

November 18, 2019
File No. 25216186.00

Mr. Doug Cieslak
Wisconsin Department of Natural Resources
141 NW Barstow St, Room 180
Waukesha, WI 53188

Subject: Site Investigation Update
Arctic Laundry & Cleaners (former)
5619 22nd Avenue, Kenosha, Wisconsin
BRRTS # 02-30-245843

Dear Mr. Cieslak

SCS Engineers (SCS) is providing the following summary of recent environmental site investigation work performed for the Arctic Laundry & Cleaners site located at 5619 22nd Avenue, Kenosha, Wisconsin (**Figure 1** and **Figure 2**). Investigation methods, findings, and recommendations are provided below.

GROUNDWATER MONITORING

SCS conducted a third round of groundwater monitoring on October 1, 2019. The monitoring included measuring water levels and collecting groundwater samples from site groundwater monitoring wells (MW-1, MW-2, and MW-3). For quality control purposes, one duplicate sample and a trip blank were also collected. Dedicated bailers were used for sampling each well and all samples were properly preserved in laboratory-supplied containers and transported under chain of custody to TestAmerica of University Park, Illinois, for analysis of volatile organic compounds (VOCs) via laboratory method 8260B. The laboratory report is included in **Appendix A** and results are summarized in **Table 1** and below.

Dry cleaner-related contaminants were not detected in the MW-1 or MW-2 samples. Dry cleaning solvent, tetrachloroethylene (PCE), was detected in the MW-3 and MW-3 duplicate samples at concentrations in excess of the NR 140 enforcement standard (ES).

Based on the October 2019 water levels, groundwater flow is to the west at a gradient of approximately 0.025 feet per foot as shown on **Figure 3**. This flow direction and gradient is consistent with that observed during prior sampling events. Water level measurements are summarized in **Table 2**.

Based on the sampling results to date, groundwater with PCE in excess of the ES appears to be limited to the source property (5619 22nd Avenue) and neighboring 5611 22nd Avenue property, and the concentrations appear to be stable. SCS plans to conduct a fourth round of groundwater monitoring in January 2020.



VAPOR INTRUSION ASSESSMENT SAMPLING AND MITIGATION

Vapor Sampling

On October 2, 2019, SCS collected a second round of sub-slab vapor, indoor air, and outdoor (background) samples for the nearby buildings at 5605 22nd Avenue (Midnight Liquor & Bar) and 5621/5625 22nd Avenue (Pa's Pizzeria). Initial sampling for the buildings was performed in January 2018.

The October 2019 samples were collected in laboratory-supplied 6-liter canisters equipped with 30-minute flow controllers for sub-slab sampling or 24-hour controllers for indoor/outdoor air sampling. SCS tested sub-slab vapor pin® (vapor pin) seals and sampling equipment prior to collection of each sub-slab sample. No leaks were detected.

Sub-slab samples could not be collected from vapor pins SS-4 or SS-5 in the basement of Pa's Pizzeria (5621 22nd Avenue) due to the presence of water in the vapor pins. The water was likely resulted from heavy rainfall which occurred the day before on October 1, 2019.

The samples were transported under chain of custody to Pace Analytical Services of Minneapolis, Minnesota, for analysis of chlorinated volatile organic compounds (CVOCs) including PCE, trichloroethylene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride via laboratory method TO-15. The laboratory report is included in **Appendix A** and results are summarized in **Table 3** and **Table 4**.

As with the prior sampling, CVOCs were not detected in any of the samples at concentrations in excess of residential or commercial indoor air vapor action levels (VALs) or sub-slab vapor risk screening levels (VRSLs).

Vapor Mitigation

November 2018

A vapor mitigation system (VMS) was installed in the source property building at 5619 22nd Avenue in November 2018 to address elevated CVOCs detected in the building sub-slab vapor samples (**Table 3**). The VMS was installed by Allis Environmental Services of West Allis, Wisconsin. It includes two pick-up points sealed through the building floor slab and plumbed together via PVC piping to a single Fantech Model Rn4EC-4 radon fan capable of producing up to 4.3 inches of water vacuum. The fan is mounted on the north exterior wall of the building with an exhaust line extending to the building roof. Fan operation is checked at a manometer installed on the northern pickup point. VMS sub-slab pressure field extension (PFE) is checked using five vacuum observation points installed through the floor slab. The building sump pit was sealed to prevent vapor migration and vacuum loss from the VMS. The VMS layout is shown on **Figure 2** and photos are included in **Appendix B**.

The VMS vacuum at startup, as measured on the system manometer on November 21, 2018, was 3.5 inches of water. Sub-slab PFE readings from five permanent and three temporary sub-slab vacuum observation points ranged from from 0.008 to 0.791 inches of water, indicating good sub-slab PFE.

October 2019

SCS inspected the VMS on October 2, 2019 and found that the blower was operating and VMS monometer was reading a vacuum of 3.5 inches of water. Heavy rainfall had occurred late in the day on October 1, 2019. During the October 2nd inspection SCS observed that the basement floor was wet at several locations and water was present in one of the sub-slab PFE observation points. The owner, Mr. John Ekornaas, explained that water gets into the basement approximately 2 to 3 times each year after heavy rainfall events such as the one which occurred on October 1st.

Positive sub-slab vacuums were observed at three of the five sub-slab vacuum observation points and ranged from 0.001 to 0.285 inches of water. The positive readings were likely related to the rain infiltrating the sub-slab material under the building. Vacuum at a fourth observation point could not be measured due to water in the point. A fifth vacuum observation point could not be located as it was covered by wood shelving or other materials, which had been placed over the observation point subsequent to the VMS installation.

SCS observed that an access port lid on the basement sump pit lid was missing. Mr. Ekornaas explained to SCS that the access port lid was removed recently in order to install a new sump pump. Mr. Ekornaas said that he would reinstall the lid or contact SCS if he needed assistance replacing it.

SCS plans to inspect the system again in January 2020. A VMS maintenance plan with additional details will be provided to Mr. Ekornaas and submitted to the Wisconsin Department of Natural Resources (WDNR) under separate cover.

SUMMARY AND CONCLUSIONS

- Repeated groundwater monitoring has shown consistent flow direction and the presence of PCE in groundwater at concentrations in excess of the ES. However, PCE appears to be stable and limited to the 5611 and 5619 22nd Avenue properties. A fourth round of groundwater monitoring is planned for January 2020 to further evaluate groundwater flow and contaminant concentrations.
- Repeated vapor intrusion assessment sampling for the neighboring Midnight Liquor & Bar and Pa's Pizzeria buildings has shown that CVOCs are not present in the sub-slab, indoor air, or outdoor air at concentrations in excess of VRSLs or VALs at either of the nearby buildings.
- Other than the source property building which has a vapor mitigation system, there do not appear to be any other buildings located within 100 feet north, south, or west of CVOC-contaminated soil or overlying groundwater with CVOCs in excess of ESs.
- There are buildings located within approximately 100 feet east of the CVOC-contaminated soil, however, given the vapor assessment findings for the above-noted nearby buildings, the groundwater flow direction (west), and the sanitary sewer flow direction (north along 22nd Avenue) it appears unlikely that buildings to the east would be affected by vapor intrusion. Therefore, no additional vapor assessment sampling is proposed.

- A VMS was installed at the source property building (5619 22nd Avenue) in November 2018 and appears to be operating as intended with occasional interruptions (approximately two to three times per year) when heavy rainfall temporarily saturates the underlying sub-slab material. Given the initial sub-slab PFE results and limited extent of VMS disruption it does not appear that modifications to the VMS would be necessary. SCS plans to evaluate the VMS again in January 2020.
- The degree and extent of contamination (soil, groundwater, vapor, and air) appears to have been adequately defined. SCS plans to submit an NR 716 Site Investigation Report (SIR) following the January 2020 groundwater sampling event.
- The SIR will include a recommended remedial action, which would likely be natural attenuation of groundwater and maintaining existing pavement and building foundation to prevent leaching of residual soil contamination. The VMS would also be maintained to prevent the potential for vapor intrusion into the source property building.

Please direct any questions concerning this letter and the above-noted case to Robert Langdon of SCS at (608) 216-7329 or rlangdon@scsengineers.com.

Sincerely,



Robert Langdon
Senior Project Manager
SCS Engineers



Mark R. Huber, PE
Project Director
SCS Engineers

REL/AJR/MRH

cc: Roy Baietto
Vanessa Wishart, Stafford Rosenbaum LLP (e-copy)

Attachments: Table 1 – Groundwater Analytical Results Summary
Table 2 – Water Level Summary
Table 3 – Sub-Slab Analytical Results Summary
Table 4 – Indoor Air Analytical Results Summary
Figure 1 – Site Location Map
Figure 2 – Site Features Map
Figure 3 – Water Table Map, October 1, 2019
Appendix A – Laboratory Reports
Appendix B – Vapor Mitigation System Photos

Tables

- 1 Groundwater Analytical Results Summary
- 2 Water Level Summary
- 3 Sub-Slab Analytical Results Summary
- 4 Indoor Air Analytical Results Summary

Table 1. Groundwater Analytical Results Summary
Former Arctic Laundry & Cleaners - 5619 22nd Avenue, Kenosha, Wisconsin / SCS Engineers Project #25216186.00
 (Results are in µg/L)

Sample	Date	Lab Notes	PCE	TCE	VC	cis-1,2-DCE	trans-1,2-DCE	Other VOCs
GP-1	8/25/1994	--	<u>42.0</u>	<u>1.0</u>	<3	<1	<1	Toluene <u>7.2</u>
GP-2	10/20/1995	--	<u>13</u>	<1.0	<3.0	<1.0	<1.0	ND
GP-3	10/20/1995	--	<u>50</u>	<1.0	<3.0	<1.0	<1.0	ND
GP-4	10/20/1995	--	<u>14</u>	<u>2.2</u>	<3.0	<u>6.2</u>	<1.0	ND
GP-5	10/26/1995	--	<1.0	<1.0	<3.0	<1.0	<1.0	ND
GP-6	10/26/1995	--	<1.0	<1.0	<3.0	<1.0	<1.0	ND
GP-7	2/6/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
GP-8	2/6/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
GP-9	2/6/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
GP-10	2/6/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
GP-11	2/6/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
MW-1	2/21/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
	10/3/2018	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
	10/1/2019	--	<0.37	<0.16	<0.20	<0.41	<0.35	Toluene <u>0.22</u> J
MW-2	2/21/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	1,2-Dichloropropane <u>1.3</u>
	2/21/2017 (DUP)	--	<0.37	<0.16	<0.20	<0.41	<0.35	1,2-Dichloropropane <u>1.2</u>
	10/3/2018	--	<u>0.39</u> J	<0.16	<0.20	<0.41	<0.35	1,2-Dichloropropane <u>2.6</u> Dichlorodifluoromethane <u>0.85</u> J,B
	10/1/2019	--	<0.37	<0.16	<0.20	<0.41	<0.35	1,2-Dichloropropane <u>1.7</u> Toluene <u>0.18</u> J

Table 1. Groundwater Analytical Results Summary
Former Arctic Laundry & Cleaners - 5619 22nd Avenue, Kenosha, Wisconsin / SCS Engineers Project #25216186.00
 (Results are in µg/L)

Sample	Date	Lab Notes	PCE	TCE	VC	cis-1,2-DCE	trans-1,2-DCE	Other VOCs
MW-3	2/21/2017	--	<u>1.5</u>	<0.16	<0.20	<0.41	<0.35	ND
	10/3/2018	--	<u>41</u>	<0.16	<0.20	<0.41	<0.35	Dichlorodifluoromethane 0.81 J,B
	10/3/2018 (DUP)	--	<u>41</u>	<0.16	<0.20	<0.41	<0.35	ND
	10/1/2019	--	<u>37</u>	<0.16	<0.20	<0.41	<0.35	Toluene 0.22 J
	10/1/2019 (DUP)	--	<u>41</u>	<0.16	<0.20	<0.41	<0.35	Toluene 0.19 J
Trip Blank	2/6/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
	2/21/2017	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
	10/3/2018	--	<0.37	<0.16	<0.20	<0.41	<0.35	ND
	10/1/2019	--	<0.37	<0.16	<0.20	<0.41	<0.35	Toluene 0.21 J
NR 140 Enforcement Standards (ESs)			5	5	0.2	70	100	Toluene 800 1,2-Dichloropropane 5 Dichlorodifluoromethane 1,000
NR 140 Preventive Action Limits (PALs)			0.5	0.5	0.02	7	20	Toluene 160 1,2-Dichloropropane 0.5 Dichlorodifluoromethane 200

Abbreviations:

µg/L = micrograms per liter or parts per billion (ppb)
 VC = Vinyl Chloride
 NA = Not Analyzed

DCE = Dichloroethene
 TCE = Trichloroethene
 ND = Not Detected

PCE = Tetrachloroethene
 VOCs = Volatile Organic Compounds
 -- = Not Applicable

Table 1. Groundwater Analytical Results Summary
Former Arctic Laundry & Cleaners - 5619 22nd Avenue, Kenosha, Wisconsin / SCS Engineers Project #25216186.00

Notes:
NR 140 ESs - Wisconsin Administrative Code (WAC), Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards from July 2015.
NR 140 PALs - WAC, Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards from July 2015.
Bold+underlined values meet or exceed NR 140 ESs.
Italic+underlined values meet or exceed NR 140 PALs.

8/23/1994, 10/20/1995, and 10/26/1995 samples collected by Sigma Environmental Services, Inc., of Oak Creek, WI
2/6/2017, 2/21/2017, 10/3/2018, and 10/1/2019 samples collected by SCS Engineers of Madison, WI

Laboratory Notes/Qualifiers:

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B = Compound was found in the blank and sample.

Created by:	<u>LMH</u>	Date:	<u>2/21/2017</u>
Last revision by:	<u>LMH</u>	Date:	<u>10/28/2019</u>
Checked by:	<u>JSN</u>	Date:	<u>10/29/2019</u>
Proj Mgr QA/QC:	<u>REL</u>	Date:	<u>11/5/2019</u>

Table 2. Water Level Summary
Former Arctic Laundry & Cleaners / SCS Engineers Project #25216186.00

Raw Data	Depth to Water in feet below top of well casing		
	MW1	MW2	MW3
Measurement Date			
February 21, 2017	8.53	9.67	8.04
October 3, 2018	7.70	8.65	5.99
October 1, 2019	7.64	8.44	6.18

Well Number	Ground Water Elevation in feet above mean sea level (amsl)		
	MW1	MW2	MW3
Top of Casing Elevation (feet amsl)	623.65	623.68	623.29
Screen Length (ft)	10.00	10.00	10.00
Total Depth (ft from top of casing)	13.85	14.00	13.85
Top of Well Screen Elevation (ft)	619.80	619.68	619.44
Measurement Date			
February 21, 2017	615.12	614.01	615.25
October 3, 2018	615.95	615.03	617.30
October 1, 2019	616.01	615.24	617.11
Bottom of Well Elevation (ft)	609.80	609.68	609.44

Notes:

NM = not measured

Benchmark of 625.93 feet above mean sea level marked by "X" on the top side of the hose outlet of the fire hydrant located at the northeast corner of 22nd Avenue and 57th Street.

Created by:	REL _____	Date: 2/21/2017 _____
Last revision by:	REL _____	Date: 10/3/2019 _____
Checked by:	LMH _____	Date: 10/28/2019 _____
Proj Mgr QA/QC:	REL _____	Date: 11/7/2019 _____

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Table 3. Sub-Slab Vapor Analytical Results Summary
22nd Avenue, Kenosha, Wisconsin / SCS Engineers Project #25216186.00
 (Results are in ppbV)

Sample/Location	Date	Lab Notes	Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
5605 Midnight Liquor and Bar							
SS-7	1/25/2018	--	<0.074	<0.088	<0.15	<0.13	<0.089
	10/2/2019	--	4.3	<0.081	<0.094	<0.12	<0.085
SS-8	1/25/2018	--	5.2	0.22	<0.15	<0.13	<0.089
	10/2/2019	--	11	0.81	<0.087	<0.11	<0.077
SS-9	1/25/2018	--	1.9	<0.099	<0.17	<0.15	<0.096
	10/2/2019	--	3.6	<0.075	<0.087	<0.11	<0.077
5619 Former Arctic Laundry & Cleaners							
SS-1	2/7/2017	--	<u>418,000</u> A3, E	<u>1,290</u> A3	5.7	5.8	<0.14
SS-2	2/7/2017	--	<u>973</u>	<u>66.5</u>	1.7	11.8	<0.13
SS-3	2/7/2017	--	<u>26,100</u> A3	<u>86.4</u> A3	1.4	0.5	<0.14
5621/5625 Pa's Pizzeria							
SS-4	1/24/2018	--	<0.074	<0.088	<0.15	<0.13	<0.089
SS-5	1/24/2018	--	0.78	<0.1	<0.17	<0.15	<0.1
SS-6	1/24/2018	--	0.2	<0.092	<0.16	<0.14	<0.092
	10/2/2019	--	0.93	<0.1	<0.12	<0.16	<0.11
Vapor Risk Screening Level (Residential Building)			210	13	NE	NE	22
Vapor Risk Screening Level (Small Commercial Building)			900	53	NE	NE	370

Table 3. Sub-Slab Vapor Analytical Results Summary
22nd Avenue, Kenosha, Wisconsin / SCS Engineers Project #25216186.00

Abbreviations:

ppbV = parts per billion by volume

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

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

NE = not established

-- = not applicable

Notes:

1. Samples were collected in 6-liter summa canisters over a 30-minute period and analyzed using the USEPA TO-15 analytical method.
2. Vapor Risk Screening Levels are from Wisconsin Department of Natural Resources' WI Vapor Quick Look-Up Table, which is based on N USEPA Regional Screening Level Tables.
3. **Bold+underlined** values meet or exceed Vapor Risk Screening Levels.

Lab Notes:

A3 = The sample was analyzed by serial dilution.

E = Analyte concentration exceeded the calibration range. The reported result is estimated.

Created by: <u>LMH</u>	Date: <u>2/24/2017</u>
Last revision by: <u>JSN</u>	Date: <u>10/17/2019</u>
Checked by: <u>AJR</u>	Date: <u>10/18/2019</u>
Proj Mgr QA/QC: <u>REL</u>	Date: <u>10/28/2019</u>

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Table 4. Indoor Air Analytical Results Summary
22nd Avenue, Kenosha, Wisconsin / SCS Engineers Project #25216186.00
 (Results are in ppbV)

Sample/Location	Date	Lab Notes	Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
5605 Midnight Liquor and Bar							
5605 Basement	1/25/2018	--	<0.064	<0.077	<0.13	<0.11	<0.077
	10/2/2019	--	0.46	0.16	<0.082	<0.1	<0.073
5605 2nd Floor	1/25/2018	--	<0.064	<0.077	<0.13	<0.11	<0.077
	10/2/2019	--	0.12 J	<0.07	<0.082	<0.1	<0.073
5605 Outdoor	1/25/2018	--	<0.059	<0.071	<0.12	<0.1	<0.069
	10/2/2019	--	<0.059	<0.06	<0.069	<0.092	<0.062
5605 Bar	1/25/2018	--	<0.064	<0.077	<0.13	<0.11	<0.077
	10/2/2019	--	0.13 J	<0.07	<0.082	<0.1	<0.073
5605 Liquor Store	1/25/2018	--	<0.067	<0.079	<0.14	<0.12	<0.077
	10/2/2019	--	0.11 J	<0.07	<0.082	<0.1	<0.073
5619 Former Arctic Laundry & Cleaners							
5619 Basement	2/7/2017	--	5.6	1	5	<0.15	<0.12
5619 1st Floor	2/7/2017	--	1.3	0.31	1.2	<0.15	<0.12
5619 2nd Floor	2/7/2017	--	1.1	0.22	0.84	<0.16	<0.13
5619 Outdoor	2/7/2017	--	1.8	<0.075	<0.092	<0.14	<0.11
5621/5625 Pa's Pizzeria							
5621 Basement	1/24/2018	--	<0.064	<0.075	<0.13	<0.11	<0.073
	10/2/2019	--	<0.068	<0.07	<0.082	<0.1	<0.073

Table 4. Indoor Air Analytical Results Summary
22nd Avenue, Kenosha, Wisconsin / SCS Engineers Project #25216186.00
 (Results are in ppbV)

Sample/Location	Date	Lab Notes	Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
5621 1st Floor	1/24/2018	--	<0.061	<0.071	<0.12	<0.11	<0.069
	10/2/2019	--	<0.068	<0.07	<0.082	<0.1	<0.073
5621 Outdoor	1/24/2018	--	<0.062	<0.073	<0.13	<0.11	<0.073
	10/2/2019	--	<0.064	<0.066	<0.077	<0.099	<0.069
5625 Storage	1/24/2018	--	<0.064	<0.077	<0.13	<0.11	<0.077
	10/2/2019	--	<0.17	<0.18	<0.21	<0.27	<0.19
Indoor Air Vapor Action Level (Residential Building)			6.2	0.39	NE	NE	0.65
Indoor Air Vapor Action Level (Commercial Building)			27	1.6	NE	NE	11

Abbreviations:

ppbV = parts per billion by volume
 cis-1,2-DCE = cis-1,2-dichloroethylene

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

NE = not established

Notes:

1. Samples were collected in 6-liter summa canisters over a 24-hour period and analyzed using the USEPA TO-15 analytical method.
2. Vapor Action Levels are from Wisconsin Department of Natural Resources' WI Vapor Quick Look-Up Table, which is based on November USEPA Regional Screening Level Tables.
3. **Bold & underlined** values exceed Indoor Air Vapor Action Levels.

Lab Notes:

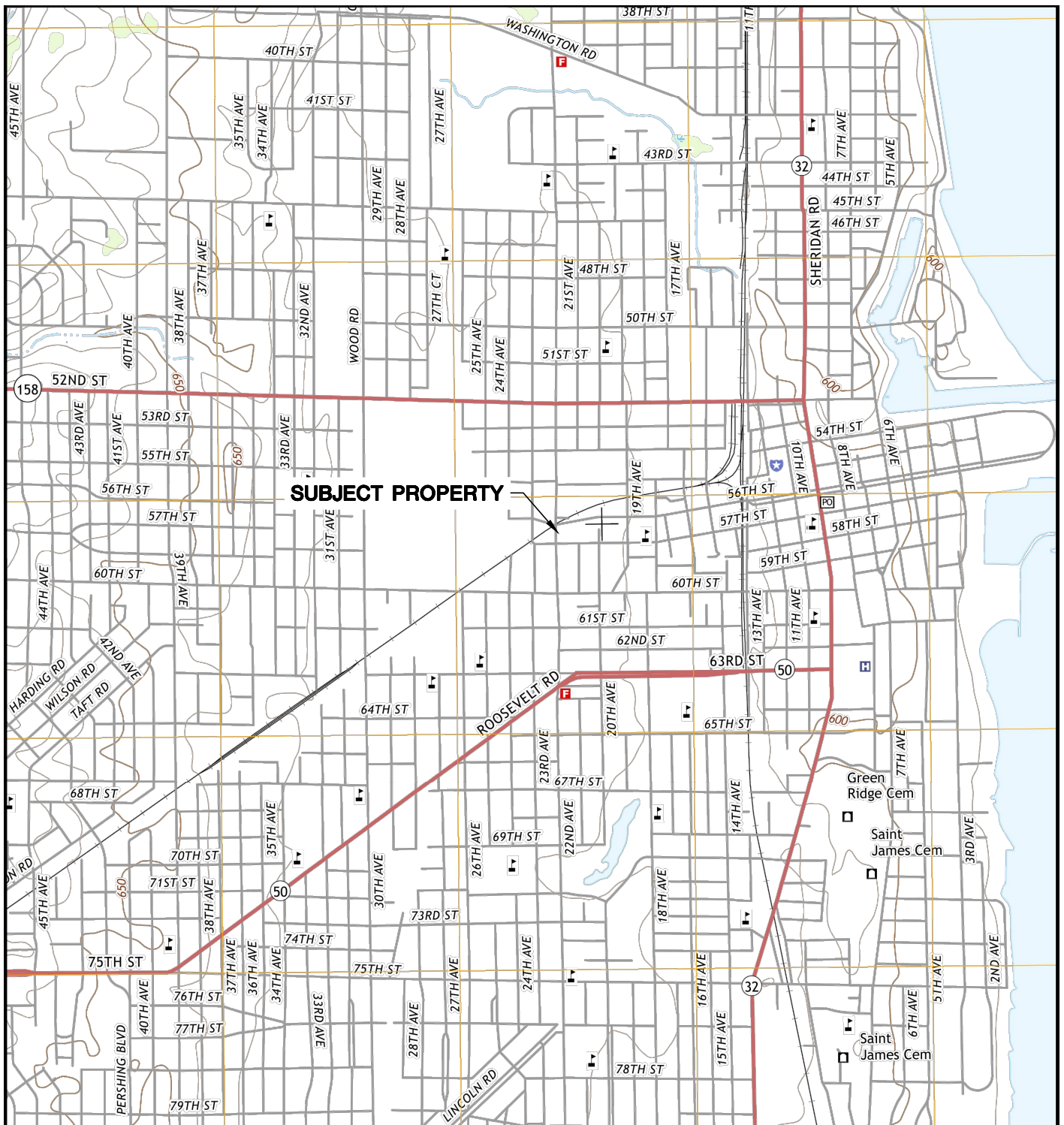
J = Estimated concentration at or above theLOD and below the LOQ.

Created by: <u>LMH</u>	Date: <u>2/24/2017</u>
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Checked by: <u>AJR</u>	Date: <u>10/18/2019</u>
Proj Mgr QA/QC: <u>REL</u>	Date: <u>10/28/2019</u>

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Figures

- 1 Site Location Map
- 2 Site Features Map
- 3 Water Table Map, October 1, 2019



SUBJECT PROPERTY

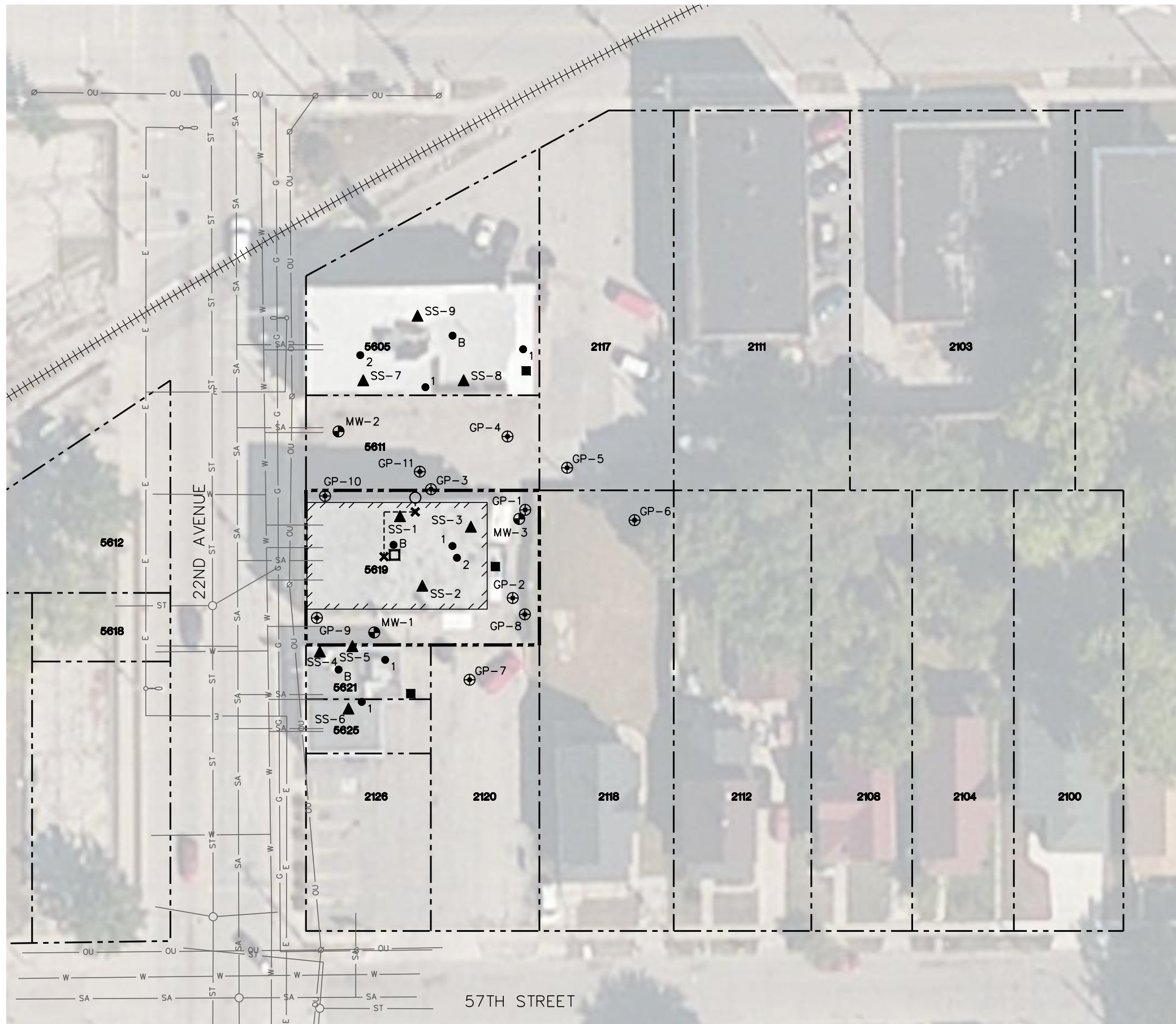


KENOSHA QUADRANGLE
 WISCONSIN—KENOSHA CO.
 7.5 MINUTE SERIES (TOPOGRAPHIC)
 7.5' QUADRANGLE
 2016
 SCALE: 1" = 2,000'



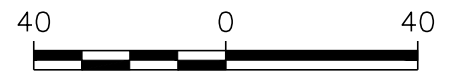
CLIENT	STAFFORD ROSENBAUM, LLP. 222 WEST WASHINGTON AVENUE MADISON, WI 53701	SITE	ARCTIC LAUNDRY AND CLEANERS 5619 22ND AVENUE KENOSHA, WISCONSIN	ENGINEER	SCS ENGINEERS 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830	SITE LOCATION MAP	FIGURE 1
	PROJECT NO. 25216186.00		DRAWN BY: KP				
	DRAWN: 10/21/16						
	REVISED: 10/21/16						

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- LEGEND
- APPROXIMATE PROPERTY LINE (5619 22ND AVENUE)
 - APPROXIMATE PROPERTY LINE
 - 5619** PROPERTY ADDRESS NUMBER
 - RAILROAD TRACKS
 - ELECTRIC (BURIED)
 - ELECTRIC (OVERHEAD)
 - GAS MAIN
 - SANITARY SEWER
 - STORM SEWER
 - WATER MAIN
 - UTILITY POLE
 - STREET LIGHT
 - SUMP
 - GEOPROBE BORING
 - MONITORING WELL
 - SUB-SLAB VAPOR SAMPLE
 - INDOOR AIR SAMPLE [BASEMENT (B), FIRST FLOOR (1), SECOND FLOOR (2)]
 - OUTDOOR AIR SAMPLE
 - VAPOR MITIGATION SYSTEM PIPING
 - VAPOR MITIGATION SYSTEM PICK-UP POINT
 - VAPOR MITIGATION SYSTEM FAN

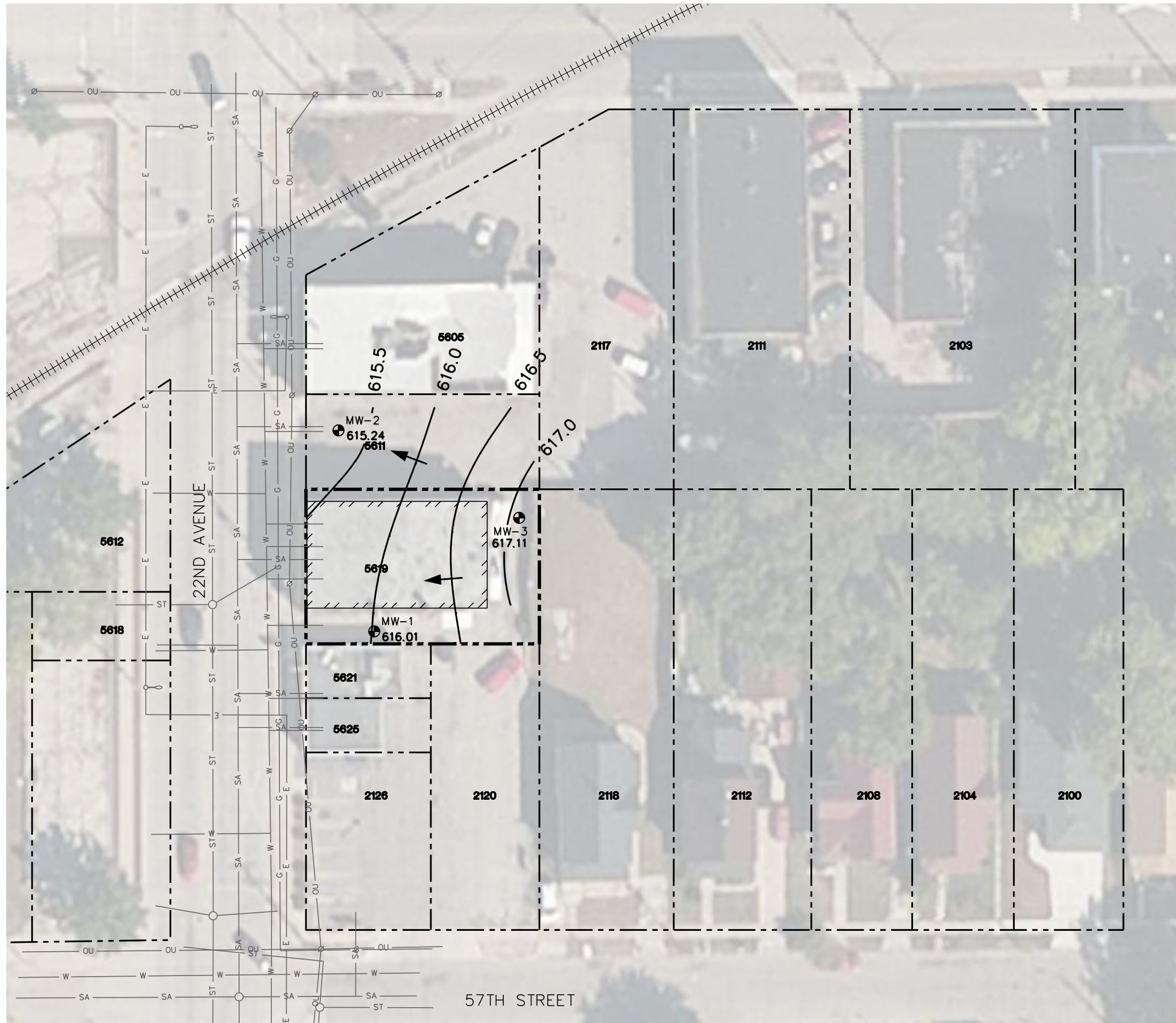
- NOTES:
1. AERIAL PHOTOGRAPH IMPORTED FROM BING MAPS USING AUTOCAD 2016 GEOLOCATION MAP TOOL.
 2. UTILITY LOCATIONS ARE APPROXIMATE, BASED ON 22ND AVENUE STORM SEWER AND LIGHTING DRAWING PROVIDED BY THE CITY OF KENOSHA (STATE PROJECT NO. 3994-03-70, SHEET 2.5).
 3. SAMPLE LOCATIONS ARE APPROXIMATE.



SCALE: 1" = 40'

ARCTIC LAUNDRY AND CLEANERS 5619 22ND AVENUE KENOSHA, WISCONSIN	SITE	DRAWN BY: KP	PROJECT NO. 25216186.00	FIGURE 2
ENGINEER	CHECKED BY: JD	APPROVED BY: REL 11/14/19	DATE 10/20/16	SCS ENGINEERS 2830 DAIRY DRIVE, MADISON, WI 53718-6751 PHONE: (608) 224-2830
CLIENT	STAFFORD ROSENBAUM, LLP. 222 WEST WASHINGTON AVENUE MADISON, WI 53701	REVISED:	DATE 11/11/19	
PROJECT NO.	25216186.00	DRAWN BY:	KP	SITE FEATURES MAP

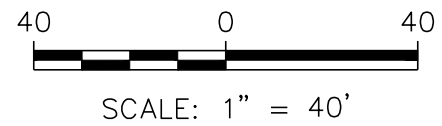
I:\25216186.00\Drawings\WBbl.dwg, 11/14/2019 10:09:50 AM




LEGEND

	APPROXIMATE PROPERTY LINE (5619 22ND AVENUE)
	APPROXIMATE PROPERTY LINE
5619	PROPERTY ADDRESS NUMBER
	RAILROAD TRACKS
	ELECTRIC (BURIED)
	ELECTRIC (OVERHEAD)
	GAS MAIN
	SANITARY SEWER
	STORM SEWER
	WATER MAIN
	UTILITY POLE
	STREET LIGHT
	MONITORING WELL
	WATER TABLE CONTOUR
616.01	WATER TABLE ELEVATION MEASURED 10.01.19
	APPROXIMATE GROUNDWATER FLOW DIRECTION

- NOTES:
1. AERIAL PHOTOGRAPH IMPORTED FROM BING MAPS USING AUTOCAD 2016 GEOLOCATION MAP TOOL.
 2. UTILITY LOCATIONS ARE APPROXIMATE, BASED ON 22ND AVENUE STORM SEWER AND LIGHTING DRAWING PROVIDED BY THE CITY OF KENOSHA (STATE PROJECT NO. 3994-03-70, SHEET 2.5).
 3. SAMPLE LOCATIONS ARE APPROXIMATE.



CLIENT STAFFORD ROSENBAUM, LLP. 222 WEST WASHINGTON AVENUE MADISON, WI 53701	SITE ARCTIC LAUNDRY AND CLEANERS 5619 22ND AVENUE KENOSHA, WISCONSIN		ENGINEER SCS ENGINEERS 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830		FIGURE 3
	PROJECT NO. 25216186.00	DRAWN BY: KP	DATE 11/08/19	CHECKED BY: REL	DATE 11/11/19
DRAWN:	11/08/19	APPROVED BY:	REL	11/14/19	



Appendix A
Laboratory Reports

ANALYTICAL REPORT

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

Laboratory Job ID: 500-171208-1

Client Project/Site: Arctic Laundry & Cleaners 25216186.00

For:

SCS Engineers
2830 Dairy Dr
Madison, Wisconsin 53718

Attn: Mr. Robert Langdon



*Authorized for release by:
10/18/2019 1:10:52 PM*

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

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The test results in this report meet all 2003 NELAC and 2009 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: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

Job ID: 500-171208-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-171208-1

Comments

No additional comments.

Receipt

The samples were received on 10/4/2019 8:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.0° C.

GC/MS VOA

Method 8260B: The following samples were collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The samples were analyzed outside the 7-day holding time specified for unpreserved samples but within the 14-day holding time specified for preserved samples: MW3 Dup (500-171208-1), MW2 (500-171208-2) and MW3 (500-171208-3).

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

Detection Summary

Client: SCS Engineers
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

Client Sample ID: MW3 Dup

Lab Sample ID: 500-171208-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	41		1.0	0.37	ug/L	1		8260B	Total/NA
Toluene	0.19	J	0.50	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: MW2

Lab Sample ID: 500-171208-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloropropane	1.7		1.0	0.43	ug/L	1		8260B	Total/NA
Toluene	0.18	J	0.50	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: MW3

Lab Sample ID: 500-171208-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	37		1.0	0.37	ug/L	1		8260B	Total/NA
Toluene	0.22	J	0.50	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: MW1

Lab Sample ID: 500-171208-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.22	J	0.50	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 500-171208-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.21	J	0.50	0.15	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: SCS Engineers
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

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

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Sample Summary

Client: SCS Engineers
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-171208-1	MW3 Dup	Water	10/01/19 13:15	10/04/19 08:45	
500-171208-2	MW2	Water	10/01/19 12:45	10/04/19 08:45	
500-171208-3	MW3	Water	10/01/19 13:15	10/04/19 08:45	
500-171208-4	MW1	Water	10/01/19 13:49	10/04/19 08:45	
500-171208-5	Trip Blank	Water	10/01/19 00:00	10/04/19 08:45	

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Client Sample Results

Client: SCS Engineers
 Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

Client Sample ID: MW3 Dup

Lab Sample ID: 500-171208-1

Date Collected: 10/01/19 13:15

Matrix: Water

Date Received: 10/04/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			10/14/19 16:58	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/14/19 16:58	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/14/19 16:58	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/14/19 16:58	1
Bromoform	<0.48		1.0	0.48	ug/L			10/14/19 16:58	1
Bromomethane	<0.80		3.0	0.80	ug/L			10/14/19 16:58	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/14/19 16:58	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/14/19 16:58	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/14/19 16:58	1
Chloroform	<0.37		2.0	0.37	ug/L			10/14/19 16:58	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/14/19 16:58	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/14/19 16:58	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/14/19 16:58	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/14/19 16:58	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/14/19 16:58	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/14/19 16:58	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/14/19 16:58	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/14/19 16:58	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/14/19 16:58	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/14/19 16:58	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/14/19 16:58	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/14/19 16:58	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			10/14/19 16:58	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/14/19 16:58	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/14/19 16:58	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/14/19 16:58	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			10/14/19 16:58	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/14/19 16:58	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/14/19 16:58	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/14/19 16:58	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/14/19 16:58	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/14/19 16:58	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 16:58	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/14/19 16:58	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			10/14/19 16:58	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/14/19 16:58	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/14/19 16:58	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 16:58	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/14/19 16:58	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/14/19 16:58	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 16:58	1
Styrene	<0.39		1.0	0.39	ug/L			10/14/19 16:58	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 16:58	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/14/19 16:58	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/14/19 16:58	1
Tetrachloroethene	41		1.0	0.37	ug/L			10/14/19 16:58	1
Toluene	0.19 J		0.50	0.15	ug/L			10/14/19 16:58	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/14/19 16:58	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/14/19 16:58	1

Client Sample Results

Client: SCS Engineers
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

Client Sample ID: MW3 Dup

Lab Sample ID: 500-171208-1

Date Collected: 10/01/19 13:15

Matrix: Water

Date Received: 10/04/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/14/19 16:58	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/14/19 16:58	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/14/19 16:58	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/14/19 16:58	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/14/19 16:58	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/14/19 16:58	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			10/14/19 16:58	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/14/19 16:58	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/14/19 16:58	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/14/19 16:58	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/14/19 16:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		72 - 124					10/14/19 16:58	1
Dibromofluoromethane	90		75 - 120					10/14/19 16:58	1
1,2-Dichloroethane-d4 (Surr)	81		75 - 126					10/14/19 16:58	1
Toluene-d8 (Surr)	99		75 - 120					10/14/19 16:58	1

Client Sample ID: MW2

Lab Sample ID: 500-171208-2

Date Collected: 10/01/19 12:45

Matrix: Water

Date Received: 10/04/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			10/14/19 17:23	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/14/19 17:23	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/14/19 17:23	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/14/19 17:23	1
Bromoform	<0.48		1.0	0.48	ug/L			10/14/19 17:23	1
Bromomethane	<0.80		3.0	0.80	ug/L			10/14/19 17:23	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/14/19 17:23	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/14/19 17:23	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/14/19 17:23	1
Chloroform	<0.37		2.0	0.37	ug/L			10/14/19 17:23	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/14/19 17:23	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/14/19 17:23	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/14/19 17:23	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/14/19 17:23	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/14/19 17:23	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/14/19 17:23	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/14/19 17:23	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/14/19 17:23	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/14/19 17:23	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/14/19 17:23	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/14/19 17:23	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/14/19 17:23	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			10/14/19 17:23	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/14/19 17:23	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/14/19 17:23	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/14/19 17:23	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: SCS Engineers
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

Client Sample ID: MW2

Lab Sample ID: 500-171208-2

Date Collected: 10/01/19 12:45

Matrix: Water

Date Received: 10/04/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.7		1.0	0.43	ug/L			10/14/19 17:23	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/14/19 17:23	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/14/19 17:23	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/14/19 17:23	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/14/19 17:23	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/14/19 17:23	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 17:23	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/14/19 17:23	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			10/14/19 17:23	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/14/19 17:23	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/14/19 17:23	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 17:23	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/14/19 17:23	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/14/19 17:23	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 17:23	1
Styrene	<0.39		1.0	0.39	ug/L			10/14/19 17:23	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 17:23	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/14/19 17:23	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/14/19 17:23	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			10/14/19 17:23	1
Toluene	0.18 J		0.50	0.15	ug/L			10/14/19 17:23	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/14/19 17:23	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/14/19 17:23	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/14/19 17:23	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/14/19 17:23	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/14/19 17:23	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/14/19 17:23	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/14/19 17:23	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/14/19 17:23	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			10/14/19 17:23	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/14/19 17:23	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/14/19 17:23	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/14/19 17:23	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/14/19 17:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		72 - 124		10/14/19 17:23	1
Dibromofluoromethane	90		75 - 120		10/14/19 17:23	1
1,2-Dichloroethane-d4 (Surr)	83		75 - 126		10/14/19 17:23	1
Toluene-d8 (Surr)	97		75 - 120		10/14/19 17:23	1

Client Sample ID: MW3

Lab Sample ID: 500-171208-3

Date Collected: 10/01/19 13:15

Matrix: Water

Date Received: 10/04/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			10/14/19 17:49	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/14/19 17:49	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/14/19 17:49	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: SCS Engineers
 Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

Client Sample ID: MW3
Date Collected: 10/01/19 13:15
Date Received: 10/04/19 08:45

Lab Sample ID: 500-171208-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/14/19 17:49	1
Bromoform	<0.48		1.0	0.48	ug/L			10/14/19 17:49	1
Bromomethane	<0.80		3.0	0.80	ug/L			10/14/19 17:49	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/14/19 17:49	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/14/19 17:49	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/14/19 17:49	1
Chloroform	<0.37		2.0	0.37	ug/L			10/14/19 17:49	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/14/19 17:49	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/14/19 17:49	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/14/19 17:49	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/14/19 17:49	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/14/19 17:49	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/14/19 17:49	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/14/19 17:49	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/14/19 17:49	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/14/19 17:49	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/14/19 17:49	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/14/19 17:49	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/14/19 17:49	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			10/14/19 17:49	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/14/19 17:49	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/14/19 17:49	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/14/19 17:49	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			10/14/19 17:49	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/14/19 17:49	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/14/19 17:49	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/14/19 17:49	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/14/19 17:49	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/14/19 17:49	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 17:49	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/14/19 17:49	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			10/14/19 17:49	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/14/19 17:49	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/14/19 17:49	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 17:49	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/14/19 17:49	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/14/19 17:49	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 17:49	1
Styrene	<0.39		1.0	0.39	ug/L			10/14/19 17:49	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 17:49	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/14/19 17:49	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/14/19 17:49	1
Tetrachloroethene	37		1.0	0.37	ug/L			10/14/19 17:49	1
Toluene	0.22 J		0.50	0.15	ug/L			10/14/19 17:49	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/14/19 17:49	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/14/19 17:49	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/14/19 17:49	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/14/19 17:49	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/14/19 17:49	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

Client Sample ID: MW3
Date Collected: 10/01/19 13:15
Date Received: 10/04/19 08:45

Lab Sample ID: 500-171208-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/14/19 17:49	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/14/19 17:49	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/14/19 17:49	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			10/14/19 17:49	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/14/19 17:49	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/14/19 17:49	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/14/19 17:49	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/14/19 17:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		72 - 124					10/14/19 17:49	1
Dibromofluoromethane	93		75 - 120					10/14/19 17:49	1
1,2-Dichloroethane-d4 (Surr)	85		75 - 126					10/14/19 17:49	1
Toluene-d8 (Surr)	98		75 - 120					10/14/19 17:49	1

Client Sample ID: MW1
Date Collected: 10/01/19 13:49
Date Received: 10/04/19 08:45

Lab Sample ID: 500-171208-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			10/14/19 18:14	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/14/19 18:14	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/14/19 18:14	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/14/19 18:14	1
Bromoform	<0.48		1.0	0.48	ug/L			10/14/19 18:14	1
Bromomethane	<0.80		3.0	0.80	ug/L			10/14/19 18:14	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/14/19 18:14	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/14/19 18:14	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/14/19 18:14	1
Chloroform	<0.37		2.0	0.37	ug/L			10/14/19 18:14	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/14/19 18:14	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/14/19 18:14	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/14/19 18:14	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/14/19 18:14	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/14/19 18:14	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/14/19 18:14	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/14/19 18:14	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/14/19 18:14	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/14/19 18:14	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/14/19 18:14	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/14/19 18:14	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/14/19 18:14	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			10/14/19 18:14	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/14/19 18:14	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/14/19 18:14	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/14/19 18:14	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			10/14/19 18:14	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/14/19 18:14	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/14/19 18:14	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: SCS Engineers
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

Client Sample ID: MW1

Lab Sample ID: 500-171208-4

Date Collected: 10/01/19 13:49

Matrix: Water

Date Received: 10/04/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/14/19 18:14	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/14/19 18:14	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/14/19 18:14	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 18:14	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/14/19 18:14	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			10/14/19 18:14	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/14/19 18:14	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/14/19 18:14	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 18:14	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/14/19 18:14	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/14/19 18:14	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 18:14	1
Styrene	<0.39		1.0	0.39	ug/L			10/14/19 18:14	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 18:14	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/14/19 18:14	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/14/19 18:14	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			10/14/19 18:14	1
Toluene	0.22 J		0.50	0.15	ug/L			10/14/19 18:14	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/14/19 18:14	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/14/19 18:14	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/14/19 18:14	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/14/19 18:14	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/14/19 18:14	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/14/19 18:14	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/14/19 18:14	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/14/19 18:14	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			10/14/19 18:14	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/14/19 18:14	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/14/19 18:14	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/14/19 18:14	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/14/19 18:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		72 - 124		10/14/19 18:14	1
Dibromofluoromethane	89		75 - 120		10/14/19 18:14	1
1,2-Dichloroethane-d4 (Surr)	83		75 - 126		10/14/19 18:14	1
Toluene-d8 (Surr)	100		75 - 120		10/14/19 18:14	1

Client Sample ID: Trip Blank

Lab Sample ID: 500-171208-5

Date Collected: 10/01/19 00:00

Matrix: Water

Date Received: 10/04/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			10/14/19 18:39	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/14/19 18:39	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/14/19 18:39	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/14/19 18:39	1
Bromoform	<0.48		1.0	0.48	ug/L			10/14/19 18:39	1
Bromomethane	<0.80		3.0	0.80	ug/L			10/14/19 18:39	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: SCS Engineers
 Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-171208-5

Date Collected: 10/01/19 00:00

Matrix: Water

Date Received: 10/04/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/14/19 18:39	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/14/19 18:39	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/14/19 18:39	1
Chloroform	<0.37		2.0	0.37	ug/L			10/14/19 18:39	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/14/19 18:39	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/14/19 18:39	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/14/19 18:39	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/14/19 18:39	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/14/19 18:39	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/14/19 18:39	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/14/19 18:39	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/14/19 18:39	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/14/19 18:39	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/14/19 18:39	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/14/19 18:39	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/14/19 18:39	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			10/14/19 18:39	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/14/19 18:39	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/14/19 18:39	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/14/19 18:39	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			10/14/19 18:39	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/14/19 18:39	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/14/19 18:39	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/14/19 18:39	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/14/19 18:39	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/14/19 18:39	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 18:39	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/14/19 18:39	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			10/14/19 18:39	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/14/19 18:39	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/14/19 18:39	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 18:39	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/14/19 18:39	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/14/19 18:39	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 18:39	1
Styrene	<0.39		1.0	0.39	ug/L			10/14/19 18:39	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 18:39	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/14/19 18:39	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/14/19 18:39	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			10/14/19 18:39	1
Toluene	0.21	J	0.50	0.15	ug/L			10/14/19 18:39	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/14/19 18:39	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/14/19 18:39	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/14/19 18:39	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/14/19 18:39	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/14/19 18:39	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/14/19 18:39	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/14/19 18:39	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/14/19 18:39	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-171208-5

Date Collected: 10/01/19 00:00

Matrix: Water

Date Received: 10/04/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			10/14/19 18:39	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/14/19 18:39	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/14/19 18:39	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/14/19 18:39	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/14/19 18:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		72 - 124		10/14/19 18:39	1
Dibromofluoromethane	90		75 - 120		10/14/19 18:39	1
1,2-Dichloroethane-d4 (Surr)	87		75 - 126		10/14/19 18:39	1
Toluene-d8 (Surr)	100		75 - 120		10/14/19 18:39	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

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.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

QC Association Summary

Client: SCS Engineers
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

GC/MS VOA

Analysis Batch: 509833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-171208-1	MW3 Dup	Total/NA	Water	8260B	
500-171208-2	MW2	Total/NA	Water	8260B	
500-171208-3	MW3	Total/NA	Water	8260B	
500-171208-4	MW1	Total/NA	Water	8260B	
500-171208-5	Trip Blank	Total/NA	Water	8260B	
MB 500-509833/6	Method Blank	Total/NA	Water	8260B	
LCS 500-509833/4	Lab Control Sample	Total/NA	Water	8260B	

- 1
- 2
- 3
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- 12
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- 14
- 15

Surrogate Summary

Client: SCS Engineers
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

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)
500-171208-1	MW3 Dup	110	90	81	99
500-171208-2	MW2	108	90	83	97
500-171208-3	MW3	111	93	85	98
500-171208-4	MW1	112	89	83	100
500-171208-5	Trip Blank	112	90	87	100
LCS 500-509833/4	Lab Control Sample	94	95	83	105
MB 500-509833/6	Method Blank	105	91	87	96

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: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

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

Lab Sample ID: MB 500-509833/6
Matrix: Water
Analysis Batch: 509833

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<0.15		0.50	0.15	ug/L			10/14/19 09:26	1
Bromobenzene	<0.36		1.0	0.36	ug/L			10/14/19 09:26	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			10/14/19 09:26	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			10/14/19 09:26	1
Bromoform	<0.48		1.0	0.48	ug/L			10/14/19 09:26	1
Bromomethane	<0.80		3.0	0.80	ug/L			10/14/19 09:26	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			10/14/19 09:26	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			10/14/19 09:26	1
Chloroethane	<0.51		1.0	0.51	ug/L			10/14/19 09:26	1
Chloroform	<0.37		2.0	0.37	ug/L			10/14/19 09:26	1
Chloromethane	<0.32		1.0	0.32	ug/L			10/14/19 09:26	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			10/14/19 09:26	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			10/14/19 09:26	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			10/14/19 09:26	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			10/14/19 09:26	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			10/14/19 09:26	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			10/14/19 09:26	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			10/14/19 09:26	1
Dibromomethane	<0.27		1.0	0.27	ug/L			10/14/19 09:26	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			10/14/19 09:26	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			10/14/19 09:26	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			10/14/19 09:26	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			10/14/19 09:26	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			10/14/19 09:26	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			10/14/19 09:26	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			10/14/19 09:26	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			10/14/19 09:26	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			10/14/19 09:26	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			10/14/19 09:26	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			10/14/19 09:26	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			10/14/19 09:26	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			10/14/19 09:26	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 09:26	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			10/14/19 09:26	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			10/14/19 09:26	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			10/14/19 09:26	1
Naphthalene	<0.34		1.0	0.34	ug/L			10/14/19 09:26	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			10/14/19 09:26	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			10/14/19 09:26	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			10/14/19 09:26	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 09:26	1
Styrene	<0.39		1.0	0.39	ug/L			10/14/19 09:26	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			10/14/19 09:26	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			10/14/19 09:26	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			10/14/19 09:26	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			10/14/19 09:26	1
Toluene	<0.15		0.50	0.15	ug/L			10/14/19 09:26	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			10/14/19 09:26	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: SCS Engineers
 Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

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

Lab Sample ID: MB 500-509833/6
Matrix: Water
Analysis Batch: 509833

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			10/14/19 09:26	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			10/14/19 09:26	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			10/14/19 09:26	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			10/14/19 09:26	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			10/14/19 09:26	1
Trichloroethene	<0.16		0.50	0.16	ug/L			10/14/19 09:26	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			10/14/19 09:26	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			10/14/19 09:26	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			10/14/19 09:26	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			10/14/19 09:26	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			10/14/19 09:26	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			10/14/19 09:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		72 - 124		10/14/19 09:26	1
Dibromofluoromethane	91		75 - 120		10/14/19 09:26	1
1,2-Dichloroethane-d4 (Surr)	87		75 - 126		10/14/19 09:26	1
Toluene-d8 (Surr)	96		75 - 120		10/14/19 09:26	1

Lab Sample ID: LCS 500-509833/4
Matrix: Water
Analysis Batch: 509833

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.3		ug/L		99	70 - 120
Bromobenzene	50.0	49.0		ug/L		98	70 - 122
Bromochloromethane	50.0	48.8		ug/L		98	65 - 122
Bromodichloromethane	50.0	42.8		ug/L		86	69 - 120
Bromoform	50.0	46.2		ug/L		92	56 - 132
Bromomethane	50.0	42.9		ug/L		86	40 - 152
Carbon tetrachloride	50.0	44.1		ug/L		88	59 - 133
Chlorobenzene	50.0	50.9		ug/L		102	70 - 120
Chloroethane	50.0	54.3		ug/L		109	48 - 136
Chloroform	50.0	45.9		ug/L		92	70 - 120
Chloromethane	50.0	41.7		ug/L		83	56 - 152
2-Chlorotoluene	50.0	47.3		ug/L		95	70 - 125
4-Chlorotoluene	50.0	46.1		ug/L		92	68 - 124
cis-1,2-Dichloroethene	50.0	48.5		ug/L		97	70 - 125
cis-1,3-Dichloropropene	50.0	47.9		ug/L		96	64 - 127
Dibromochloromethane	50.0	45.9		ug/L		92	68 - 125
1,2-Dibromo-3-Chloropropane	50.0	33.6		ug/L		67	56 - 123
1,2-Dibromoethane	50.0	48.6		ug/L		97	70 - 125
Dibromomethane	50.0	43.9		ug/L		88	70 - 120
1,2-Dichlorobenzene	50.0	48.7		ug/L		97	70 - 125
1,3-Dichlorobenzene	50.0	50.8		ug/L		102	70 - 125
1,4-Dichlorobenzene	50.0	48.7		ug/L		97	70 - 120
Dichlorodifluoromethane	50.0	34.8		ug/L		70	40 - 159
1,1-Dichloroethane	50.0	52.6		ug/L		105	70 - 125

Eurofins TestAmerica, Chicago

QC Sample Results

Client: SCS Engineers
 Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

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

Lab Sample ID: LCS 500-509833/4
Matrix: Water
Analysis Batch: 509833

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	50.0	42.5		ug/L		85	68 - 127
1,1-Dichloroethene	50.0	45.7		ug/L		91	67 - 122
1,2-Dichloropropane	50.0	54.0		ug/L		108	67 - 130
1,3-Dichloropropane	50.0	47.3		ug/L		95	62 - 136
2,2-Dichloropropane	50.0	49.4		ug/L		99	58 - 139
1,1-Dichloropropene	50.0	50.2		ug/L		100	70 - 121
Ethylbenzene	50.0	53.1		ug/L		106	70 - 123
Hexachlorobutadiene	50.0	56.4		ug/L		113	51 - 150
Isopropylbenzene	50.0	50.4		ug/L		101	70 - 126
Methylene Chloride	50.0	46.5		ug/L		93	69 - 125
Methyl tert-butyl ether	50.0	40.6		ug/L		81	55 - 123
Naphthalene	50.0	40.5		ug/L		81	53 - 144
n-Butylbenzene	50.0	48.4		ug/L		97	68 - 125
N-Propylbenzene	50.0	48.4		ug/L		97	69 - 127
p-Isopropyltoluene	50.0	49.7		ug/L		99	70 - 125
sec-Butylbenzene	50.0	50.6		ug/L		101	70 - 123
Styrene	50.0	49.5		ug/L		99	70 - 120
tert-Butylbenzene	50.0	50.2		ug/L		100	70 - 121
1,1,1,2-Tetrachloroethane	50.0	49.6		ug/L		99	70 - 125
1,1,2,2-Tetrachloroethane	50.0	46.3		ug/L		93	62 - 140
Tetrachloroethene	50.0	56.6		ug/L		113	70 - 128
Toluene	50.0	49.5		ug/L		99	70 - 125
trans-1,2-Dichloroethene	50.0	49.0		ug/L		98	70 - 125
trans-1,3-Dichloropropene	50.0	43.5		ug/L		87	62 - 128
1,2,3-Trichlorobenzene	50.0	46.6		ug/L		93	51 - 145
1,2,4-Trichlorobenzene	50.0	49.0		ug/L		98	57 - 137
1,1,1-Trichloroethane	50.0	47.1		ug/L		94	70 - 125
1,1,2-Trichloroethane	50.0	46.5		ug/L		93	71 - 130
Trichloroethene	50.0	51.4		ug/L		103	70 - 125
Trichlorofluoromethane	50.0	44.6		ug/L		89	55 - 128
1,2,3-Trichloropropane	50.0	43.2		ug/L		86	50 - 133
1,2,4-Trimethylbenzene	50.0	48.4		ug/L		97	70 - 123
1,3,5-Trimethylbenzene	50.0	49.4		ug/L		99	70 - 123
Vinyl chloride	50.0	54.3		ug/L		109	64 - 126
Xylenes, Total	100	97.1		ug/L		97	70 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	94		72 - 124
Dibromofluoromethane	95		75 - 120
1,2-Dichloroethane-d4 (Surr)	83		75 - 126
Toluene-d8 (Surr)	105		75 - 120

Lab Chronicle

Client: SCS Engineers
Project/Site: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

Client Sample ID: MW3 Dup

Date Collected: 10/01/19 13:15

Date Received: 10/04/19 08:45

Lab Sample ID: 500-171208-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	509833	10/14/19 16:58	STW	TAL CHI

Client Sample ID: MW2

Date Collected: 10/01/19 12:45

Date Received: 10/04/19 08:45

Lab Sample ID: 500-171208-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	509833	10/14/19 17:23	STW	TAL CHI

Client Sample ID: MW3

Date Collected: 10/01/19 13:15

Date Received: 10/04/19 08:45

Lab Sample ID: 500-171208-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	509833	10/14/19 17:49	STW	TAL CHI

Client Sample ID: MW1

Date Collected: 10/01/19 13:49

Date Received: 10/04/19 08:45

Lab Sample ID: 500-171208-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	509833	10/14/19 18:14	STW	TAL CHI

Client Sample ID: Trip Blank

Date Collected: 10/01/19 00:00

Date Received: 10/04/19 08:45

Lab Sample ID: 500-171208-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	509833	10/14/19 18:39	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: Arctic Laundry & Cleaners 25216186.00

Job ID: 500-171208-1

Laboratory: Eurofins TestAmerica, Chicago

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

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

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Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 500-171208-1

Login Number: 171208

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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	1.0
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.	True	
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	



October 14, 2019

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


RE: Project: 25216186 Arctic Laundry & Clea
Pace Project No.: 10494511

Dear Rob Langdon:

Enclosed are the analytical results for sample(s) received by the laboratory on October 05, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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: 25216186 Arctic Laundry & Clea

Pace Project No.: 10494511

Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485

A2LA Certification #: 2926.01

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas DW Certification #: MN00064

Arkansas WW Certification #: 88-0680

California Certification #: 2929

CNMI Saipan Certification #: MP0003

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8+Wyoming DW Certification #: via MN 027-053-137

Florida Certification #: E87605

Georgia Certification #: 959

Guam EPA Certification #: MN00064

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: 03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Massachusetts Certification #: M-MN064

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Certification #: via MN 027-053-137

Minnesota Petrofund Certification #: 1240

Mississippi Certification #: MN00064

Missouri Certification #: 10100

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification #: CL101

Oklahoma Certification #: 9507

Oregon Primary Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Vermont Certification #: VT-027053137

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DEP Certification #: 382

West Virginia DW Certification #: 9952 C

Wisconsin Certification #: 999407970

Wyoming UST Certification #: via A2LA 2926.01

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 25216186 Arctic Laundry & Clea
Pace Project No.: 10494511

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10494511001	SS-6	Air	10/02/19 14:35	10/05/19 09:10
10494511002	SS-7	Air	10/02/19 12:35	10/05/19 09:10
10494511003	SS-8	Air	10/02/19 13:34	10/05/19 09:10
10494511004	SS-9	Air	10/02/19 12:45	10/05/19 09:10

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 25216186 Arctic Laundry & Clea
Pace Project No.: 10494511

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10494511001	SS-6	TO-15	MJL	5	PASI-M
10494511002	SS-7	TO-15	MJL	5	PASI-M
10494511003	SS-8	TO-15	MJL	5	PASI-M
10494511004	SS-9	TO-15	MJL	5	PASI-M

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 25216186 Arctic Laundry & Clea

Pace Project No.: 10494511

Sample: SS-6									
Lab ID: 10494511001									
Collected: 10/02/19 14:35 Received: 10/05/19 09:10 Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.49	ug/m3	1.8	0.49	2.24		10/12/19 21:51	156-59-2	
trans-1,2-Dichloroethene	<0.64	ug/m3	1.8	0.64	2.24		10/12/19 21:51	156-60-5	
Tetrachloroethene	6.4	ug/m3	1.5	0.70	2.24		10/12/19 21:51	127-18-4	
Trichloroethene	<0.57	ug/m3	1.2	0.57	2.24		10/12/19 21:51	79-01-6	
Vinyl chloride	<0.28	ug/m3	0.58	0.28	2.24		10/12/19 21:51	75-01-4	

Sample: SS-7									
Lab ID: 10494511002									
Collected: 10/02/19 12:35 Received: 10/05/19 09:10 Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.38	ug/m3	1.4	0.38	1.75		10/12/19 22:21	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/m3	1.4	0.50	1.75		10/12/19 22:21	156-60-5	
Tetrachloroethene	29.9	ug/m3	1.2	0.55	1.75		10/12/19 22:21	127-18-4	
Trichloroethene	<0.44	ug/m3	0.96	0.44	1.75		10/12/19 22:21	79-01-6	
Vinyl chloride	<0.22	ug/m3	0.46	0.22	1.75		10/12/19 22:21	75-01-4	

Sample: SS-8									
Lab ID: 10494511003									
Collected: 10/02/19 13:34 Received: 10/05/19 09:10 Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.35	ug/m3	1.3	0.35	1.61		10/12/19 22:50	156-59-2	
trans-1,2-Dichloroethene	<0.46	ug/m3	1.3	0.46	1.61		10/12/19 22:50	156-60-5	
Tetrachloroethene	76.1	ug/m3	1.1	0.51	1.61		10/12/19 22:50	127-18-4	
Trichloroethene	4.4	ug/m3	0.88	0.41	1.61		10/12/19 22:50	79-01-6	
Vinyl chloride	<0.20	ug/m3	0.42	0.20	1.61		10/12/19 22:50	75-01-4	

Sample: SS-9									
Lab ID: 10494511004									
Collected: 10/02/19 12:45 Received: 10/05/19 09:10 Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.35	ug/m3	1.3	0.35	1.61		10/12/19 23:20	156-59-2	
trans-1,2-Dichloroethene	<0.46	ug/m3	1.3	0.46	1.61		10/12/19 23:20	156-60-5	
Tetrachloroethene	25.1	ug/m3	1.1	0.51	1.61		10/12/19 23:20	127-18-4	
Trichloroethene	<0.41	ug/m3	0.88	0.41	1.61		10/12/19 23:20	79-01-6	
Vinyl chloride	<0.20	ug/m3	0.42	0.20	1.61		10/12/19 23:20	75-01-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 25216186 Arctic Laundry & Clea
Pace Project No.: 10494511

QC Batch: 637913 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10494511001, 10494511002, 10494511003, 10494511004

METHOD BLANK: 3438892 Matrix: Air
Associated Lab Samples: 10494511001, 10494511002, 10494511003, 10494511004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.22	0.81	10/12/19 10:45	
Tetrachloroethene	ug/m3	<0.31	0.69	10/12/19 10:45	
trans-1,2-Dichloroethene	ug/m3	<0.28	0.81	10/12/19 10:45	
Trichloroethene	ug/m3	<0.25	0.55	10/12/19 10:45	
Vinyl chloride	ug/m3	<0.13	0.26	10/12/19 10:45	

LABORATORY CONTROL SAMPLE: 3438893

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	40.3	44.8	111	70-130	
Tetrachloroethene	ug/m3	68.9	70.4	102	70-130	
trans-1,2-Dichloroethene	ug/m3	40.3	30.3	75	70-130	
Trichloroethene	ug/m3	54.6	59.8	109	70-130	
Vinyl chloride	ug/m3	26	29.1	112	70-130	

SAMPLE DUPLICATE: 3439043

Parameter	Units	10493456010 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.32		25	
Tetrachloroethene	ug/m3	18.7	19.0	1	25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.41		25	
Trichloroethene	ug/m3	ND	<0.36		25	
Vinyl chloride	ug/m3	ND	<0.18		25	

SAMPLE DUPLICATE: 3439044

Parameter	Units	10493456011 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.33		25	
Tetrachloroethene	ug/m3	ND	<0.47		25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.42		25	
Trichloroethene	ug/m3	ND	<0.38		25	
Vinyl chloride	ug/m3	ND	<0.19		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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QUALIFIERS

Project: 25216186 Arctic Laundry & Clea

Pace Project No.: 10494511

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.

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25216186 Arctic Laundry & Clea

Pace Project No.: 10494511

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10494511001	SS-6	TO-15	637913		
10494511002	SS-7	TO-15	637913		
10494511003	SS-8	TO-15	637913		
10494511004	SS-9	TO-15	637913		

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AIR: CHAIN-OF-CUSTODY

The Chain-of-Custody is a LEGAL DOCUMENT. All rele

WO#: 10494511



45592

Page: 1 of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Program	
Company: <u>SS Engineers</u>		Report To: <u>Robert Lang</u>		Attention: <u>Same</u>		<input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act <input checked="" type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other	
Address: <u>2830 Darryl Dr Madison, WI 53718</u>		Copy To:		Company Name: <u>Same</u>		Location of Sampling by State: <u>WI</u>	
Email To: <u>rlang@ssengineers.com</u>		Purchase Order No.:		Address:		Reporting Units ug/m ³ _____ mg/m ³ _____ PPBV _____ PPMV _____ Other _____	
Phone: <u>608 216 7719</u> Fax:		Project Name: <u>Arctic Laundry & Clean</u>		Pace Quote Reference:		Report Level: <u>II</u> <u>III</u> <u>IV</u> Other:	
Requested Due Date/TAT:		Project Number: <u>25216186</u>		Pace Project Manager/Sales Rep.:			
				Pace Profile #: <u>32630</u>			

ITEM #	Section D Required Client Information AIR SAMPLE ID Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE Tedlar Bag TB 1 Liter Summa Can 1LC 6 Liter Summa Can 6LC Low Volume Puff LVP High Volume Puff HVP Other PM10	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	SC - Piked Gas (%)	TO-3 BTEX	TO-3M (Methane)	TO-14	TO-15 Full List VOCs	TO-15 Short List BTEX		TO-15 Short List Chlorinated
					DATE	TIME	DATE	TIME													
1	SS-6		6612	10/2/19	1355	10/2/19	1435	-20	-13	0645	1224								001		
2	SS-7		6626	10/2/19	1205	10/2/19	1235	-275	-6	3537	1246								002		
3	SS-8		6611	10/2/19	1145	10/2/19	1245	71	5	3654	0912								002		
4	SS-8		6616	10/2/19	1300	10/2/19	1374	-70	5	3654	0912								003		
5	SS-9		6611	10/2/19	1245	10/2/19	1245	-3	-5	0679	1119								004		

Comments:
* PCB, PCB, CO2 & trans
12 PCB, and vinyl
dibenzide

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS								
<u>Robert Lang</u>	<u>10/4/19</u>	<u>1200</u>	<u>[Signature]</u>	<u>10/15/19</u>	<u>9:00</u>	Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact	Y/N	Y/N	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Robert Lang

SIGNATURE of SAMPLER: [Signature] DATE Signed (MM / DD / Y): 10/07/19

ORIGINAL



Document Name:
Air Sample Condition Upon Receipt

Document No.:
F-MN-A-106-rev.18

Document Revised: 31Jan2019
Page 1 of 1
Issuing Authority:

WO#: 10494511

Air Sample Condition Upon Receipt

Client Name: SCS

Project #:

PM: KNH

Due Date: 10/14/19

CLIENT: SCS Engineer

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

Tracking Number: 1083 0281 0800

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: EG 10/7/19

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?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact?	<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 (3C and ASTM 1946 DO NOT PRESSURIZE)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13.

Samples Received:					Pressure Gauge # <input type="checkbox"/> 10AIR34 <input type="checkbox"/> 10AIR35				
Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
SS-6	0645	1224	-12	+5					
" 7	3537	1246	-7	"					
" 8	3054	0912	-5	"					
" 9	0679	1119	-5	"					

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review:

Kirsten Hoppert

Date: 10/8/2019

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: 10494511
 Project Name: 25216186 Artic Laundry & Clean

Lab Sample No: 10494511001 ProjSampleNum: 10494511001 Date Collected: 10/02/19 14:35
 Client Sample ID: SS-6 Matrix: Air Date Received: 10/05/19 9:10

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
Air							
TO-15							
cis-1,2-Dichloroethene	<0.12	ppbv	0.45	0.12	10/12/19 21:51 MJL	156-59-2	
Tetrachloroethene	0.93	ppbv	0.22	0.1	10/12/19 21:51 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.16	ppbv	0.45	0.16	10/12/19 21:51 MJL	156-60-5	
Trichloroethene	<0.1	ppbv	0.22	0.1	10/12/19 21:51 MJL	79-01-6	
Vinyl chloride	<0.11	ppbv	0.22	0.11	10/12/19 21:51 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: 10494511
 Project Name: 25216186 Artic Laundry & Clean

Lab Sample No: 10494511002 ProjSampleNum: 10494511002 Date Collected: 10/02/19 12:35
 Client Sample ID: SS-7 Matrix: Air Date Received: 10/05/19 9:10

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
Air							
TO-15							
cis-1,2-Dichloroethene	<0.094	ppbv	0.35	0.094	10/12/19 22:21 MJL	156-59-2	
Tetrachloroethene	4.3	ppbv	0.17	0.08	10/12/19 22:21 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.12	ppbv	0.35	0.12	10/12/19 22:21 MJL	156-60-5	
Trichloroethene	<0.081	ppbv	0.18	0.081	10/12/19 22:21 MJL	79-01-6	
Vinyl chloride	<0.085	ppbv	0.18	0.085	10/12/19 22:21 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: 10494511
 Project Name: 25216186 Artic Laundry & Clean

Lab Sample No: 10494511003 ProjSampleNum: 10494511003 Date Collected: 10/02/19 13:34
 Client Sample ID: SS-8 Matrix: Air Date Received: 10/05/19 9:10

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
Air							
TO-15							
cis-1,2-Dichloroethene	<0.087	ppbv	0.32	0.087	10/12/19 22:50 MJL	156-59-2	
Tetrachloroethene	11	ppbv	0.16	0.074	10/12/19 22:50 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.11	ppbv	0.32	0.11	10/12/19 22:50 MJL	156-60-5	
Trichloroethene	0.81	ppbv	0.16	0.075	10/12/19 22:50 MJL	79-01-6	
Vinyl chloride	<0.077	ppbv	0.16	0.077	10/12/19 22:50 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: 10494511
 Project Name: 25216186 Artic Laundry & Clean

Lab Sample No: 10494511004 ProjSampleNum: 10494511004 Date Collected: 10/02/19 12:45
 Client Sample ID: SS-9 Matrix: Air Date Received: 10/05/19 9:10

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
Air							
TO-15							
cis-1,2-Dichloroethene	<0.087	ppbv	0.32	0.087	10/12/19 23:20 MJL	156-59-2	
Tetrachloroethene	3.6	ppbv	0.16	0.074	10/12/19 23:20 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.11	ppbv	0.32	0.11	10/12/19 23:20 MJL	156-60-5	
Trichloroethene	<0.075	ppbv	0.16	0.075	10/12/19 23:20 MJL	79-01-6	
Vinyl chloride	<0.077	ppbv	0.16	0.077	10/12/19 23:20 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: 10494511
Project Name: 25216186 Artic Laundry & Clean

PARAMETER FOOTNOTES

SUPPLEMENTAL REPORT
Units Conversion Request

Date: 10/14/2019

Page 5

October 14, 2019

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

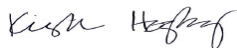
RE: Project: Artic Laundry & Cleaners
Pace Project No.: 10494447

Dear Rob Langdon:

Enclosed are the analytical results for sample(s) received by the laboratory on October 04, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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: Artic Laundry & Cleaners

Pace Project No.: 10494447

Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485

A2LA Certification #: 2926.01

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas DW Certification #: MN00064

Arkansas WW Certification #: 88-0680

California Certification #: 2929

CNMI Saipan Certification #: MP0003

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8+Wyoming DW Certification #: via MN 027-053-137

Florida Certification #: E87605

Georgia Certification #: 959

Guam EPA Certification #: MN00064

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: 03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Massachusetts Certification #: M-MN064

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Certification #: via MN 027-053-137

Minnesota Petrofund Certification #: 1240

Mississippi Certification #: MN00064

Missouri Certification #: 10100

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification #: CL101

Oklahoma Certification #: 9507

Oregon Primary Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Vermont Certification #: VT-027053137

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DEP Certification #: 382

West Virginia DW Certification #: 9952 C

Wisconsin Certification #: 999407970

Wyoming UST Certification #: via A2LA 2926.01

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Artic Laundry & Cleaners

Pace Project No.: 10494447

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10494447001	5605 Bar	Air	10/02/19 11:17	10/04/19 12:00
10494447002	5605 Liquor Store	Air	10/02/19 11:17	10/04/19 12:00
10494447003	5605 Basement	Air	10/02/19 11:19	10/04/19 12:00
10494447004	5605 Outdoor	Air	10/02/19 11:13	10/04/19 12:00
10494447005	5605 2nd Floor	Air	10/02/19 11:10	10/04/19 12:00
10494447006	5621 1st Floor	Air	10/02/19 11:40	10/04/19 12:00
10494447007	5621 Basement	Air	10/02/19 11:41	10/04/19 12:00
10494447008	5625 Storage	Air	10/02/19 11:42	10/04/19 12:00
10494447009	5621 Outdoor	Air	10/02/19 11:39	10/04/19 12:00
10494447010	Unused Can 0199	Air		10/04/19 12:00
10494447011	Unused Can 3495	Air		10/04/19 12:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Artic Laundry & Cleaners

Pace Project No.: 10494447

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10494447001	5605 Bar	TO-15	MJL	5	PASI-M
10494447002	5605 Liquor Store	TO-15	MJL	5	PASI-M
10494447003	5605 Basement	TO-15	MJL	5	PASI-M
10494447004	5605 Outdoor	TO-15	MJL	5	PASI-M
10494447005	5605 2nd Floor	TO-15	MJL	5	PASI-M
10494447006	5621 1st Floor	TO-15	MJL	5	PASI-M
10494447007	5621 Basement	TO-15	MJL	5	PASI-M
10494447008	5625 Storage	TO-15	MJL	5	PASI-M
10494447009	5621 Outdoor	TO-15	MJL	5	PASI-M

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Artic Laundry & Cleaners

Pace Project No.: 10494447

Sample: 5605 Bar									
Lab ID: 10494447001									
Collected: 10/02/19 11:17 Received: 10/04/19 12:00 Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.33	ug/m3	1.2	0.33	1.49		10/11/19 22:59	156-59-2	
trans-1,2-Dichloroethene	<0.42	ug/m3	1.2	0.42	1.49		10/11/19 22:59	156-60-5	
Tetrachloroethene	0.87J	ug/m3	1.0	0.47	1.49		10/11/19 22:59	127-18-4	
Trichloroethene	<0.38	ug/m3	0.81	0.38	1.49		10/11/19 22:59	79-01-6	
Vinyl chloride	<0.19	ug/m3	0.39	0.19	1.49		10/11/19 22:59	75-01-4	

Sample: 5605 Liquor Store									
Lab ID: 10494447002									
Collected: 10/02/19 11:17 Received: 10/04/19 12:00 Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.33	ug/m3	1.2	0.33	1.49		10/11/19 22:01	156-59-2	
trans-1,2-Dichloroethene	<0.42	ug/m3	1.2	0.42	1.49		10/11/19 22:01	156-60-5	
Tetrachloroethene	0.78J	ug/m3	1.0	0.47	1.49		10/11/19 22:01	127-18-4	
Trichloroethene	<0.38	ug/m3	0.81	0.38	1.49		10/11/19 22:01	79-01-6	
Vinyl chloride	<0.19	ug/m3	0.39	0.19	1.49		10/11/19 22:01	75-01-4	

Sample: 5605 Basement									
Lab ID: 10494447003									
Collected: 10/02/19 11:19 Received: 10/04/19 12:00 Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.33	ug/m3	1.2	0.33	1.49		10/11/19 23:57	156-59-2	
trans-1,2-Dichloroethene	<0.42	ug/m3	1.2	0.42	1.49		10/11/19 23:57	156-60-5	
Tetrachloroethene	3.2	ug/m3	1.0	0.47	1.49		10/11/19 23:57	127-18-4	
Trichloroethene	0.86	ug/m3	0.81	0.38	1.49		10/11/19 23:57	79-01-6	
Vinyl chloride	<0.19	ug/m3	0.39	0.19	1.49		10/11/19 23:57	75-01-4	

Sample: 5605 Outdoor									
Lab ID: 10494447004									
Collected: 10/02/19 11:13 Received: 10/04/19 12:00 Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.28	ug/m3	1.0	0.28	1.3		10/12/19 00:55	156-59-2	
trans-1,2-Dichloroethene	<0.37	ug/m3	1.0	0.37	1.3		10/12/19 00:55	156-60-5	
Tetrachloroethene	<0.41	ug/m3	0.90	0.41	1.3		10/12/19 00:55	127-18-4	
Trichloroethene	<0.33	ug/m3	0.71	0.33	1.3		10/12/19 00:55	79-01-6	
Vinyl chloride	<0.16	ug/m3	0.34	0.16	1.3		10/12/19 00:55	75-01-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Artic Laundry & Cleaners

Pace Project No.: 10494447

Sample: 5605 2nd Floor									
Lab ID: 10494447005									
Collected: 10/02/19 11:10									
Received: 10/04/19 12:00									
Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.33	ug/m3	1.2	0.33	1.49		10/12/19 01:25	156-59-2	
trans-1,2-Dichloroethene	<0.42	ug/m3	1.2	0.42	1.49		10/12/19 01:25	156-60-5	
Tetrachloroethene	0.81J	ug/m3	1.0	0.47	1.49		10/12/19 01:25	127-18-4	
Trichloroethene	<0.38	ug/m3	0.81	0.38	1.49		10/12/19 01:25	79-01-6	
Vinyl chloride	<0.19	ug/m3	0.39	0.19	1.49		10/12/19 01:25	75-01-4	

Sample: 5621 1st Floor									
Lab ID: 10494447006									
Collected: 10/02/19 11:40									
Received: 10/04/19 12:00									
Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.33	ug/m3	1.2	0.33	1.49		10/12/19 01:55	156-59-2	
trans-1,2-Dichloroethene	<0.42	ug/m3	1.2	0.42	1.49		10/12/19 01:55	156-60-5	
Tetrachloroethene	<0.47	ug/m3	1.0	0.47	1.49		10/12/19 01:55	127-18-4	
Trichloroethene	<0.38	ug/m3	0.81	0.38	1.49		10/12/19 01:55	79-01-6	
Vinyl chloride	<0.19	ug/m3	0.39	0.19	1.49		10/12/19 01:55	75-01-4	

Sample: 5621 Basement									
Lab ID: 10494447007									
Collected: 10/02/19 11:41									
Received: 10/04/19 12:00									
Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.33	ug/m3	1.2	0.33	1.49		10/12/19 03:27	156-59-2	
trans-1,2-Dichloroethene	<0.42	ug/m3	1.2	0.42	1.49		10/12/19 03:27	156-60-5	
Tetrachloroethene	<0.47	ug/m3	1.0	0.47	1.49		10/12/19 03:27	127-18-4	
Trichloroethene	<0.38	ug/m3	0.81	0.38	1.49		10/12/19 03:27	79-01-6	
Vinyl chloride	<0.19	ug/m3	0.39	0.19	1.49		10/12/19 03:27	75-01-4	

Sample: 5625 Storage									
Lab ID: 10494447008									
Collected: 10/02/19 11:42									
Received: 10/04/19 12:00									
Matrix: Air									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR									
Analytical Method: TO-15									
cis-1,2-Dichloroethene	<0.84	ug/m3	3.1	0.84	3.85		10/12/19 02:28	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/m3	3.1	1.1	3.85		10/12/19 02:28	156-60-5	
Tetrachloroethene	<1.2	ug/m3	2.7	1.2	3.85		10/12/19 02:28	127-18-4	
Trichloroethene	<0.97	ug/m3	2.1	0.97	3.85		10/12/19 02:28	79-01-6	
Vinyl chloride	<0.49	ug/m3	1.0	0.49	3.85		10/12/19 02:28	75-01-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Artic Laundry & Cleaners

Pace Project No.: 10494447

Sample: 5621 Outdoor **Lab ID: 10494447009** Collected: 10/02/19 11:39 Received: 10/04/19 12:00 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR		Analytical Method: TO-15							
cis-1,2-Dichloroethene	<0.31	ug/m3	1.1	0.31	1.41		10/12/19 02:58	156-59-2	
trans-1,2-Dichloroethene	<0.40	ug/m3	1.1	0.40	1.41		10/12/19 02:58	156-60-5	
Tetrachloroethene	<0.44	ug/m3	0.97	0.44	1.41		10/12/19 02:58	127-18-4	
Trichloroethene	<0.36	ug/m3	0.77	0.36	1.41		10/12/19 02:58	79-01-6	
Vinyl chloride	<0.18	ug/m3	0.37	0.18	1.41		10/12/19 02:58	75-01-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Artic Laundry & Cleaners
Pace Project No.: 10494447

QC Batch: 637837 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10494447001, 10494447002, 10494447003, 10494447004, 10494447005, 10494447006, 10494447007, 10494447008, 10494447009

METHOD BLANK: 3438137 Matrix: Air
Associated Lab Samples: 10494447001, 10494447002, 10494447003, 10494447004, 10494447005, 10494447006, 10494447007, 10494447008, 10494447009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/m3	<0.22	0.81	10/11/19 15:14	
Tetrachloroethene	ug/m3	<0.31	0.69	10/11/19 15:14	
trans-1,2-Dichloroethene	ug/m3	<0.28	0.81	10/11/19 15:14	
Trichloroethene	ug/m3	<0.25	0.55	10/11/19 15:14	
Vinyl chloride	ug/m3	<0.13	0.26	10/11/19 15:14	

LABORATORY CONTROL SAMPLE: 3438138

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/m3	40.3	42.1	105	70-130	
Tetrachloroethene	ug/m3	68.9	69.3	101	70-130	
trans-1,2-Dichloroethene	ug/m3	40.3	42.9	106	70-130	
Trichloroethene	ug/m3	54.6	56.5	103	70-130	
Vinyl chloride	ug/m3	26	23.9	92	70-130	

SAMPLE DUPLICATE: 3438738

Parameter	Units	10494461003 Result	Dup Result	RPD	Max RPD	Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND	<0.42		25	
Tetrachloroethene	ug/m3	ND	1.2J		25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.55		25	
Trichloroethene	ug/m3	ND	<0.49		25	
Vinyl chloride	ug/m3	ND	<0.24		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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QUALIFIERS

Project: Artic Laundry & Cleaners

Pace Project No.: 10494447

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.

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Artic Laundry & Cleaners

Pace Project No.: 10494447

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10494447001	5605 Bar	TO-15	637837		
10494447002	5605 Liquor Store	TO-15	637837		
10494447003	5605 Basement	TO-15	637837		
10494447004	5605 Outdoor	TO-15	637837		
10494447005	5605 2nd Floor	TO-15	637837		
10494447006	5621 1st Floor	TO-15	637837		
10494447007	5621 Basement	TO-15	637837		
10494447008	5625 Storage	TO-15	637837		
10494447009	5621 Outdoor	TO-15	637837		

REPORT OF LABORATORY ANALYSIS

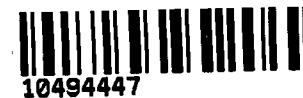
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AIR: CHAIN-OF-CUSTODY / A

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant f

WO#: 10494447



45591

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	Program <input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act <input checked="" type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other
Company: SCS	Report To: Robert Langda	Attention: Same	Location of Sampling by State: WI
Address: 2830 Derry Tr Madison WI 53718	Copy To:	Company Name:	Reporting Units ug/m ³ <input type="checkbox"/> PPBV <input checked="" type="checkbox"/> PPMV <input type="checkbox"/> Other <input type="checkbox"/>
Email To: V.Langda@SCSEng.com	Purchase Order No.:	Address:	Report Level: <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> Other
Phone: 608216729 Fax:	Project Name: Arctic Laundry Cleaners	Pace Quote Reference:	
Requested Due Date/TAT:	Project Number:	Pace Project Manager/Sales Rep.	
		Pace Profile #: 32630	

ITEM #	'Section D Required Client Information AIR SAMPLE ID Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE Tedlar Bag TB 1 Liter Summa Can 1LC 6 Liter Summa Can 6LC Low Volume Puff LVP High Volume Puff HVP Other PM10	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-15 Full List VOCs	TO-15 Short List BTEX	TO-15 Short List Chlorinated	
					DATE	TIME	DATE	TIME												
1	5605 Bar		UO		10/1/19	1126	10/2/19	1117	-30	-4	01232037								001	
2	5605 liquor store		UO		10/1/19	1130	10/2/19	1117	-30	-4	35672158								002	
3	5605 Basement		UO		10/1/19	1135	10/1/19	1119	-285	-5	01272080								003	
4	5605 outdoor		UO		10/1/19	1143	10/2/19	1113	-29	-1	26752135								004	
5	5605 2nd Floor		UO		10/1/19	1115	10/2/19	1110	-29	-3.5	26931988								005	
6	5621 1st Floor		UO		10/1/19	1200	10/2/19	1140	-30	-4	16372150								006	
7	5621 Basement		UO		10/1/19	1201	10/2/19	1141	-30	-3	02412071								007	
8	5625 storage		UO		10/1/19	1206	10/1/19	1142	-30	-21	35911938								008	
9	5621 outdoor		UO		10/1/19	1203	10/1/19	1139	-30	-4	11892153								009	

Comments:
 * PCB, TCE, cis & trans 1,2-DCE
 and vinyl chloride.
 Returning two un-used
 30-min canisters # 199
 and 3495 ORIGINAL

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Robert Langda	10/3/19	1200	Matt J. Pice	10-4-19	12:00	AMB	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		Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
PRINT Name of SAMPLER	SIGNATURE OF SAMPLER				
	Robert Langda				
SIGNATURE OF ACCEPTOR	DATE Signed (MM/DD/YY)				
	10/03/19				



Document Name:
Air Sample Condition Upon Receipt

Document No.:
F-MN-A-106-rev.18

Document Revised: 31Jan2019
Page 1 of 1

Issuing Authority:
North Carolina Department of Environment and Natural Resources

Air Sample Condition Upon Receipt Client Name: SCS Project #: _____

WO#: 10494447

PM: KNH Due Date: 10/11/19

CLIENT: SCS Engineer

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

Tracking Number: 1083 0281 0784, 1083 0281 0810
^{m-1} 10-7-19-108302810800, 108302810773

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: 10-7-19 MI

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?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact?	<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 (3C and ASTM 1946 DO NOT PRESSURIZE)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13.

Samples Received: _____ Pressure Gauge # 10AIR34 10AIR35

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
5605 Bar	123	2037	-3	5	5621 Outdoor	1189	2153	-1.5	5
5605 1 st floor	3567	2158	-3	5	Unused 199	199	2835		
5605 Basement	127	2088	-3	5	Unused 3495	3495	1731		
5605 Outdoor	2045	2135	+0.5	5					
5605 2 nd floor	2693	1988	-3	5					
5621 1 st floor	1637	2150	-3	5					
5621 Basement	241	2071	-3	5					
5625 Storage	3591	1938	-19.5	5					

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: Kirsten Hoffberg

Date: 10/8/2019

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: 10494447
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447001 ProjSampleNum: 10494447001 Date Collected: 10/02/19 11:17
 Client Sample ID: 5605 Bar Matrix: Air Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
Air							
TO-15							
cis-1,2-Dichloroethene	<0.082	ppbv	0.3	0.082	10/11/19 22:59 MJL	156-59-2	
Tetrachloroethene	0.13J	ppbv	0.15	0.068	10/11/19 22:59 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.1	ppbv	0.3	0.1	10/11/19 22:59 MJL	156-60-5	
Trichloroethene	<0.07	ppbv	0.15	0.07	10/11/19 22:59 MJL	79-01-6	
Vinyl chloride	<0.073	ppbv	0.15	0.073	10/11/19 22:59 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



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ANALYTICAL RESULTS

Client: SCS Engineers
 Phone: 843.746.8525

Lab Project Number: 10494447
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447002 ProjSampleNum: 10494447002 Date Collected: 10/02/19 11:17
 Client Sample ID: 5605 Liquor Store Matrix: Air Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
Air							
TO-15							
cis-1,2-Dichloroethene	<0.082	ppbv	0.3	0.082	10/11/19 22:01 MJL	156-59-2	
Tetrachloroethene	0.11J	ppbv	0.15	0.068	10/11/19 22:01 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.1	ppbv	0.3	0.1	10/11/19 22:01 MJL	156-60-5	
Trichloroethene	<0.07	ppbv	0.15	0.07	10/11/19 22:01 MJL	79-01-6	
Vinyl chloride	<0.073	ppbv	0.15	0.073	10/11/19 22:01 MJL	75-01-4	

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SUPPLEMENTAL REPORT

Units Conversion Request



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ANALYTICAL RESULTS

Client: SCS Engineers
 Phone: 843.746.8525

Lab Project Number: 10494447
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447003 ProjSampleNum: 10494447003 Date Collected: 10/02/19 11:19
 Client Sample ID: 5605 Basement Matrix: Air Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
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Air
 TO-15

cis-1,2-Dichloroethene	<0.082	ppbv	0.3	0.082	10/11/19 23:57 MJL	156-59-2	
Tetrachloroethene	0.46	ppbv	0.15	0.068	10/11/19 23:57 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.1	ppbv	0.3	0.1	10/11/19 23:57 MJL	156-60-5	
Trichloroethene	0.16	ppbv	0.15	0.07	10/11/19 23:57 MJL	79-01-6	
Vinyl chloride	<0.073	ppbv	0.15	0.073	10/11/19 23:57 MJL	75-01-4	

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SUPPLEMENTAL REPORT

Units Conversion Request



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ANALYTICAL RESULTS

Client: SCS Engineers
 Phone: 843.746.8525

Lab Project Number: 10494447
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447004 ProjSampleNum: 10494447004 Date Collected: 10/02/19 11:13
 Client Sample ID: 5605 Outdoor Matrix: Air Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
Air							
TO-15							
cis-1,2-Dichloroethene	<0.069	ppbv	0.25	0.069	10/12/19 0:55 MJL	156-59-2	
Tetrachloroethene	<0.059	ppbv	0.13	0.059	10/12/19 0:55 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.092	ppbv	0.25	0.092	10/12/19 0:55 MJL	156-60-5	
Trichloroethene	<0.06	ppbv	0.13	0.06	10/12/19 0:55 MJL	79-01-6	
Vinyl chloride	<0.062	ppbv	0.13	0.062	10/12/19 0:55 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



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ANALYTICAL RESULTS

Client: SCS Engineers
 Phone: 843.746.8525

Lab Project Number: 10494447
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447005 ProjSampleNum: 10494447005 Date Collected: 10/02/19 11:10
 Client Sample ID: 5605 2nd Floor Matrix: Air Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
Air							
TO-15							
cis-1,2-Dichloroethene	<0.082	ppbv	0.3	0.082	10/12/19 1:25 MJL	156-59-2	
Tetrachloroethene	0.12J	ppbv	0.15	0.068	10/12/19 1:25 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.1	ppbv	0.3	0.1	10/12/19 1:25 MJL	156-60-5	
Trichloroethene	<0.07	ppbv	0.15	0.07	10/12/19 1:25 MJL	79-01-6	
Vinyl chloride	<0.073	ppbv	0.15	0.073	10/12/19 1:25 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.

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Units Conversion Request



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ANALYTICAL RESULTS

Client: SCS Engineers
 Phone: 843.746.8525

Lab Project Number: 10494447
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447006 ProjSampleNum: 10494447006 Date Collected: 10/02/19 11:40
 Client Sample ID: 5621 1st Floor Matrix: Air Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
Air							
TO-15							
cis-1,2-Dichloroethene	<0.082	ppbv	0.3	0.082	10/12/19 1:55 MJL	156-59-2	
Tetrachloroethene	<0.068	ppbv	0.15	0.068	10/12/19 1:55 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.1	ppbv	0.3	0.1	10/12/19 1:55 MJL	156-60-5	
Trichloroethene	<0.07	ppbv	0.15	0.07	10/12/19 1:55 MJL	79-01-6	
Vinyl chloride	<0.073	ppbv	0.15	0.073	10/12/19 1:55 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



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ANALYTICAL RESULTS

Client: SCS Engineers
 Phone: 843.746.8525

Lab Project Number: 10494447
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447007 ProjSampleNum: 10494447007 Date Collected: 10/02/19 11:41
 Client Sample ID: 5621 Basement Matrix: Air Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
Air							
TO-15							
cis-1,2-Dichloroethene	<0.082	ppbv	0.3	0.082	10/12/19 3:27 MJL	156-59-2	
Tetrachloroethene	<0.068	ppbv	0.15	0.068	10/12/19 3:27 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.1	ppbv	0.3	0.1	10/12/19 3:27 MJL	156-60-5	
Trichloroethene	<0.07	ppbv	0.15	0.07	10/12/19 3:27 MJL	79-01-6	
Vinyl chloride	<0.073	ppbv	0.15	0.073	10/12/19 3:27 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



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ANALYTICAL RESULTS

Client: SCS Engineers
 Phone: 843.746.8525

Lab Project Number: 10494447
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447008 ProjSampleNum: 10494447008 Date Collected: 10/02/19 11:42
 Client Sample ID: 5625 Storage Matrix: Air Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
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Air
 TO-15

cis-1,2-Dichloroethene	<0.21	ppbv	0.77	0.21	10/12/19 2:28 MJL	156-59-2	
Tetrachloroethene	<0.17	ppbv	0.39	0.17	10/12/19 2:28 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.27	ppbv	0.77	0.27	10/12/19 2:28 MJL	156-60-5	
Trichloroethene	<0.18	ppbv	0.38	0.18	10/12/19 2:28 MJL	79-01-6	
Vinyl chloride	<0.19	ppbv	0.38	0.19	10/12/19 2:28 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.

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Units Conversion Request



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ANALYTICAL RESULTS

Client: SCS Engineers
 Phone: 843.746.8525

Lab Project Number: 10494447
 Project Name: Artic Laundry & Cleaners

Lab Sample No: 10494447009 ProjSampleNum: 10494447009 Date Collected: 10/02/19 11:39
 Client Sample ID: 5621 Outdoor Matrix: Air Date Received: 10/04/19 12:00

Parameters	Results	Units	Report Limit	MDL	Analyzed	CAS No.	Fnote
Air							
TO-15							
cis-1,2-Dichloroethene	<0.077	ppbv	0.27	0.077	10/12/19 2:58 MJL	156-59-2	
Tetrachloroethene	<0.064	ppbv	0.14	0.064	10/12/19 2:58 MJL	127-18-4	
trans-1,2-Dichloroethene	<0.099	ppbv	0.27	0.099	10/12/19 2:58 MJL	156-60-5	
Trichloroethene	<0.066	ppbv	0.14	0.066	10/12/19 2:58 MJL	79-01-6	
Vinyl chloride	<0.069	ppbv	0.14	0.069	10/12/19 2:58 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



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ANALYTICAL RESULTS

Client: SCS Engineers
Phone: 843.746.8525

Lab Project Number: 10494447
Project Name: Artic Laundry & Cleaners

PARAMETER FOOTNOTES

SUPPLEMENTAL REPORT
Units Conversion Request

Appendix B

Vapor Mitigation System Photos

Vapor Mitigation System Photos, November 21, 2018
Artic Laundry & Cleaners, 5619 22nd Avenue, Kenosha, Wisconsin
SCS Engineers Project #25216186.00



Photo 1: Looking southeast at vapor mitigation system (VMS) fan and exhaust line on north side of 5619 22nd Avenue building (former Arctic Laundry & Cleaners).



Photo 2: Looking at VMS fan and electrical connection.

Vapor Mitigation System Photos, November 21, 2018
Artic Laundry & Cleaners, 5619 22nd Avenue, Kenosha, Wisconsin
SCS Engineers Project #25216186.00



Photo 3: Looking north at ceiling from inside 5619 22nd Avenue at electrical connection and pipe to fan.



Photo 4: Looking east at northern pickup point and lateral to southern pickup point.

Vapor Mitigation System Photos, November 21, 2018
Artic Laundry & Cleaners, 5619 22nd Avenue, Kenosha, Wisconsin
SCS Engineers Project #25216186.00



Photo 5: Looking west at northern pickup point and lateral piping to southern pickup point.



Photo 6: Manometer on northern pickup point.

Vapor Mitigation System Photos, November 21, 2018
Artic Laundry & Cleaners, 5619 22nd Avenue, Kenosha, Wisconsin
SCS Engineers Project #25216186.00



Photo 7: Floor at northern pickup point.



Looking south at lateral piping to southern pickup point.

Vapor Mitigation System Photos, November 21, 2018
Artic Laundry & Cleaners, 5619 22nd Avenue, Kenosha, Wisconsin
SCS Engineers Project #25216186.00



Photo 8: Looking northeast at southern pickup point (left side of photo) and sealed sump.