Building 700 (Former 330D) Crepini Space Indoor Air Quality Testing Summary Report

at IPark 84 Former IBM East Fishkill Facility

**JANUARY 2020** 

**PREPARED FOR:** 

JESSICA LACLAIR New York State Dept. of Environmental Conservation Dept. of Environmental Remediation 625 Broadway Albany, New York 12233-7013

### WALDEN ENVIRONMENTAL ENGINEERING, PLLC

Industry Leader in Environmental Engineering Consulting

**PROACTIVE SOLUTIONS SINCE 1995** 



Sent via email to jess.laclair@dec.ny.gov

January 3, 2020 iPARK0118.33

Ms. Jessica LaClair Environmental Engineer Division of Environmental Remediation New York State Department of Environmental Conservation 625 Broadway Albany, NY 12233-7013

> Re: iPark 84, Former IBM East Fishkill Facility Building 700 (Formerly 330D) Crepini Space Indoor Air Quality Testing Summary Report December 2019 Heating Season Sampling

Dear Ms. LaClair:

Walden Environmental Engineering, PLLC (Walden) performed pre-occupancy indoor air quality (IAQ) sampling in the Crepini space within Building 700 (formerly Building 330D) on August 26, 2019. The results of the pre-occupancy sampling were presented in the *IAQ Testing Summary Report* dated September 16, 2019 (copy included at the end of this submittal as Appendix A). Based on the September 16<sup>th</sup> *IAQ Testing Summary Report*, NYSDEC issued a letter dated September 27<sup>th</sup> approving tenant occupancy of the Crepini space; a copy of this letter is presented in Attachment 1. The September 27<sup>th</sup> letter also included a request from NYSDEC/NYSDOH to collect additional IAQ samples during the heating season in two areas of the Crepini space (in the lunch room and corporate office area), where the methylene chloride concentrations detected during the August 26<sup>th</sup> sampling event were above typical background indoor air concentrations. Walden performed this additional IAQ testing are summarized below.

Building 700 is owned by iPark East Fishkill LLC; Crepini is leasing space in the northwestern portion of the building, where it performs food processing and packaging operations. Refer to Figure 1 for the site location map. Walden completed the IAQ testing requested in the State's September 27<sup>th</sup> letter in accordance with prescribed protocols previously approved by NYSDEC.

LONG ISLAND: 16 SPRING STREET • OYSTER BAY, NEW YORK 11771 • P: (516) 624-7200 • F: (516) 624-3219 HUDSON VALLEY: 200 NORTH DRIVE #108 • HOPEWELL JUNCTION, NEW YORK 12533 • P: (845) 253-8025 CAPITAL DISTRICT: 11 HERBERT DRIVE • LATHAM, NEW YORK 12110 • P: (518) 320-8312 WWW.WALDENENVIRONMENTALENGINEERING.COM Ms. Jessica LaClair Building 700 (330D) Crepini IAQ Testing January 3, 2020 - 2 -



All work was performed in accordance with the *RCRA Facility Investigation (RFI) VOC Source Assessment Work Plan* (RFI Work Plan) dated June 15, 2009, prepared by Sanborn, Head Engineering, PC and Walden's IAQ Testing Plan letter (Testing Plan) dated August 12, 2019 which was approved by NYSDEC on August 23, 2019.

#### Summary of HVAC Conditions Within the Building

The Crepini space within Building 700 is served by rooftop handling units (RTUs) and the HVAC system is divided into eight (8) separate zones as shown on Figure 3. The HVAC system is comprised of 100 supply diffusers with a total cooling capacity of 23,800 CFM, and a calculated 5 air changes per hour for the space as a whole. During the December 27<sup>th</sup> IAQ sampling, food processing and packaging operations were in progress at Crepini and the HVAC system was operating under Crepini's normal conditions.

#### Summary of December 27, 2019 IAQ Testing

IAQ testing was conducted in accordance with the procedures outlined in the NYSDECapproved RFI Work Plan and Testing Plan. Samples were collected using 6-liter, individually certified clean, stainless-steel Summa<sup>®</sup> canisters (Summa<sup>®</sup> Canisters). The Summa<sup>®</sup> Canisters were calibrated by the laboratory with flow controllers to obtain 8-hour time-averaged samples. Indoor air samples were collected from a height of approximately 2.5 feet above the floor at the following two (2) locations (refer to the sampling locations shown on Figure 2) as directed by NYSDEC/NYSDOH in the September 27<sup>th</sup> letter:

- IA-3: Lunch Room
- IA-11: Corporate Office Hallway

Note that these sample IDs are consistent with those used to identify the August 26<sup>th</sup> sampling locations in these areas, and the Summa<sup>®</sup> canisters for the December 27<sup>th</sup> event were placed near the original locations.

A duplicate sample (DUP) was collected at location IA-11. One outdoor ambient air sample (AA-1) was collected during the investigation at one of the Building 700 rooftop air intakes for the Crepini HVAC system to assess the potential impact of background conditions on the IAQ results. A field blank sample (FB) was also collected by transferring lab-grade nitrogen directly from a compressed gas canister into a Summa® canister (note that the field blank canister was partially filled due to an issue with the nitrogen canister).

Ms. Jessica LaClair Building 700 (330D) Crepini IAQ Testing January 3, 2020 - 3 –



VOC concentrations at each sample location were measured using a PID immediately before sample collection began to evaluate whether VOCs were present in the Crepini space and had the potential to impact the IAQ results. Zero ppm PID readings were recorded at all of the indoor air sampling locations.

All samples were transferred to Phoenix Labs of Manchester, CT, a NYSDOH ELAP certified laboratory (NYSDOH ELAP #11301) under chain of custody for analysis of volatile organic compound (VOC) analytes via modified Method TO-15 as specified in the June 2009 *RFI Work Plan*.

Please see Table 1 for a summary of field sampling information, Table 2 for a summary of the IAQ analytical data, Attachment 2 for a photographic log of the sampling locations, and Attachment 3 for the full laboratory analytical report. A Data Usability Summary Report (DUSR) is being prepared and will be submitted under separate cover.

#### **Results and Discussion**

The December 27<sup>th</sup> Crepini IAQ analytical data were compared to the typical indoor air background concentrations published in USEPA's 2001 Building Assessment and Survey Evaluation (BASE) database. When developing BASE, USEPA collected indoor air samples at randomly selected office and commercial buildings using Summa<sup>®</sup> canisters. Table 2 presents the data compared to the 75<sup>th</sup>, 90<sup>th</sup> and 95<sup>th</sup> percentile indoor air BASE concentrations for reference in comparing the VOC data to typical indoor background concentrations.

All of the VOC concentrations detected in the IAQ samples from the Crepini lunch room and corporate office area were within or below the range of background concentrations listed in the USEPA BASE database as noted in Table 2, indicating that indoor air quality is acceptable. In addition, methylene chloride was not detected in any of the December 27<sup>th</sup> samples, which confirms that the methylene chloride concentrations reported for the August 26<sup>th</sup> samples from the lunch room and corporate office area were anomalies potentially associated with cleaning agents/aerosol products or newly installed furniture.

Please call me at (516) 624-7200 if you have any questions or need any additional information.

Ms. Jessica LaClair Building 700 (330D) Crepini IAQ Testing January 3, 2020 - 4 –



Very truly yours, Walden Environmental Engineering, PLLC

love m Brew

Nora M. Brew, P.E. Senior Project Manager

Attachments: Figure 1 – Site Location Map Figure 2 – Sampling Locations Figure 3 – HVAC Zones

Table 1 – Summary of Field Information Table 2 – Summary of IAQ Analysis

Attachment 1 – NYSDEC September 27, 2019 Letter Attachment 2 – Photographic Log of Sampling Locations Attachment 3 – Laboratory Analytical Report

Appendix A – September 16, 2019 (Crepini) Indoor Air Quality Testing Summary Report

cc: J. Kenney, NYSDOH
C. Monheit, iPark East Fishkill LLC
M. Buckley, iPark East Fishkill LLC
D. Chartrand, IBM

Z:\iPark0118\iPark0118.33 - Crepini IAQ\122719 IAQ Monitoring\CREPINI IAQ Testing Report 1.3.2020.docx

## FIGURE 1 SITE LOCATION MAP



SITE LOCATION N.T.S. SOURCE: GOOGLEMAPS.COM



**BUILDING 330D** N.T.S.



No. DATE

SITE LOCATION MAP SCALE: 1" = 800'-0"

REVISION

COMMENTS

WALDEN ENVIRONMENTAL ENGINEERING, PLLC 16 SPRING STREET Oyster Bay, New York 11771 <P: (516) 624-7200 F: (516) 624-3219 Walden Environmental WWW.WALDENENVIRONMENTALENGINEERING.COM Engineering

SITE BASEMAP: CHAZAN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO. D.P.C. POUGHKEEPSIE, NY (XBASE-SVY\_51421-00.DWG 8/10/15); PARCELS: XSUBD\_51539-00.DWG.

**CREPINI SPACE** 

 UNAUTHORIZED ALTERATION OR ADDITION TO THIS PLAN IS A VIOLATION OF
 SECTION 7209 OF NEW YORK STATE EDUCATION LAW.
 COPIES OF THIS PLAN NOT BEARING THE PROFESSIONAL ENGINEER'S INKED SEAL OR EMBOSSED SEAL SHALL NOT BE CONSIDERED TO BE A VALID TRUE COPY.

Hopewell Junction, N.Y. 12533 DESIGNED BY: NMB APPROVED BY: JMH DRAWN BY: LS SCALE: AS NOT

BUILDING 330D

iPark 84 Campus

2070 Route 52

FOR:



#### LEGEND

---- - PROPERTY LINE

	FIGURE TITLE:			FIGURE NO:		ISSUED				
3	<u>SITE LOC</u> Buildi Crepi	SITE LOCATION MAP BUILDING 330D CREPINI SPACE								
	JOB NO: IPARK118.33	SHEET NO:	1 OF 2	U						
ED	CAD FILE NAME: Z:UPark0118UPark0118.33 - Crephil IACIReport Report Rie.dwg									

## FIGURE 2 SAMPLING LOCATIONS



<u>FIGURE 3</u> HVAC ZONES



SCALE: AS NOTED CAD FILE NAME: Z:/iPark0118/iPark0118.33 - Crepini IAQ/ACAD/iPARK0118.33 (8-9-19).dwg TABLE 1 SUMMARY OF FIELD INFORMATION

#### iPARK 84 Campus 2070 NY-Route 52 Hopewell Junction, New York

# TABLE 1SUMMARY OF INDOOR AIR SAMPLE INFORMATIONBUILDING 700 (FORMER 330D) - CREPINI SPACEDECEMBER 27, 2019

Sample Location	Building Floor	Sample Matrix	Canister Number	Regulator Number	Sample Height (feet above floor)	Start Time (24-hour format)	Start Pressure (mmHg)	PID Reading (ppm)	Stop Time (24-hour format)	Stop Pressure (mmHg)	Temperature (°F)	Location Description	Chemicals Observed Near Sample Location
IA-3	Ground	Indoor Air	28616	5518	2.5	821	-29	0.0	1623	-5	72	Lunch Room	None observed
IA-11	Ground	Indoor Air	19870	7009	2.5	812	-30	0.0	1618	-4	72	Corporate Office Hallway	None observed
Duplicate	Ground	Indoor Air	28606	5388	2.5	813	-30	0.0	1616	-3	72	Corporate Office Hallway	None observed
Ambient Air	Rooftop	Indoor Air	28582	7047	1	836	-30	0.0	1640	-5	40	Under Air Intake	None observed
Field Blank	Ground	Indoor Air	21365	5599	2.5	844	-30	0.0	1556	-20	72	Entryway to Offices	No chemicals observed/Strong food odor (eggs)

## TABLE 2 SUMMARY OF IAQ ANALYSIS

#### iPARK 84 Campus 2070 NY-Route 52 Hopewell Junction, New York

#### TABLE 2 SUMMARY OF IAQ ANALYSIS BUILDING 700 (FORMER 330D) - CREPINI SPACE DECEMBER 27, 2019

			SE Databasa T	-hl-a Turicall	Dlronoun d	Collection Date	12/27/2	2019	12/27/	2019	12/27/	2019	12/27/	2019	12/27/2	2019
		USEPA DA	Concentration	ables - Typical I	Background	Sample ID	IA-	3	IA-	11	DU	P	AA	-1	FB	3
			Concentrations	ioi indooi Ali		Matrix			Ai	r	Air		Air		Air	
	CAS Registry Number	75th Percentile	90th Percentile	95th Percentile	99th Percentile	Location	Lunch I	Room	Coporate Hally	e Office way	Corporate Hally	e Office way	Roof	top	Open A	Area
						Units	Result	RL	Result	RL		RL	Result	RL	Result	RL
Volatiles (TO15) By TO15																
1,1,1-Trichloroethane	71-55-6	10.8	20.6	33.0	737.9	ug/m3	< 1.09	1.09	< 1.09	1.09	< 1.09	1.09	< 1.09	1.09	< 1.09	1.09
1,1-Dichloroethene	75-35-4	<1.2	<1.4	<1.6	<1.7	ug/m3	< 0.40	0.4	< 0.40	0.4	< 0.40	0.4	< 0.40	0.4	< 0.40	0.4
1,2,4-Trichlorobenzene	120-82-1	<1.2	<6.8	<7.2	<8.1	ug/m3	< 1.85	1.85	< 1.85	1.85	< 1.85	1.85	< 1.85	1.85	< 1.85	1.85
1,2-Dichlorobenzene	95-50-1	<1.0	<1.2	<1.3	10.5	ug/m3	< 0.90	0.9	< 0.90	0.9	< 0.90	0.9	< 0.90	0.9	< 0.90	0.9
1,3-Dichlorobenzene	541-73-1	<1.1	<2.4	<2.5	<2.8	ug/m3	< 0.90	0.9	< 0.90	0.9	< 0.90	0.9	< 0.90	0.9	< 0.90	0.9
1,4-Dichlorobenzene	106-46-7	1.4	5.5	12.5	80.5	ug/m3	< 0.90	0.9	< 0.90	0.9	< 0.90	0.9	< 0.90	0.9	< 0.90	0.9
Acetone	67-64-1	59.8	98.9	120.2	226.6	ug/m3	< 2.37	2.37	19.6	2.37	9.33	2.37	34.2	2.37	8.67	2.37
Benzene	71-43-2	5.1	9.4	12.5	25.0	ug/m3	0.58	0.16	0.34	0.16	0.54	0.16	0.34	0.16	0.75	0.16
Carbon Tetrachloride	56-23-5	<1.1	<1.3	0.7	0.9	ug/m3	0.57	0.13	0.58	0.13	0.52	0.13	0.53	0.13	0.3	0.13
Chlorobenzene	108-90-7	< 0.8	< 0.9	<1.0	1.0	ug/m3	< 0.92	0.92	< 0.92	0.92	< 0.92	0.92	< 0.92	0.92	< 0.92	0.92
Cis-1,2-Dichloroethene	156-59-2	<1.2	<1.9	<2.0	<2.2	ug/m3	< 0.79	0.79	< 0.79	0.79	< 0.79	0.79	< 0.79	0.79	< 0.79	0.79
Dichlorodifluoromethane	75-71-8	10.5	16.5	32.9	81.3	ug/m3	2.51	0.99	2.54	0.99	2.55	0.99	2.39	0.99	1.22	0.99
Ethylbenzene	100-41-4	3.4	5.7	7.6	18.5	ug/m3	0.92	0.65	1.32	0.65	< 0.65	0.65	3.12	0.65	2.41	0.65
m,p-Xylene	179601-23-1	12.2	22.2	28.5	67.6	ug/m3	3.86	0.65	5.86	0.65	< 0.65	0.65	14.2	0.65	8.29	0.65
Methylene Chloride	75-09-2	5.0	10.0	16.0	1155.6	ug/m3	< 1.39	1.39	4.76	1.39	< 1.39	1.39	27.8	1.39	< 1.39	1.39
o-Xylene	95-47-6	4.4	7.9	11.2	20.1	ug/m3	2.9	0.65	4.43	0.65	< 0.65	0.65	10.7	0.65	3.56	0.65
Tetrachloroethene	127-18-4	5.9	15.9	25.4	55.6	ug/m3	1.26	0.68	7.32	0.68	1.1	0.68	2.64	0.68	1.07	0.68
Toluene	108-88-3	25.9	43.0	70.8	348.9	ug/m3	1.11	0.75	< 0.75	0.75	1.95	0.75	1.5	0.75	10.6	0.75
Trichloroethene	79-01-6	1.2	4.2	6.5	57.0	ug/m3	< 0.20	0.2	0.45	0.2	< 0.20	0.2	0.32	0.2	< 0.20	0.2
Trichlorofluoromethane	75-69-4	6.7	18.1	54.0	860.6	ug/m3	6.79	0.84	2.49	0.84	10.3	0.84	2.37	0.84	6.4	0.84
Trichlorotrifluoroethane	76-13-1	<3.0	3.5	9.4	19.7	ug/m3	< 1.15	1.15	< 1.15	1.15	< 1.15	1.15	< 1.15	1.15	< 1.15	1.15
Vinyl Chloride	75-01-4	<1.0	<1.9	<2.2	<2.6	ug/m3	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05

ATTACHMENT 1 NYSDEC SEPTEMBER 27, 2019 LETTER

#### NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau D 625 Broadway, 12th Floor, Albany, NY 12233-7013 P: (518) 402-9676 I F: (518) 402-9773 www.dec.ny.gov

September 27, 2019

Joseph Cotter iPark 84 200 North Drive Hopewell Junction, NY 12533

Re: Building 330D – Crepini Space Indoor Air Quality Report iPark 84, Former IBM East Fishkill Facility NYSDEC Site No. 314054, EPA ID NYD000707901

Dear Mr. Cotter:

The New York State Department of Environmental Conservation and Department of Health (Departments) have reviewed the Indoor Air Quality (IAQ) Report for the Crepini space located in Building 330D dated September 16, 2019. This sampling was conducted by Walden Environmental Engineering on behalf of National Resources. This report presents the results of the indoor air sampling that was conducted with the sub-slab depressurization system (SSDS) operating under normal operating conditions but prior to occupancy.

Based on the report, Methylene Chloride was detected in the indoor air above typical background concentrations in two areas. Methylene Chloride was detected in indoor air at a concentration of 27.6 and 27.8  $\mu$ g/m<sup>3</sup> in the Lunch Room. It was also detected in indoor air at a concentration of 32.6  $\mu$ g/m<sup>3</sup> in the Corporate Office Area. Overall, exposure to Methylene Chloride, at the levels detected in the indoor air during the most recent sampling event, is unlikely to result in adverse health effects. The Crepini space can be occupied, however additional actions are needed.

The Departments request that a second round of indoor air sampling be conducted during this upcoming heating season for Methylene Chloride in the Lunch Room and Corporate Office Area. Please use the previously approved sampling work plan and notify the Departments when work is scheduled. If you have any questions, please call me at (518) 402-9821.

Sincerely,

Jessica La Clair

Jessica LaClair Project Manager Remedial Section A, Remedial Bureau D Division of Environmental Remediation



Department of Environmental Conservation

- ec: M. Buckley, iParks C. Monheit, National Resources N. Brew, Walden D. Chartrand, IBM E. Lutz, GF G. Marone, GF J. Armitage, NYSDEC D. Bendell, NYSDEC, Region 3 B. Conlon, NYSDEC S. Edwards, NYSDEC J. Kenney, NYSDOH
  - M. Schuck, NYSDOH

ATTACHMENT 2

PHOTOGRAPHIC LOG OF SAMPLING LOCATIONS

#### **Site Photographs**

#### Photograph #1



Sample Location, FIELD BLANK

Photograph #2



Sample Location IA-11/Duplicate Corporate Office Area

Photograph #4

Photograph #3

Sample Location AA-1, Rooftop

Sample Location IA-3, Lunch Room

ATTACHMENT 3 LABORATORY ANALYTICAL REPORT



Tuesday, December 31, 2019

Attn: Nora Brew Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

Project ID: CREPINI IAQ IPARK 0118.27 SDG ID: GCE95373 Sample ID#s: CE95373 - CE95377

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

XI-lle

Phyllis/Shiller Laboratory Director

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #M-CT007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 UT Lab Registration #CT00007 VT Lab Registration #VT11301





## **SDG** Comments

December 31, 2019

SDG I.D.: GCE95373

Any compound that is not detected above the MDL/LOD is reported as ND on the report and is reported in the electronic deliverables (EDD) as <RL or U at the RL per state and EPA guidance.

Version 1: Analysis results minus raw data.

Version 2: Complete report with raw data.





# Sample Id Cross Reference

December 31, 2019

SDG I.D.: GCE95373

#### Project ID: CREPINI IAQ IPARK 0118.27

Client Id	Lab Id	Matrix
IA-11	CE95373	AIR
IA-3	CE95374	AIR
DUP	CE95375	AIR
FB	CE95376	AIR
AA-1	CE95377	AIR





# Analysis Report

FOR: Attn: Nora Brew Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

December 31, 2019

Sample Informa	ation	Custody Inform	Date	<u>Time</u>	
Matrix:	AIR	Collected by:	KAW	12/27/19	16:18
Location Code:	WALDENE-IPARK	Received by:	LB	12/30/19	15:26
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					005050

Project ID: CREPINI IAQ IPARK 0118.27

Canister Id:

Client ID:

IA-11

19870

# Laboratory Data

SDG ID: GCE95373 Phoenix ID: CE95373

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	12/31/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	12/31/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	12/31/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	12/31/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	12/31/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	12/31/19	KCA	1
Acetone	3.98	1.00	1.00	9.45	2.37	2.37	12/31/19	KCA	1
Benzene	0.170	0.050	0.050	0.54	0.16	0.16	12/31/19	KCA	1
Carbon Tetrachloride	0.084	0.020	0.020	0.53	0.13	0.13	12/31/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	12/31/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	12/31/19	KCA	1
Dichlorodifluoromethane	0.514	0.200	0.200	2.54	0.99	0.99	12/31/19	KCA	1
Ethylbenzene	ND	0.150	0.150	ND	0.65	0.65	12/31/19	KCA	1
m,p-Xylene	ND	0.150	0.150	ND	0.65	0.65	12/31/19	KCA	1
Methylene Chloride	ND	0.400	0.400	ND	1.39	1.39	12/31/19	KCA	1
o-Xylene	ND	0.150	0.150	ND	0.65	0.65	12/31/19	KCA	1
Tetrachloroethene	0.177	0.100	0.100	1.20	0.68	0.68	12/31/19	KCA	1
Toluene	ND	0.200	0.200	ND	0.75	0.75	12/31/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	12/31/19	KCA	1
Trichlorofluoromethane	1.85	0.150	0.150	10.4	0.84	0.84	12/31/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	12/31/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	12/31/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	96	%	%	96	%	%	12/31/19	KCA	1
% IS-1,4-Difluorobenzene	103	%	%	103	%	%	12/31/19	KCA	1
% IS-Bromochloromethane	99	%	%	99	%	%	12/31/19	KCA	1

Project ID: CREPINI IAQ IPARK 0118.27

Client ID: IA-11

Devenuenten	ppbv	ppbv	LOD/	ug/m3	ug/m3	LOD/	Data /Time	Det	Dilution
Parameter	Result	RL	MDL	Result	RL	MDL	Date/Time	Ву	Dilution
% IS-Chlorobenzene-d5	108	%	%	108	%	%	12/31/19	KCA	1

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

#### Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director December 31, 2019 Reviewed and Released by: Greg Lawrence, Assistant Lab Director





# Analysis Report

December 31, 2019

FOR: Attn: Nora Brew Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

-	-			

Sample Informa	ation	Custody Inform	nation	<u>Date</u>	<u>Time</u>
Matrix:	AIR	Collected by:	KAW	12/27/19	16:23
Location Code:	WALDENE-IPARK	Received by:	LB	12/30/19	15:26
Rush Request: 72 Hour		Analyzed by:	see "By" below		
P.O.#:					005050

Canister Id:

ct ID: CREPINI IAQ IPARK 0118.27

Project ID: Client ID:

IA-3

28616

Laboratory Data

SDG ID: GCE95373 Phoenix ID: CE95374

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	12/31/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	12/31/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	12/31/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	12/31/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	12/31/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	12/31/19	KCA	1
Acetone	ND	1.00	1.00	ND	2.37	2.37	12/31/19	KCA	1
Benzene	0.182	0.050	0.050	0.58	0.16	0.16	12/31/19	KCA	1
Carbon Tetrachloride	0.091	0.020	0.020	0.57	0.13	0.13	12/31/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	12/31/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	12/31/19	KCA	1
Dichlorodifluoromethane	0.507	0.200	0.200	2.51	0.99	0.99	12/31/19	KCA	1
Ethylbenzene	0.213	0.150	0.150	0.92	0.65	0.65	12/31/19	KCA	1
m,p-Xylene	0.890	0.150	0.150	3.86	0.65	0.65	12/31/19	KCA	1
Methylene Chloride	ND	0.400	0.400	ND	1.39	1.39	12/31/19	KCA	1
o-Xylene	0.669	0.150	0.150	2.90	0.65	0.65	12/31/19	KCA	1
Tetrachloroethene	0.186	0.100	0.100	1.26	0.68	0.68	12/31/19	KCA	1
Toluene	0.295	0.200	0.200	1.11	0.75	0.75	12/31/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	12/31/19	KCA	1
Trichlorofluoromethane	1.21	0.150	0.150	6.79	0.84	0.84	12/31/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	12/31/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	12/31/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	92	%	%	92	%	%	12/31/19	KCA	1
% IS-1,4-Difluorobenzene	100	%	%	100	%	%	12/31/19	KCA	1
% IS-Bromochloromethane	92	%	%	92	%	%	12/31/19	KCA	1

Project ID: CREPINI IAQ IPARK 0118.27

Client ID: IA-3

Parameter	ppbv Result	ppbv Bl	LOD/	ug/m3 Result	ug/m3 RI	LOD/	Date/Time	Bv	Dilution
Talameter	Result		MDL	Result			Date/Time	Ъy	Dilution
% IS-Chlorobenzene-d5	106	%	%	106	%	%	12/31/19	KCA	1

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

#### Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director December 31, 2019 Reviewed and Released by: Greg Lawrence, Assistant Lab Director





# Analysis Report

FOR: Attn: Nora Brew Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

December 31, 2019

Sample Informa	ation	Custody Inform	nation	Date	<u>Time</u>
Matrix:	AIR	Collected by:	KAW	12/27/19	16:16
Location Code:	WALDENE-IPARK	Received by:	LB	12/30/19	15:26
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:			_		

Project ID: CREPINI IAQ IPARK 0118.27

Canister Id:

Client ID:

DUP

28606

Laboratory Data

SDG ID: GCE95373 Phoenix ID: CE95375

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	12/31/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	12/31/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	12/31/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	12/31/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	12/31/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	12/31/19	KCA	1
Acetone	3.93	1.00	1.00	9.33	2.37	2.37	12/31/19	KCA	1
Benzene	0.169	0.050	0.050	0.54	0.16	0.16	12/31/19	KCA	1
Carbon Tetrachloride	0.083	0.020	0.020	0.52	0.13	0.13	12/31/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	12/31/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	12/31/19	KCA	1
Dichlorodifluoromethane	0.515	0.200	0.200	2.55	0.99	0.99	12/31/19	KCA	1
Ethylbenzene	ND	0.150	0.150	ND	0.65	0.65	12/31/19	KCA	1
m,p-Xylene	ND	0.150	0.150	ND	0.65	0.65	12/31/19	KCA	1
Methylene Chloride	ND	0.400	0.400	ND	1.39	1.39	12/31/19	KCA	1
o-Xylene	ND	0.150	0.150	ND	0.65	0.65	12/31/19	KCA	1
Tetrachloroethene	0.163	0.100	0.100	1.10	0.68	0.68	12/31/19	KCA	1
Toluene	0.518	0.200	0.200	1.95	0.75	0.75	12/31/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	12/31/19	KCA	1
Trichlorofluoromethane	1.84	0.150	0.150	10.3	0.84	0.84	12/31/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	12/31/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	12/31/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	94	%	%	94	%	%	12/31/19	KCA	1
% IS-1,4-Difluorobenzene	102	%	%	102	%	%	12/31/19	KCA	1
% IS-Bromochloromethane	97	%	%	97	%	%	12/31/19	KCA	1

Project ID: CREPINI IAQ IPARK 0118.27 Client ID: DUP

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
% IS-Chlorobenzene-d5	108	%	%	108	%	%	12/31/19	KCA	1

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

#### Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director December 31, 2019 Reviewed and Released by: Greg Lawrence, Assistant Lab Director





# Analysis Report

FOR: Attn: Nora Brew Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

December 31, 2019

Sample Informa	ation	Custody Inform	nation	Date	<u>Time</u>
Matrix:	AIR	Collected by:	KAW	12/27/19	15:50
Location Code:	WALDENE-IPARK	Received by:	LB	12/30/19	15:26
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					005050

Project ID:	CREPINI IAQ IPARK 0118.27
Client ID:	FB

Canister Id:

21365

Laboratory Data

SDG ID: GCE95373 Phoenix ID: CE95376

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1.1.1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	12/31/19	KCA	1
1.1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	12/31/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	12/31/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	12/31/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	12/31/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	12/31/19	KCA	1
Acetone	3.65	1.00	1.00	8.67	2.37	2.37	12/31/19	KCA	1
Benzene	0.235	0.050	0.050	0.75	0.16	0.16	12/31/19	KCA	1
Carbon Tetrachloride	0.047	0.020	0.020	0.30	0.13	0.13	12/31/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	12/31/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	12/31/19	KCA	1
Dichlorodifluoromethane	0.246	0.200	0.200	1.22	0.99	0.99	12/31/19	KCA	1
Ethylbenzene	0.555	0.150	0.150	2.41	0.65	0.65	12/31/19	KCA	1
m,p-Xylene	1.91	0.150	0.150	8.29	0.65	0.65	12/31/19	KCA	1
Methylene Chloride	ND	0.400	0.400	ND	1.39	1.39	12/31/19	KCA	1
o-Xylene	0.820	0.150	0.150	3.56	0.65	0.65	12/31/19	KCA	1
Tetrachloroethene	0.158	0.100	0.100	1.07	0.68	0.68	12/31/19	KCA	1
Toluene	2.81	0.200	0.200	10.6	0.75	0.75	12/31/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	12/31/19	KCA	1
Trichlorofluoromethane	1.14	0.150	0.150	6.40	0.84	0.84	12/31/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	12/31/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	12/31/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	92	%	%	92	%	%	12/31/19	KCA	1
% IS-1,4-Difluorobenzene	92	%	%	92	%	%	12/31/19	KCA	1
% IS-Bromochloromethane	86	%	%	86	%	%	12/31/19	KCA	1

Project ID: CREPINI IAQ IPARK 0118.27 Client ID: FB

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
% IS-Chlorobenzene-d5	95	%	%	95	%	%	12/31/19	KCA	1

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

#### Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director December 31, 2019 Reviewed and Released by: Greg Lawrence, Assistant Lab Director





# Analysis Report

FOR: Attn: Nora Brew Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

December 31, 2019

Sample Informa	ation	Custody Inform	nation	Date Ti			
Matrix:	AIR	Collected by:	KAW	12/27/19	16:40		
Location Code:	WALDENE-IPARK	Received by:	LB	12/30/19	15:26		
Rush Request:	72 Hour	Analyzed by:	see "By" below				
P.O.#:					005050		

Project ID: CREPINI IAQ IPARK 0118.27

Canister Id:

Client ID:

AA-1

28582

Laboratory Data

SDG ID: GCE95373 Phoenix ID: CE95377

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	12/31/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	12/31/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	12/31/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	12/31/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	12/31/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	12/31/19	KCA	1
Acetone	1.46	1.00	1.00	3.47	2.37	2.37	12/31/19	KCA	1
Benzene	ND	0.050	0.050	ND	0.16	0.16	12/31/19	KCA	1
Carbon Tetrachloride	0.079	0.020	0.020	0.50	0.13	0.13	12/31/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	12/31/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	12/31/19	KCA	1
Dichlorodifluoromethane	0.433	0.200	0.200	2.14	0.99	0.99	12/31/19	KCA	1
Ethylbenzene	ND	0.150	0.150	ND	0.65	0.65	12/31/19	KCA	1
m,p-Xylene	ND	0.150	0.150	ND	0.65	0.65	12/31/19	KCA	1
Methylene Chloride	ND	0.400	0.400	ND	1.39	1.39	12/31/19	KCA	1
o-Xylene	ND	0.150	0.150	ND	0.65	0.65	12/31/19	KCA	1
Tetrachloroethene	ND	0.100	0.100	ND	0.68	0.68	12/31/19	KCA	1
Toluene	ND	0.200	0.200	ND	0.75	0.75	12/31/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	12/31/19	KCA	1
Trichlorofluoromethane	0.324	0.150	0.150	1.82	0.84	0.84	12/31/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	12/31/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	12/31/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	94	%	%	94	%	%	12/31/19	KCA	1
% IS-1,4-Difluorobenzene	106	%	%	106	%	%	12/31/19	KCA	1
% IS-Bromochloromethane	110	%	%	110	%	%	12/31/19	KCA	1

Project ID: CREPINI IAQ IPARK 0118.27

Client ID: AA-1

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
% IS-Chlorobenzene-d5	107	%	%	107	%	%	12/31/19	KCA	1

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

#### Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director December 31, 2019 Reviewed and Released by: Greg Lawrence, Assistant Lab Director





## **Canister Sampling Information**

December 31, 2019

FOR: Attn: Nora Brew Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

Location Code: WALDENE-IPARK

#### Project ID: CREPINI IAQ IPARK 0118.27

							La	aborato	ory				Field	
		Canis	ster	Reg.	Chk Out	Out	In	Out	In	Flow	Start	End	Sampling	Sampling
Client Id	Lab Id	ld	Туре	ld	Date	Hg	Hg	Flow	Flow	RPD	Hg	Hg	Start Date	End Date
IA-11	CE95373	19870	6.0L	7009	12/05/19	-30	-4	10.8	11	1.8	-30	-4	12/27/19 8:12	12/27/19 16:18
IA-3	CE95374	28616	6.0L	5518	12/05/19	-30	-5	10.8	10.9	0.9	-29	-3	12/27/19 8:21	12/27/19 16:23
DUP	CE95375	28606	6.0L	5388	12/05/19	-30	-3	10.8	11.7	8.0	-30	-3	12/27/19 8:13	12/27/19 16:16
FB	CE95376	21365	6.0L	5599	12/05/19	-30	-20	10.8	11.2	3.6	-30	-20	12/27/19 8:44	12/27/19 15:56
AA-1	CE95377	28582	6.0L	7047	12/05/19	-30	-3	10.8	11.1	2.7	-30	-5	12/27/19 8:36	12/27/19 16:40

SDG I.D.: GCE95373

Tuesday, December 31, 2019 Criteria: None			Sample Criter	ia Exceedances Report 73 - WALDENE-IPARK					
State: SampNo	NY Acode	Phoenix Analyte	Criteria		Result	RL	Criteria	RL Criteria	Analysis Units
*** No Data	to Display ***								

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.
APPENDIX A

SEPTEMBER 16, 2019 CREPINI INDOOR AIR QUALITY TESTING SUMMARY REPORT



Sent via email to jess.laclair@dec.ny.gov

September 16, 2019 iPARK0118.33

Ms. Jessica LaClair Environmental Engineer Division of Environmental Remediation New York State Department of Environmental Conservation 625 Broadway Albany, NY 12233-7013

> Re: iPark 84, Former IBM East Fishkill Facility Building 700 (Formerly 330D) Crepini Space Hopewell Junction, New York 12533 Indoor Air Quality Testing Summary Report

Dear Ms. LaClair:

Walden Environmental Engineering, PLLC (Walden) has prepared this letter to summarize the results of the indoor air quality (IAQ) testing conducted on August 26, 2019 in the Crepini space within Building 700 (formerly Building 330D). Building 700 is owned by National Resources (NR, iPark East Fishkill LLC); Crepini is leasing space in the northwestern portion of the building, where it will perform food processing and packaging operations. Refer to Figure 1 for the site location map. IAQ testing was conducted in the Crepini space prior to tenant occupancy as required by NYSDEC and NYSDOH. The purpose of the testing was to verify that IAQ is acceptable before the Crepini tenant takes occupancy and begins operating in the space.

Walden, at the request of National Resources, performed the IAQ testing in accordance with prescribed protocols previously approved by NYSDEC. All work was performed in accordance with the *RCRA Facility Investigation (RFI) VOC Source Assessment Work Plan* (RFI Work Plan) dated June 15, 2009, prepared by Sanborn, Head Engineering, PC and Walden's IAQ Testing Plan letter (Testing Plan) dated August 12, 2019 which was approved by NYSDEC on August 23, 2019.

LONG ISLAND: 16 SPRING STREET • OYSTER BAY, NEW YORK 11771 • P: (516) 624-7200 • F: (516) 624-3219 HUDSON VALLEY: 2070 NY ROUTE 52 • HOPEWELL JUNCTION, NEW YORK, 12533 • P: (845) 253-8025 CAPITAL DISTRICT: 11 HERBERT DRIVE • LATHAM, NEW YORK, 12110 • P: (518) 698-3012 WWW.WALDENENVIRONMENTALENGINEERING.COM Ms. Jessica LaClair Building 700 (Former 330D) Crepini IAQ Testing September 16, 2019



- 2 -

### Summary of HVAC Conditions Within the Building

The Crepini space within Building 700 is served by rooftop handling units (RTUs) that were installed during the recent renovation of the tenant space, prior to occupation. The Crepini HVAC system is divided into eight (8) separate zones as shown on Figure 3. The HVAC system is comprised of 100 supply diffusers with a total cooling capacity of 23,800 CFM, and a calculated 5 air changes per hour for the space as a whole. During the August 26<sup>th</sup> IAQ sampling, the newly installed Crepini equipment was being tested and National Resources operated the HVAC system under the same conditions anticipated during normal operations once the tenant takes occupancy.

### **Summary of IAQ Testing**

IAQ testing was conducted in accordance with the procedures outlined in the NYSDECapproved RFI Work Plan and Testing Plan. Samples were collected using 6-liter, individually certified clean, stainless-steel Summa<sup>®</sup> canisters (Summa<sup>®</sup> Canisters). The Summa<sup>®</sup> Canisters were calibrated by the laboratory with flow controllers to obtain 8-hour time-averaged samples. Indoor air samples were collected from a height of two and a half (2.5) to six (6) feet above the ground surface at the following eleven (11) locations throughout the Crepini space, which are depicted on Figure 2:

- IA-1: Men's Restroom
- IA-2: Women's Restroom
- IA-3: Lunch Room
- IA-4: Open Area
- IA-5: Production Room
- IA-6: Packaging Room
- IA-7: Locker Room
- IA-8: Entrance
- IA-9: Loading/Distribution Room
- IA-10: Hallway
- IA-11: Corporate Office

A duplicate sample (DUPLICATE) was collected at location IA-3. Additionally, one outdoor ambient air sample (AMBIENT AIR) was collected during the investigation at one of the Building 700 rooftop air intakes for the Crepini HVAC system to assess the potential impact of

Ms. Jessica LaClair Building 700 (Former 330D) Crepini IAQ Testing September 16, 2019



- 3 -

background conditions on the IAQ results. A field blank was also collected by transferring labgrade nitrogen directly from a compressed gas canister into a Summa® Canister.

PID readings were collected at each sample location immediately before sample collection began to evaluate whether VOCs were present in the Crepini space and had the potential to impact the IAQ results. Zero ppm PID readings were recorded at all of the indoor air sampling locations except for IA-5 (Production Room) and IA-6 (Packaging Room), which had VOC concentrations of 0.1 and 0.2 ppm, respectively. These VOC concentrations were likely due to the equipment testing activities being performed during the IAQ sampling event. Walden noted a fairly strong odor coming from the egg whites which were produced and packaged in both rooms.

All samples were transferred to Phoenix Labs of Manchester, CT, a NYSDOH ELAP certified laboratory (NYSDOH ELAP #11301) under chain of custody for analysis of volatile organic compound (VOC) analytes via modified Method TO-15 as specified in the June 2009 *RFI Work Plan*.

Please see Table 1 for a summary of field sampling information, Table 2 for a summary of the IAQ analytical data, Attachment 1 for a photographic log of the sampling locations, and Attachment 2 for the full laboratory analytical report. A Data Usability Summary Report (DUSR) is being prepared and will be submitted under separate cover.

### **Results and Discussion**

The Crepini IAQ analytical data were compared to the typical indoor air background concentrations published in USEPA's 2001 Building Assessment and Survey Evaluation (BASE) database. When developing BASE, USEPA collected indoor air samples at randomly selected office and commercial buildings using Summa<sup>®</sup> canisters. Table 2 presents the Crepini IAQ data compared to the 75<sup>th</sup>, 90<sup>th</sup>, 95<sup>th</sup> and 99<sup>th</sup> percentile indoor air BASE concentrations for reference in comparing the VOC data to typical indoor background concentrations.

All of the VOC concentrations detected in the Crepini IAQ samples were within or below the range of background concentrations listed in the USEPA BASE database as noted in Table 2, indicating that indoor air quality is acceptable. In addition, IBM continues to operate a vapor extraction system in Building 700 which remove sub-slab vapors containing elevated concentrations of VOCs from beneath the Crepini space and adjoining portions of the building.

Ms. Jessica LaClair Building 700 (Former 330D) Crepini IAQ Testing September 16, 2019



Based on the results from the pre-occupancy IAQ testing presented herein, please confirm that the Crepini space within Building 700 is suitable for tenant occupancy.

- 4 -

Please call me at (516) 624-7200 if you have any questions or need any additional information.

Very truly yours, Walden Environmental Engineering, PLLC

() Brow (Emr)

Nora M. Brew, P.E. Senior Project Manager

Attachments:

Figure 1 – Site Location Map

Figure 2 – Sampling Locations

Figure 3 – HVAC Zones

Table 1 – Summary of Field Information

Table 2 - Summary of IAQ Analysis

Attachment 1 – Photographic Log of Sampling Locations

Attachment 2 - Laboratory Analytical Report

cc: J. Kenney, NYSDOH

C. Monheit, National Resources

M. Buckley, National Resources

D. Chartrand, IBM

Z:\iPark0118\iPark0118.33 - Crepini IAQ\Report\CREPINI IAQ Testing Report 9.3.2019.docx



SITE LOCATION N.T.S. SOURCE: GOOGLEMAPS.COM



**BUILDING 330D** N.T.S.



No. DATE

SITE LOCATION MAP SCALE: 1" = 800'-0"

REVISION

COMMENTS

WALDEN ENVIRONMENTAL ENGINEERING, PLLC 16 SPRING STREET Oyster Bay, New York 11771 <P: (516) 624-7200 F: (516) 624-3219 Walden Environmental WWW.WALDENENVIRONMENTALENGINEERING.COM Engineering

SITE BASEMAP: CHAZAN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO. D.P.C. POUGHKEEPSIE, NY (XBASE-SVY\_51421-00.DWG 8/10/15); PARCELS: XSUBD\_51539-00.DWG.

**CREPINI SPACE** 

 UNAUTHORIZED ALTERATION OR ADDITION TO THIS PLAN IS A VIOLATION OF
SECTION 7209 OF NEW YORK STATE EDUCATION LAW.
COPIES OF THIS PLAN NOT BEARING THE PROFESSIONAL ENGINEER'S INKED SEAL OR EMBOSSED SEAL SHALL NOT BE CONSIDERED TO BE A VALID TRUE COPY.

Hopewell Junction, N.Y. 12533 DESIGNED BY: NMB APPROVED BY: JMH DRAWN BY: LS SCALE: AS NOT

BUILDING 330D

iPark 84 Campus

2070 Route 52

FOR:



### LEGEND

---- - PROPERTY LINE

	FIGURE TITLE:			FIGURE NO:		ISSUED		
3	<u>SITE LOC</u> Buildi Crepi	1						
	JOB NO: IPARK118.33	DATE: 8/28/19	11x17	SHEET NO:	1 OF 2	U		
ED	CAD FILE NAME: Z:/Park0118/Park0118.33 - Crephil IAO/Report Report File.dwg							





SCALE: AS NOTED CAD FILE NAME: Z:/iPark0118/iPark0118.33 - Crepini IAQ/ACAD/iPARK0118.33 (8-9-19).dwg

### iPARK 84 Campus 2070 NY-Route 52 Hopewell Junction, New York

# TABLE 1SUMMARY OF INDOOR AIR SAMPLE INFORMATIONBUILDING 700 (FORMER 330D) - CREPINI SPACE

Sample Location	Building Floor	Sample Matrix	Canister Number	Regulator Number	Sample Height (feet above floor)	Start Time (24-hour format)	Start Pressure (mmHg)	PID Reading (ppm)	Stop Time (24-hour format)	Stop Pressure (mmHg)	Temperature (°F)	Location Description	Chemicals Observed Near Sample Location
IA-1	Ground	Indoor Air	21365	4988	5.5	950	-30	0.0	1751	-5.5	72	Men's Restroom	None observed
IA-2	Ground	Indoor Air	19931	7019	6	943	-30	0.0	1748	-4	72	Women's Restroom	None observed
IA-3	Ground	Indoor Air	471	5393	4	948	-30	0.0	1754	-3.5	72	Lunch Room	None observed
IA-4	Ground	Indoor Air	12859	4963	6	953	-29.5	0.0	1758	-5	72	Open Area	None observed
IA-5	Ground	Indoor Air	19916	4492	2.5	1005	-29	0.1	1814	-5.5	80	Production Room	Strong food odor (eggs)
IA-6	Ground	Indoor Air	21357	3413	2.5	1017	-30	0.2	1817	-6	72	Packaging Room	Strong food odor (eggs)
IA-7	Ground	Indoor Air	11288	5615	3	1002	-30	0.0	1809	-3	72	Locker Room	None observed
IA-8	Ground	Indoor Air	13645	5673	2.5	1041	-30	0.0	1841	-5	72	Entrance	None observed
IA-9	Ground	Indoor Air	28567	3504	5	957	-30	0.0	1804	-3	72	Loading/Distribution Room	Pot and pan detergent ; oxidizing floor treatment
IA-10	Ground	Indoor Air	28555	3512	2.5	1012	-30	0.0	1823	-4	72	Hallway	None observed
IA-11	Ground	Indoor Air	28608	7044	6	958	-30	0.0	1806	-4	72	Corporate Office	None observed
Duplicate	Ground	Indoor Air	486	4954	4	1015	-30	0.0	1819	-6.5	72	Lunch Room	None observed
Ambient Air	Building 700 Roof	Ambient Air	221	4982	2	936	-30	0.0	1736	-6.5	60 (AM) ; 77 (PM)	Building Roof	None observed
Field Blank	Ground	Nitrogen	23327	3500	2.5	1026	-28.5	0.0	1225	-4.5	72	n/a	None observed

### iPARK 84 Campus 2070 NY-Route 52 Hopewell Junction, New York

### TABLE 2 SUMMARY OF IAQ ANALYSIS BUILDING 700 (FORMER 330D) - CREPINI SPACE

			SE Detahasa T	ables Tamical I	Do alcanaca d	Collection Date	8/26/2	019	8/26/2	.019	8/26/2	2019	8/26/2	019	8/26/2	019	8/26/2	019	8/26/2	2019
		USEPA BA	ASE Database T	ables - Typical	Background	Sample ID	IA-	1	IA-2	2	IA-	-3	DUPLIC	CATE	IA-4	4	IA-:	5	IA-	-6
			Concentrations	s for indoor Air		Matrix	Aiı	-	Aiı	r	Ai	r	Air		Aiı	r	Air		Ai	r
	CAS Registry Number	75th Percentile	90th Percentile	95th Percentile	99th Percentile	Location	Men's Re	stroom	Wome Restro	en's oom	Lunch	Room	Lunch R	Room	Open A	Area	Produc Root	tion m	Packaging	g Room
Volotilog (TO15) By TO15						Onits	Kesuit	KL	Kesun	KL		KL	Kesun	KL	Result	KL	Kesult	KL	Kesult	KL
Volatiles (1015) By 1015	71 55 6	10.9	20.6	22.0	727.0	11g/m2	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00	< 1.00	1.00
1.1 Dishlorosthana	75 25 4	10.8	20.0	53.0	/3/.9	ug/III3	< 1.09	1.09	< 1.09	1.09	< 0.40	0.40	< 0.40	1.09	< 1.09	1.09	< 0.40	1.09	< 1.09	1.09
1,1-Dicilioroethene	120 82 1	<1.2	<1.4	<1.0	<1.7	ug/III3	< 0.40	0.40	< 0.40	1.95	< 0.40	0.40	< 0.40	0.40	< 0.40	1.95	< 0.40	1.95	< 0.40	1.95
1,2,4-Thenlorobenzene	05 50 1	<1.2	<0.8	<1.2	<0.1	ug/m3	< 1.03	1.65	< 1.03	1.65	< 1.65	1.85	< 1.65	1.05	< 1.65	1.65	< 1.65	1.65	< 1.65	1.65
1,2-Dichlorobenzene	541 73 1	<1.0	<1.2	<1.5	-2.8	ug/m3	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90
1,3-Dichlorobenzene	106 46 7	1.1	< <u>2.4</u> 5.5	12.5	<2.0 80.5	ug/m3	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90
1,4-Dichiolobelizelle	67.64.1	50.8	08.0	12.5	226.6	ug/m3	< 0.90	0.90	< 0.90 10.6	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90 22.4	0.90	< 0.90	0.90
Acetolie	71 42 2	5 1	98.9	120.2	220.0	ug/III3	0.28	2.57	19.0	2.57	40.1	2.57	0.24	2.57	17.9	2.57	25.4	2.57	24.2	2.57
Carbon Tatrashlarida	71-43-2	5.1	9.4	12.5	23.0	ug/III3	0.28	0.10	0.54	0.10	0.50	0.10	0.54	0.10	0.57	0.10	0.56	0.10	0.57	0.10
Chlorobanzana	108 00 7	<1.1	<1.3	0.7	0.9	ug/III3	0.97	0.15	0.38	0.15	0.5	0.15	0.55	0.15	0.52	0.15	0.5	0.15	0.5	0.15
Cis 1.2 Dishlorosthana	108-90-7	<0.8	<0.9	<1.0	1.0	ug/III3	< 0.92	0.92	< 0.92	0.92	< 0.92	0.92	< 0.92	0.92	< 0.92	0.92	< 0.92	0.92	< 0.92	0.92
Disklara difluoromathana	75 71 9	<1.2	<1.9	<2.0	<2.2 91.2	ug/III3	< 0.79	0.79	< 0.79	0.79	< 0.79	0.79	< 0.79	0.79	< 0.79	0.79	< 0.79	0.79	< 0.79	0.79
Ethylhonzono	100 41 4	10.5	10.3	52.9	01.5 19.5	ug/III3	2.48	0.99	2.34	0.99	2.51	0.99	2.39	0.99	2.5 4.12	0.99	1.55	0.99	1.05	0.99
m p Vylana	170601 22 1	3.4	3.7	7.0	10.J	ug/III3	2.80	0.05	1.32 5.96	0.05	5.52 14.9	0.05	5.12 14.2	0.05	4.15	0.05	2.07	0.05	5.51 15.1	0.05
Mathylana Chlarida	75.00.2	5.0	10.0	20.3	07.0	ug/III3	2.09	0.05	J.80	1.20	14.0	0.05	14.2 27.8	0.05	10.9	1.20	9.40	0.05	13.1	0.05
	13-09-2	3.0	10.0	10.0	20.1	ug/III3	2.03	1.39	4.70	1.59	27.0	1.39	27.0	1.39	2.45	1.59	< 1.59	1.39	< 1.59	1.39
	93-47-0	4.4	1.9	25.4	20.1	ug/III3	2.05	0.05	4.45	0.05	11.8	0.03	10.7	0.03	14.9	0.03	7.12	0.03	12.0	0.03
Tetrachioroethene	127-18-4	5.9	15.9	25.4	33.0 248.0	ug/m3	2.38	0.08	1.52	0.08	2.09	0.08	2.04	0.08	2.85	0.08	3.70 2.75	0.08	2.90	0.08
Tillene	108-88-3	25.9	43.0	/0.8	57.0	ug/m3	< 0.75	0.75	< 0.75	0.75	1.73	0.75	1.5	0.75	0.82	0.75	< 0.75	0.75	0.89	0.75
Trichland fireness (1)	/9-01-0	1.2	4.2	0.5	57.0	ug/m3	< 0.20	0.20	0.45	0.20	< 0.20	0.20	0.32	0.20	< 0.20	0.20	< 0.20	0.20	0.23	0.20
Trichlanstrifterer (1	/5-69-4	6.7	18.1	54.0	860.6	ug/m3	2.36	0.84	2.49	0.84	2.27	0.84	2.37	0.84	2.26	0.84	2.45	0.84	2.26	0.84
	/0-13-1	<3.0	3.5	9.4	19.7	ug/m3	< 1.15	1.15	< 1.15	1.15	< 1.15	1.15	< 1.15	1.15	< 1.15	1.15	< 1.15	1.15	< 1.15	1.15
Vinyl Chloride	/5-01-4	<1.0	<1.9	<2.2	<2.6	ug/m3	< 0.05	.05	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05

### iPARK 84 Campus 2070 NY-Route 52 Hopewell Junction, New York

### TABLE 2 SUMMARY OF IAQ ANALYSIS BUILDING 700 (FORMER 330D) - CREPINI SPACE

			SE Databasa T	ables Trunical	Dealtonound	Collection Date	8/26/2	019	8/26/2	019	8/26/20	019	8/26/2	019	8/26/2	2019	8/26	5/2019	8/26/2	2019
		USEPA BA	Concentration	ables - Typical	Background	Sample ID	IA-	7	IA-	8	IA-9	)	IA-1	0	IA-	11	AMBI	ENT AIR	FIELD H	3LANK
			Concentrations	Tor fildoor All		Matrix	Aiı	•	Air	•	Air		Air	•	Ai	r	I	Air	Ai	ir
	CAS Registry Number	75th Percentile	90th Percentile	95th Percentile	99th Percentile	Location Units	Locker I Result	Room RL	Entrai Result	nce RL	Loadir Distribution Result	ng - n Room RL	Hallw Result	/ay RL	Corporate Result	e Office RL	Outdoor Result	Air Intake RL	Result	RL
Volatiles (TO15) By TO15																				
1,1,1-Trichloroethane	71-55-6	10.8	20.6	33.0	737.9	ug/m3	< 1.09	1.09	< 1.09	1.09	< 1.09	1.09	< 1.09	1.09	< 1.09	1.09	< 1.09	1.09	< 1.09	1.09
1,1-Dichloroethene	75-35-4	<1.2	<1.4	<1.6	<1.7	ug/m3	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
1,2,4-Trichlorobenzene	120-82-1	<1.2	<6.8	<7.2	<8.1	ug/m3	< 1.85	1.85	< 1.85	1.85	< 1.85	1.85	< 1.85	1.85	< 1.85	1.85	< 1.85	1.85	< 1.85	1.85
1,2-Dichlorobenzene	95-50-1	<1.0	<1.2	<1.3	10.5	ug/m3	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90
1,3-Dichlorobenzene	541-73-1	<1.1	<2.4	<2.5	<2.8	ug/m3	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90
1,4-Dichlorobenzene	106-46-7	1.4	5.5	12.5	80.5	ug/m3	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90
Acetone	67-64-1	59.8	98.9	120.2	226.6	ug/m3	15.5	2.37	16.9	2.37	13.3	2.37	18.1	2.37	26.6	2.37	4.56	2.37	5.93	2.37
Benzene	71-43-2	5.1	9.4	12.5	25.0	ug/m3	0.51	0.16	0.34	0.16	0.34	0.16	0.38	0.16	0.37	0.16	0.18	0.16	0.41	0.16
Carbon Tetrachloride	56-23-5	<1.1	<1.3	0.7	0.9	ug/m3	0.5	0.13	0.55	0.13	0.5	0.13	0.5	0.13	0.55	0.13	0.49	0.13	< 0.13	0.13
Chlorobenzene	108-90-7	< 0.8	<0.9	<1.0	1.0	ug/m3	< 0.92	0.92	< 0.92	0.92	< 0.92	0.92	< 0.92	0.92	< 0.92	0.92	< 0.92	0.92	< 0.92	0.92
Cis-1,2-Dichloroethene	156-59-2	<1.2	<1.9	<2.0	<2.2	ug/m3	< 0.79	0.79	< 0.79	0.79	< 0.79	0.79	< 0.79	0.79	< 0.79	0.79	< 0.79	0.79	< 0.79	0.79
Dichlorodifluoromethane	75-71-8	10.5	16.5	32.9	81.3	ug/m3	1.91	0.99	1.25	0.99	2.01	0.99	1.69	0.99	2.32	0.99	2.94	0.99	< 0.99	0.99
Ethylbenzene	100-41-4	3.4	5.7	7.6	18.5	ug/m3	< 0.65	0.65	1.12	0.65	1.33	0.65	2.24	0.65	1.22	0.65	< 0.65	0.65	2.36	0.65
m,p-Xylene	179601-23-1	12.2	22.2	28.5	67.6	ug/m3	2.1	0.65	4.86	0.65	5.6	0.65	10.5	0.65	4.73	0.65	< 0.65	0.65	8.29	0.65
Methylene Chloride	75-09-2	5.0	10.0	16.0	1155.6	ug/m3	2.99	1.39	4.41	1.39	< 1.39	1.39	< 1.39	1.39	32.6	1.39	< 1.39	1.39	< 1.39	1.39
o-Xylene	95-47-6	4.4	7.9	11.2	20.1	ug/m3	1.38	0.65	3.39	0.65	3.93	0.65	7.81	0.65	3.19	0.65	< 0.65	0.65	3.82	0.65
Tetrachloroethene	127-18-4	5.9	15.9	25.4	55.6	ug/m3	3.46	0.68	2.58	0.68	1.34	0.68	1.79	0.68	2.54	0.68	< 0.68	0.68	< 0.68	0.68
Toluene	108-88-3	25.9	43.0	70.8	348.9	ug/m3	< 0.75	0.75	0.91	0.75	0.82	0.75	< 0.75	0.75	2.71	0.75	< 0.75	0.75	3.74	0.75
Trichloroethene	79-01-6	1.2	4.2	6.5	57.0	ug/m3	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	0.56	0.20	< 0.20	0.20	< 0.20	0.20
Trichlorofluoromethane	75-69-4	6.7	18.1	54.0	860.6	ug/m3	2.61	0.84	2.35	0.84	2.18	0.84	1.91	0.84	3.19	0.84	2.34	0.84	< 0.84	0.84
Trichlorotrifluoroethane	76-13-1	<3.0	3.5	9.4	19.7	ug/m3	< 1.15	1.15	< 1.15	1.15	< 1.15	1.15	< 1.15	1.15	< 1.15	1.15	< 1.15	1.15	< 1.15	1.15
Vinyl Chloride	75-01-4	<1.0	<1.9	<2.2	<2.6	ug/m3	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05

### **Site Photographs**

### Photograph #1



Sample Location IA-1, located in Men's Restroom

### Photograph #3



Sample Location IA-3/Duplicate, located in Lunch Room

### Photograph #5



Sample Location IA-5, located in Production Room

### Photograph #2



Sample Location IA-2, located in Women's Restroom

### Photograph #4



Sample Location IA-4, located in Open Area

### Photograph #6



Sample Location IA-6, located in Packaging Room

### Site Photographs (continued)



Sample Location IA-7, located in Locker Room

# Photograph #9

Sample Location IA-9, located in Loading/Distribution Room

## Photograph #11



Sample Location IA-11, located in Corporate Office

Photograph #8



Sample Location IA-8, located in Entrance

Photograph #10



Sample Location IA-10, located in Hallway

### Photograph #12



Sample Location FIELD BLANK



Tuesday, September 03, 2019

Attn: Greta White Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

Project ID: PARK0118.33 SDG ID: GCD93124 Sample ID#s: CD93124 - CD93137

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

XI.le

Phyllis/Shiller Laboratory Director

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #M-CT007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 UT Lab Registration #CT00007 VT Lab Registration #VT11301





# **SDG** Comments

September 03, 2019

SDG I.D.: GCD93124

Any compound that is not detected above the MDL/LOD is reported as ND on the report and is reported in the electronic deliverables (EDD) as <RL or U at the RL per state and EPA guidance.

Version 1: Analysis results minus raw data.

Version 2: Complete report with raw data.





# Sample Id Cross Reference

September 03, 2019

SDG I.D.: GCD93124

Project ID: PARK0118.33

Client Id	Lab Id	Matrix	
IA-3	CD93124	AIR	
IA-1	CD93125	AIR	
IA-11	CD93126	AIR	
IA-2	CD93127	AIR	
IA-6	CD93128	AIR	
IA-4	CD93129	AIR	
AMBIENT AIR	CD93130	AIR	
FIELD BLANK	CD93131	AIR	
IA-5	CD93132	AIR	
IA-9	CD93133	AIR	
IA-7	CD93134	AIR	
IA-8	CD93135	AIR	
DUPLICATE	CD93136	AIR	
IA-10	CD93137	AIR	





# Analysis Report

FOR: Attn: Greta White Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

ug/m3 LOD/

September 03, 2019

Sample Informa	ation	Custody Inform	nation	Date	<u>Time</u>
Matrix:	AIR	Collected by:	LG	08/26/19	17:54
Location Code:	WALDENE	Received by:	SW	08/27/19	15:16
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					000000

# Laboratory Data

ug/m3

ppbv LOD/

SDG ID: GCD93124 Phoenix ID: CD93124

Project ID:	PARK0118.33
Client ID:	IA-3

Canister Id:

471

ppbv

Parameter	Result	RL	MDL	Result	RL	MDL	Date/Time	Ву	Dilution
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	08/29/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	08/29/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	08/29/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
Acetone	16.9	1.00	1.00	40.1	2.37	2.37	08/29/19	KCA	1
Benzene	0.114	0.050	0.050	0.36	0.16	0.16	08/29/19	KCA	1
Carbon Tetrachloride	0.080	0.020	0.020	0.50	0.13	0.13	08/29/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	08/29/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	08/29/19	KCA	1
Dichlorodifluoromethane	0.467	0.200	0.200	2.31	0.99	0.99	08/29/19	KCA	1
Ethylbenzene	0.764	0.150	0.150	3.32	0.65	0.65	08/29/19	KCA	1
m,p-Xylene	3.42	0.150	0.150	14.8	0.65	0.65	08/29/19	KCA	1
Methylene Chloride	7.96	0.400	0.400	27.6	1.39	1.39	08/29/19	KCA	1
o-Xylene	2.72	0.150	0.150	11.8	0.65	0.65	08/29/19	KCA	1
Tetrachloroethene	0.397	0.100	0.100	2.69	0.68	0.68	08/29/19	KCA	1
Toluene	0.459	0.200	0.200	1.73	0.75	0.75	08/29/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	08/29/19	KCA	1
Trichlorofluoromethane	0.405	0.150	0.150	2.27	0.84	0.84	08/29/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	08/29/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	08/29/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	96	%	%	96	%	%	08/29/19	KCA	1
% IS-1,4-Difluorobenzene	105	%	%	105	%	%	08/29/19	KCA	1
% IS-Bromochloromethane	95	%	%	95	%	%	08/29/19	KCA	1

Project ID: PARK0118.33 Client ID: IA-3

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
% IS-Chlorobenzene-d5	107	%	%	107	%	%	08/29/19	KCA	1

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### Comments:

Phyllis Shiller, Laboratory Director September 03, 2019 Reviewed and Released by: Rashmi Makol, Project Manager





# Analysis Report

Canister Id:

Project ID:

Client ID:

FOR: Attn: Greta White Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

September 03, 2019

21365

IA-1

PARK0118.33

Sample Informa	ation	Custody Inform	nation	Date	<u>Time</u>
Matrix:	AIR	Collected by:	LG	08/26/19	17:51
Location Code:	WALDENE	Received by:	SW	08/27/19	15:16
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					000004

La	borat	ory	<u>Data</u>

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	08/29/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	08/29/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	08/29/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
Acetone	9.61	1.00	1.00	22.8	2.37	2.37	08/29/19	KCA	1
Benzene	0.087	0.050	0.050	0.28	0.16	0.16	08/29/19	KCA	1
Carbon Tetrachloride	0.154	0.020	0.020	0.97	0.13	0.13	08/29/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	08/29/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	08/29/19	KCA	1
Dichlorodifluoromethane	0.501	0.200	0.200	2.48	0.99	0.99	08/29/19	KCA	1
Ethylbenzene	0.162	0.150	0.150	0.70	0.65	0.65	08/29/19	KCA	1
m,p-Xylene	0.667	0.150	0.150	2.89	0.65	0.65	08/29/19	KCA	1
Methylene Chloride	0.816	0.400	0.400	2.83	1.39	1.39	08/29/19	KCA	1
o-Xylene	0.468	0.150	0.150	2.03	0.65	0.65	08/29/19	KCA	1
Tetrachloroethene	0.351	0.100	0.100	2.38	0.68	0.68	08/29/19	KCA	1
Toluene	ND	0.200	0.200	ND	0.75	0.75	08/29/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	08/29/19	KCA	1
Trichlorofluoromethane	0.420	0.150	0.150	2.36	0.84	0.84	08/29/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	08/29/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	08/29/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	97	%	%	97	%	%	08/29/19	KCA	1
% IS-1,4-Difluorobenzene	108	%	%	108	%	%	08/29/19	KCA	1
% IS-Bromochloromethane	100	%	%	100	%	%	08/29/19	KCA	1

Project ID: PARK0118.33

Client ID: IA-1

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
% IS-Chlorobenzene-d5	109	%	%	109	%	%	08/29/19	KCA	1

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### Comments:

Phyllis Shiller, Laboratory Director September 03, 2019 Reviewed and Released by: Rashmi Makol, Project Manager





# Analysis Report

Canister Id:

Project ID: Client ID: FOR: Attn: Greta White Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

September 03, 2019

28608

IA-11

PARK0118.33

Sample Informa	ation	Custody Inform	nation	Date	<u>Time</u>
Matrix:	AIR	Collected by:	LG	08/26/19	18:06
Location Code:	WALDENE	Received by:	SW	08/27/19	15:16
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					000004

|--|

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
								-	
<u>Volatiles (1015)</u>									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	08/29/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	08/29/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	08/29/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
Acetone	11.2	1.00	1.00	26.6	2.37	2.37	08/29/19	KCA	1
Benzene	0.117	0.050	0.050	0.37	0.16	0.16	08/29/19	KCA	1
Carbon Tetrachloride	0.088	0.020	0.020	0.55	0.13	0.13	08/29/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	08/29/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	08/29/19	KCA	1
Dichlorodifluoromethane	0.469	0.200	0.200	2.32	0.99	0.99	08/29/19	KCA	1
Ethylbenzene	0.280	0.150	0.150	1.22	0.65	0.65	08/29/19	KCA	1
m,p-Xylene	1.09	0.150	0.150	4.73	0.65	0.65	08/29/19	KCA	1
Methylene Chloride	9.39	0.400	0.400	32.6	1.39	1.39	08/29/19	KCA	1
o-Xylene	0.735	0.150	0.150	3.19	0.65	0.65	08/29/19	KCA	1
Tetrachloroethene	0.374	0.100	0.100	2.54	0.68	0.68	08/29/19	KCA	1
Toluene	0.720	0.200	0.200	2.71	0.75	0.75	08/29/19	KCA	1
Trichloroethene	0.105	0.037	0.037	0.56	0.20	0.20	08/29/19	KCA	1
Trichlorofluoromethane	0.569	0.150	0.150	3.19	0.84	0.84	08/29/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	08/29/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	08/29/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	95	%	%	95	%	%	08/29/19	KCA	1
% IS-1,4-Difluorobenzene	104	%	%	104	%	%	08/29/19	KCA	1
% IS-Bromochloromethane	96	%	%	96	%	%	08/29/19	KCA	1

Project ID: PARK0118.33

Client ID: IA-11 nnhv ua/m3 nnhv

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution	
% IS-Chlorobenzene-d5	109	%	%	109	%	%	08/29/19	KCA	1	

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Phyllis Shiller, Laboratory Director September 03, 2019 Reviewed and Released by: Rashmi Makol, Project Manager





# Analysis Report

Canister Id:

Project ID: Client ID: FOR: Attn: Greta White Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

September 03, 2019

19931

IA-2

PARK0118.33

Sample Informa	ation	Custody Inform	nation	Date	Time
Matrix:	AIR	Collected by:	LG	08/26/19	17:48
Location Code:	WALDENE	Received by:	SW	08/27/19	15:16
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					000004

# Laboratory Data

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Bv	Dilution
								-,	
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	08/29/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	08/29/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	08/29/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
Acetone	8.25	1.00	1.00	19.6	2.37	2.37	08/29/19	KCA	1
Benzene	0.106	0.050	0.050	0.34	0.16	0.16	08/29/19	KCA	1
Carbon Tetrachloride	0.093	0.020	0.020	0.58	0.13	0.13	08/29/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	08/29/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	08/29/19	KCA	1
Dichlorodifluoromethane	0.514	0.200	0.200	2.54	0.99	0.99	08/29/19	KCA	1
Ethylbenzene	0.304	0.150	0.150	1.32	0.65	0.65	08/29/19	KCA	1
m,p-Xylene	1.35	0.150	0.150	5.86	0.65	0.65	08/29/19	KCA	1
Methylene Chloride	1.37	0.400	0.400	4.76	1.39	1.39	08/29/19	KCA	1
o-Xylene	1.02	0.150	0.150	4.43	0.65	0.65	08/29/19	KCA	1
Tetrachloroethene	1.08	0.100	0.100	7.32	0.68	0.68	08/29/19	KCA	1
Toluene	ND	0.200	0.200	ND	0.75	0.75	08/29/19	KCA	1
Trichloroethene	0.084	0.037	0.037	0.45	0.20	0.20	08/29/19	KCA	1
Trichlorofluoromethane	0.444	0.150	0.150	2.49	0.84	0.84	08/29/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	08/29/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	08/29/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	96	%	%	96	%	%	08/29/19	KCA	1
% IS-1,4-Difluorobenzene	104	%	%	104	%	%	08/29/19	KCA	1
% IS-Bromochloromethane	97	%	%	97	%	%	08/29/19	KCA	1

Project ID: PARK0118.33

Client ID: IA-2

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
% IS-Chlorobenzene-d5	107	%	%	107	%	%	08/29/19	KCA	1

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### Comments:

Phyllis Shiller, Laboratory Director September 03, 2019 Reviewed and Released by: Rashmi Makol, Project Manager





# Analysis Report

Canister Id:

Project ID:

Client ID:

FOR: Attn: Greta White Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

September 03, 2019

21357

IA-6

PARK0118.33

Sample Informa	<u>ation</u>	Custody Inform	nation	Date	Time
Matrix:	AIR	Collected by:	LG	08/26/19	18:17
Location Code:	WALDENE	Received by:	SW	08/27/19	15:16
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					000004

|--|

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Bv	Dilution
								,	
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	08/29/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	08/29/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	08/29/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
Acetone	10.2	1.00	1.00	24.2	2.37	2.37	08/29/19	KCA	1
Benzene	0.117	0.050	0.050	0.37	0.16	0.16	08/29/19	KCA	1
Carbon Tetrachloride	0.079	0.020	0.020	0.50	0.13	0.13	08/29/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	08/29/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	08/29/19	KCA	1
Dichlorodifluoromethane	0.212	0.200	0.200	1.05	0.99	0.99	08/29/19	KCA	1
Ethylbenzene	0.763	0.150	0.150	3.31	0.65	0.65	08/29/19	KCA	1
m,p-Xylene	3.49	0.150	0.150	15.1	0.65	0.65	08/29/19	KCA	1
Methylene Chloride	ND	0.400	0.400	ND	1.39	1.39	08/29/19	KCA	1
o-Xylene	2.90	0.150	0.150	12.6	0.65	0.65	08/29/19	KCA	1
Tetrachloroethene	0.437	0.100	0.100	2.96	0.68	0.68	08/29/19	KCA	1
Toluene	0.237	0.200	0.200	0.89	0.75	0.75	08/29/19	KCA	1
Trichloroethene	0.042	0.037	0.037	0.23	0.20	0.20	08/29/19	KCA	1
Trichlorofluoromethane	0.403	0.150	0.150	2.26	0.84	0.84	08/29/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	08/29/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	08/29/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	92	%	%	92	%	%	08/29/19	KCA	1
% IS-1,4-Difluorobenzene	105	%	%	105	%	%	08/29/19	KCA	1
% IS-Bromochloromethane	95	%	%	95	%	%	08/29/19	KCA	1

Project ID: PARK0118.33 Client ID: IA-6

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
% IS-Chlorobenzene-d5	110	%	%	110	%	%	08/29/19	KCA	1

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### Comments:

Phyllis Shiller, Laboratory Director September 03, 2019 Reviewed and Released by: Rashmi Makol, Project Manager





# Analysis Report

Canister Id:

Project ID:

FOR: Attn: Greta White Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

September 03, 2019

12859

PARK0118.33

Sample Informa	ation	Custody Inform	nation	Date	Time
Matrix:	AIR	Collected by:	LG	08/26/19	17:58
Location Code:	WALDENE	Received by:	SW	08/27/19	15:16
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					000000

# Laboratory Data

Client ID: IA-4									
Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	08/29/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	08/29/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	08/29/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
Acetone	7.52	1.00	1.00	17.9	2.37	2.37	08/29/19	KCA	1
Benzene	0.115	0.050	0.050	0.37	0.16	0.16	08/29/19	KCA	1
Carbon Tetrachloride	0.082	0.020	0.020	0.52	0.13	0.13	08/29/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	08/29/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	08/29/19	KCA	1
Dichlorodifluoromethane	0.465	0.200	0.200	2.30	0.99	0.99	08/29/19	KCA	1
Ethylbenzene	0.951	0.150	0.150	4.13	0.65	0.65	08/29/19	KCA	1
m,p-Xylene	4.35	0.150	0.150	18.9	0.65	0.65	08/29/19	KCA	1
Methylene Chloride	0.700	0.400	0.400	2.43	1.39	1.39	08/29/19	KCA	1
o-Xylene	3.43	0.150	0.150	14.9	0.65	0.65	08/29/19	KCA	1
Tetrachloroethene	0.421	0.100	0.100	2.85	0.68	0.68	08/29/19	KCA	1
Toluene	0.217	0.200	0.200	0.82	0.75	0.75	08/29/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	08/29/19	KCA	1
Trichlorofluoromethane	0.403	0.150	0.150	2.26	0.84	0.84	08/29/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	08/29/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	08/29/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	91	%	%	91	%	%	08/29/19	KCA	1
% IS-1,4-Difluorobenzene	105	%	%	105	%	%	08/29/19	KCA	1
% IS-Bromochloromethane	94	%	%	94	%	%	08/29/19	KCA	1

Project ID: PARK0118.33

Client ID: IA-4

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
% IS-Chlorobenzene-d5	109	%	%	109	%	%	08/29/19	KCA	1

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### Comments:

Phyllis Shiller, Laboratory Director September 03, 2019 Reviewed and Released by: Rashmi Makol, Project Manager





# Analysis Report

Canister Id:

Project ID:

FOR: Attn: Greta White Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

September 03, 2019

221

PARK0118.33

Sample Informa	ation	Custody Inform	nation	Date	<u>Time</u>
Matrix:	AIR	Collected by:	LG	08/26/19	17:36
Location Code:	WALDENE	Received by:	SW	08/27/19	15:16
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					000000

# Laboratory Data

Client ID: AMBIENT AIR	२								
Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	08/29/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	08/29/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	08/29/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/29/19	KCA	1
Acetone	1.92	1.00	1.00	4.56	2.37	2.37	08/29/19	KCA	1
Benzene	0.057	0.050	0.050	0.18	0.16	0.16	08/29/19	KCA	1
Carbon Tetrachloride	0.078	0.020	0.020	0.49	0.13	0.13	08/29/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	08/29/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	08/29/19	KCA	1
Dichlorodifluoromethane	0.595	0.200	0.200	2.94	0.99	0.99	08/29/19	KCA	1
Ethylbenzene	ND	0.150	0.150	ND	0.65	0.65	08/29/19	KCA	1
m,p-Xylene	ND	0.150	0.150	ND	0.65	0.65	08/29/19	KCA	1
Methylene Chloride	ND	0.400	0.400	ND	1.39	1.39	08/29/19	KCA	1
o-Xylene	ND	0.150	0.150	ND	0.65	0.65	08/29/19	KCA	1
Tetrachloroethene	ND	0.100	0.100	ND	0.68	0.68	08/29/19	KCA	1
Toluene	ND	0.200	0.200	ND	0.75	0.75	08/29/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	08/29/19	KCA	1
Trichlorofluoromethane	0.417	0.150	0.150	2.34	0.84	0.84	08/29/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	08/29/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	08/29/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	99	%	%	99	%	%	08/29/19	KCA	1
% IS-1,4-Difluorobenzene	113	%	%	113	%	%	08/29/19	KCA	1
% IS-Bromochloromethane	112	%	%	112	%	%	08/29/19	KCA	1

Project ID: PARK0118.33 Client ID: AMBIENT AIR

_	ppbv	ppbv	LOD/	ug/m3	ug/m3	LOD/			
Parameter	Result	RL	MDL	Result	RL	MDL	Date/Time	Ву	Dilution
% IS-Chlorobenzene-d5	109	%	%	109	%	%	08/29/19	KCA	1

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### Comments:

Phyllis Shiller, Laboratory Director September 03, 2019 Reviewed and Released by: Rashmi Makol, Project Manager





# Analysis Report

Canister Id:

Project ID: Client ID: FOR: Attn: Greta White Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

September 03, 2019

FIELD BLANK

Sample Informa	ation	Custody Inform	nation	Date	Time
Matrix:	AIR	Collected by:	LG	08/26/19	12:25
Location Code:	WALDENE	Received by:	SW	08/27/19	15:16
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					000004

23327	Laboratory Data
PARK0118.33	

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Bv	Dilution
								,	
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	08/30/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	08/30/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	08/30/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
Acetone	2.50	1.00	1.00	5.93	2.37	2.37	08/30/19	KCA	1
Benzene	0.127	0.050	0.050	0.41	0.16	0.16	08/30/19	KCA	1
Carbon Tetrachloride	ND	0.020	0.020	ND	0.13	0.13	08/30/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	08/30/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	08/30/19	KCA	1
Dichlorodifluoromethane	ND	0.200	0.200	ND	0.99	0.99	08/30/19	KCA	1
Ethylbenzene	0.544	0.150	0.150	2.36	0.65	0.65	08/30/19	KCA	1
m,p-Xylene	1.91	0.150	0.150	8.29	0.65	0.65	08/30/19	KCA	1
Methylene Chloride	ND	0.400	0.400	ND	1.39	1.39	08/30/19	KCA	1
o-Xylene	0.881	0.150	0.150	3.82	0.65	0.65	08/30/19	KCA	1
Tetrachloroethene	ND	0.100	0.100	ND	0.68	0.68	08/30/19	KCA	1
Toluene	0.994	0.200	0.200	3.74	0.75	0.75	08/30/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	08/30/19	KCA	1
Trichlorofluoromethane	ND	0.150	0.150	ND	0.84	0.84	08/30/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	08/30/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	08/30/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	94	%	%	94	%	%	08/30/19	KCA	1
% IS-1,4-Difluorobenzene	110	%	%	110	%	%	08/30/19	KCA	1
% IS-Bromochloromethane	112	%	%	112	%	%	08/30/19	KCA	1

Project ID: PARK0118.33 Client ID: FIELD BLANK ppbv ppbv LOD/ ug/m3 ug/m3 LOD/ Parameter Result RL MDL Result RL MDL Date/Time By 108 KCA

%

%

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

108

%

%

08/30/19

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### Comments:

% IS-Chlorobenzene-d5

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director September 03, 2019 Reviewed and Released by: Rashmi Makol, Project Manager

Dilution

1





# Analysis Report

Canister Id:

Project ID:

Client ID:

FOR: Attn: Greta White Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

September 03, 2019

19916

IA-5

PARK0118.33

Sample Informa	ation_	Custody Inform	nation	Date	Time
Matrix:	AIR	Collected by:	LG	08/26/19	18:14
Location Code:	WALDENE	Received by:	SW	08/27/19	15:16
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					000004

|--|

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	08/30/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	08/30/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	08/30/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
Acetone	9.86	1.00	1.00	23.4	2.37	2.37	08/30/19	KCA	1
Benzene	0.120	0.050	0.050	0.38	0.16	0.16	08/30/19	KCA	1
Carbon Tetrachloride	0.079	0.020	0.020	0.50	0.13	0.13	08/30/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	08/30/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	08/30/19	KCA	1
Dichlorodifluoromethane	0.270	0.200	0.200	1.33	0.99	0.99	08/30/19	KCA	1
Ethylbenzene	0.477	0.150	0.150	2.07	0.65	0.65	08/30/19	KCA	1
m,p-Xylene	2.18	0.150	0.150	9.46	0.65	0.65	08/30/19	KCA	1
Methylene Chloride	ND	0.400	0.400	ND	1.39	1.39	08/30/19	KCA	1
o-Xylene	1.64	0.150	0.150	7.12	0.65	0.65	08/30/19	KCA	1
Tetrachloroethene	0.554	0.100	0.100	3.76	0.68	0.68	08/30/19	KCA	1
Toluene	ND	0.200	0.200	ND	0.75	0.75	08/30/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	08/30/19	KCA	1
Trichlorofluoromethane	0.436	0.150	0.150	2.45	0.84	0.84	08/30/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	08/30/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	08/30/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	98	%	%	98	%	%	08/30/19	KCA	1
% IS-1,4-Difluorobenzene	99	%	%	99	%	%	08/30/19	KCA	1
% IS-Bromochloromethane	92	%	%	92	%	%	08/30/19	KCA	1

Project ID: PARK0118.33 Client ID: IA-5

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
% IS-Chlorobenzene-d5	102	%	%	102	%	%	08/30/19	KCA	1

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### Comments:

Phyllis Shiller, Laboratory Director September 03, 2019 Reviewed and Released by: Rashmi Makol, Project Manager





# Analysis Report

Canister Id:

Project ID:

Client ID:

FOR: Attn: Greta White Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

September 03, 2019

28567

IA-9

PARK0118.33

Sample Information		Custody Inform	nation	Date	Time
Matrix:	AIR	Collected by:	LG	08/26/19	18:04
Location Code:	WALDENE	Received by:	SW	08/27/19	15:16
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					000004

Laburatory Data
-----------------

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (1015)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	08/30/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	08/30/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	08/30/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
Acetone	5.62	1.00	1.00	13.3	2.37	2.37	08/30/19	KCA	1
Benzene	0.106	0.050	0.050	0.34	0.16	0.16	08/30/19	KCA	1
Carbon Tetrachloride	0.080	0.020	0.020	0.50	0.13	0.13	08/30/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	08/30/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	08/30/19	KCA	1
Dichlorodifluoromethane	0.407	0.200	0.200	2.01	0.99	0.99	08/30/19	KCA	1
Ethylbenzene	0.306	0.150	0.150	1.33	0.65	0.65	08/30/19	KCA	1
m,p-Xylene	1.29	0.150	0.150	5.60	0.65	0.65	08/30/19	KCA	1
Methylene Chloride	ND	0.400	0.400	ND	1.39	1.39	08/30/19	KCA	1
o-Xylene	0.905	0.150	0.150	3.93	0.65	0.65	08/30/19	KCA	1
Tetrachloroethene	0.197	0.100	0.100	1.34	0.68	0.68	08/30/19	KCA	1
Toluene	0.219	0.200	0.200	0.82	0.75	0.75	08/30/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	08/30/19	KCA	1
Trichlorofluoromethane	0.388	0.150	0.150	2.18	0.84	0.84	08/30/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	08/30/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	08/30/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	96	%	%	96	%	%	08/30/19	KCA	1
% IS-1,4-Difluorobenzene	107	%	%	107	%	%	08/30/19	KCA	1
% IS-Bromochloromethane	100	%	%	100	%	%	08/30/19	KCA	1
Project ID: PARK0118.33 Client ID: IA-9

Devenedar	ppbv	ppbv	LOD/	ug/m3	ug/m3	LOD/	Data/Time	D. /	Dilution
Parameter	Result	RL	NDL	Result	RL	NDL	Date/Time	Ву	Dilution
% IS-Chlorobenzene-d5	108	%	%	108	%	%	08/30/19	KCA	1

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### Comments:

The canister was received under no vacuum, therefore sample results may not be representative.

Phyllis Shiller, Laboratory Director September 03, 2019 Reviewed and Released by: Rashmi Makol, Project Manager





## Analysis Report

Canister Id:

Project ID: Client ID: FOR: Attn: Greta White Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

September 03, 2019

11288

IA-7

PARK0118.33

Sample Information		Custody Inform	Custody Information				
Matrix:	AIR	Collected by:	LG	08/26/19	18:09		
Location Code:	WALDENE	Received by:	SW	08/27/19	15:16		
Rush Request:	72 Hour	Analyzed by:	see "By" below				
P.O.#:					000004		

La	<u>bora</u>	tory	<u>Data</u>

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
volatiles (1015)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	08/30/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	08/30/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	08/30/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
Acetone	6.53	1.00	1.00	15.5	2.37	2.37	08/30/19	KCA	1
Benzene	0.161	0.050	0.050	0.51	0.16	0.16	08/30/19	KCA	1
Carbon Tetrachloride	0.080	0.020	0.020	0.50	0.13	0.13	08/30/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	08/30/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	08/30/19	KCA	1
Dichlorodifluoromethane	0.387	0.200	0.200	1.91	0.99	0.99	08/30/19	KCA	1
Ethylbenzene	ND	0.150	0.150	ND	0.65	0.65	08/30/19	KCA	1
m,p-Xylene	0.485	0.150	0.150	2.10	0.65	0.65	08/30/19	KCA	1
Methylene Chloride	0.861	0.400	0.400	2.99	1.39	1.39	08/30/19	KCA	1
o-Xylene	0.317	0.150	0.150	1.38	0.65	0.65	08/30/19	KCA	1
Tetrachloroethene	0.511	0.100	0.100	3.46	0.68	0.68	08/30/19	KCA	1
Toluene	ND	0.200	0.200	ND	0.75	0.75	08/30/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	08/30/19	KCA	1
Trichlorofluoromethane	0.465	0.150	0.150	2.61	0.84	0.84	08/30/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	08/30/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	08/30/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	99	%	%	99	%	%	08/30/19	KCA	1
% IS-1,4-Difluorobenzene	105	%	%	105	%	%	08/30/19	KCA	1
% IS-Bromochloromethane	99	%	%	99	%	%	08/30/19	KCA	1

Project ID: PARK0118.33

Client ID: IA-7

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
% IS-Chlorobenzene-d5	107	%	%	107	%	%	08/30/19	KCA	1

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### Comments:

Phyllis Shiller, Laboratory Director September 03, 2019 Reviewed and Released by: Rashmi Makol, Project Manager





## Analysis Report

Canister Id:

Project ID:

Client ID:

FOR: Attn: Greta White Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

September 03, 2019

13645

IA-8

PARK0118.33

Sample Information		Custody Inform	nation	Date	Time
Matrix:	AIR	Collected by:	LG	08/26/19	18:41
Location Code:	WALDENE	Received by:	SW	08/27/19	15:16
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					000004

|--|

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	08/30/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	08/30/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	08/30/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
Acetone	7.13	1.00	1.00	16.9	2.37	2.37	08/30/19	KCA	1
Benzene	0.108	0.050	0.050	0.34	0.16	0.16	08/30/19	KCA	1
Carbon Tetrachloride	0.087	0.020	0.020	0.55	0.13	0.13	08/30/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	08/30/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	08/30/19	KCA	1
Dichlorodifluoromethane	0.253	0.200	0.200	1.25	0.99	0.99	08/30/19	KCA	1
Ethylbenzene	0.257	0.150	0.150	1.12	0.65	0.65	08/30/19	KCA	1
m,p-Xylene	1.12	0.150	0.150	4.86	0.65	0.65	08/30/19	KCA	1
Methylene Chloride	1.27	0.400	0.400	4.41	1.39	1.39	08/30/19	KCA	1
o-Xylene	0.781	0.150	0.150	3.39	0.65	0.65	08/30/19	KCA	1
Tetrachloroethene	0.381	0.100	0.100	2.58	0.68	0.68	08/30/19	KCA	1
Toluene	0.242	0.200	0.200	0.91	0.75	0.75	08/30/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	08/30/19	KCA	1
Trichlorofluoromethane	0.419	0.150	0.150	2.35	0.84	0.84	08/30/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	08/30/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	08/30/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	96	%	%	96	%	%	08/30/19	KCA	1
% IS-1,4-Difluorobenzene	104	%	%	104	%	%	08/30/19	KCA	1
% IS-Bromochloromethane	96	%	%	96	%	%	08/30/19	KCA	1

Project ID: PARK0118.33 Client ID: IA-8

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
% IS-Chlorobenzene-d5	109	%	%	109	%	%	08/30/19	KCA	1

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### Comments:

Phyllis Shiller, Laboratory Director September 03, 2019 Reviewed and Released by: Rashmi Makol, Project Manager





## Analysis Report

Canister Id:

Project ID:

FOR: Attn: Greta White Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

September 03, 2019

486

PARK0118.33

Sample Information		Custody Inform	nation	Date	<u>Time</u>
Matrix:	AIR	Collected by:	LG	08/26/19	18:19
Location Code:	WALDENE	Received by:	SW	08/27/19	15:16
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					000004

### Laboratory Data

Client ID: DUPLIC	CATE								
Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	08/30/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	08/30/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	08/30/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
Acetone	14.4	1.00	1.00	34.2	2.37	2.37	08/30/19	KCA	1
Benzene	0.105	0.050	0.050	0.34	0.16	0.16	08/30/19	KCA	1
Carbon Tetrachloride	0.085	0.020	0.020	0.53	0.13	0.13	08/30/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	08/30/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	08/30/19	KCA	1
Dichlorodifluoromethane	0.484	0.200	0.200	2.39	0.99	0.99	08/30/19	KCA	1
Ethylbenzene	0.719	0.150	0.150	3.12	0.65	0.65	08/30/19	KCA	1
m,p-Xylene	3.28	0.150	0.150	14.2	0.65	0.65	08/30/19	KCA	1
Methylene Chloride	8.02	0.400	0.400	27.8	1.39	1.39	08/30/19	KCA	1
o-Xylene	2.46	0.150	0.150	10.7	0.65	0.65	08/30/19	KCA	1
Tetrachloroethene	0.389	0.100	0.100	2.64	0.68	0.68	08/30/19	KCA	1
Toluene	0.398	0.200	0.200	1.50	0.75	0.75	08/30/19	KCA	1
Trichloroethene	0.060	0.037	0.037	0.32	0.20	0.20	08/30/19	KCA	1
Trichlorofluoromethane	0.422	0.150	0.150	2.37	0.84	0.84	08/30/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	08/30/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	08/30/19	KCA	1
QA/QC Surrogates/Interr	als								
% Bromofluorobenzene	93	%	%	93	%	%	08/30/19	KCA	1
% IS-1,4-Difluorobenzene	101	%	%	101	%	%	08/30/19	KCA	1
% IS-Bromochloromethane	e 92	%	%	92	%	%	08/30/19	KCA	1

Project ID: PARK0118.33 Phoenix I.D.: CD93136 Client ID: DUPLICATE ppbv ppbv LOD/ ug/m3 ug/m3 LOD/ Parameter Result RL MDL Result RL MDL Date/Time By Dilution 105 KCA 1 % IS-Chlorobenzene-d5 % % 105 % % 08/30/19

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### Comments:

Phyllis Shiller, Laboratory Director September 03, 2019 Reviewed and Released by: Rashmi Makol, Project Manager





## Analysis Report

Canister Id:

Project ID: Client ID: FOR: Attn: Greta White Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

September 03, 2019

28555

IA-10

PARK0118.33

Sample Informa	ation_	Custody Inform	Custody Information					
Matrix:	AIR	Collected by:	LG	08/26/19	18:23			
Location Code:	WALDENE	Received by:	SW	08/27/19	15:16			
Rush Request:	72 Hour	Analyzed by:	see "By" below					
P.O.#:					000004			

### Laboratory Data

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	08/30/19	KCA	1
1,1-Dichloroethene	ND	0.100	0.100	ND	0.40	0.40	08/30/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	08/30/19	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	08/30/19	KCA	1
Acetone	7.61	1.00	1.00	18.1	2.37	2.37	08/30/19	KCA	1
Benzene	0.120	0.050	0.050	0.38	0.16	0.16	08/30/19	KCA	1
Carbon Tetrachloride	0.080	0.020	0.020	0.50	0.13	0.13	08/30/19	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	08/30/19	KCA	1
Cis-1,2-Dichloroethene	ND	0.200	0.200	ND	0.79	0.79	08/30/19	KCA	1
Dichlorodifluoromethane	0.341	0.200	0.200	1.69	0.99	0.99	08/30/19	KCA	1
Ethylbenzene	0.517	0.150	0.150	2.24	0.65	0.65	08/30/19	KCA	1
m,p-Xylene	2.42	0.150	0.150	10.5	0.65	0.65	08/30/19	KCA	1
Methylene Chloride	ND	0.400	0.400	ND	1.39	1.39	08/30/19	KCA	1
o-Xylene	1.80	0.150	0.150	7.81	0.65	0.65	08/30/19	KCA	1
Tetrachloroethene	0.264	0.100	0.100	1.79	0.68	0.68	08/30/19	KCA	1
Toluene	ND	0.200	0.200	ND	0.75	0.75	08/30/19	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	08/30/19	KCA	1
Trichlorofluoromethane	0.340	0.150	0.150	1.91	0.84	0.84	08/30/19	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	08/30/19	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	08/30/19	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	94	%	%	94	%	%	08/30/19	KCA	1
% IS-1,4-Difluorobenzene	104	%	%	104	%	%	08/30/19	KCA	1
% IS-Bromochloromethane	96	%	%	96	%	%	08/30/19	KCA	1

Project ID: PARK0118.33 Client ID: IA-10

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	Ву	Dilution
% IS-Chlorobenzene-d5	108	%	%	108	%	%	08/30/19	KCA	1

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### Comments:

Phyllis Shiller, Laboratory Director September 03, 2019 Reviewed and Released by: Rashmi Makol, Project Manager





## **Canister Sampling Information**

September 03, 2019

FOR: Attn: Greta White Walden Environmental Engineering PLLC 16 Spring Street Oyster Bay, NY 11771

Location Code: WALDENE

Project ID: PARK0118.33

					1										
						Laboratory					Field				
		Canis	ster	Reg.	Chk Out	Out	In	Out	In	Flow	Start	End	Sampling	Sampling	
Client Id	Lab Id	ld	Туре	ld	Date	Hg	Hg	Flow	Flow	RPD	Hg	Hg	Start Date	End Date	
IA-3	CD93124	471	6.0L	5393	08/01/19	-30	-3	10.8	10.8	0.0	-30	-3.5	08/26/19 9:48	08/26/19 17:54	
IA-1	CD93125	21365	6.0L	4988	08/01/19	-30	-4	10.8	11.1	2.7	-30	-5.5	08/26/19 9:50	08/26/19 17:51	
IA-11	CD93126	28608	6.0L	7044	08/01/19	-30	-2	10.8	11	1.8	-30	-4	08/26/19 9:58	08/26/19 18:06	
IA-2	CD93127	19931	6.0L	7019	08/01/19	-30	-4	10.8	10.9	0.9	-30	-4	08/26/19 9:43	08/26/19 17:48	
IA-6	CD93128	21357	6.0L	3413	08/01/19	-30	-5	10.8	10.8	0.0	-30	-6	08/26/19 10:17	08/26/19 18:17	
IA-4	CD93129	12859	6.0L	4963	08/01/19	-30	-4	10.8	11.4	5.4	-29.5	-5	08/26/19 9:53	08/26/19 17:58	
AMBIENT AIR	CD93130	221	6.0L	4982	08/01/19	-30	-6	10.8	10.7	0.9	-30	-6.5	08/26/19 9:36	08/26/19 17:36	
FIELD BLANK	CD93131	23327	6.0L	3500	08/01/19	-30	-5	10.8	10.7	0.9	-28.5	-4.5	08/26/19 10:26	08/26/19 12:25	
IA-5	CD93132	19916	6.0L	4492	08/01/19	-30	-4	10.8	10.9	0.9	-29	-5.5	08/26/19 10:05	08/26/19 18:14	
IA-9	CD93133	28567	6.0L	3504	08/01/19	-30	0	10.8	10.8	0.0	-30	-3	08/26/19 9:57	08/26/19 18:04	
IA-7	CD93134	11288	6.0L	5615	08/01/19	-30	-2	10.8	11.2	3.6	-30	-3	08/26/19 10:02	08/26/19 18:09	
IA-8	CD93135	13645	6.0L	5673	08/01/19	-30	-5	10.8	10.9	0.9	-30	-5	08/26/19 10:41	08/26/19 18:41	
DUPLICATE	CD93136	486	6.0L	4954	08/01/19	-30	-5	10.8	11	1.8	-30	-6.5	08/26/19 10:15	08/26/19 18:19	
IA-10	CD93137	28555	6.0L	3512	08/01/19	-30	-3	10.8	11.2	3.6	-30	-4	08/26/19 10:12	08/26/19 18:23	

SDG I.D.: GCD93124

Tuesday, Se	eptember 03, 2019	)	Sample Crit	eria Exceedances Report					
Criteria:	None		G	CD93124 - WALDENE					
State:	NY	Dhaanin Arabata	Orthania		Desalt	D	0.14	RL	Analysis
Sampino	Acode	Phoenix Analyte	Criteria		Result	RL	Criteria	Criteria	Units
*** No Data	to Display ***								

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Page Of Of 2	Ambienblador Air Andrew Articles And Continues is listed on the stand conditions as listed on the	Date:
P.O.# Data Delivery: □ Fax #: MEmail: NBREW@ MADE	NPhome #: 316 6.01 7.0     ict Name:     i PARKOI 8.33     unested Deliverable:     MCP   N Deliverable:     MCP   Sample     Farmet   Sample     Farmet   Sample     Part CHB   Sample     Sample   Sample     MCD   H     MCD   H     MCD   H     MCD   H	Signature:
CHAIN OF CUSTODY RECORD AIR ANALYSES 800-827-5426 email: greg@phoenixlabs.com	Invoice to: North Braw, PE Rew, PE Rev Waldan Hall, 16 Spearer Bary, NY 11771 Star Sampled by: Louis Galdstur, My 11771 Star Sampled by: Canister Bary, MY 11771 Star Louis Galdstur, My 107 My Star Sampled by: This Section Pressure Results Flow Controller Start Canister Dr. The Pressure Results Controller Pressure Pressure Results Pressure Results Controller Pressure Pressure Pressure Results Of Controller Pressure Pressure Pressure Results Of Controller Pressure Pressure Pres	V Quote Number:
PHOENIX Control International Control Intern	Reporte: Greeka White Customer: Waldan ASSOC Address: 200 North Deva (i PAAK) Hopewall Junchon, NY Hopewall Junchon, NY Multipa Multipa Multipa Relinged by Phoenix ID2 Relinged by Relinged by Madified TO-15 analysis Madified TO-15 analysis	Per project GLAPP Provided.

•

A Soil Cas A Soil Cas C D S S S S S S S S S S S S S S S S S S	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Date:
P.O. # Data Delivery: Tex #: Data Delivery: Prone #: 516 624 720 Prone #: 516 720 720 720 Prone #: 516 720 720 720 720 720 720 720 720 720 720	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	25
TODY RECORD   IALYSES   27-5426   27-5426   PE   PE   PE   Project Name:   PE   Requested Deliver   IVFH   MM   State where sampling   Setting   ID#   INT   ID#   INT   INT   INT	Bals 1041 180   Slot3 1041 181   Slot3 1015 181   Slot3 1015 181   Slot3 1015 181   Bate 1013 183   Bate: Time: Data F   Bate: Time: Data F   Bate: Time: Data F   Citeria 823 13<:0	Number:
CHAIN OF CUS AIR AN 800-800-	All Cert. Request	ראוסוב זי
HORNER I aboratories, Inc. Dimental Laboratories, Inc. ethe limble, P.0. Den 370, Manchener, (T 0600 Pre- da White David CM Denve (1, PABK) Dould CM Denve (1, PABK) Sami CIII Junchun, NY Eu Cani Client Sample ID Cani	TA-7 TA-7 IA-8 DUPLICATE US JA-10 ZA-10 OBPLICATE US Accel 10 Accel 11,4 " necded, D Obbi or Greg, TM	1 KATY 1 1001 000

## BUILDING 330D CREPINI INDOOR AIR QUALITY SAMPLING DATA USABILITY SUMMARY REPORT

AT

IPARK 84 FORMER IBM EAST FISHKILL FACILITY

NOVEMBER 2019

**PREPARED FOR:** 

JESSICA LACLAIR New York State Dept. of Environmental Conservation Dept. of Environmental Remediation 625 Broadway Albany, New York 12233-7013

### WALDEN ENVIRONMENTAL ENGINEERING, PLLC

Industry Leader in Environmental Engineering Consulting

**PROACTIVE SOLUTIONS SINCE 1995** 

### **Data Usability Summary Report**

Indoor Air Quality Investigation iPark 84, Former IBM East Fishkill Facility Building 700 (formerly Building 330D) – Crepini

This Data Usability Summary Report (DUSR) has been prepared to validate the results of air sampling conducted in Building 700 (formerly Building 330D) at the above-referenced facility. This sampling was conducted on August 26, 2019 in support of a pre-occupancy evaluation. Walden performed the sampling in accordance with the indoor air quality testing plan (dated August 12, 2019) and the conditional approval letter (dated August 23, 2019) received from the New York State Department of Environmental Conservation (NYSDEC) following NYSDEC and New York State Department of Health (NYSDOH) review of the Work Plan. A summary of the Crepini air sampling results was submitted to NYSDEC and NYSDOH in a report dated September 16, 2019. NYSDEC approved occupancy of the Crepini space in a letter dated September 27, 2019.

This DUSR has been prepared in accordance with NYSDEC Draft DER-10 Appendix 2B – Guidance for Data Deliverables and the Development of Data Usability Summary Reports. The DUSR provides a thorough evaluation of analytical data without using the services of an independent third-party data validator. The primary objective of the DUSR is to determine whether or not the data presented meets project specific criteria for data quality and use.

The analytical data was evaluated by Mr. Lawrence Zeman (Walden), whose experience and qualifications to prepare the DUSR for this project are presented in the attached resume (see Attachment A). The air samples collected for laboratory analysis were submitted to Phoenix Environmental Laboratories, Inc. (Phoenix) of Manchester, NH, a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory (NY Lab Registration #11301), and analyzed for volatile organic compounds (VOCs) via U.S. Environmental Protection Agency (USEPA) Modified Method TO-15 with the analytical detection limits set forth in the NYSDEC approved indoor air quality testing plan approved on August 23, 2019. The DUSR process consisted of evaluating the analytical data package produced by Phoenix and answering the following questions.

## **1.** Were there any deviations in the sampling protocol which deviated from established sampling procedures?

The air samples were collected in laboratory provided individually certified, 6-liter Summa<sup>®</sup> canisters equipped with individually certified flow regulators. The regulators were calibrated by the laboratory for a sampling period of 8 hours; this sampling duration was chosen in

accordance with NYSDOH guidance for indoor air sampling of a commercial workspace with a single shift, to reflect the typical exposure scenario. The regulators served to maintain flow rates below the required maximum rate of 0.2 liters (200 milliliters) per minute during the sampling period to minimize outdoor air infiltration.

## 2. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables?

The sampling and analytical program outlined in *Building 700 Indoor Air Quality Testing Plan* was designed to conform to the NYSDEC ASP Category B and USEPA CLP deliverables criteria. Both field sampling and laboratory analytical activities were performed with built-in QA/QC programs. Duplicate samples were collected at a minimum of one (1) sample per ten (10) samples collected. The analytical laboratory (Phoenix) included method blanks and batch QA/QC samples as part of their standard QA/QC program. Additionally, the samples were handled in compliance with the holding time allowances.

### 3. Have all holding times been met?

Times of sample receipt, extraction, and analysis have been evaluated to determine whether the holding time specifications have been met. All of the samples were analyzed within the specified holding times.

# 4. Do all QC data (blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls, and sample data) fall within the protocol-required limits and specifications?

All of the primary sample and QC data were reviewed. Duplicate sample analysis demonstrated a reasonable level of accuracy in the analytical results, and all of the QA/QC data met the protocol-required criteria with the exception as noted below.

• 1,2,4 Trichlorobenzene did not meet the maximum percent deviation criteria for the continuing calibration sample.

In summary, although one continuing calibration sample analyte did not meet the acceptance criteria, all other QA/QC acceptance criteria was meet and the reliability of the laboratory results should not be affected.

5. Have all the data been generated using established and agreed upon analytical protocols?

Laboratory analytical protocols have been developed by the USEPA and are published in USEPA Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air: Method TO-15 (Second Edition, January 1999). The review of the laboratory deliverables indicated that the analytical data for this project was generated following these standard protocols.

## 6. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?

An evaluation of the raw data confirmed the accuracy of the results provided in the data summary sheets and the quality control verification forms included in the analytical data package prepared by the laboratory.

### 7. Have the correct data qualifiers been used?

The laboratory provided a list of qualifiers used in their data reporting. QC failures such as potential sample contamination by laboratory solvents or estimation of sample result values due to analyte concentrations detected above calibration ranges were checked back to the reported data to determine whether the qualifiers were properly used. The evaluation indicated that the laboratory flagged the data using the correct data qualifiers when necessary. The data qualifiers comply with the NYSDEC Analytical Services Protocol (ASP) 95 revised guidelines.

### 8. Have the minimum reporting limits been met?

The minimum reporting limits specified in the NYSDEC approved "*Indoor Air Quality Testing Plan*" are as follows:

ANALYTE LIST	MINIMUM REPORTING LIMIT (ug/m <sup>3</sup> )
1,1,1-Trichloroethane	1.1
1,1-Dichloroethene	0.8
1,2,4-Trichlorobenzene	7.4
1,2-Dichlorobenzene	1.2
1,3-Dichlorobenzene	1.2
1,4-Dichlorobenzene	1.2
Acetone	2.4
Benzene	0.64
Carbon Tetrachloride	0.2
Chlorobenzene	0.92
Cis-1,2-Dichloroethene	0.8
Dichlorodifluoromethane	1.0

Ethylbenzene	0.86
m,p-Xylene	0.86
Methylene Chloride	1.4
o-Xylene	0.86
Tetrachloroethene	1.4
Toluene	0.77
Trichloroethene	0.22
Trichlorofluoromethane	1.1
Trichlorotrifluoroethane	1.5
Vinyl Chloride	0.06

All reportable VOCs meet the minimum required reporting limits for all samples collected at Building 700 on August 26, 2019.

### **Summary**

In summary, the analytical data package review conducted when preparing this DUSR found no data deficiencies, analytical protocol deviations, or quality control problems that impact the quality of the data. No significant QC exceedances were identified and it was determined that none of the data should be rejected.

Prepared by:

Lawrence Zeman

Z/\iPark0118\iPark0118.33 - Crepini IAQ\DUSR\Data Usability Summary Report.docx

Attachment A

**Resume of Environmental Professional** 



### EDUCATION

B.A. Biology, Minor in Chemistry Queens College

#### LICENSES/ CERTIFICATIONS

New York State ELAP Laboratory Director

New York State ELAP Laboratory Microbiology Assistant Director

New York Department of Health Laboratory Technologist

OSHA HAZWOPER 40-hour & OSHA 10-hour Certified

### Lawrence F. Zeman Project Scientist II



Lawrence has 20 years of environmental and lab consulting experience, taking on difficult laboratory issues and QA/QC. He is very well versed in areas as diverse as regulatory compliance, test protocol development and implementation, management of instrument repair and maintenance, field inspections and on-site audits, correlation studies of various analyses and engineering/technical reporting.

#### SELECTED RELEVANT EXPERIENCE

#### Various Clients, New York

 Performed sample collection of various sample types at industrial facilities and construction & remediation project sites;
Conducted soil sample collection, field activities oversight and continuous

air monitoring for Community Air Monitoring Program (CAMP) in accordance with DER-10 as follows:

- Elmhurst Tank Park & Playground, Queens, NY (2009 2011);
- Calvert Vaux Park and Athletic Fields, Brooklyn, NY (2009 2011), as an Independent Environmental Monitor (IEM) on-site technician;
- Harlem Rive Greenway, Bronx, NY (2011 2012);
- Beach Channel H.S. Athletic Fields (2016);
- P.S. 63M William McKinley School, Manhattan, NY (2016);
- P.S. 131 Abigail Adams Public School, Queens, NY (2017);
- Forest Hills High School, Queens, NY (2017)
- Developed and implemented new testing protocols and test procedures;
- Conducted instrumentation repair and scheduled maintenance;
- Conducted correlation studies of various analytic procedures;
- Verified laboratory Quality Assurance and Quality Control procedures and data;
- Responsible for regulatory compliance and quality control;
- Prepared and submitted facilities' annual Zoning Performance Standards Compliance Reports, including noise, vibration, odor and opacity testing for DSNY permit renewal;
- Provided environmental services to ensure compliance for facility's NYS DEC Title V Air Facility Permit. Completed monthly, semi-annual and annual compliance reports;
- Conducted field Inspections and on-site audits;
- Preformed field measurements and recording of Noise and Vibration;
- Prepared Engineering & Technical Reports;
- Prepared New York City Community Right-To-Know Law and SARA reports for Industrial facilities