyl Ketone	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3
Toluene	0.80	3.0	1.3	4.7	0.90	3.4	1.0	3.9
Methyl Butyl Ketone	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
Submitted by : SAP Date : 12-OCT-21

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Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21
Date Received : 05-OCT-21

Account No.: 15354
Login No. : L548280
Date Analyzed : 11-OCT-21 - 12-OCT-21
Report ID : 1269213

TO15 List

Galson ID:			L548280-10		L548280-11		L548280-12	
Client ID:			DM-CLASS 1059		DM-HALL 1061-1063		DM-CLASS 1064	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Dibromochloromethane	0.80	6.8	<0.80	<6.8	<0.80	<6.8	<0.80	<6.8
1,2-Dibromoethane	0.80	6.1	<0.80	<6.1	<0.80	<6.1	<0.80	<6.1
Tetrachloroethylene	0.80	5.4	<0.80	<5.4	<0.80	<5.4	<0.80	<5.4
Chlorobenzene	0.80	3.7	<0.80	<3.7	<0.80	<3.7	<0.80	<3.7
Ethylbenzene	0.80	3.5	<0.80	<3.5	<0.80	<3.5	<0.80	<3.5
m & p-Xylene	1.6	6.9	<1.6	<6.9	<1.6	<6.9	<1.6	<6.9
Bromoform	0.80	8.3	<0.80	<8.3	<0.80	<8.3	<0.80	<8.3
Styrene	0.80	3.4	<0.80	<3.4	<0.80	<3.4	<0.80	<3.4
1,1,2,2-Tetrachloroethane	0.80	5.5	<0.80	<5.5	<0.80	<5.5	<0.80	<5.5
o-Xylene	0.80	3.5	<0.80	<3.5	<0.80	<3.5	<0.80	<3.5
Nonane	0.80	4.2	<0.80	<4.2	<0.80	<4.2	<0.80	<4.2
Cumene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
2-Chlorotoluene	0.80	4.1	<0.80	<4.1	<0.80	<4.1	<0.80	<4.1

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS
Collection Media : Mini Can
Submitted by : SAP

Approved by : JMR
Date : 12-OCT-21

Supervisor: BLD

LABORATORY ANALYSIS REPORT

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Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21
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Account No.: 15354
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Date Analyzed : 11-OCT-21 - 12-OCT-21
Report ID : 1269213

TO15 List

Galson ID:			L548280-10		L548280-11		L548280-12	
Client ID:			DM-CLASS 1059		DM-HALL 1061-1063		DM-CLASS 1064	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
n-Propylbenzene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
4-Ethyltoluene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
1,3,5-Trimethylbenzene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
1,2,4-Trimethylbenzene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
Benzyl Chloride	0.80	4.1	<0.80	<4.1	<0.80	<4.1	<0.80	<4.1
1,3-Dichlorobenzene	0.80	4.8	<0.80	<4.8	<0.80	<4.8	<0.80	<4.8
1,4-Dichlorobenzene	0.80	4.8	<0.80	<4.8	<0.80	<4.8	<0.80	<4.8
1,2-Dichlorobenzene	0.80	4.8	<0.80	<4.8	<0.80	<4.8	<0.80	<4.8
Naphthalene	0.80	4.2	<0.80	<4.2	<0.80	<4.2	<0.80	<4.2

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS
Collection Media : Mini Can
Submitted by : SAP

Supervisor: BLD
Approved by : JMR
Date : 12-OCT-21

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LELAP Lab ID #04083

LABORATORY ANALYSIS REPORT

Client : Phase Separation Science, Inc. Account No.: 15354
Site : DOUGLASS MACARTHUR Login No. : L548280
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21 Date Analyzed : 11-OCT-21 - 12-OCT-21
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TO15 List

Galson ID:			L548280-13		L548280-14		L548280-15	
Client ID:			DM-CLASS 1055		DM-HALL 1053		DM-OUTDOOR	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Propylene	5.0	8.6	<5.0	<8.6	<5.0	<8.6	<5.0	<8.6
Freon-12	0.80	4.0	<0.80	<4.0	<0.80	<4.0	<0.80	<4.0
Chloromethane	0.80	1.7	<0.80	<1.7	<0.80	<1.7	<0.80	<1.7
Freon-114	0.80	5.6	<0.80	<5.6	<0.80	<5.6	<0.80	<5.6
Vinyl Chloride	0.80	2.0	<0.80	<2.0	<0.80	<2.0	<0.80	<2.0
1,3-Butadiene	0.80	1.8	<0.80	<1.8	<0.80	<1.8	<0.80	<1.8
n-Butane	0.80	1.9	<0.80	<1.9	1.8	4.2	<0.80	<1.9
Bromomethane	0.80	3.1	<0.80	<3.1	<0.80	<3.1	<0.80	<3.1
Chloroethane	0.80	2.1	<0.80	<2.1	<0.80	<2.1	<0.80	<2.1
Acetonitrile	5.0	8.4	<5.0	<8.4	<5.0	<8.4	<5.0	<8.4
Vinyl Bromide	0.80	3.5	<0.80	<3.5	<0.80	<3.5	<0.80	<3.5
Acrolein	0.80	1.8	<0.80	<1.8	<0.80	<1.8	<0.80	<1.8
Acetone	5.0	12	9.8	23	12	29	<5.0	<12

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
Submitted by : SAP Date : 12-OCT-21

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

LELAP Lab ID #04083

LABORATORY ANALYSIS REPORT

Client : Phase Separation Science, Inc. Account No.: 15354
Site : DOUGLASS MACARTHUR Login No. : L548280
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21 Date Analyzed : 11-OCT-21 - 12-OCT-21
Date Received : 05-OCT-21 Report ID : 1269213

TO15 List

Galson ID:			L548280-13		L548280-14		L548280-15	
Client ID:			DM-CLASS 1055		DM-HALL 1053		DM-OUTDOOR	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Freon-11	0.80	4.5	<0.80	<4.5	<0.80	<4.5	<0.80	<4.5
Isopropyl Alcohol	5.0	12	32	79	30	73	<5.0	<12
Acrylonitrile	0.80	1.7	<0.80	<1.7	<0.80	<1.7	<0.80	<1.7
Pentane	0.80	2.4	7.2	21	10	30	1.4	4.2
Ethyl Bromide	0.80	3.6	<0.80	<3.6	<0.80	<3.6	<0.80	<3.6
1,1-Dichloroethene	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
tert-Butyl Alcohol	5.0	15	<5.0	<15	<5.0	<15	<5.0	<15
Methylene Chloride	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8
Freon-113	0.80	6.1	<0.80	<6.1	<0.80	<6.1	<0.80	<6.1
Carbon Disulfide	5.0	16	<5.0	<16	<5.0	<16	<5.0	<16
Allyl Chloride	0.80	2.5	<0.80	<2.5	<0.80	<2.5	<0.80	<2.5
trans-1,2-Dichloroethene	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
1,1-Dichloroethane	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
Submitted by : SAP Date : 12-OCT-21

LABORATORY ANALYSIS REPORT

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Project No. : ACPS IAQ TESTING
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Date Received : 05-OCT-21 Report ID : 1269213

TO15 List

Galson ID:			L548280-13		L548280-14		L548280-15	
Client ID:			DM-CLASS 1055		DM-HALL 1053		DM-OUTDOOR	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Methyl tert-Butyl Ether	0.80	2.9	<0.80	<2.9	<0.80	<2.9	<0.80	<2.9
Vinyl Acetate	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8
Methyl Ethyl Ketone	0.80	2.4	<0.80	<2.4	<0.80	<2.4	<0.80	<2.4
cis-1,2-Dichloroethylene	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
Hexane	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8
Ethyl Acetate	0.80	2.9	0.80	3.0	1.1	3.8	<0.80	<2.9
Chloroform	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
Tetrahydrofuran	0.80	2.4	<0.80	<2.4	<0.80	<2.4	<0.80	<2.4
1,2-Dichloroethane	0.80	3.2	<0.80	<3.2	<0.80	<3.2	<0.80	<3.2
1,1,1-Trichloroethane	0.80	4.4	<0.80	<4.4	<0.80	<4.4	<0.80	<4.4
Benzene	0.80	2.6	<0.80	<2.6	<0.80	<2.6	<0.80	<2.6
Carbon Tetrachloride	0.80	5.0	<0.80	<5.0	<0.80	<5.0	<0.80	<5.0
Cyclohexane	0.80	2.8	<0.80	<2.8	<0.80	<2.8	<0.80	<2.8

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
Submitted by : SAP Date : 12-OCT-21

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LELAP Lab ID #04083

LABORATORY ANALYSIS REPORT

Client : Phase Separation Science, Inc. Account No.: 15354
Site : DOUGLASS MACARTHUR Login No. : L548280
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21 Date Analyzed : 11-OCT-21 - 12-OCT-21
Date Received : 05-OCT-21 Report ID : 1269213

TO15 List

Galson ID:			L548280-13		L548280-14		L548280-15	
Client ID:			DM-CLASS 1055		DM-HALL 1053		DM-OUTDOOR	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
1,2-Dichloropropane	0.80	3.7	<0.80	<3.7	<0.80	<3.7	<0.80	<3.7
Bromodichloromethane	0.80	5.4	<0.80	<5.4	<0.80	<5.4	<0.80	<5.4
1,4-Dioxane	0.80	2.9	<0.80	<2.9	<0.80	<2.9	<0.80	<2.9
Trichloroethylene	0.80	4.3	<0.80	<4.3	<0.80	<4.3	<0.80	<4.3
2,2,4-Trimethylpentane	0.80	3.7	<0.80	<3.7	<0.80	<3.7	<0.80	<3.7
Methyl Methacrylate	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3
Heptane	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3
cis-1,3-Dichloropropene	0.80	3.6	<0.80	<3.6	<0.80	<3.6	<0.80	<3.6
trans-1,3-Dichloropropene	0.80	3.6	<0.80	<3.6	<0.80	<3.6	<0.80	<3.6
1,1,2-Trichloroethane	0.80	4.4	<0.80	<4.4	<0.80	<4.4	<0.80	<4.4
Methyl Isobutyl Ketone	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3
Toluene	0.80	3.0	3.3	13	1.7	6.5	<0.80	<3.0
Methyl Butyl Ketone	0.80	3.3	<0.80	<3.3	<0.80	<3.3	<0.80	<3.3

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
Submitted by : SAP Date : 12-OCT-21

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Site : DOUGLASS MACARTHUR Login No. : L548280
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21 Date Analyzed : 11-OCT-21 - 12-OCT-21
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TO15 List

Galson ID:			L548280-13		L548280-14		L548280-15	
Client ID:			DM-CLASS 1055		DM-HALL 1053		DM-OUTDOOR	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Dibromochloromethane	0.80	6.8	<0.80	<6.8	<0.80	<6.8	<0.80	<6.8
1,2-Dibromoethane	0.80	6.1	<0.80	<6.1	<0.80	<6.1	<0.80	<6.1
Tetrachloroethylene	0.80	5.4	<0.80	<5.4	<0.80	<5.4	<0.80	<5.4
Chlorobenzene	0.80	3.7	<0.80	<3.7	<0.80	<3.7	<0.80	<3.7
Ethylbenzene	0.80	3.5	<0.80	<3.5	<0.80	<3.5	<0.80	<3.5
m & p-Xylene	1.6	6.9	<1.6	<6.9	<1.6	<6.9	<1.6	<6.9
Bromoform	0.80	8.3	<0.80	<8.3	<0.80	<8.3	<0.80	<8.3
Styrene	0.80	3.4	<0.80	<3.4	<0.80	<3.4	<0.80	<3.4
1,1,2,2-Tetrachloroethane	0.80	5.5	<0.80	<5.5	<0.80	<5.5	<0.80	<5.5
o-Xylene	0.80	3.5	<0.80	<3.5	<0.80	<3.5	<0.80	<3.5
Nonane	0.80	4.2	<0.80	<4.2	<0.80	<4.2	<0.80	<4.2
Cumene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
2-Chlorotoluene	0.80	4.1	<0.80	<4.1	<0.80	<4.1	<0.80	<4.1

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS Supervisor: BLD
Collection Media : Mini Can Approved by : JMR
Submitted by : SAP Date : 12-OCT-21

LABORATORY ANALYSIS REPORT

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Client : Phase Separation Science, Inc.
Site : DOUGLASS MACARTHUR
Project No. : ACPS IAQ TESTING
Date Sampled : 30-SEP-21
Date Received : 05-OCT-21

Account No.: 15354
Login No. : L548280
Date Analyzed : 11-OCT-21 - 12-OCT-21
Report ID : 1269213

TO15 List

Galson ID:			L548280-13		L548280-14		L548280-15	
Client ID:			DM-CLASS 1055		DM-HALL 1053		DM-OUTDOOR	
	LOQ ppbv	LOQ ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
n-Propylbenzene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
4-Ethyltoluene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
1,3,5-Trimethylbenzene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
1,2,4-Trimethylbenzene	0.80	3.9	<0.80	<3.9	<0.80	<3.9	<0.80	<3.9
Benzyl Chloride	0.80	4.1	<0.80	<4.1	<0.80	<4.1	<0.80	<4.1
1,3-Dichlorobenzene	0.80	4.8	<0.80	<4.8	<0.80	<4.8	<0.80	<4.8
1,4-Dichlorobenzene	0.80	4.8	<0.80	<4.8	<0.80	<4.8	<0.80	<4.8
1,2-Dichlorobenzene	0.80	4.8	<0.80	<4.8	<0.80	<4.8	<0.80	<4.8
Naphthalene	0.80	4.2	<0.80	<4.2	<0.80	<4.2	<0.80	<4.2

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS
Collection Media : Mini Can
Submitted by : SAP

Supervisor: BLD
Approved by : JMR
Date : 12-OCT-21

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Client Name : Phase Separation Science, Inc.
Site : DOUGLASS MACARTHUR
Project No. : ACPS IAQ TESTING

Date Sampled : 30-SEP-21 Account No.: 15354
Date Received: 05-OCT-21 Login No. : L548280
Date Analyzed: 11-OCT-21 - 12-OCT-21

L548280 (Report ID: 1269213):
NYSDOH does not offer a certification for the following compounds:
Propylene, Ethyl Acetate, Tetrahydrofuran, Methyl n-Butyl Ketone, 4-Ethyl Toluene, n-Butane,
Pentane, Ethyl Bromide, Nonane, and n-Propylbenzene.
SOPs: in-vocs(40)

L548280-5,11,13-14 (Report ID: 1269213):
Sample canister was received at/near ambient pressure.

L548280-9-14 (Report ID: 1269213):
Acetone result may be biased high due to co-elution with 2-methylbutane.

L548280-4 (Report ID: 1269213):
Propylene results may be biased high due to co-elution with Propane.

L548280 (Report ID: 1269213):
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
1,1,2,2-Tetrachloroethane	+/-14%	98.9%
1,1,2-Trichloroethane	+/-12.6%	97.6%
1,1-Dichloroethane	+/-15.4%	96.5%
1,1-Dichloroethene	+/-15.7%	98.2%
1,2,4-Trimethylbenzene	+/-15%	105%
1,2-Dibromoethane	+/-13.5%	99.8%
1,2-Dichlorobenzene	+/-12.4%	103%
1,2-Dichloroethane	+/-17.6%	98.6%
1,2-Dichloropropane	+/-14.8%	96.2%
1,3,5-Trimethylbenzene	+/-13.2%	103%
1,3-Dichlorobenzene	+/-12.6%	102%
1,4-Dichlorobenzene	+/-13.3%	102%
2,2,4-Trimethylpentane	+/-15.1%	97.9%
2-Chlorotoluene	+/-13.2%	104%
4-Ethyltoluene	+/-13.9%	104%
Acrolein	+/-21.8%	93.1%
Acrylonitrile	+/-16.4%	97.9%
Allyl Chloride	+/-18.7%	97.5%
Acetonitrile	+/-17.4%	100%
Acetone	+/-14.6%	97.4%
Bromodichloromethane	+/-12.9%	100%

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Project No. : ACPS IAQ TESTING

Date Sampled : 30-SEP-21 Account No.: 15354
Date Received: 05-OCT-21 Login No. : L548280
Date Analyzed: 11-OCT-21 - 12-OCT-21

Bromoform	+/-14.4%	103%
1,3-Butadiene	+/-16.9%	97.5%
n-Butane	+/-18.2%	95.9%
Benzene	+/-13.3%	97.3%
Benzyl Chloride	+/-15%	109%
Carbon Disulfide	+/-13.8%	96.5%
Carbon Tetrachloride	+/-15.7%	100%
cis-1,2-Dichloroethylene	+/-16%	98.6%
cis-1,3-Dichloropropene	+/-14.6%	101%
Chlorobenzene	+/-13.3%	97.5%
Dibromochloromethane	+/-13%	102%
Chloroform	+/-14.1%	97.7%
Cumene	+/-13.9%	101%
Cyclohexane	+/-15.1%	100%
1,4-Dioxane	+/-13.7%	101%
Ethyl Acetate	+/-17.9%	98.4%
Ethylbenzene	+/-14.7%	101%
Chloroethane	+/-16.7%	96.9%
Ethyl Bromide	+/-13%	97.4%
Freon-11	+/-15.5%	99.4%
Freon-113	+/-13.2%	96.7%
Freon-114	+/-14.5%	98.8%
Freon-12	+/-15.3%	99.2%
Heptane	+/-16.1%	99.1%
Isopropyl Alcohol	+/-20.8%	96.3%
1,1,1-Trichloroethane	+/-15.1%	99.2%
Bromomethane	+/-13%	97%
Chloromethane	+/-17.9%	96.3%
Methylene Chloride	+/-14.4%	93.4%
Methyl Ethyl Ketone	+/-17.7%	97.8%
Methyl Methacrylate	+/-16%	102%
Methyl Isobutyl Ketone	+/-18.2%	99.4%
Methyl Butyl Ketone	+/-18.7%	105%
m & p-Xylene	+/-14%	100%
Methyl tert-Butyl Ether	+/-15.4%	100%
Naphthalene	+/-20.2%	111%
Hexane	+/-15.6%	98.1%
Nonane	+/-16.7%	103%
n-Propylbenzene	+/-13.2%	103%
o-Xylene	+/-13.9%	101%
Propylene	+/-18.8%	96.3%
Pentane	+/-17.9%	97.1%
Styrene	+/-15.2%	104%
Trichloroethylene	+/-12.8%	98.8%
tert-Butyl Alcohol	+/-18.4%	101%

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Client Name : Phase Separation Science, Inc.
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Project No. : ACPS IAQ TESTING

Date Sampled : 30-SEP-21 Account No.: 15354
Date Received: 05-OCT-21 Login No. : L548280
Date Analyzed: 11-OCT-21 - 12-OCT-21

Tetrachloroethylene	+/-13.1%	98.9%
Tetrahydrofuran	+/-19%	99%
Toluene	+/-14.4%	99.6%
trans-1,2-Dichloroethene	+/-15.8%	97.6%
trans-1,3-Dichloropropene	+/-14.8%	103%
Vinyl Acetate	+/-22.4%	96.1%
Vinyl Bromide	+/-13.8%	97.7%
Vinyl Chloride	+/-15.6%	97.7%

1Z2313E40166539869
Date:10/05/21
Shipper:UPS
Initials:MAK
Prep:UNKNOWN

1Z2313E40165932079
Date:10/05/21
Shipper:UPS
Initials:MAK
Prep:UNKNOWN

L548280

☐ 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

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

Site Name: Douglass MacArthur
Project: ACPS IAQ Testing
Sampled by: Client

Comments:
* Sample ID is DM-Hall 1061-1063, ND 1063 SK 10/5/21

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

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

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

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
DM- Main Admin	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
DM- Gym	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
DM- Media Center	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
DM- Cafeteria	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
DM- Class 1072	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
DM- Class 1032	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
DM- Hall 1115	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
DM- Class 1117	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
DM- Class 1125	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
DM- Class 1059	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
* DM- Hall 1061-1062	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	

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

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

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

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by:	Amber Confer	10/4/21		Received by:	UPS		
Relinquished by:				Received by:	Michelle Krause Michelle Krause	10/5/21	11:20

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.

Page ___ of ___

SGS GALSON

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

www.sgsgalson.com

☐ New Client?

Client Account No.*:

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

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

Invoice To* : Phase Separation Science

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

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

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

Site Name : Douglass MacArthur Project : ACPS IAQ Testing Sampled by : Client

Comments :

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

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

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

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
DM- Class 1064	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
DM- Class 1055	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
DM- Hall 1053	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
DM- Outdoor	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	
	09/30/21	Canister	1L	ug/m^3	VOC	TO-15 (list)	

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

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

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

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :				Received by :			
Relinquished by :				Received by :	Michelle Krause Michelle Krause	10/5/21	11:10

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 ___

Chain of Custody Form for Subcontracted Analyses

gray cart

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

For Questions or issues please contact: Amber Confer

W.O. No. : **21100120**
Project Location : Douglass MacArthur
Project Number : 4920002
Report To LOD : No

Report Due On :10/12/21 05:00

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

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

Lab Sample ID	Field Sample ID	Date Sampled	Time Sampled	Matrix	Analyses Required	Method	Type of Container	Preservative
21100120-001	DM- Main Admin	09/30/21	20:05	Air	VOCs in Air by GC/MS (subbed)	TO-15	NONSC	NON
21100120-002	DM- Gym	09/30/21	20:06	Air	VOCs in Air by GC/MS (subbed)	TO-15	NONSC	NON
21100120-003	DM- Media Center	09/30/21	20:08	Air	VOCs in Air by GC/MS (subbed)	TO-15	NONSC	NON
21100120-004	DM- Cafeteria	09/30/21	20:11	Air	VOCs in Air by GC/MS (subbed)	TO-15	NONSC	NON
21100120-005	DM- Class 1072	09/30/21	20:13	Air	VOCs in Air by GC/MS (subbed)	TO-15	NONSC	NON
21100120-006	DM- Class 1032	09/30/21	20:15	Air	VOCs in Air by GC/MS (subbed)	TO-15	NONSC	NON
21100120-007	DM- Hall 1115	09/30/21	20:08	Air	VOCs in Air by GC/MS (subbed)	TO-15	NONSC	NON
21100120-008	DM- Class 1117	09/30/21	20:09	Air	VOCs in Air by GC/MS (subbed)	TO-15	NONSC	NON
21100120-009	DM- Class 1125	09/30/21	20:10	Air	VOCs in Air by GC/MS (subbed)	TO-15	NONSC	NON
21100120-010	DM- Class 1059	09/30/21	20:12	Air	VOCs in Air by GC/MS (subbed)	TO-15	NONSC	NON
21100120-011	DM- Hall 1061-1062	09/30/21	20:13	Air	VOCs in Air by GC/MS (subbed)	TO-15	NONSC	NON
21100120-012	DM- Class 1064	09/30/21	20:16	Air	VOCs in Air by GC/MS (subbed)	TO-15	NONSC	NON
21100120-013	DM- Class 1055	09/30/21	20:19	Air	VOCs in Air by GC/MS (subbed)	TO-15	NONSC	NON
21100120-014	DM- Hall 1053	09/30/21	20:19	Air	VOCs in Air by GC/MS (subbed)	TO-15	NONSC	NON
21100120-015	DM- Outdoor	09/30/21	19:56	Air	VOCs in Air by GC/MS (subbed)	TO-15	NONSC	NON

Data Deliverables Required: COA

Perform Q.C. on Sample : _____

Send Report Attn : reporting@phaseonline.com

Send InvoiceAttn : invoicing@phaseonline.com

Airbill No.: _____ Carrier : UPS

Condition Upon Receipt : _____

Comments : * 2 boxes * on 9/4/21

Samples Relinquished By : [signature] Date : 9/10/21 Time: _____ Samples Received By : _____

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

Samples Relinquished By: _____ Date: _____ Time: _____ Samples Received By: Michelle Krause Michelle Krause 10/9/21 11:10

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

Project Name: ACPS IAQ

PSS Project No.: 21100120

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; incoming pressures will be taken by subcontracting lab.

21100120: 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.

SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15

PHASE SEPARATION SCIENCE, INC.

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

(1) *CLIENT: Total Environmental Concepts, Inc. *OFFICE LOC.: Lorton
*PROJECT MGR: Karl Ford
EMAIL: kford@teci.pro *PHONE NO: (703) 567-4346
*PROJECT NAME: ACPS IAQ testing PROJECT NO.: 4920002
SITE LOCATION: Douglass MacArthur P.O. NO.:
SAMPLER(S): Channing Jackson, Margaret Stanger

PSS Work Order #: 2110120
PAGE 1 OF 2

(2) (3)

LAB #	*SAMPLE IDENTIFICATION	*DATE START	*Time Start (24hr clock)	*DATE STOP	*Time Stop (24hr clock)	* Can ID *	Sample Reg. ID *	Canister Pressure * in field ("Hg) Start	Canister Pressure * in field ("Hg) Stop	Incoming Canister Pressure ("Hg) Lab	Soil Gas / Subslab *	Indoor/Ambient Air *	TO-15 Full List	Special List	REMARKS
1	DM - Main Admin	9/30/21	16:07	9/30/21	20:05	WA593	6070	35.0	10.0		☐	☐	☑	☐	
2	DM - Gym	9/30/21	16:10	9/30/21	20:06	WA662	4370	30.0	5.0		☐	☐	☑	☐	
3	DM - Media Center	9/30/21	16:12	9/30/21	20:08	WA586	6396	35.0	8.0		☐	☐	☑	☐	
4	DM - Cafeteria	9/30/21	16:14	9/30/21	20:11	WA669	4366	35.0	4.0		☐	☐	☑	☐	
5	DM - Class 1072	9/30/21	16:22	9/30/21	20:13	2323	11486	26.0	0.0		☐	☐	☑	☐	
6	DM - Class 1032	9/30/21	16:25	9/30/21	20:15	WA242	10728	35.0	12.0		☐	☐	☑	☐	
7	DM - Hall 1115	9/30/21	16:08	9/30/21	20:08	WA670	WR834	27.0	8.0		☐	☐	☑	☐	
8	DM - Class 1117	9/30/21	16:10	9/30/21	20:09	1346	6390	27.0	3.0		☐	☐	☑	☐	
9	DM - Class 1125	9/30/21	16:13	9/30/21	20:10	1384	5919	30+	9.0		☐	☐	☑	☐	
10	DM - Class 1059	9/30/21	16:18	9/30/21	20:12	WA630	12756	30+	7.0		☐	☐	☑	☐	

(5)

Relinquished By: (1)	Date	Time	Received By:
Channing Jackson	10/1/21	~~12:00~~ 12:30	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:

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

Shipping Carrier: Client

Data Deliverables Required:

Special Instructions:

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

SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15

PHASE SEPARATION SCIENCE, INC.

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

(1) *CLIENT: Total Environmental Concepts, Inc. *OFFICE LOC.: Lorton
*PROJECT MGR: Karl Ford
EMAIL: kford@teci.pro *PHONE NO: (703) 567-4346
*PROJECT NAME: ACPS IAQ testing PROJECT NO.: 4920002
SITE LOCATION: Douglass MacArthur P.O. NO.:
SAMPLER(S): Channing Jackson, Margaret Stanger

PSS Work Order #: 21100120
PAGE 1 OF 2

(2)

LAB #	*SAMPLE IDENTIFICATION	*DATE START	*Time Start (24hr clock)	*DATE STOP	*Time Stop (24hr clock)	* (3) Can ID *	Sample Reg. ID *	Canister Pressure * in field ("Hg) Start	Canister Pressure * in field ("Hg) Stop	Incoming Canister Pressure ("Hg) Lab	Soil Gas / Subslab *	Indoor/Ambient Air *	TO-15 Full List	Special List	REMARKS
11	DM - ~~Class~~ Hall 1061-1062	9/30/21	16:22	9/30/21	20:13	WA642	11466	26.0	0.0		☐	☐	☑	☐	
12	DM - Class 1064	9/30/21	16:24	9/30/21	20:16	WA761	4342	30+	10.0		☐	☐	☑	☐	
13	DM - Class 1055	9/30/21	16:26	9/30/21	20:19	1489	4332	30.0	0.0		☐	☐	☑	☐	
14	DM - Hall 1053	9/30/21	16:28	9/30/21	20:21	WA587	WR520	30.0	0.0		☐	☐	☑	☐	
15	DM - Outdoor	9/30/21	16:04	9/30/21	19:56	WA575	42592	30.0	4.0		☐	☐	☑	☐	
											☐	☐	☐	☐	
											☐	☐	☐	☐	
											☐	☐	☐	☐	
											☐	☐	☐	☐	
											☐	☐	☐	☐	

(5)

Relinquished By: (1)	Date	Time	Received By:
Channing Jackson	10/1/21	~~12:00~~ 17:30 ☑	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:

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

Shipping Carrier: Client

Data Deliverables Required:

Special Instructions:

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

PHASE SEPARATION SCIENCE

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

Sample Receipt Checklist

Project Name: ACPS IAQ
PSS Project No.: 21100120

Client Name Total Environmental Concepts - Lorto
Disposal Date 11/05/2021

Received By Brad Crozier
Date Received 10/01/2021 05:30:00 PM
Delivered By Client
Tracking No Not Applicable
Logged In By Amber Confer

Shipping Container(s)
No. of Coolers 0

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

Documentation
Sampler Name C. Jackson, M. Stanger
COC agrees with sample labels? Yes
MD DW Cert. No. N/A
Chain of Custody Yes

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

Holding Time
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 taken upon receipt; incoming pressures will be taken by subcontracting lab.

Samples Inspected/Checklist Completed By: Amber F Confer — Date: 10/04/2021
Amber Confer

PM Review and Approval: N L Jackson — Date: 10/04/2021
Lynnette Jackson

SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com

email: info@phaseonline.com

(1)

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

*PROJECT MGR: Karl Ford

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

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

SITE LOCATION: Douglass MacArthur P.O. NO.:

SAMPLER(S): Channing Jackson, Margaret Stanger

PSS Work Order #:

PAGE 1 OF 2

(2)

LAB #	*SAMPLE IDENTIFICATION	*DATE START	*Time Start (24hr clock)	*DATE STOP	*Time Stop (24hr clock)	* (3) Can ID *	Sample Reg. ID *	Canister Pressure * in field ("Hg) Start	Canister Pressure * in field ("Hg) Stop	Incoming Canister Pressure ("Hg) Lab	Soil Gas / Subslab *	Indoor/Ambient Air *	TO-15 Full List	Special List	REMARKS
	DM - Main Admin	9/30/21	16:07	9/30/21	20:05	WA593	6070	35.0	10.0		☐	☐	✔	☐	
	DM - Gym	9/30/21	16:10	9/30/21	20:06	WA662	4370	30.0	5.0		☐	☐	✔	☐	
	DM - Media Center	9/30/21	16:12	9/30/21	20:08	WA586	6396	35.0	8.0		☐	☐	✔	☐	
	DM - Cafeteria	9/30/21	16:14	9/30/21	20:11	WA669	4366	35.0	4.0		☐	☐	✔	☐	
	DM - Class 1072	9/30/21	16:22	9/30/21	20:13	2323	11486	26.0	0.0		☐	☐	✔	☐	
	DM - Class 1032	9/30/21	16:25	9/30/21	20:15	WA242	10728	35.0	12.0		☐	☐	✔	☐	
	DM - Hall 1115	9/30/21	16:08	9/30/21	20:08	WA670	WR834	27.0	8.0		☐	☐	✔	☐	
	DM - Class 1117	9/30/21	16:10	9/30/21	20:09	1346	6390	27.0	3.0		☐	☐	✔	☐	
	DM - Class 1125	9/30/21	16:13	9/30/21	20:10	1384	5919	30+	9.0		☐	☐	✔	☐	
	DM - Class 1059	9/30/21	16:18	9/30/21	20:12	WA630	12756	30+	7.0		☐	☐	✔	☐	

(5)

Relinquished By: (1)	Date	Time	Received By:
Channing Jackson	10/1/21	12:00	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:

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

☑ 5-Day ☐ 3-Day ☐ 2-Day

☐ Next Day ☐ Emergency ☐ Other

Shipping Carrier:

Data Deliverables Required:

Special Instructions:

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

SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com

email: info@phaseonline.com

(1)

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

*PROJECT MGR: Karl Ford

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

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

SITE LOCATION: Douglass MacArthur P.O. NO.:

SAMPLER(S): Channing Jackson, Margaret Stanger

PSS Work Order #:

PAGE 1 OF 2

(2)

LAB #	*SAMPLE IDENTIFICATION	*DATE START	*Time Start (24hr clock)	*DATE STOP	*Time Stop (24hr clock)	* (3) Can ID *	Sample Reg. ID *	Canister Pressure * in field ("Hg) Start	Canister Pressure * in field ("Hg) Stop	Incoming Canister Pressure ("Hg) Lab	Soil Gas / Subslab *	Indoor/Ambient Air *	TO-15 Full List	Special List	REMARKS
	DM - Main Admin	9/30/21	16:07	9/30/21	20:05	WA593	6070	35.0	10.0		☐	☐	✔	☐	
	DM - Gym	9/30/21	16:10	9/30/21	20:06	WA662	4370	30.0	5.0		☐	☐	✔	☐	
	DM - Media Center	9/30/21	16:12	9/30/21	20:08	WA586	6396	35.0	8.0		☐	☐	✔	☐	
	DM - Cafeteria	9/30/21	16:14	9/30/21	20:11	WA669	4366	35.0	4.0		☐	☐	✔	☐	
	DM - Class 1072	9/30/21	16:22	9/30/21	20:13	2323	11486	26.0	0.0		☐	☐	✔	☐	
	DM - Class 1032	9/30/21	16:25	9/30/21	20:15	WA242	10728	35.0	12.0		☐	☐	✔	☐	
	DM - Hall 1115	9/30/21	16:08	9/30/21	20:08	WA670	WR834	27.0	8.0		☐	☐	✔	☐	
	DM - Class 1117	9/30/21	16:10	9/30/21	20:09	1346	6390	27.0	3.0		☐	☐	✔	☐	
	DM - Class 1125	9/30/21	16:13	9/30/21	20:10	1384	5919	30+	9.0		☐	☐	✔	☐	
	DM - Class 1059	9/30/21	16:18	9/30/21	20:12	WA630	12756	30+	7.0		☐	☐	✔	☐	

(5)

Relinquished By: (1)	Date	Time	Received By:
Channing Jackson	10/1/21	12:00	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:

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

☑ 5-Day ☐ 3-Day ☐ 2-Day

☐ Next Day ☐ Emergency ☐ Other

Shipping Carrier:

Data Deliverables Required:

Special Instructions:

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

Appendix D: Formaldehyde Analytical Results

PHASE SEPARATION SCIENCE

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

Certificate of Analysis

Project Name: ACPS IAQ
PSS Project No.: 21100408

October 13, 2021

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

Reference: PSS Project No: **21100408**
Project Name: ACPS IAQ
Project Location: Douglass MacArthur
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) **21100408**.

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 November 8, 2021, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

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

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

Sincerely,

Dan Prucnal
Laboratory Manager

PHASE SEPARATION SCIENCE

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

Explanation of Qualifiers

Project Name: ACPS IAQ
PSS Project No.: 21100408

Project ID: 4920002

The following samples were received under chain of custody by Phase Separation Science (PSS) on 10/04/2021 at 02:35 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
21100408-001	DM- Main Admin	AIR	09/30/21 00:00
21100408-002	DM- Gym	AIR	09/30/21 00:00
21100408-003	DM- Media Center	AIR	09/30/21 00:00
21100408-004	DM- Cafeteria	AIR	09/30/21 00:00
21100408-005	DM- Class 1072	AIR	09/30/21 00:00
21100408-006	DM- Class 1032	AIR	09/30/21 00:00
21100408-007	DM- Hall 1115	AIR	09/30/21 00:00
21100408-008	DM- Class 1117	AIR	09/30/21 00:00
21100408-009	DM- Class 1125	AIR	09/30/21 00:00
21100408-010	DM- Class 1059	AIR	09/30/21 00:00
21100408-011	DM- Hall 1061-1062	AIR	09/30/21 00:00
21100408-012	DM- Class 1064	AIR	09/30/21 00:00
21100408-013	DM- Class 1055	AIR	09/30/21 00:00
21100408-014	DM- Hall 1053	AIR	09/30/21 00:00
21100408-015	DM- 1035/Cafe	AIR	09/30/21 00:00

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

Notes:

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

PHASE SEPARATION SCIENCE

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

Explanation of Qualifiers

Project Name: ACPS IAQ

PSS Project No.: 21100408

Standard Flags/Abbreviations:

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

Certifications:

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

SGS GALSON

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

October 12, 2021

Account# 15354

Login# L548409

Dear Ms. Confer:

Enclosed are the analytical results for the samples received by our laboratory on October 06, 2021. All samples on the chain of custody were received in good condition unless otherwise noted. Any additional observations will be noted on the chain of custody.

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

Sincerely,

SGS Galson

Lisa Swab
Laboratory Director

Enclosure(s)

Terms and Conditions & General Disclaimers

- This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

- Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Analytical Disclaimers

- Unless otherwise noted within the report, all quality control results associated with the samples were within established control limits or did not impact reported results.

- Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process, including but not limited to the use of field equipment and collection media, as well as the sampling duration, collection volume or any other collection parameter used by the Client. The findings herein constitute no warranty of the sample's representativeness of any sampled environment, and strictly relate to the samples as they were presented to the laboratory. For recommended sampling collection parameters, please refer to the Sampling and Analysis Guide at www.sgsgalson.com.

- Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

- The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

- Unless otherwise noted within the report, results have not been blank corrected for any field blank or method blank data.

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

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

State	Accreditation/Recognition	Lab ID#	Program/Sector
New York (NYSDOH)	ELAP and NELAC (TNI)	Lab ID: 11626	Air Analysis, Solid and Hazardous Waste
New Jersey (NJDEP)	NELAC (TNI)	Lab ID: NY024	Air Analysis
Louisiana (LDEQ)	LELAP	Lab ID: 04083	Air Analysis, Solid Chemical Materials

Legend

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

SGS GALSON

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

LABORATORY ANALYSIS REPORT

Client : Phase Separation Science, Inc. Account No.: 15354
Site : DOUGLASS MACARTHUR Login No. : L548409
Project No. : ACPS IAQ TESTING - 4920002
Date Sampled : 30-SEP-21 Date Analyzed : 08-OCT-21
Date Received : 06-OCT-21 Report ID : 1268929

Formaldehyde

Sample ID	Lab ID	Time minutes	Total ug	Conc mg/m3	ppm
DM - MAIN ADMIN	L548409-1	257	<0.4	<0.01	<0.01
DM - GYM	L548409-2	258	<0.4	<0.01	<0.01
DM - MEDIA CENTER	L548409-3	258	<0.4	<0.01	<0.01
DM - CAFETERIA	L548409-4	258	<0.4	<0.01	<0.01
DM - CLASS 1072	L548409-5	258	<0.4	<0.01	<0.01
DM - CLASS 1032	L548409-6	256	<0.4	<0.01	<0.01
DM - HALL 1115	L548409-7	255	<0.4	<0.01	<0.01
DM - CLASS 1117	L548409-8	255	<0.4	<0.01	<0.01
DM - CLASS 1125	L548409-9	255	<0.4	<0.01	<0.01
DM - CLASS 1059	L548409-10	256	<0.4	<0.01	<0.01
DM - HALL 1061-1062	L548409-11	257	<0.4	<0.01	<0.01
DM - CLASS 1064	L548409-12	256	0.4	0.01	0.01
DM - CLASS 1055	L548409-13	258	<0.4	<0.01	<0.01
DM - HALL 1053	L548409-14	255	<0.4	<0.01	<0.01
DM - 1035/CAFE	L548409-15	259	<0.4	<0.01	<0.01

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

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

Submitted by: CAS/JLL
Date : 11-OCT-21
Supervisor : MWJ

Approved by: NKP

GALSON

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

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

Date Sampled : 30-SEP-21 Account No.: 15354
Date Received: 06-OCT-21 Login No. : L548409
Date Analyzed: 08-OCT-21

L548409 (Report ID: 1268929):
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 (sample 14).
FORMALDEHYDE results have been corrected for the average background found on the media:
0.1178 ug for lot #4B21 (samples 1-13,15).
SOPs: LC-SOP-4(23)

L548409 (Report ID: 1268929):
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%

L548409 Z1100408

1Z2313E40165129938
Date: 10/06/21
Shipper: UPS
Initials: MAK
Prep: UNKNOWN

www.sgsgalson.com

☐ New Client? Client Account No.*:

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

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

Invoice To*: Phase Separation Science

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

37 38

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

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

Site Name: Douglass MacArthur Project: ACPS IAQ testing - 4920002 Sampled by: Karl Ford

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

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

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

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

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
DM - Main Admin	09/30/21	Assay N581 Aldehyde Badge	257	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4242
DM - Gym	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4357
DM - Media Center	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4547
DM - Cafeteria	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4192
DM - Class 1072	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4223
DM - Class 1032	09/30/21	Assay N581 Aldehyde Badge	256	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4624
DM - Hall 1115	09/30/21	Assay N581 Aldehyde Badge	255	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4661
DM - Class 1117	09/30/21	Assay N581 Aldehyde Badge	255	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4268
DM - Class 1125	09/30/21	Assay N581 Aldehyde Badge	255	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5572
DM - Class 1059	09/30/21	Assay N581 Aldehyde Badge	256	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5133
DM - Hall 1061-1062	09/30/21	Assay N581 Aldehyde Badge	257	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4322

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

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

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

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by:	Channing Jackson	10/04/21	14:35	Received by:			
Relinquished by:				Received by:	Michelle Krause Michelle Krause	10/6/21	1044

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

Page 1 of 2

211 00408

SGS GALSON

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

www.sgsgalson.com

☐ New Client?

Client Account No.*:

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

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

Invoice To* : Phase Separation Science

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

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

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

Site Name : Douglass MacArthur Project : ACPS IAQ testing - 4920002 Sampled by : Karl Ford

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

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

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

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

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
DM - Class 1064	09/30/21	Assay N581 Aldehyde Badge	256	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4204
DM - Class 1055	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5481
DM - Hall 1053	09/30/21	Assay N581 Aldehyde Badge	255	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5533
DM - 1035/Cafe	09/30/21	Assay N581 Aldehyde Badge	259	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4842

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

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

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

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :	Channing Jackson	10/04/21	14:35	Received by :			
Relinquished by :				Received by :	Michelle Krause	10/6/21	1046

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

Page 1 of 2

Chain of Custody Form for Subcontracted Analyses

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

For Questions or issues please contact: Amber Confer

W.O. No. : **21100408**
Project Location : Douglass MacArthur
Project Number : 4920002
Report To LOD : No

~~**Report Due On :10/13/21 05:00**~~

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

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

Lab Sample ID	Field Sample ID	Date Sampled	Time Sampled	Matrix	Analyses Required	Method	Type of Container	Preservative
21100408-001	DM- Main Admin	09/30/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21100408-002	DM- Gym	09/30/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21100408-003	DM- Media Center	09/30/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21100408-004	DM- Cafeteria	09/30/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21100408-005	DM- Class 1072	09/30/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21100408-006	DM- Class 1032	09/30/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21100408-007	DM- Hall 1115	09/30/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21100408-008	DM- Class 1117	09/30/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21100408-009	DM- Class 1125	09/30/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21100408-010	DM- Class 1059	09/30/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21100408-011	DM- Hall 1061-1062	09/30/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21100408-012	DM- Class 1064	09/30/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21100408-013	DM- Class 1055	09/30/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21100408-014	DM- Hall 1053	09/30/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21100408-015	DM- 1035/Cafe	09/30/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON

Data Deliverables Required: COA

Perform Q.C. on Sample : _____

Send Report Attn : reporting@phaseonline.com

Send InvoiceAttn : invoicing@phaseonline.com

Airbill No.: _____ Carrier : UPS

Condition Upon Receipt : _____

Comments :

Samples Relinquished By : Amber Confer Date : 10/5/21 Time: _____ Samples Received By : _____

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

Samples Relinquished By: _____ Date: _____ Time: _____ Samples Received By: Michelle Kraemer Michelle Kraemer 10/6/21 1046

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

Project Name: ACPS IAQ

PSS Project No.: 21100408

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.

21100408: 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.

Z1106408

SGS GALSON

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

www.sgsgalson.com

☐ New Client?

Client Account No.*:

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

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

Invoice To* : Phase Separation Science

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

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

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

Site Name : Douglass MacArthur Project : ACPS IAQ testing - 4920002 Sampled by : Karl Ford

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

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

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

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

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
DM - Main Admin	09/30/21	Assay N581 Aldehyde Badge	257	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4242
DM - Gym	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4357
DM - Media Center	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4547
DM - Cafeteria	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4192
DM - Class 1072	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4223
DM - Class 1032	09/30/21	Assay N581 Aldehyde Badge	256	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4624
DM - Hall 1115	09/30/21	Assay N581 Aldehyde Badge	255	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4661
DM - Class 1117	09/30/21	Assay N581 Aldehyde Badge	255	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4268
DM - Class 1125	09/30/21	Assay N581 Aldehyde Badge	255	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5572
DM - Class 1059	09/30/21	Assay N581 Aldehyde Badge	256	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5133
DM - Hall 1061-1062	09/30/21	Assay N581 Aldehyde Badge	257	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4322

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

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

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

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :	Channing Jackson	10/04/21	14:35	Received by :			
Relinquished by :				Received by :			

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

Page 1 of 2

211 00408

SGS GALSON

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

www.sgsgalson.com

☐ New Client? Client Account No.*:

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

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

Invoice To* : Phase Separation Science

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

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

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

Site Name : Douglass MacArthur Project : ACPS IAQ testing - 4920002 Sampled by : Karl Ford

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

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

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

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

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
DM - Class 1064	09/30/21	Assay N581 Aldehyde Badge	256	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4204
DM - Class 1055	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5481
DM - Hall 1053	09/30/21	Assay N581 Aldehyde Badge	255	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	OZ5533
DM - 1035/Cafe	09/30/21	Assay N581 Aldehyde Badge	259	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4842

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

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

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

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :	Channing Jackson	10/04/21	14:35	Received by :			
Relinquished by :				Received by :			

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

Page 1 of 2

PHASE SEPARATION SCIENCE

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

Sample Receipt Checklist

Project Name: ACPS IAQ
PSS Project No.: 21100408

Client Name Total Environmental Concepts - Lorto
Disposal Date 11/08/2021

Received By Brad Crozier
Date Received 10/04/2021 02:35:00 PM
Delivered By Client
Tracking No Not Applicable
Logged In By Amber Confer

Shipping Container(s)
No. of Coolers 0

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

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

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

Holding Time
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: 10/05/2021
Amber Confer

PM Review and Approval: Lynn Jackson — Date: 10/05/2021
Lynn Jackson

SGS GALSON

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

www.sgsgalson.com

☐ New Client?

Client Account No.*:

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

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

Invoice To* : Phase Separation Science

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

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

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

Site Name : Douglass MacArthur Project : ACPS IAQ testing - 4920002 Sampled by : Karl Ford

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

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

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

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

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
DM - Main Admin	09/30/21	Assay N581 Aldehyde Badge	257	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4242
DM - Gym	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4357
DM - Media Center	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4547
DM - Cafeteria	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4192
DM - Class 1072	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4223
DM - Class 1032	09/30/21	Assay N581 Aldehyde Badge	256	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4624
DM - Hall 1115	09/30/21	Assay N581 Aldehyde Badge	255	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4661
DM - Class 1117	09/30/21	Assay N581 Aldehyde Badge	255	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4268
DM - Class 1125	09/30/21	Assay N581 Aldehyde Badge	255	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5572
DM - Class 1059	09/30/21	Assay N581 Aldehyde Badge	256	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5133
DM - Hall 1061-1062	09/30/21	Assay N581 Aldehyde Badge	257	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4322

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

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

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

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :	Channing Jackson	10/04/21		Received by :			
Relinquished by :				Received by :			

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

SGS GALSON

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

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☐ New Client?

Client Account No.*:

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

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

Invoice To* : Phase Separation Science

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

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

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

Site Name : Douglass MacArthur Project : ACPS IAQ testing - 4920002 Sampled by : Karl Ford

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

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

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

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

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
DM - Main Admin	09/30/21	Assay N581 Aldehyde Badge	257	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4242
DM - Gym	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4357
DM - Media Center	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4547
DM - Cafeteria	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4192
DM - Class 1072	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4223
DM - Class 1032	09/30/21	Assay N581 Aldehyde Badge	256	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4624
DM - Hall 1115	09/30/21	Assay N581 Aldehyde Badge	255	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4661
DM - Class 1117	09/30/21	Assay N581 Aldehyde Badge	255	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4268
DM - Class 1125	09/30/21	Assay N581 Aldehyde Badge	255	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5572
DM - Class 1059	09/30/21	Assay N581 Aldehyde Badge	256	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5133
DM - Hall 1061-1062	09/30/21	Assay N581 Aldehyde Badge	257	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4322

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

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

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

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :	Channing Jackson	10/04/21		Received by :			
Relinquished by :				Received by :			

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

Appendix E: 4-PCH Analytical Results

PHASE SEPARATION SCIENCE

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

Certificate of Analysis

Project Name: ACPS IAQ
PSS Project No.: 21100407

October 13, 2021

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

Reference: PSS Project No: **21100407**
Project Name: ACPS IAQ
Project Location: Douglass MacArthur Elementary
Project ID.: 4920002

Dear Karl Ford:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) **21100407**.

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 November 8, 2021, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

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

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

Sincerely,

Dan Prucnal
Laboratory Manager

PHASE SEPARATION SCIENCE

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

Explanation of Qualifiers

Project Name: ACPS IAQ
PSS Project No.: 21100407

Project ID: 4920002

The following samples were received under chain of custody by Phase Separation Science (PSS) on 10/04/2021 at 02:35 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
21100407-001	DM- Main Admin	AIR	09/30/21 00:00
21100407-002	DM- Gym	AIR	09/30/21 00:00
21100407-003	DM- Media Center	AIR	09/30/21 00:00
21100407-004	DM- Cafeteria	AIR	09/30/21 00:00
21100407-005	DM- Class 1072	AIR	09/30/21 00:00
21100407-006	DM- Class 1032	AIR	09/30/21 00:00
21100407-007	DM- Hall 1115	AIR	09/30/21 00:00
21100407-008	DM- Class 1117	AIR	09/30/21 00:00
21100407-009	DM- Class 1125	AIR	09/30/21 00:00
21100407-010	DM- Class 1059	AIR	09/30/21 00:00
21100407-011	DM- Hall 1061-1062	AIR	09/30/21 00:00
21100407-012	DM- Class 1064	AIR	09/30/21 00:00
21100407-013	DM- Class 1055	AIR	09/30/21 00:00
21100407-014	DM- Hall 1055	AIR	09/30/21 00:00
21100407-015	DM- Hall 1035/Cafe	AIR	09/30/21 00:00

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

Notes:

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

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800-932-9047
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Explanation of Qualifiers

Project Name: ACPS IAQ

PSS Project No.: 21100407

Standard Flags/Abbreviations:

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

Certifications:

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

SGS GALSON

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

October 13, 2021

Account# 15354

Login# L548404

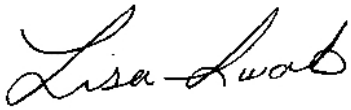
Dear Amber Confer:

Enclosed are the analytical results for the samples received by our laboratory on October 06, 2021. All samples on the chain of custody were received in good condition unless otherwise noted. Any additional observations will be noted on the chain of custody.

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

Sincerely,

SGS Galson



Lisa Swab
Laboratory Director

Enclosure(s)

Terms and Conditions & General Disclaimers

- This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

- Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Analytical Disclaimers

- Unless otherwise noted within the report, all quality control results associated with the samples were within established control limits or did not impact reported results.

- Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process, including but not limited to the use of field equipment and collection media, as well as the sampling duration, collection volume or any other collection parameter used by the Client. The findings herein constitute no warranty of the sample's representativeness of any sampled environment, and strictly relate to the samples as they were presented to the laboratory. For recommended sampling collection parameters, please refer to the Sampling and Analysis Guide at www.sgsgalson.com.

- Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

- The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

- Unless otherwise noted within the report, results have not been blank corrected for any field blank or method blank data.

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

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

State	Accreditation/Recognition	Lab ID#	Program/Sector
New York (NYSDOH)	ELAP and NELAC (TNI)	Lab ID: 11626	Air Analysis, Solid and Hazardous Waste
New Jersey (NJDEP)	NELAC (TNI)	Lab ID: NY024	Air Analysis
Louisiana (LDEQ)	LELAP	Lab ID: 04083	Air Analysis, Solid Chemical Materials

Legend

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

SGS GALSON

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

LABORATORY ANALYSIS REPORT

Client : Phase Separation Science, Inc. Account No.: 15354
Site : DOUGLAS MACARTHUR ELEMENTARY Login No. : L548404
Project No. : ACPS IAQ TESTING - 4920002
Date Sampled : 30-SEP-21 Date Analyzed : 09-OCT-21
Date Received : 06-OCT-21 Report ID : 1268947

4-Phenylcyclohexene (4PCH low LOQ)

Sample ID	Lab ID	Air Vol liter	Front ug	Back ug	Total ug	Conc mg/m3	ppm
DM - MAIN ADMIN	L548404-1	51.4	<0.2	<0.2	<0.2	<0.004	<0.0006
DM - GYM	L548404-2	51.6	<0.2	<0.2	<0.2	<0.004	<0.0006
DM - MEDIA CENTER	L548404-3	51.6	<0.2	<0.2	<0.2	<0.004	<0.0006
DM - CAFETERIA	L548404-4	51.6	<0.2	<0.2	<0.2	<0.004	<0.0006
DM - CLASS 1072	L548404-5	51.6	<0.2	<0.2	<0.2	<0.004	<0.0006
DM - CLASS 1032	L548404-6	51.2	<0.2	<0.2	<0.2	<0.004	<0.0006
DM - HALL 1115	L548404-7	51	<0.2	<0.2	<0.2	<0.004	<0.0006
DM - CLASS 1117	L548404-8	51	<0.2	<0.2	<0.2	<0.004	<0.0006
DM - CLASS 1125	L548404-9	51	<0.2	<0.2	<0.2	<0.004	<0.0006
DM - CLASS 1059	L548404-10	51.2	<0.2	<0.2	<0.2	<0.004	<0.0006
DM - HALL 1061-1062	L548404-11	51.4	<0.2	<0.2	<0.2	<0.004	<0.0006
DM - CLASS 1064	L548404-12	51.2	<0.2	<0.2	<0.2	<0.004	<0.0006
DM - CLASS 1055	L548404-13	51.6	<0.2	<0.2	<0.2	<0.004	<0.0006
DM - HALL 1055	L548404-14	51	<0.2	<0.2	<0.2	<0.004	<0.0006
DM - HALL 1035/CAFE	L548404-15	51.8	<0.2	<0.2	<0.2	<0.004	<0.0006

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 : 13-OCT-21
Supervisor : KAG

Approved by: MLN

SGS GALSON

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

LABORATORY FOOTNOTE REPORT

Client Name : Phase Separation Science, Inc.
Site : DOUGLAS MACARTHUR ELEMENTARY
Project No. : ACPS IAQ TESTING - 4920002

Date Sampled : 30-SEP-21 Account No.: 15354
Date Received: 06-OCT-21 Login No. : L548404
Date Analyzed: 09-OCT-21

L548404 (Report ID: 1268947):
Total ug corrected for a desorption efficiency of 97%.
SOPs: GC-SOP-16(27), GC-SOP-8(28), GC-SOP-12(20)

L548404 (Report ID: 1268947):
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%

L5484O4 21100407

1Z2313E40165129938
Date:10/06/21
Shipper:UPS
Initials:MAK
Prep:UNKNOWN

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

41

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

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

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

DAC

Site Name: Douglass MacArthur Elementary Project: ACPS IAQ testing - 4920002 Sampled by: Karl Ford

Comments:

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

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

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

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
DM - Main Admin	09/30/21	Sm Charcoal tubes / 226-01	51.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Gym	09/30/21	Sm Charcoal tubes / 226-01	51.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Media Center	09/30/21	Sm Charcoal tubes / 226-01	51.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Cafeteria	09/30/21	Sm Charcoal tubes / 226-01	51.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Class 1072	09/30/21	Sm Charcoal tubes / 226-01	51.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Class 1032	09/30/21	Sm Charcoal tubes / 226-01	51.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Hall 1115	09/30/21	Sm Charcoal tubes / 226-01	51.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Class 1117	09/30/21	Sm Charcoal tubes / 226-01	51.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Class 1125	09/30/21	Sm Charcoal tubes / 226-01	51.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Class 1059	09/30/21	Sm Charcoal tubes / 226-01	51.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Hall 1061-1062	09/30/21	Sm Charcoal tubes / 226-01	51.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	

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

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

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

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by:	Channing Jackson	10/04/21	14:35	Received by:			
Relinquished by:				Received by:	Michelle Krause	10/6/21	1046

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

Page 1 of 2

21100407

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

www.sgsgalson.com

☐ New Client?

Client Account No.*:

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

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

Invoice To* : Phase Separation Science

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

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

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

Site Name : Douglass MacArthur Elementary Project : ACPS IAQ testing - 4920002 Sampled by : Karl Ford

Comments :

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

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

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

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
DM - Class 1064	09/30/21	Sm Charcoal tubes / 226-01	51.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Class 1055	09/30/21	Sm Charcoal tubes / 226-01	51.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Hall 1053 5 an 105m	09/30/21	Sm Charcoal tubes / 226-01	51.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Hall 1035/Cafe	09/30/21	Sm Charcoal tubes / 226-01	51.8	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 subsititute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: ☑ Use method(s) listed on COC

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

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

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :	Channing Jackson	10/04/21	14:35	Received by :	[signature]		
Relinquished by :				Received by :	Michelle Krause [signature]	10/6/21	1046

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

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

Page 1 of 2

Chain of Custody Form for Subcontracted Analyses

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

For Questions or issues please contact: Amber Confer

W.O. No. : **21100407**
Project Location : Douglass MacArthur Elementary
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

Report Due On :10/13/21 05:00

Lab Sample ID	Field Sample ID	Date Sampled	Time Sampled	Matrix	Analyses Required	Method	Type of Container	Preservative
21100407-001	DM- Main Admin	09/30/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21100407-002	DM- Gym	09/30/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21100407-003	DM- Media Center	09/30/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21100407-004	DM- Cafeteria	09/30/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21100407-005	DM- Class 1072	09/30/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21100407-006	DM- Class 1032	09/30/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21100407-007	DM- Hall 1115	09/30/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21100407-008	DM- Class 1117	09/30/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21100407-009	DM- Class 1125	09/30/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21100407-010	DM- Class 1059	09/30/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21100407-011	DM- Hall 1061-1062	09/30/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21100407-012	DM- Class 1064	09/30/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21100407-013	DM- Class 1055	09/30/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21100407-014	DM- Hall 1055	09/30/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21100407-015	DM- Hall 1035/Cafe	09/30/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON

Data Deliverables Required: COA

Perform Q.C. on Sample : _____

Send Report Attn : reporting@phaseonline.com

Send InvoiceAttn : invoicing@phaseonline.com

Airbill No.: _____ Carrier : UPS

Condition Upon Receipt : _____

Comments : _____

Samples Relinquished By : [signature] Date : 10/5/21 Time: _____ Samples Received By : _____

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

Samples Relinquished By: _____ Date: _____ Time: _____ Samples Received By: [signature] Michelle Krause 10/6/21 1040

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

Project Name: ACPS IAQ

PSS Project No.: 21100407

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

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

Sample Receipt:

All sample receipt conditions were acceptable.

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

21100407

SGS GALSON

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

www.sgsgalson.com

☐ New Client?

Client Account No.*:

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

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

Invoice To* : Phase Separation Science

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

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

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

Site Name : Douglass MacArthur Elementary Project : ACPS IAQ testing - 4920002 Sampled by : Karl Ford

Comments :

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

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

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

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
DM - Main Admin	09/30/21	Sm Charcoal tubes / 226-01	51.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Gym	09/30/21	Sm Charcoal tubes / 226-01	51.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Media Center	09/30/21	Sm Charcoal tubes / 226-01	51.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Cafeteria	09/30/21	Sm Charcoal tubes / 226-01	51.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Class 1072	09/30/21	Sm Charcoal tubes / 226-01	51.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Class 1032	09/30/21	Sm Charcoal tubes / 226-01	51.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Hall 1115	09/30/21	Sm Charcoal tubes / 226-01	51.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Class 1117	09/30/21	Sm Charcoal tubes / 226-01	51.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Class 1125	09/30/21	Sm Charcoal tubes / 226-01	51.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Class 1059	09/30/21	Sm Charcoal tubes / 226-01	51.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Hall 1061-1062	09/30/21	Sm Charcoal tubes / 226-01	51.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	

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

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

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

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :	Channing Jackson	10/04/21	1435	Received by :			
Relinquished by :				Received by :			

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

21100407

SGS GALSON

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

www.sgsgalson.com

☐ New Client?

Client Account No.*:

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

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

Invoice To* : Phase Separation Science

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

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

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

Site Name : Douglass MacArthur Elementary Project : ACPS IAQ testing - 4920002 Sampled by : Karl Ford

Comments :

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

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

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

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
DM - Class 1064	09/30/21	Sm Charcoal tubes / 226-01	51.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Class 1055	09/30/21	Sm Charcoal tubes / 226-01	51.6	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Hall 1053 5 an 10/5/21	09/30/21	Sm Charcoal tubes / 226-01	51.0	L	4-Phenylcyclohexene	mod. NIOSH 1501	
DM - Hall 1035/Cafe	09/30/21	Sm Charcoal tubes / 226-01	51.8	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	

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

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :	Channing Jackson	10/04/21	14:35	Received by :	[signature]		
Relinquished by :				Received by :			

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

Page 1 of 2

PHASE SEPARATION SCIENCE

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

Sample Receipt Checklist

Project Name: ACPS IAQ
PSS Project No.: 21100407

Client Name Total Environmental Concepts - Lorto
Disposal Date 11/08/2021

Received By Brad Crozier
Date Received 10/04/2021 02:35:00 PM
Delivered By Client
Tracking No Not Applicable
Logged In By Amber Confer

Shipping Container(s)
No. of Coolers 0

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

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

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

Holding Time
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: 10/05/2021
Amber Confer

PM Review and Approval: Lynn Jackson — Date: 10/05/2021
Lynn Jackson

SGS GALSON

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

www.sgsgalson.com

☐ New Client?

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Baltimore, MD 21228

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Invoice To* : Phase Separation Science

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

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

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

Site Name : Douglass MacArthur Project : ACPS IAQ testing - 4920002 Sampled by : Karl Ford

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

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

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

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

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
DM - Main Admin	09/30/21	Assay N581 Aldehyde Badge	257	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4242
DM - Gym	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4357
DM - Media Center	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4547
DM - Cafeteria	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4192
DM - Class 1072	09/30/21	Assay N581 Aldehyde Badge	258	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4223
DM - Class 1032	09/30/21	Assay N581 Aldehyde Badge	256	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4624
DM - Hall 1115	09/30/21	Assay N581 Aldehyde Badge	255	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4661
DM - Class 1117	09/30/21	Assay N581 Aldehyde Badge	255	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4268
DM - Class 1125	09/30/21	Assay N581 Aldehyde Badge	255	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5572
DM - Class 1059	09/30/21	Assay N581 Aldehyde Badge	256	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5133
DM - Hall 1061-1062	09/30/21	Assay N581 Aldehyde Badge	257	Min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4322

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

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

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

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :	Channing Jackson	10/04/21		Received by :			
Relinquished by :				Received by :			

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

SGS GALSON

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

www.sgsgalson.com

☐ New Client?

Client Account No.*:

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

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

Invoice To* : Phase Separation Science

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

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

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

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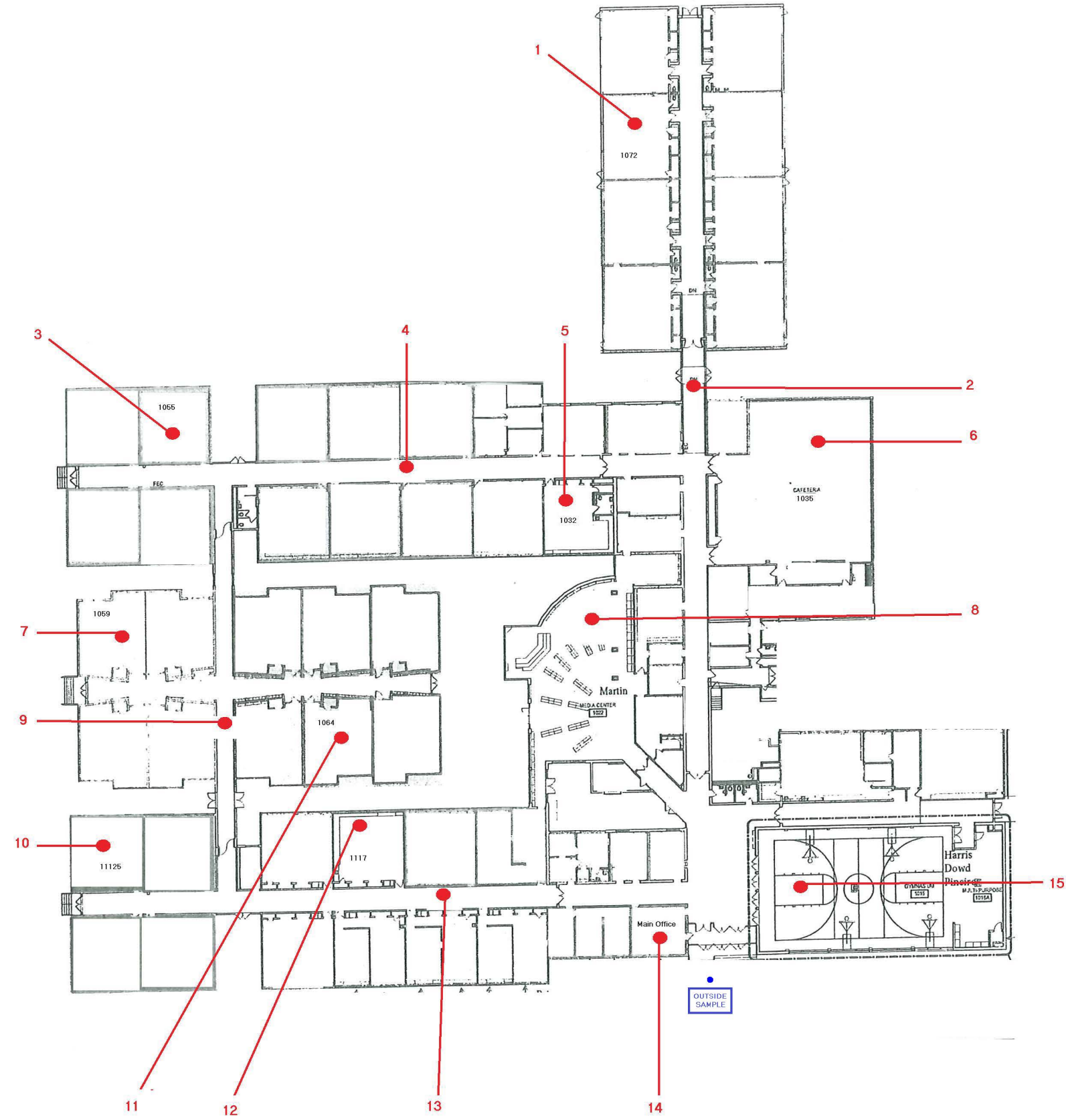
For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)* :

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	Time
Relinquished by :	Channing Jackson	10/04/21		Received by :			
Relinquished by :				Received by :			

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

Appendix F: Sampling Locations



LEGEND

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

Douglas MacArthur Elementary School

4633 Taney Avenue
Alexandria, VA 22304

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

Figure 1

FLOOR PLAN

Appendix G: Photographs

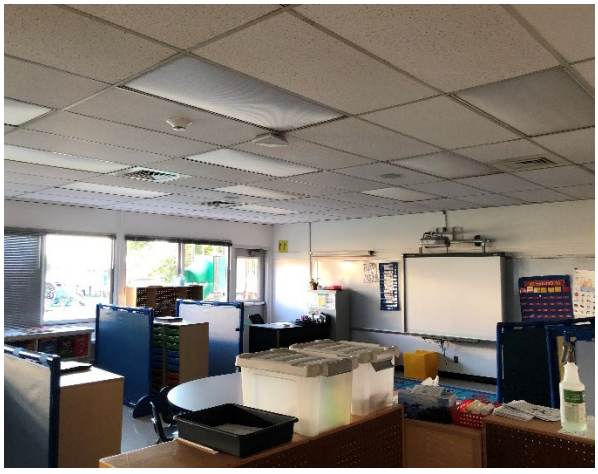
Douglas MacArthur, Media Center

Douglas MacArthur, Cafeteria

Douglas MacArthur, Gym

Douglas MacArthur, Classroom

Douglas MacArthur, Hallway



Douglas MacArthur, Multi-purpose