FIELD SAMPLING TEST REPORT	
Customer Information	UL VERIFICATION SERVICES, INC. LST.FAI.HBDCResults@ul.com 3251 Old Lee Highway, Suite 100 Fairfax VA 22030 USA
HB Project Number	2010030NY_B11_D5
Date Received	November 6, 2020
Testing Laboratory Location	UL Environment - Marietta, 2211 Newmarket Parkway, Marietta, GA 30067-9399 USA
Method	USEPA Compendium Method TO-17 ; ASTM 6196
Authorized by	 Allyson M. McFry Chemistry Laboratory Director

Sampling: Reported data were obtained from samples and sampling information as provided by the on-site investigator. These data and general information are provided to assist the investigator in an overall IAQ assessment. Interpretation of data is left to the client or persons who conducted the field work.

This test is accredited and meets the requirements of ISO/IEC 17025 as verified by ANSI National Accreditation Board. Refer to certificate and scope of accreditation AT-1297.

Date Issued: November 23, 2020
Product #: 1001079085-3445030
Report #: 1001079085-3445030

UL ID:	SV1TFDF
Sample Date:	November 4, 2020
Volume (L):	18.0

CONCENTRATIONS OF TOTAL AND INDIVIDUAL VOLATILE ORGANIC COMPOUNDS

Sample Location/Description	B11_D5_BR_04_Field Blank
Total Volatile Organic Compounds	BQL

CAS Number	Compound	Concentration	
		µg/m³	ppb
---	none	---	---

Date Issued: November 23, 2020
Product #: 1001079085-3445030
Report #: 1001079085-3445030

UL ID:	SV1TFD
Sample Date:	November 4, 2020
Volume (L):	18.2

CONCENTRATIONS OF TOTAL AND INDIVIDUAL VOLATILE ORGANIC COMPOUNDS

Sample Location/Description	B11_D5_BR_04_AM
Total Volatile Organic Compounds	57.7 µg/m³

CAS Number	**Compound**	**Concentration**	
		µg/m³	**ppb**
100-42-5	Styrene	11.1	2.6
71-43-2	Benzene	9.6	3.0
116-09-6	2-Propanone, 1-hydroxy	7.8	2.6
541-02-6	Cyclopentasiloxane, decamethyl	4.5	0.3
91-20-3	Naphthalene	4.3	0.8
19549-87-2	1-Heptene, 2,4-dimethyl*	3.6	0.7
25265-77-4	2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate	2.9	0.3
108-88-3	Toluene (Methylbenzene)	2.5	0.7
120-92-3	Cyclopentanone	2.5	0.7
66-25-1	Hexanal	2.4	0.6
98-01-1	Furfural (2-Furaldehyde)	2.4	0.6
141-32-2	Butyl acrylate (2-Propenoic Acid, butyl ester)	2.0	0.4
53957-33-8	Benzenemethanol, 2,5-dimethyl-*	2.0	0.4

UL ID:	SV2TFD
Sample Date:	November 4, 2020
Volume (L):	18.6

CONCENTRATIONS OF TOTAL AND INDIVIDUAL VOLATILE ORGANIC COMPOUNDS

Sample Location/Description	B11-D5_BR_04_60_AM
Total Volatile Organic Compounds	158 µg/m³

CAS Number	**Compound**	**Concentration**	
		µg/m³	**ppb**
100-42-5	Styrene	27.5	6.5
541-02-6	Cyclopentasiloxane, decamethyl	20.5	1.3
116-09-6	2-Propanone, 1-hydroxy	11.3	3.7
71-43-2	Benzene	7.9	2.5
91-20-3	Naphthalene	7.7	1.5
19549-87-2	1-Heptene, 2,4-dimethyl*	6.8	1.3
66-25-1	Hexanal	6.4	1.6
64-19-7	Acetic acid	6.3	2.6
108-88-3	Toluene (Methylbenzene)	6.3	1.7
25265-77-4	2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate	5.2	0.6
80-62-6	Methyl methacrylate (2-Propenoic acid, 2-methyl-, methyl ester)	4.8	1.2
80-56-8	Pinene, alpha (2,6,6-Trimethyl-bicyclo[3.1.1]hept-2-ene)	4.6	0.8
590-86-3	Butanal, 3-methyl*	4.6	1.3
7287-82-3	1-(2-Methylphenyl)ethanol*	4.6	0.8
71-36-3	1-Butanol (N-Butyl alcohol)	4.4	1.4
98-01-1	Furfural (2-Furaldehyde)	4.4	1.1
141-32-2	Butyl acrylate (2-Propenoic Acid, butyl ester)	4.4	0.8
120-92-3	Cyclopentanone	3.6	1.0
95-13-6	Indene*	3.3	0.7
100-41-4	Benzene, ethyl	2.9	0.7
71-41-0	1-Pentanol (N-Pentyl alcohol)	2.7	0.7
1330-20-7	Xylenes (Total)	2.6	0.6
100-47-0	Benzonitrile	2.5	0.6
5877-42-9	1-Octyn-3-ol, 4-ethyl*	2.4	0.4
5989-27-5	D-Limonene*	2.4	0.4
98-56-6	Benzene, 1-chloro-4-(trifluoromethyl)-*	2.2	0.3
100-52-7	Benzaldehyde	2.0	0.5

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UL ID:	SV3TFD
Sample Date:	November 4, 2020
Volume (L):	18.2

CONCENTRATIONS OF TOTAL AND INDIVIDUAL VOLATILE ORGANIC COMPOUNDS

Sample Location/Description	B11_D5_BR_04_PM
Total Volatile Organic Compounds	126 µg/m³

CAS Number	Compound	Concentration	
		µg/m³	ppb
64-19-7	Acetic acid	15.2	6.2
116-09-6	2-Propanone, 1-hydroxy	14.7	4.9
98-01-1	Furfural (2-Furaldehyde)	12.7	3.2
25265-77-4	2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate	12.0	1.4
91-20-3	Naphthalene	10.4	2.0
108-05-4	Acetate, vinyl (Acetic acid ethenyl ester)	8.4	2.4
100-52-7	Benzaldehyde	6.4	1.5
108-95-2	Phenol	5.9	1.5
96-07-1	Cyclohexanol, 2-(1-methylethyl)-*	5.6	1.0
80-56-8	Pinene, alpha (2,6,6-Trimethyl-bicyclo[3.1.1]hept-2-ene)	5.3	1.0
120-92-3	Cyclopentanone	5.2	1.5
66-25-1	Hexanal	4.8	1.2
100-42-5	Styrene	4.5	1.1
141-32-2	Butyl acrylate (2-Propenoic Acid, butyl ester)	3.9	0.8
71-36-3	1-Butanol (N-Butyl alcohol)	3.4	1.1
106-44-5	Phenol, 4-methyl (p-Cresol)*	3.2	0.7
3073-92-5	Butane, 1-propoxy*	3.2	0.7
71-41-0	1-Pentanol (N-Pentyl alcohol)	3.2	0.9
98-86-2	Acetophenone (Ethanone, 1-phenyl)*	3.2	0.6
103495-51-8	Tricyclo[3.1.0.0(2,4)]hex-3-ene-3-carbonitrile*	2.5	0.6
71-43-2	Benzene	2.5	0.8
95-48-7	Phenol, 2-methyl*	2.4	0.5
108-88-3	Toluene (Methylbenzene)	2.3	0.6
127-91-3	Pinene, beta (6,6-Dimethyl-2-methylene-bicyclo[3.1.1]heptane)	2.3	0.4
33240-56-1	Hexane, 1-chloro-5-methyl*	2.2	0.4
110-62-3	Pentanal	2.2	0.6
93-51-6	Phenol, 2-methoxy-4-methyl*	2.1	0.4
67-64-1	Acetone	2.0	0.8

Date Issued: November 23, 2020
Product #: 1001079085-3445030
Report #: 1001079085-3445030

UL ID:	SV4TFD
Sample Date:	November 4, 2020
Volume (L):	18.1

CONCENTRATIONS OF TOTAL AND INDIVIDUAL VOLATILE ORGANIC COMPOUNDS

Sample Location/Description	B11_D5_BR_04_60_PM
Total Volatile Organic Compounds	101 µg/m³

CAS Number	Compound	Concentration	
		µg/m³	ppb
100-42-5	Styrene	19.6	4.6
116-09-6	2-Propanone, 1-hydroxy	8.8	2.9
541-02-6	Cyclopentasiloxane, decamethyl	7.3	0.5
64-19-7	Acetic acid	7.0	2.9
91-20-3	Naphthalene	6.8	1.3
66-25-1	Hexanal	4.9	1.2
71-43-2	Benzene	4.8	1.5
19549-87-2	1-Heptene, 2,4-dimethyl*	4.8	0.9
108-88-3	Toluene (Methylbenzene)	4.3	1.1
25265-77-4	2,2,4-Trimethyl-1,3-pentanediol monoisobutyrate	4.1	0.5
120-92-3	Cyclopentanone	3.6	1.0
7287-82-3	1-(2-Methylphenyl)ethanol*	3.4	0.6
98-01-1	Furfural (2-Furaldehyde)	3.4	0.9
80-62-6	Methyl methacrylate (2-Propenoic acid, 2-methyl-, methyl ester)	3.2	0.8
141-32-2	Butyl acrylate (2-Propenoic Acid, butyl ester)	3.2	0.6
80-56-8	Pinene, alpha (2,6,6-Trimethyl-bicyclo[3.1.1]hept-2-ene)	2.7	0.5
590-86-3	Butanal, 3-methyl*	2.5	0.7
71-36-3	1-Butanol (N-Butyl alcohol)	2.5	0.8
95-13-6	Indene*	2.3	0.5
100-41-4	Benzene, ethyl	2.3	0.5
1330-20-7	Xylenes (Total)	2.1	0.5
98-56-6	Benzene, 1-chloro-4-(trifluoromethyl)-*	2.1	0.3
5989-27-5	D-Limonene*	2.1	0.4

Individual compounds and TVOC (total volatile organic compounds) are calibrated relative to toluene.

Field Blanks: Reported concentrations based on 18.0 L of volume sampled for VOCs. Actual field blanks are not intended to have a measurable amount of air sampled.

†Denotes quantified using multipoint authentic standard curve. Other VOCs quantified relative to toluene.

Values below 2.0 µg/m³ are for information purposes only. Chemical was detected, but below the quantifiable level of 0.04 µg based on a standard of 18 L air collection volume.

UL Environment's quality assurance program monitors blank sorbent media to ensure that the residual background does not exceed UL Environment's quality objective of ≤ 36 ng of total VOC.

Date Issued: November 23, 2020
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Project # 2010030NY_B11_D5

1001079085-3445030

ACTIVE CHEMICAL SAMPLING CHAIN OF CUSTODY

Company: ULVS (Healthy Buildings)	Contact: CARESULTS@UL.COM	Project/P.O./Job Number: 2010030NY_B11_D5
Address: 3251 Old Lee Highway #100 Fairfax, VA 22030	Phone: 571.655.7919 Fax: 703.323.4440	Sample Date: 04 Nov 2020 Investigator: SAM.HORNER

Please check the appropriate fields; Use separate COC for each sample method.

VOLATILE ORGANICS: IVOC SCAN: _____ TOP 20 IVOC _____ TVOC ONLY _____ OTHER B.T.E.X.

ALDEHYDE SCAN: _____ FORMALDEHYDE ONLY _____ | **ANALYSIS: LEED V4 ___ LEED V4.1 ___ OTHER B.T.E.X.**

TAT: Standard __X__ Next Day Rush*_____ * Rush charges apply; please call in advance to confirm availability

Comments: One (1) Week TAT Please – Looking for results by COB Friday November 13th. Thank you

UL ID	SAMPLE ID/ TUBE ID	SAMPLE LOCATION/ DESCRIPTION	START TIME	STOP TIME	TIME SAMPLED (MIN)	PUMP ID #	FLOW RATE (L/MIN)	VOLUME (L)
V01	2010030NY-11P/ s/n B26473	B11_D5_BR_04_AM	08:41	12:41	240	2018	0.075965	18.2316
V02	2010030NY-11Q/ s/n B26166	B11_D5_BR_04_60_AM	08:25	09:25	60	5116	0.304975	18.60348
V03	2010030NY-11R s/n B26562	B11_D5_BR_04_PM	12:55	16:55	240	2018	0.075965	18.2316
V04	2010030NY-11S/ s/n B26990	B11_D5_BR_04_60_PM	09:14	10:14	60	4257	0.30131	18.0786
V01F	2001030NY-11T/ s/n B27006	B11_D5_BR_04_Field Blank						n/a

Released By: SAM.HORNER (Print/Sign)	Date/Time: 05Nov2020	Method of Shipment: UPS Next D
Received By:	Date/Time: 11/6/20 10:25 AM	Sample Condition: Acceptable

3445030

3445030

Description: 2010030NY_B11_D5

Customer: UL Verification Services, Inc.

Received Date: 2020-NOV-06 12:51:56 PM

Aurora Project No.: 1001079085
Order No.:
Oracle Project No.:

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Date Issued: November 23, 2020
Product #: 1001079085-3445030
Report #: 1001079085-3445030