

November 14, 2019

*VIA CERTIFIED MAIL*

John Ekornaas  
5619 22<sup>nd</sup> Avenue  
Kenosha, WI 53140

7017 2400 0000 6701 0591

John Ekornaas  
5605 22<sup>nd</sup> Avenue  
Kenosha, WI 53140

7017 2400 0000 6701 0607

RE: Groundwater and Vapor Sampling Results for Former Arctic Laundry & Cleaners, BRRTS No. 02-30-245843

Dear Mr. Ekornaas:

Included with this letter are the results of recent groundwater and vapor sampling conducted at your properties located at 5619 22<sup>nd</sup> Avenue and 5605 22<sup>nd</sup> Avenue (Midnight Liquor & Bar) in Kenosha, Wisconsin, by SCS Engineers. This investigation was conducted as part of continuing site investigation and remediation efforts at 5619 22<sup>nd</sup> Avenue, the former Arctic Laundry & Cleaners site.

**A. Groundwater Samples**

SCS Engineers collected groundwater samples on October 1, 2019 from three monitoring wells ("MW"). These results were submitted to Test America for laboratory analysis for volatile organic compounds (VOCs).

There were no dry cleaner-related VOCs detected in the MW1 or MW2 samples. The analysis detected PCE in the MW3 sample in excess of a Department of Natural Resources NR 140 enforcement standard (ES). This concentration was slightly higher than the concentration detected at the same monitoring well in February 2017, but consistent with the concentration detected at the same monitoring well in October 2018.

In addition, the VOC 1,2-dichloropropane was detected in the MW2 sample at a concentration in excess of the Department of Natural Resources NR 140 preventive action limit (PAL). The source of 1,2-dichloropropane is not known, but it was detected in the previous MW2 samples in 2017 and 2018.

**Madison Office**

222 West Washington Avenue  
P.O. Box 1784  
Madison, Wisconsin  
53701-1784  
608.256.0226  
888.655.4752  
Fax 608.259.2600  
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**Milwaukee Office**

1200 North Mayfair Road  
Suite 430  
Milwaukee, Wisconsin  
53226-3282  
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888.655.4752  
Fax 414.982.2889  
www.staffordlaw.com

November 14, 2019

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**B. Vapor Samples**

SCS Engineers collected sub-slab and indoor air samples on October 2, 2019 from the building located at 5605 22<sup>nd</sup> Ave (Midnight Liquor & Bar). These results were submitted to Pace Analytical for laboratory analysis for VOCs including tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dicyloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride.

Sub-slab vapor samples were collected from sample ports SS-7, SS-8, and SS-9. PCE was detected in all of the sub-slab samples at concentrations below DNR's residential and commercial vapor risk screening levels (VRSLs). TCE was detected in one sub-slab sample (SS-8) at a concentration below DNR's residential and commercial VRSL. The sub-slab vapor concentrations of TCE and PCE were slightly higher than observed during the prior sampling in January 2018.

Indoor air samples were collected from 5605 22<sup>nd</sup> Ave (Midnight Liquor & Bar) on October 2, 2019. An outdoor air sample was also collected on October 2, 2019. The analysis found no detections of VOCs in the outdoor air sample. PCE was detected in all of the Midnight Liquor & Bar indoor air samples at concentrations below DNR's residential and commercial indoor air vapor action levels (VALs). TCE was detected in the 5605 22<sup>nd</sup> Avenue basement indoor air sample at a concentration below the DNR's indoor air VAL.

Please find attached to this letter a notification form, sampling results, a map of sampling locations, and the laboratory analysis.

If you have any questions regarding these results, please feel free to contact me at (608) 210-6307 or [vwishart@staffordlaw.com](mailto:vwishart@staffordlaw.com)

Best Regards,

Stafford Rosenbaum LLP



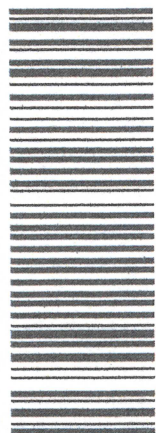
Vanessa D. Wishart

VDW:mai

Enclosures

cc: Robert Langdon, SCS Engineers, by email  
Doug Cieslak, Wisconsin DNR, by email

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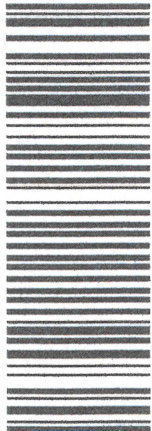
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PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

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<p>1. Article Addressed to:  <u>John Ekornas</u>  <u>5605 - 22nd Avenue</u>  <u>Kenosha, WI 53140</u></p> <p>9590 9402 3215 7196 5839 27</p>	<p>3. Service Type</p> <table border="0"> <tr> <td><input type="checkbox"/> Adult Signature</td> <td><input type="checkbox"/> Priority Mail Express®</td> </tr> <tr> <td><input type="checkbox"/> Adult Signature Restricted Delivery</td> <td><input type="checkbox"/> Registered Mail™</td> </tr> <tr> <td><input checked="" type="checkbox"/> Certified Mail®</td> <td><input type="checkbox"/> Registered Mail Restricted Delivery</td> </tr> <tr> <td><input type="checkbox"/> Certified Mail Restricted Delivery</td> <td><input type="checkbox"/> Return Receipt for Merchandise</td> </tr> <tr> <td><input type="checkbox"/> Collect on Delivery</td> <td><input type="checkbox"/> Signature Confirmation™</td> </tr> <tr> <td><input type="checkbox"/> Collect on Delivery Restricted Delivery</td> <td><input type="checkbox"/> Signature Confirmation Restricted Delivery</td> </tr> <tr> <td><input type="checkbox"/> Insured Mail</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)</td> <td></td> </tr> </table>	<input type="checkbox"/> Adult Signature	<input type="checkbox"/> Priority Mail Express®	<input type="checkbox"/> Adult Signature Restricted Delivery	<input type="checkbox"/> Registered Mail™	<input checked="" type="checkbox"/> Certified Mail®	<input type="checkbox"/> Registered Mail Restricted Delivery	<input type="checkbox"/> Certified Mail Restricted Delivery	<input type="checkbox"/> Return Receipt for Merchandise	<input type="checkbox"/> Collect on Delivery	<input type="checkbox"/> Signature Confirmation™	<input type="checkbox"/> Collect on Delivery Restricted Delivery	<input type="checkbox"/> Signature Confirmation Restricted Delivery	<input type="checkbox"/> Insured Mail		<input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	
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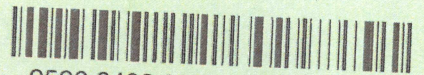
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City, State, ZIP+4®  
Kenosha, WI 53140

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**Notice:** This form may be used to comply with the requirements of s. NR 716.14 (2), Wis. Adm. Code; however, use of this form is not required. An alternate format may be used. The rule requires that notification be provided to 1) property owners when someone else is conducting the sampling, 2) to occupants of property belonging to the responsible person, and 3) to owners and occupants of property that does not belong to the responsible person but has been affected by contamination arising on his or her property. Notification is required within 10 business days of receiving the sample results. Personal information collected will be used for program administration and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.].

**NOTE:** Under s. NR 716.14, Wis. Adm. Code, the responsible party must also submit sample results and other required information to the DNR. We recommend that copies of the sample results notifications be included with that submittal, along with all attachments. Using the same format used for data presentation for a closure request may be helpful to all parties. See s. NR 716.14, Wis. Adm. Code for the full list of information to be submitted to the DNR.

**Notification of Property Owners and Occupants:**

This notification form has been provided to you in order to provide the results of environmental sampling that has been conducted on property that you own or occupy. Samples were collected in accordance with the methods identified in the site investigation work plan, in accordance with s. NR. 716.09 and 716.13, Wis. Adm. Code. This sampling was conducted as a result of contamination originating at the following location.

**Site Information**

Site Name		DNR ID # (BRRTS #)	
Former Arctic Laundry & Cleaners		02-30-245843	
Address	City	State	ZIP Code
5619 22nd Avenue	Kenosha	WI	53140

**Responsible Party**

The person(s) responsible for completing this environmental investigation is:

Property Owner

Roy Baietto

Address	City	State	ZIP Code
1850 19th Avenue	Kenosha	WI	53140

Contact Person

Vanessa Wishart, Attorney, Stafford Rosenbaum LLP

Person or company that collected samples

Phone Number (include area code) (608) 210-6307
--

**SCS Engineers**

**Sample Results (Results Attached)**

Reason for Sampling:  Routine  Other (define) NR 716 Site Investigation

The contaminants that have been identified at this time on property that you own or occupy include:

Contaminant	In Soil?		In Groundwater?	
	Yes	No	Yes	No
Gasoline	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diesel or Fuel Oil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Solvents	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Heavy Metals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pesticides	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other: _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

This sampling event included sampling of a drinking water well. <input type="radio"/> Yes <input checked="" type="radio"/> No
If yes, the sampled drinking water well had detectable contaminants. <input type="radio"/> Yes <input type="radio"/> No

**Contaminants in Vapor**

	Yes	No
	Indoor Air	<input checked="" type="radio"/>
Sub-slab	<input checked="" type="radio"/>	<input type="radio"/>
Exterior Soil Gas	<input type="radio"/>	<input type="radio"/>

# Site Investigation Sample Results Notification

Form 4400-249 (R 03/14)

Page 2 of 2

## Attached are:

- A map that shows the locations from which samples were collected. (The map needs to meet the requirements of s. NR 716.15 (4), Wis. Adm. Code.)
- A data table with specific contaminant levels at each sample location and whether or not the sample results exceed state standards.
- A copy of the laboratory results.

**You are not identified as the person that is responsible for this contamination.** However, your cooperation is important. Property owners may become legally responsible for contamination if they do not allow access to the person that is responsible so that person may complete the environmental investigation and clean up activities.

**Option for written exemption:** You have the option of requesting a written liability exemption from the DNR for contamination that originated on another property, or on property that you lease. To do this, you must present an adequate environmental assessment of your property and pay a \$700 fee for review of this information. If you are interested in this option, please see DNR publication # RR 589, "When Contamination Crosses a Property Line - Rights and Responsibilities of Property Owners", available at: [dnr.wi.gov/files/PDF/pubs/rr/rr589.pdf](http://dnr.wi.gov/files/PDF/pubs/rr/rr589.pdf).

## Contact Information

Please address questions regarding this notification, or requests for additional information to the contact person listed above, or to one of the following contacts:

### Environmental Consultant

Company Name		Contact Person Last Name	First Name	
Address		City	State	ZIP Code
			WI	
Phone # (inc. area code)	Email			

Select which agency:  Natural Resources       Agriculture, Trade and Consumer Protection

### State of Wisconsin Department of

Contact Person Last Name	First Name	Phone # (inc. area code)		
Address		City	State	ZIP Code
			WI	
Email				

**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	–	<b>42.0</b>	<u>1.0</u>	<3	<1	<1	Toluene 7.2
GP-2	10/20/1995	–	<b>13</b>	<1.0	<3.0	<1.0	<1.0	ND
GP-3	10/20/1995	–	<b>50</b>	<1.0	<3.0	<1.0	<1.0	ND
GP-4	10/20/1995	–	<b>14</b>	<u>2.2</u>	<3.0	<b>6.2</b>	<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 0.22 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	–	0.39 J	<0.16	<0.20	<0.41	<0.35	1,2-Dichloropropane <u>2.6</u> Dichlorodifluoromethane 0.85 J,B
	10/1/2019	–	<0.37	<0.16	<0.20	<0.41	<0.35	1,2-Dichloropropane <u>1.7</u> Toluene 0.18 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 (ESSs)			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. 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
<b>5605 Midnight Liquor and Bar</b>							
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
<b>5619 Former Arctic Laundry &amp; Cleaners</b>							
SS-1	2/7/2017	--	<b>418,000</b> A3, E	<b>1,290</b> A3	5.7	5.8	<0.14
SS-2	2/7/2017	--	<b>973</b>	<b>66.5</b>	1.7	11.8	<0.13
SS-3	2/7/2017	--	<b>26,100</b> A3	<b>86.4</b> A3	1.4	0.5	<0.14
<b>5621/5625 Pa's Pizzeria</b>							
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 2. 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      – = not applicable  
NE = not established

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>

I:\25216186.00\Data and Calculations\Tables\[Sub-Slab Vapor.xlsx]Sub-Slab Results

**Table 3. 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
<b>5605 Midnight Liquor and Bar</b>							
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
<b>5619 Former Arctic Laundry &amp; Cleaners</b>							
5619 Basement	2/7/2017	--	5.6	<u>1</u>	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
<b>5621/5625 Pa's Pizzeria</b>							
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 3. 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 Nov 2008 USEPA Regional Screening Level Tables.
3. **Bold & underlined** values exceed Indoor Air Vapor Action Levels.

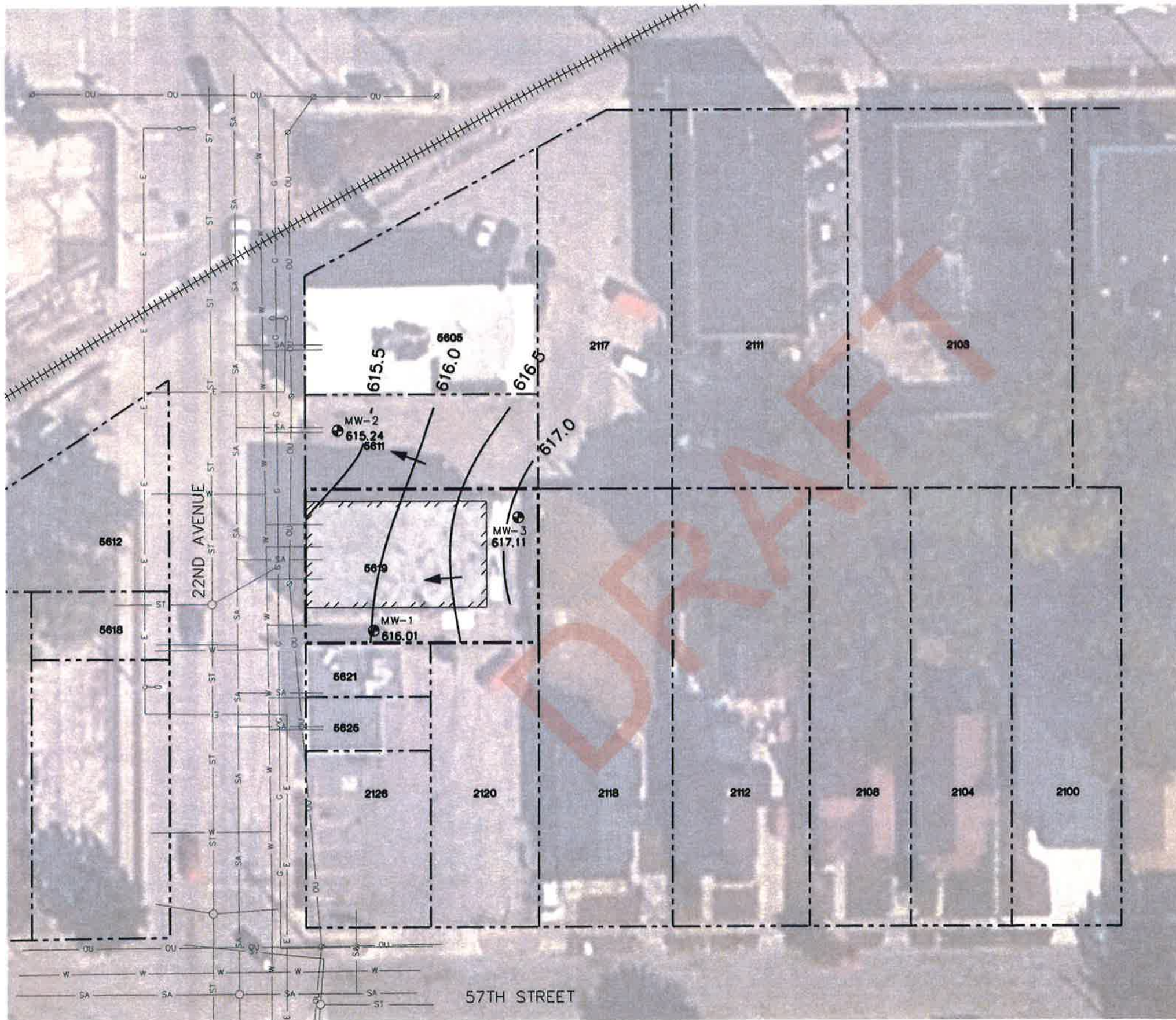
Lab Notes:

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

Created by: <u>LMH</u>	Date: <u>2/24/2017</u>
Last revision by: <u>JSN</u>	Date: <u>10/18/2019</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>

I:\25216186.00\Data and Calculations\Tables\[Indoor Air.xlsx]Results

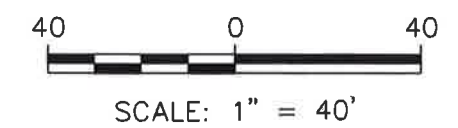
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LEGEND

	APPROXIMATE PROPERTY LINE (5619 22ND AVENUE)
	APPROXIMATE PROPERTY LINE
<b>5619</b>	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
<b>616.01</b>	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.



STAFFORD ROSENBAUM, LLP. 222 WEST WASHINGTON AVENUE MADISON, WI 53701		ARCTIC LAUNDRY AND CLEANERS 5619 22ND AVENUE KENOSHA, WISCONSIN		WATER TABLE MAP OCTOBER 1, 2019	
PROJECT NO.	25216186.00	DRAWN BY:	KP	ENGINEER	FIGURE
DRAWN:	11/08/19	CHECKED BY:	REL		3
REVISED:	11/11/19	APPROVED BY:	REL 11/14/19		
				SCS ENGINEERS 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830	

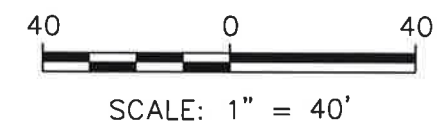
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LEGEND

	APPROXIMATE PROPERTY LINE (5619 22ND AVENUE)
	APPROXIMATE PROPERTY LINE
<b>5619</b>	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.



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

## 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](mailto:sandie.fredrick@testamericainc.com)

### LINKS

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*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

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**Job ID: 500-171208-1**

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**Laboratory: Eurofins TestAmerica, Chicago**

## Narrative

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**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



# 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
<b>Tetrachloroethene</b>	<b>41</b>		1.0	0.37	ug/L			10/14/19 16:58	1
<b>Toluene</b>	<b>0.19 J</b>		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
<b>1,2-Dichloropropane</b>	<b>1.7</b>		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
<b>Toluene</b>	<b>0.18 J</b>		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
<b>Tetrachloroethene</b>	<b>37</b>		1.0	0.37	ug/L			10/14/19 17:49	1
<b>Toluene</b>	<b>0.22 J</b>		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
<b>Toluene</b>	<b>0.22 J</b>		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
1,1,2,2-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
<b>Toluene</b>	<b>0.21</b>	<b>J</b>	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
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 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
1,1,1,2-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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15



# 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 <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	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

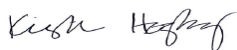
RE: Project: Artic Laundry & Cleaners  
Pace Project No.: 10494447

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

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### 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

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## 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

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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

<b>Sample: 5605 Bar</b>									
<b>Lab ID: 10494447001</b>									
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
<b>TO15 MSV AIR</b>									
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	

<b>Sample: 5605 Liquor Store</b>									
<b>Lab ID: 10494447002</b>									
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
<b>TO15 MSV AIR</b>									
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	

<b>Sample: 5605 Basement</b>									
<b>Lab ID: 10494447003</b>									
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
<b>TO15 MSV AIR</b>									
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	

<b>Sample: 5605 Outdoor</b>									
<b>Lab ID: 10494447004</b>									
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
<b>TO15 MSV AIR</b>									
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	

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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
<b>TO15 MSV AIR</b> 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
<b>TO15 MSV AIR</b> 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
<b>TO15 MSV AIR</b> 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
<b>TO15 MSV AIR</b> 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	

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## ANALYTICAL RESULTS

Project: Artic Laundry & Cleaners

Pace Project No.: 10494447

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**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
<b>TO15 MSV AIR</b>		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

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### DEFINITIONS

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

ND - Not Detected at or above LOD.

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

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

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

### LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.



### 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

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

ITEM #	'Section D Required Client Information <b>AIR SAMPLE ID</b> 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: PM10 3C - Fixed Gas (%) TO-3 BTX TO-3M (Methane) TO-15 Full List VOCs TO-15 Short List BTX TO-15 Short List Chlorinated	Pace Lab ID
					COMPOSITE START		COMPOSITE - END/GRAB							
					DATE	TIME	DATE	TIME						
1	5605 Bar		UO		10/1/19	1126	10/2/19	1117	-30	-4	01232037		X	001
2	5605 liquor store		UO		10/1/19	1130	10/2/19	1117	-30	-4	35672158		X	002
3	5605 Basement		UO		10/1/19	1135	10/1/19	1119	-285	-5	01272080		X	003
4	5605 outdoor		UO		10/1/19	1143	10/2/19	1113	-29	-1	26752135		X	004
5	5605 2nd Floor		UO		10/1/19	1115	10/2/19	1110	-29	-35	26931988		X	005
6	5621 1st Floor		UO		10/1/19	1200	10/2/19	1140	-30	-4	16372150		X	006
7	5621 Basement		UO		10/1/19	1201	10/2/19	1141	-30	-3	02412071		X	007
8	5625 storage		UO		10/1/19	1206	10/1/19	1142	-30	-21	35911938		X	008
9	5621 outdoor		UO		10/1/19	1203	10/1/19	1139	-30	-4	11892153		X	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	Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE  
 PRINT Name of SAMPLER: Robert Langda  
 SIGNATURE OF SAMPLER: *Robert Langda*  
 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:  
Pace Analytical Quality Office

**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  
<sup>m-1</sup> 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 <sup>st</sup> 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 <sup>nd</sup> floor	2693	1988	-3	5					
5621 1 <sup>st</sup> 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
<b>Air</b>							
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



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: 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
<b>Air</b>							
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	

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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**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
<b>Air</b>							
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	

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: 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
<b>Air</b>							
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
<b>Air</b>							
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.

**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: 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
<b>Air</b>							
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
<b>Air</b>							
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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 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: 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
<b>Air</b>							
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.

**SUPPLEMENTAL REPORT**

Units Conversion Request



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 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: 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
<b>Air</b>							
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



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

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## PARAMETER FOOTNOTES

SUPPLEMENTAL REPORT  
Units Conversion Request

October 14, 2019

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

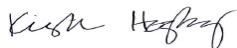
RE: Project: 25216186 Arctic Laundry & Clea  
Pace Project No.: 10494511

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

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### 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

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 25216186 Arctic Laundry & Clea

Pace Project No.: 10494511

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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

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### DEFINITIONS

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

ND - Not Detected at or above LOD.

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

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

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

### 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		

### REPORT OF LABORATORY ANALYSIS

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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

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> 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:		<b>Reporting Units</b> ug/m <sup>3</sup> _____ mg/m <sup>3</sup> _____ PPBV _____ PPMV _____ Other _____	
Phone: <u>608 216 7719</u> Fax:		Project Name: <u>Arctic Laundry &amp; Cleaners</u>		Pace Quote Reference:		Report Level: II. _____ III. _____ IV. _____ 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 <b>AIR SAMPLE ID</b> 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	<del>SS-8</del>		<del>6611</del>	<del>10/2/19</del>	<del>1145</del>	<del>10/2/19</del>	<del>1245</del>	<del>71</del>	<del>5</del>	<del>3654</del>	<del>0912</del>								<del>002</del>		
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, CO & 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**

PM: KNH Due Date: 10/14/19  
CLIENT: SCS Engineer

**Air Sample Condition Upon Receipt**

Client Name: SCS

Project #:

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 Hopfer

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
<b>Air</b>							
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
<b>Air</b>							
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
<b>Air</b>							
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
<b>Air</b>							
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



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### ANALYTICAL RESULTS

Client: SCS Engineers  
Phone: 843.746.8525

Lab Project Number: 10494511  
Project Name: 25216186 Artic Laundry & Clean

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## PARAMETER FOOTNOTES

SUPPLEMENTAL REPORT  
Units Conversion Request

Date: 10/14/2019

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