



September 1, 2020

CITY OF MANITOWOC  
ATTN: GREG MINIKEL  
900 QUAY ST  
MANITOWOC WI 54220

Subject: Notification of Sewer Lateral Vapor Sampling Results  
WI DOT – Susie’s Restaurant (Former) – LGU - SL, 1020 S. 26<sup>th</sup> Street, Manitowoc, WI  
BRRTS #: 02-36-000516

Dear Mr. Minikel:

Please find the attached results from the July 29, 2020 vapor sampling in five sewer manholes (MH 7-149, MH 7-150, MH 7-159, MH 7-162, and MH 7-179) located in the 24<sup>th</sup> Street, 25<sup>th</sup> Street, 26<sup>th</sup> Street, Marshall Street rights-of-way. The sewers were sampled as part of the investigation for the Susie’s Restaurant (Former) – LGU - SL site. The samples were collected by SCS Engineers, a consultant hired by the Department of Natural Resources (DNR) for the work associated with the WI DOT – Susie’s Restaurant (Former) – LGU – SL site. The samples collected were analyzed for the following chlorinated volatile organic compounds (CVOCs); cis-1,2-dichloroethene, trans-1,2-dichloroethene, tetrachloroethene, and vinyl chloride.

Each of the five sewer vapor samples had detections of at least some of the above-mentioned CVOCs, but all detections were below the applicable Vapor Risk Screening Levels, which are the standards used to assess the severity of the vapor concentrations. These samples show that the sewers upgradient from the site are not currently significantly impacted by CVOCs, and there doesn’t appear to be an upgradient source contributing to the sanitary sewer. Please refer to the attached laboratory analytical report and Table 4 Sanitary Sewer Vapor Analytical Results Summary for the results.

If you have any questions regarding the results or this letter, please contact me at (920) 510-9482 or by email at [ColinR.Schmenk@Wisconsin.gov](mailto:ColinR.Schmenk@Wisconsin.gov).

Sincerely,

Colin Schmenk  
Hydrogeologist  
Remediation & Redevelopment Program  
Wisconsin Department of Natural Resources

Att. Report of Laboratory Analysis  
Table 4. Sanitary Sewer Vapor Analytical Results Summary

cc: Greg Minikel, City of Manitowoc ([gminikel@manitowoc.org](mailto:gminikel@manitowoc.org))

**Table 4. Sanitary Sewer Vapor Analytical Results Summary**  
**Susie's Restaurant - Manitowoc, Wisconsin / SCS Engineers Project #25219179.00**  
 (Results are in µg/m<sup>3</sup>)

Sample	Location	Date	Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride	Other VOCs
CAS #	--	--	127-18-4	79-01-6	156-59-2	156-60-5	75-01-4	
MH 7-139	Intersection S. 26th & Washington	12/3/2019	12.9	7.9	6.1	1.3 J	<0.25	NA
MH 7-142	Intersection S. 26th & Custer	12/3/2019	43.4	<b>74.0</b>	37.3	8.4	1.9	NA
MH 7-143	Intersection S. 25th & Washington	12/3/2019	<0.59	<0.47	<0.41	<0.53	<0.24	NA
MH 7-146	Median Between Custer and Calumet	12/3/2019	41.9	<0.49	<0.42	<0.55	<0.24	NA
MH 7-149	Intersection S. 26th & Marshall	12/3/2019	2.3	<b>371</b>	179	38.0	7.7	NA
		7/29/2020	3.9	51.7	44.6	7.9	0.87	NA
MH 7-150	Between of 1121 & 1122 S. 26th	7/29/2020	<0.52	2.9	1.3 J	0.34 J	<0.18	NA
MH 7-159	Intersection S. 25th & Marshall	7/29/2020	0.57 J	5.5	0.62 J	0.75 J	<0.17	NA
MH 7-162	Between 1122 & 1123 S. 25th	7/29/2020	1.2	<0.28	<0.26	<0.27	<0.16	NA
MH 7-179	Intersection S. 24th & Marshall	7/29/2020	1.8	0.58 J	<0.28	<0.29	<0.17	NA
Residential Sub-Slab Vapor Risk Screening Level			1,400	70	NE	NE	57	
Small Commercial Sub-Slab Vapor Risk Screening Level			6,000	290	NE	NE	930	

Abbreviations:

µg/m<sup>3</sup> = micrograms per cubic meter of air  
 CAS # = Chemical Abstracts Service Number

trans-1,2-DCE = trans-1,2-dichloroethylene  
 cis-1,2-DCE = cis-1,2-dichloroethylene

NE = No Established Vapor Risk Screening Level  
 NA = Not Analyzed

Notes:

1. Samples were collected in 1-liter summa canisters over 5-minute period and analyzed using the US EPA TO-15 analytical method.
2. Indoor air Vapor Action Levels (VALs) and sub-slab Vapor Risk Screening Levels (VRSLs) from Wisconsin Department of Natural Resources (WDNR) WI Vapor Quick Look-Up Table, Based on November 2017 US EPA Regional Screening Levels.
3. **Underlined** values meet or exceed residential sub-slab VRSLs.
4. **Underlined and Bolded** values meet or exceed small commercial sub-slab VRSLs.

12/3/2019 and 7/29/2020 samples collected by SCS Engineers.

Laboratory Notes/Qualifiers:

J = Estimated concentration at or above the LOD and below the LOQ.

Created by:	LMH	Date:	12/20/2019
Last Rev by:	LMH	Date:	8/12/2020
Checked by:	JSN	Date:	8/12/2020
Proj Mgr QA/QC:	REL	Date:	8/20/2020

I:\25219179.00\Data and Calculations\Tables\[Table 1 - Groundwater Analytical Results Summary.xlsx]Revision History

August 07, 2020

Rob Langdon  
SCS Engineers  
2830 Dairy Dr.  
Madison, WI 53718

RE: Project: 25219179.00 Susie's Restaurant  
Pace Project No.: 10526973

Dear Rob Langdon:

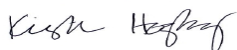
Enclosed are the analytical results for sample(s) received by the laboratory on July 31, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kirsten Hogberg  
kirsten.hogberg@pacelabs.com  
(612)607-1700  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 25219179.00 Susie's Restaurant

Pace Project No.: 10526973

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### **Pace Analytical Services - Minneapolis MN**

A2LA Certification #: 2926.01	Minnesota Petrofund Certification #: 1240
Alabama Certification #: 40770	Mississippi Certification #: MN00064
Alaska Contaminated Sites Certification #: 17-009	Missouri Certification #: 10100
Alaska DW Certification #: MN00064	Montana Certification #: CERT0092
Arizona Certification #: AZ0014	Nebraska Certification #: NE-OS-18-06
Arkansas DW Certification #: MN00064	Nevada Certification #: MN00064
Arkansas WW Certification #: 88-0680	New Hampshire Certification #: 2081
California Certification #: 2929	New Jersey Certification #: MN002
CNMI Saipan Certification #: MP0003	New York Certification #: 11647
Colorado Certification #: MN00064	North Carolina DW Certification #: 27700
Connecticut Certification #: PH-0256	North Carolina WW Certification #: 530
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137	North Dakota Certification #: R-036
Florida Certification #: E87605	Ohio DW Certification #: 41244
Georgia Certification #: 959	Ohio VAP Certification #: CL101
Guam EPA Certification #: MN00064	Oklahoma Certification #: 9507
Hawaii Certification #: MN00064	Oregon Primary Certification #: MN300001
Idaho Certification #: MN00064	Oregon Secondary Certification #: MN200001
Illinois Certification #: 200011	Pennsylvania Certification #: 68-00563
Indiana Certification #: C-MN-01	Puerto Rico Certification #: MN00064
Iowa Certification #: 368	South Carolina Certification #: 74003001
Kansas Certification #: E-10167	Tennessee Certification #: TN02818
Kentucky DW Certification #: 90062	Texas Certification #: T104704192
Kentucky WW Certification #: 90062	Utah Certification #: MN00064
Louisiana DEQ Certification #: 03086	Vermont Certification #: VT-027053137
Louisiana DW Certification #: MN00064	Virginia Certification #: 460163
Maine Certification #: MN00064	Washington Certification #: C486
Maryland Certification #: 322	West Virginia DEP Certification #: 382
Massachusetts DWP Certification #: via MN 027-053-137	West Virginia DW Certification #: 9952 C
Michigan Certification #: 9909	Wisconsin Certification #: 999407970
Minnesota Certification #: 027-053-137	Wyoming UST Certification #: via A2LA 2926.01
Minnesota Dept of Ag Certification #: via MN 027-053-137	

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 25219179.00 Susie's Restaurant

Pace Project No.: 10526973

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10526973001	MH 7-162	Air	07/29/20 11:06	07/31/20 11:00
10526973002	MH 7-150	Air	07/29/20 10:47	07/31/20 11:00
10526973003	MH 7-149	Air	07/29/20 11:30	07/31/20 11:00
10526973004	MH 7-179	Air	07/29/20 11:57	07/31/20 11:00
10526973005	MH 7-159	Air	07/29/20 12:21	07/31/20 11:00
10526973006	Unused Can #1084	Air	07/29/20 00:00	07/31/20 11:00

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### SAMPLE ANALYTE COUNT

Project: 25219179.00 Susie's Restaurant

Pace Project No.: 10526973

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10526973001	MH 7-162	TO-15	MJL	5	PASI-M
10526973002	MH 7-150	TO-15	AFV	5	PASI-M
10526973003	MH 7-149	TO-15	AFV	5	PASI-M
10526973004	MH 7-179	TO-15	MJL	5	PASI-M
10526973005	MH 7-159	TO-15	MJL	5	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 25219179.00 Susie's Restaurant

Pace Project No.: 10526973

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>10526973001</b>	<b>MH 7-162</b>					
TO-15	Tetrachloroethene	1.2	ug/m3	1.1	08/04/20 15:29	
<b>10526973002</b>	<b>MH 7-150</b>					
TO-15	cis-1,2-Dichloroethene	1.3J	ug/m3	1.5	08/04/20 05:30	
TO-15	trans-1,2-Dichloroethene	0.34J	ug/m3	1.5	08/04/20 05:30	
TO-15	Trichloroethene	2.9	ug/m3	1.0	08/04/20 05:30	
<b>10526973003</b>	<b>MH 7-149</b>					
TO-15	cis-1,2-Dichloroethene	44.6	ug/m3	1.4	08/04/20 06:05	
TO-15	trans-1,2-Dichloroethene	7.9	ug/m3	1.4	08/04/20 06:05	
TO-15	Tetrachloroethene	3.9	ug/m3	1.2	08/04/20 06:05	
TO-15	Trichloroethene	51.7	ug/m3	0.96	08/04/20 06:05	
TO-15	Vinyl chloride	0.87	ug/m3	0.46	08/04/20 06:05	
<b>10526973004</b>	<b>MH 7-179</b>					
TO-15	Tetrachloroethene	1.8	ug/m3	1.2	08/04/20 15:02	
TO-15	Trichloroethene	0.58J	ug/m3	0.93	08/04/20 15:02	
<b>10526973005</b>	<b>MH 7-159</b>					
TO-15	cis-1,2-Dichloroethene	0.62J	ug/m3	1.4	08/04/20 14:36	
TO-15	trans-1,2-Dichloroethene	0.75J	ug/m3	1.4	08/04/20 14:36	
TO-15	Tetrachloroethene	0.57J	ug/m3	1.2	08/04/20 14:36	
TO-15	Trichloroethene	5.5	ug/m3	0.92	08/04/20 14:36	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 25219179.00 Susie's Restaurant

Pace Project No.: 10526973

Sample: MH 7-162      Lab ID: 10526973001      Collected: 07/29/20 11:06      Received: 07/31/20 11:00      Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR      Analytical Method: TO-15 Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	<0.26	ug/m3	1.3	0.26	1.61		08/04/20 15:29	156-59-2	
trans-1,2-Dichloroethene	<0.27	ug/m3	1.3	0.27	1.61		08/04/20 15:29	156-60-5	
Tetrachloroethene	1.2	ug/m3	1.1	0.46	1.61		08/04/20 15:29	127-18-4	
Trichloroethene	<0.28	ug/m3	0.88	0.28	1.61		08/04/20 15:29	79-01-6	
Vinyl chloride	<0.16	ug/m3	0.42	0.16	1.61		08/04/20 15:29	75-01-4	

Sample: MH 7-150      Lab ID: 10526973002      Collected: 07/29/20 10:47      Received: 07/31/20 11:00      Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR      Analytical Method: TO-15 Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	1.3J	ug/m3	1.5	0.29	1.83		08/04/20 05:30	156-59-2	
trans-1,2-Dichloroethene	0.34J	ug/m3	1.5	0.31	1.83		08/04/20 05:30	156-60-5	
Tetrachloroethene	<0.52	ug/m3	1.3	0.52	1.83		08/04/20 05:30	127-18-4	
Trichloroethene	2.9	ug/m3	1.0	0.32	1.83		08/04/20 05:30	79-01-6	
Vinyl chloride	<0.18	ug/m3	0.48	0.18	1.83		08/04/20 05:30	75-01-4	

Sample: MH 7-149      Lab ID: 10526973003      Collected: 07/29/20 11:30      Received: 07/31/20 11:00      Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR      Analytical Method: TO-15 Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	44.6	ug/m3	1.4	0.28	1.75		08/04/20 06:05	156-59-2	
trans-1,2-Dichloroethene	7.9	ug/m3	1.4	0.29	1.75		08/04/20 06:05	156-60-5	
Tetrachloroethene	3.9	ug/m3	1.2	0.50	1.75		08/04/20 06:05	127-18-4	
Trichloroethene	51.7	ug/m3	0.96	0.31	1.75		08/04/20 06:05	79-01-6	
Vinyl chloride	0.87	ug/m3	0.46	0.18	1.75		08/04/20 06:05	75-01-4	

Sample: MH 7-179      Lab ID: 10526973004      Collected: 07/29/20 11:57      Received: 07/31/20 11:00      Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR      Analytical Method: TO-15 Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	<0.28	ug/m3	1.4	0.28	1.71		08/04/20 15:02	156-59-2	
trans-1,2-Dichloroethene	<0.29	ug/m3	1.4	0.29	1.71		08/04/20 15:02	156-60-5	
Tetrachloroethene	1.8	ug/m3	1.2	0.49	1.71		08/04/20 15:02	127-18-4	
Trichloroethene	0.58J	ug/m3	0.93	0.30	1.71		08/04/20 15:02	79-01-6	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 25219179.00 Susie's Restaurant

Pace Project No.: 10526973

**Sample: MH 7-179**      **Lab ID: 10526973004**      Collected: 07/29/20 11:57      Received: 07/31/20 11:00      Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15 Pace Analytical Services - Minneapolis									
Vinyl chloride	<0.17	ug/m3	0.44	0.17	1.71		08/04/20 15:02	75-01-4	

**Sample: MH 7-159**      **Lab ID: 10526973005**      Collected: 07/29/20 12:21      Received: 07/31/20 11:00      Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15 Pace Analytical Services - Minneapolis									
cis-1,2-Dichloroethene	<b>0.62J</b>	ug/m3	1.4	0.27	1.68		08/04/20 14:36	156-59-2	
trans-1,2-Dichloroethene	<b>0.75J</b>	ug/m3	1.4	0.28	1.68		08/04/20 14:36	156-60-5	
Tetrachloroethene	<b>0.57J</b>	ug/m3	1.2	0.48	1.68		08/04/20 14:36	127-18-4	
Trichloroethene	<b>5.5</b>	ug/m3	0.92	0.30	1.68		08/04/20 14:36	79-01-6	
Vinyl chloride	<0.17	ug/m3	0.44	0.17	1.68		08/04/20 14:36	75-01-4	

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### QUALITY CONTROL DATA

Project: 25219179.00 Susie's Restaurant  
Pace Project No.: 10526973

QC Batch: 690501 Analysis Method: TO-15  
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level  
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10526973002, 10526973003

METHOD BLANK: 3692220 Matrix: Air  
Associated Lab Samples: 10526973002, 10526973003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.080	0.40	08/03/20 18:56	
Tetrachloroethene	ug/m3	<0.14	0.34	08/03/20 18:56	
trans-1,2-Dichloroethene	ug/m3	<0.084	0.40	08/03/20 18:56	
Trichloroethene	ug/m3	<0.088	0.27	08/03/20 18:56	
Vinyl chloride	ug/m3	<0.050	0.13	08/03/20 18:56	

LABORATORY CONTROL SAMPLE: 3692221

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	41.8	44.6	107	70-132	
Tetrachloroethene	ug/m3	74.9	72.2	96	70-136	
trans-1,2-Dichloroethene	ug/m3	41.9	43.5	104	70-132	
Trichloroethene	ug/m3	56.7	56.3	99	70-132	
Vinyl chloride	ug/m3	28.5	25.8	90	68-141	

SAMPLE DUPLICATE: 3692662

Parameter	Units	10526910001 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.22		25	
Tetrachloroethene	ug/m3	ND	0.43J		25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.23		25	
Trichloroethene	ug/m3	ND	<0.24		25	
Vinyl chloride	ug/m3	ND	<0.14		25	

SAMPLE DUPLICATE: 3692663

Parameter	Units	10526979001 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.22	<0.22		25	
Tetrachloroethene	ug/m3	1.3	1.3	3	25	
trans-1,2-Dichloroethene	ug/m3	<0.23	<0.23		25	
Trichloroethene	ug/m3	<0.24	<0.24		25	
Vinyl chloride	ug/m3	<0.14	<0.14		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 25219179.00 Susie's Restaurant

Pace Project No.: 10526973

QC Batch: 690656

Analysis Method: TO-15

QC Batch Method: TO-15

Analysis Description: TO15 MSV AIR Low Level

Laboratory:

Pace Analytical Services - Minneapolis

Associated Lab Samples: 10526973001, 10526973004, 10526973005

METHOD BLANK: 3692784

Matrix: Air

Associated Lab Samples: 10526973001, 10526973004, 10526973005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.080	0.40	08/04/20 08:54	
Tetrachloroethene	ug/m3	<0.14	0.34	08/04/20 08:54	
trans-1,2-Dichloroethene	ug/m3	0.090J	0.40	08/04/20 08:54	
Trichloroethene	ug/m3	<0.088	0.27	08/04/20 08:54	
Vinyl chloride	ug/m3	<0.050	0.13	08/04/20 08:54	

LABORATORY CONTROL SAMPLE: 3692785

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	41.6	41.6	100	70-132	
Tetrachloroethene	ug/m3	71	66.5	94	70-136	
trans-1,2-Dichloroethene	ug/m3	42.2	43.2	102	70-132	
Trichloroethene	ug/m3	56.3	52.7	94	70-132	
Vinyl chloride	ug/m3	26.7	31.6	119	68-141	

SAMPLE DUPLICATE: 3693761

Parameter	Units	10526924003 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.34		25	
Tetrachloroethene	ug/m3	ND	<0.61		25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.36		25	
Trichloroethene	ug/m3	ND	<0.37		25	
Vinyl chloride	ug/m3	ND	<0.21		25	

SAMPLE DUPLICATE: 3693762

Parameter	Units	10527077003 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.27		25	
Tetrachloroethene	ug/m3	ND	<0.48		25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.28		25	
Trichloroethene	ug/m3	ND	<0.30		25	
Vinyl chloride	ug/m3	ND	<0.17		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: 25219179.00 Susie's Restaurant

Pace Project No.: 10526973

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 25219179.00 Susie's Restaurant

Pace Project No.: 10526973

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10526973001	MH 7-162	TO-15	690656		
10526973002	MH 7-150	TO-15	690501		
10526973003	MH 7-149	TO-15	690501		
10526973004	MH 7-179	TO-15	690656		
10526973005	MH 7-159	TO-15	690656		

**REPORT OF LABORATORY ANALYSIS**

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# AIR: CHAIN-OF-CUSTODY / A

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be filled out.

WO#: 10526973



10526973

<b>Section A</b> Required Client Information:	<b>Section B</b> Required Project Information:	<b>Section C</b> Invoice Information:	41446	Page: 1 of 1
Company: <u>SCS Engineers</u>	Report To: <u>Robert Langdon</u>	Attention: <u>Same</u>	Program <input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act <input type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input checked="" type="checkbox"/> Other	
Address: <u>2830 Dairy Dr Madison, WI 53718</u>	Copy To:	Company Name:		
Email To: <u>rlangdon@scsengineers.com</u>	Purchase Order No.:	Address:	Location of Sampling by State: <u>WI</u>	
Phone: <u>608.232.3945</u> Fax:	Project Name: <u>Susie's Restaurant</u>	Pace Quote Reference:	Reporting Units ug/m <sup>3</sup> mg/m <sup>3</sup> <input type="checkbox"/> PPBV <input checked="" type="checkbox"/> PPMV <input type="checkbox"/> Other <input type="checkbox"/>	
Requested Due Date/TAT: <u>Standard</u>	Project Number: <u>25219179.00</u>	Pace Profile #: <u>37630</u>	Report Level: <u>II</u> , <u>III</u> , <u>IV</u> , Other	

ITEM #	'Section D Required Client Information AIR SAMPLE ID Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE	PID Reading (Client only)	COLLECTED				Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	Method:							Pace Lab ID		
				COMPOSITE START		COMPOSITE - END/GRAB						PM10	3c - Fixed Gas (%)	TO-3 BTEX	TO-3M (Methane)	TO-14	TO-15 Full List VOCs	TO-15 Short List BTEX		TO-15 Short List Chlorinated	TO-15 Short List (Other)
				DATE	TIME	DATE	TIME														
1	MH 7-162	GC 328	7/29/20	1102	7/30/20	1106	29	5	1214	0905										001	
2	MH 7-150	335	↓	1017	↓	1047	29	10	3617	1561										002	
3	MH 7-149	436	↓	1125	↓	1130	29	6	2826	2837										003	
4	MH 7-179	265	↓	1154	↓	1157	29	5.5	2123	2114										004	
5	MH 7-159 <del>159</del> <sup>TBL MH 159</sup>	318	↓	1291	↓	1221	29	5	2673	1593										005	
6	Unused can								1084	2836											

Comments: \* Analyze for PCB, TCE, Cis 1,2 DCE, Trans 1,2 DCE, and vinyl chloride

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS				
Robert	7/30	1700	[Signature]	7/31/20	11:00	-	Y	Y	Y	Y
							Y/N	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N	Y/N

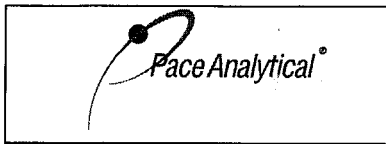
SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Robert Langdon

SIGNATURE of SAMPLER: [Signature] DATE Signed (MM/DD/YY): 7/30/20

Temp in °C: \_\_\_\_\_  
 Received on Ice: \_\_\_\_\_  
 Custody Sealed Cooler: \_\_\_\_\_  
 Samples Intact: \_\_\_\_\_

ORIGINAL



Document Name:  
**Sample Condition Upon Receipt (SCUR) - Air**

Document No.:  
**ENV-FRM-MIN4-0113 Rev.00**

Document Revised: 24Mar2020  
**Page 1 of 1**

Pace Analytical Services -  
**Minneapolis**

**Air Sample Condition Upon Receipt**

Client Name: SCS

Project #: **WO# : 10526973**

Courier:  Fed Ex  UPS  USPS  Client  
 Pace  Speedee  Commercial  See Exception

PM: KNH Due Date: 08/07/20  
 CLIENT: SCS Engineer

Tracking Number: 1723 2544 3269, 3270

Custody Seal on Cooler/Box Present?  Yes  No Seals Intact?  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  Foam  None  Tin Can  Other: \_\_\_\_\_ Temp Blank rec:  Yes  No

Temp. (TO17 and TO13 samples only) (°C): \_\_\_\_\_ Corrected Temp (°C): \_\_\_\_\_ Thermometer Used:  G87A9170600254  
 G87A9155100842

Temp should be above freezing to 6°C Correction Factor: \_\_\_\_\_ Date & Initials of Person Examining Contents: RG 7/31/20

Type of ice Received  Blue  Wet  None

**Comments:**

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used? (Tedlar bags not acceptable container for TO-14, TO-15 or APH)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact? (visual inspection/no leaks when pressurized)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Media: <u>Air Can</u> Airbag Filter TDT Passive		11. Individually Certified Cans Y <u>N</u> (list which samples)
Is sufficient information available to reconcile samples to the COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
Do cans need to be pressurized? (DO NOT PRESSURIZE 3C or ASTM 1946!!!)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13.

Gauge #  10AIR26  10AIR34  10AIR35  4097

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
162	1214	905	-5	+5					
150	3617	1561	-8	u					
149	2826	2837	-7	u					
179	2123	1114	-6.5	u					
159	2673	1593	-6	u					
unused	1084	2836	-30						

**CLIENT NOTIFICATION/RESOLUTION**

Field Data Required?  Yes  No

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

Project Manager Review: Kirsten Hopewell

Date: 7/31/2020

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

### ANALYTICAL RESULTS

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10526973  
 Project Name: 25219179.00 Susie's Restaurant

Lab Sample No: 10526973001  
 Client Sample ID: MH 7-162

ProjSampleNum: 10526973001  
 Matrix: Air

Date Collected: 07/29/20 11:06  
 Date Received: 07/31/20 11:00

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	<0.065	ppbv	0.32	1.61	08/04/20 15:29 MJL	156-59-2	
Tetrachloroethene	0.17	ppbv	0.16	1.61	08/04/20 15:29 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.067	ppbv	0.32	1.61	08/04/20 15:29 MJL	156-60-5	
Trichloroethene	<0.051	ppbv	0.16	1.61	08/04/20 15:29 MJL	79-01-6	
Vinyl chloride	<0.062	ppbv	0.16	1.61	08/04/20 15:29 MJL	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

### SUPPLEMENTAL REPORT Units Conversion Request





### ANALYTICAL RESULTS

Client: SCS Engineers      Lab Project Number: 10526973  
 Phone: 843.746.8525      Project Name: 25219179.00 Susie's Restaurant  
 Lab Sample No: 10526973002      ProjSampleNum: 10526973002      Date Collected: 07/29/20 10:47  
 Client Sample ID: MH 7-150      Matrix: Air      Date Received: 07/31/20 11:00

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	0.32J	ppbv	0.37	1.83	08/04/20 5:30 AFV	156-59-2	
Tetrachloroethene	<0.075	ppbv	0.19	1.83	08/04/20 5:30 AFV	127-18-4	
trans-1,2-Dichloroethene	0.084J	ppbv	0.37	1.83	08/04/20 5:30 AFV	156-60-5	
Trichloroethene	0.53	ppbv	0.18	1.83	08/04/20 5:30 AFV	79-01-6	
Vinyl chloride	<0.069	ppbv	0.18	1.83	08/04/20 5:30 AFV	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

### SUPPLEMENTAL REPORT Units Conversion Request



Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers Lab Project Number: 10526973  
 Phone: 843.746.8525 Project Name: 25219179.00 Susie's Restaurant  
 Lab Sample No: 10526973003 ProjSampleNum: 10526973003 Date Collected: 07/29/20 11:30  
 Client Sample ID: MH 7-149 Matrix: Air Date Received: 07/31/20 11:00

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	11.1	ppbv	0.35	1.75	08/04/20 6:05 AFV	156-59-2	
Tetrachloroethene	0.57	ppbv	0.17	1.75	08/04/20 6:05 AFV	127-18-4	
trans-1,2-Dichloroethene	2	ppbv	0.35	1.75	08/04/20 6:05 AFV	156-60-5	
Trichloroethene	9.5	ppbv	0.18	1.75	08/04/20 6:05 AFV	79-01-6	
Vinyl chloride	0.33	ppbv	0.18	1.75	08/04/20 6:05 AFV	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers  
 Phone: 843.746.8525

Lab Project Number: 10526973  
 Project Name: 25219179.00 Susie's Restaurant

Lab Sample No: 10526973004  
 Client Sample ID: MH 7-179

ProjSampleNum: 10526973004  
 Matrix: Air

Date Collected: 07/29/20 11:57  
 Date Received: 07/31/20 11:00

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
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**Air**  
 TO-15

cis-1,2-Dichloroethene	<0.069	ppbv	0.35	1.71	08/04/20 15:02 MJL	156-59-2	
Tetrachloroethene	0.26	ppbv	0.17	1.71	08/04/20 15:02 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.072	ppbv	0.35	1.71	08/04/20 15:02 MJL	156-60-5	
Trichloroethene	0.11J	ppbv	0.17	1.71	08/04/20 15:02 MJL	79-01-6	
Vinyl chloride	<0.065	ppbv	0.17	1.71	08/04/20 15:02 MJL	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**  
 Units Conversion Request



Pace Analytical Services, LLC  
 1700 Elm Street, Suite 200  
 Minneapolis, MN 55414  
 Phone: 612.607.1700  
 Fax: 612.607.6444

**ANALYTICAL RESULTS**

Client: SCS Engineers Lab Project Number: 10526973  
 Phone: 843.746.8525 Project Name: 25219179.00 Susie's Restaurant  
 Lab Sample No: 10526973005 ProjSampleNum: 10526973005 Date Collected: 07/29/20 12:21  
 Client Sample ID: MH 7-159 Matrix: Air Date Received: 07/31/20 11:00

Parameters	Results	Units	Report Limit	DF	Analyzed	CAS No.	Qualifiers
<b>Air</b>							
TO-15							
cis-1,2-Dichloroethene	0.15J	ppbv	0.35	1.68	08/04/20 14:36 MJL	156-59-2	
Tetrachloroethene	0.083J	ppbv	0.17	1.68	08/04/20 14:36 MJL	127-18-4	
trans-1,2-Dichloroethene	0.19J	ppbv	0.35	1.68	08/04/20 14:36 MJL	156-60-5	
Trichloroethene	1	ppbv	0.17	1.68	08/04/20 14:36 MJL	79-01-6	
Vinyl chloride	<0.065	ppbv	0.17	1.68	08/04/20 14:36 MJL	75-01-4	

DISCLAIMER: These results have been converted to the units shown from the original units of measurement assuming 20 degrees Celsius and 1 atmosphere pressure. Values were not rounded according to EPA rounding rules. THC is quantitated based on the average response factors of several compounds; the nominal molecular weight of THC used for units conversion is the average of the molecular weights of the compounds used for quantitation.

**SUPPLEMENTAL REPORT**

Units Conversion Request



Pace Analytical Services, LLC  
1700 Elm Street, Suite 200  
Minneapolis, MN 55414  
Phone: 612.607.1700  
Fax: 612.607.6444

## ANALYTICAL RESULTS

Client: SCS Engineers  
Phone: 843.746.8525

Lab Project Number: 10526973  
Project Name: 25219179.00 Susie's Restaurant

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## PARAMETER FOOTNOTES

## SUPPLEMENTAL REPORT

Units Conversion Request

Date: 8/6/2020

Page 6



September 1, 2020

SALVADOR VELASQUEZ  
2604 CUSTER ST  
MANITOWOC WI 54220

Subject: Notification of Groundwater Sampling Results  
WI DOT – Susie’s Restaurant (Former) – LGU - SL, 1020 S. 26<sup>th</sup> Street, Manitowoc, WI  
BRRTS #: 02-36-000516

Dear Mr. Velasquez:

Please find the attached results from the July 29, 2020 sampling of the groundwater monitoring well, MW-3, on your property at 2604 Custer Street, Manitowoc, WI. This well was sampled as part of the investigation for the WI DOT – Susie’s Restaurant (Former) – LGU – SL site. The sample was collected by SCS Engineers, a consultant hired by the Department of Natural Resources (DNR) for the work associated with the WI DOT – Susie’s Restaurant (Former) – LGU – SL site. The sample collected from monitoring well MW-3 was analyzed for the following Chlorinated Volatile Organic Compounds (CVOCs); cis-1,2-dichloroethene, tetrachloroethene, trans-1,2-dichloroethene, trichloroethene, and vinyl chloride

The test results show that only Trichloroethene was detected at an estimated concentration of 0.36 ug/L (parts per billion), which is below both the Wis. Admin. Code NR 140 public health preventive action level and enforcement standard and does not pose a threat to you or your employees. The concentration is estimated as TCE was detected above the lab reporting limit but was found to be below the method detection limit. The rest of the previously mentioned CVOCs were not detected. Please refer to the attached laboratory analytical report.

If you have any questions, please contact me at (920) 510-9482 or by email at [ColinR.Schmenk@Wisconsin.gov](mailto:ColinR.Schmenk@Wisconsin.gov).

Sincerely,

Colin Schmenk  
Hydrogeologist  
Remediation & Redevelopment Program  
Wisconsin Department of Natural Resources

Att. Report of Laboratory Analysis

cc: Greg Minikel, City of Manitowoc ([gminikel@manitowoc.org](mailto:gminikel@manitowoc.org))

## ANALYTICAL REPORT

Eurofins TestAmerica, Chicago  
2417 Bond Street  
University Park, IL 60484  
Tel: (708)534-5200

Laboratory Job ID: 500-185795-1

Client Project/Site: Susie's Restaurant - 25219179.00

For:

SCS Engineers  
2830 Dairy Dr  
Madison, Wisconsin 53718

Attn: Mr. Robert Langdon



Authorized for release by:  
8/12/2020 1:02:00 PM

Sandie Fredrick, Project Manager II  
(920)261-1660  
[sandie.fredrick@testamericainc.com](mailto:sandie.fredrick@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



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# Case Narrative

Client: SCS Engineers  
Project/Site: Susie's Restaurant - 25219179.00

Job ID: 500-185795-1

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**Job ID: 500-185795-1**

---

**Laboratory: Eurofins TestAmerica, Chicago**

---

**Narrative**

**Job Narrative  
500-185795-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 7/31/2020 9:45 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.3° C.

**GC/MS VOA**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

- 1
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- 10
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- 12
- 13
- 14
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# Detection Summary

Client: SCS Engineers  
Project/Site: Susie's Restaurant - 25219179.00

Job ID: 500-185795-1

## Client Sample ID: MW-3

## Lab Sample ID: 500-185795-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.36	J	0.50	0.16	ug/L	1		8260B	Total/NA

## Client Sample ID: Trip Blank

## Lab Sample ID: 500-185795-2

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

- 1
- 2
- 3
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- 5
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- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Method Summary

Client: SCS Engineers  
Project/Site: Susie's Restaurant - 25219179.00

Job ID: 500-185795-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
5030B	Purge and Trap	SW846	TAL CHI

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



# Sample Summary

Client: SCS Engineers  
Project/Site: Susie's Restaurant - 25219179.00

Job ID: 500-185795-1

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-185795-1	MW-3	Water	07/29/20 14:30	07/31/20 09:45	
500-185795-2	Trip Blank	Water	07/29/20 00:00	07/31/20 09:45	

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# Client Sample Results

Client: SCS Engineers  
 Project/Site: Susie's Restaurant - 25219179.00

Job ID: 500-185795-1

**Client Sample ID: MW-3**  
**Date Collected: 07/29/20 14:30**  
**Date Received: 07/31/20 09:45**

**Lab Sample ID: 500-185795-1**  
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			08/11/20 19:08	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/11/20 19:08	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			08/11/20 19:08	1
<b>Trichloroethene</b>	<b>0.36</b>	<b>J</b>	0.50	0.16	ug/L			08/11/20 19:08	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/11/20 19:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		72 - 124		08/11/20 19:08	1
Dibromofluoromethane	99		75 - 120		08/11/20 19:08	1
1,2-Dichloroethane-d4 (Surr)	105		75 - 126		08/11/20 19:08	1
Toluene-d8 (Surr)	99		75 - 120		08/11/20 19:08	1

# Client Sample Results

Client: SCS Engineers  
 Project/Site: Susie's Restaurant - 25219179.00

Job ID: 500-185795-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 500-185795-2**

**Date Collected: 07/29/20 00:00**

**Matrix: Water**

**Date Received: 07/31/20 09:45**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			08/11/20 14:38	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/11/20 14:38	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			08/11/20 14:38	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/11/20 14:38	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/11/20 14:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		72 - 124		08/11/20 14:38	1
Dibromofluoromethane	98		75 - 120		08/11/20 14:38	1
1,2-Dichloroethane-d4 (Surr)	104		75 - 126		08/11/20 14:38	1
Toluene-d8 (Surr)	98		75 - 120		08/11/20 14:38	1

# Definitions/Glossary

Client: SCS Engineers  
Project/Site: Susie's Restaurant - 25219179.00

Job ID: 500-185795-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

Client: SCS Engineers  
Project/Site: Susie's Restaurant - 25219179.00

Job ID: 500-185795-1

## GC/MS VOA

### Analysis Batch: 556198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-185795-1	MW-3	Total/NA	Water	8260B	
500-185795-2	Trip Blank	Total/NA	Water	8260B	
MB 500-556198/7	Method Blank	Total/NA	Water	8260B	
LCS 500-556198/5	Lab Control Sample	Total/NA	Water	8260B	

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# Surrogate Summary

Client: SCS Engineers  
Project/Site: Susie's Restaurant - 25219179.00

Job ID: 500-185795-1

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

**Matrix: Water**

**Prep Type: Total/NA**

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB	DBFM	DCA	TOL
		(72-124)	(75-120)	(75-126)	(75-120)
500-185795-1	MW-3	98	99	105	99
500-185795-2	Trip Blank	93	98	104	98
LCS 500-556198/5	Lab Control Sample	94	100	104	100
MB 500-556198/7	Method Blank	94	100	107	98

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: SCS Engineers  
 Project/Site: Susie's Restaurant - 25219179.00

Job ID: 500-185795-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 500-556198/7**  
**Matrix: Water**  
**Analysis Batch: 556198**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			08/11/20 11:04	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/11/20 11:04	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			08/11/20 11:04	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/11/20 11:04	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/11/20 11:04	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	94		72 - 124		08/11/20 11:04	1
Dibromofluoromethane	100		75 - 120		08/11/20 11:04	1
1,2-Dichloroethane-d4 (Surr)	107		75 - 126		08/11/20 11:04	1
Toluene-d8 (Surr)	98		75 - 120		08/11/20 11:04	1

**Lab Sample ID: LCS 500-556198/5**  
**Matrix: Water**  
**Analysis Batch: 556198**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,2-Dichloroethene	50.0	46.9		ug/L		94	70 - 125
Tetrachloroethene	50.0	50.5		ug/L		101	70 - 128
trans-1,2-Dichloroethene	50.0	46.5		ug/L		93	70 - 125
Trichloroethene	50.0	50.6		ug/L		101	70 - 125
Vinyl chloride	50.0	53.0		ug/L		106	64 - 126

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	94		72 - 124
Dibromofluoromethane	100		75 - 120
1,2-Dichloroethane-d4 (Surr)	104		75 - 126
Toluene-d8 (Surr)	100		75 - 120

# Lab Chronicle

Client: SCS Engineers  
Project/Site: Susie's Restaurant - 25219179.00

Job ID: 500-185795-1

## Client Sample ID: MW-3

Date Collected: 07/29/20 14:30

Date Received: 07/31/20 09:45

## Lab Sample ID: 500-185795-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	556198	08/11/20 19:08	STW	TAL CHI

## Client Sample ID: Trip Blank

Date Collected: 07/29/20 00:00

Date Received: 07/31/20 09:45

## Lab Sample ID: 500-185795-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	556198	08/11/20 14:38	STW	TAL CHI

### Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: SCS Engineers  
Project/Site: Susie's Restaurant - 25219179.00

Job ID: 500-185795-1

## Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-20

- 1
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- 13
- 14
- 15

Chain of Custody Record



<b>Client Information</b> Client Contact: Mr. Robert Langdon Company: SCS Engineers Address: 2830 Dairy Dr, Madison, WI, 53718 Phone: 608 212 3995 Email: rlangdon@scsengineers.com Project Name: Susie's Restaurant 25219179.00 Site: Golden Flame		Sampler: Robert Langdon Phone: 608 212 3995 Lab PM: Fredrick, Sandie E-Mail: sandie.fredrick@testamericainc.com Call: 500-185795 COC		COC No: 500-83796-35216.1 Page: Page 1 of 1 Job #: 500-185795	
Due Date Requested: TAT Requested (days): PO #: WO #: Projec. #: SSGW#:		<b>Analysis Requested</b>		Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O8 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4.5 L - EDA Z - other (specify) Other:	
<b>Sample Identification</b>		Sample Date Sample Time Sample Type (C=comp, G=grab) Matrix (Water, Sewage, Oil/water/oil, BT-Tissue, Anal) Field Filtered Sample (Yes or No) Refrigerated (Yes or No)		Total Number of Containers	
1 MW-3 2 Trip Blank		7/29/20 1430 G Water Water Water		2 0 2 0 X X X X	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison/B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:			
Empty Kit Relinquished by: Robert Langdon Date/Time: 7/30/20 1700 Company: SCS		Date/Time: 7/31/20 0945 Company: TH		Method of Shipment: 5.3	
Custody Seals Intact? A Yes A No Custody Seal No.		Cooler Temperature(s) °C and Other Remarks:			



## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 500-185795-1

**Login Number: 185795**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: James, Jeff A**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	see NCM
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	