

February 7, 2024  
File No. 25211372.21

Ms. Cindy Koepke  
Wisconsin Department of Natural Resources  
3911 Fish Hatchery Road  
Fitchburg, WI 53711

Subject: Status Update Report  
Pilgrim Cleaners, 7475 Mineral Point Road, Madison, Wisconsin  
BRRTS #02-13-551995

Dear Ms. Koepke:

On behalf of IRC Retail Centers LLC, SCS Engineers (SCS) is providing the following status update report for the Pilgrim Cleaners site in Madison, Wisconsin (**Figures 1 and 2**). The update provides a summary of temporary shut-down of the soil vapor extraction system (SVES), building sub-slab vapor sampling, and routine groundwater monitoring. We request your approval for the following steps based on investigation and remedial action work performed to date:

- Shutdown of the SVES in March 2024.
- No further groundwater monitoring. Groundwater impacts appear to be adequately delineated and concentrations have not changed significantly since prior monitoring performed in 2013, indicating that groundwater concentrations are relatively stable.
- Sub-slab testing in the Weight Watchers unit and Balance Chi Massage unit to confirm expansion of the existing vapor mitigation system (VMS) is not necessary. We assume this work could be performed under the existing Drycleaner Environmental Repair Fund (DERF) budget.

We anticipate submittal of a case closure request assuming the above steps are approved and that additional sub-slab testing shows expansion of the VMS is not necessary.

## BACKGROUND

The Pilgrim Cleaners unit within the High Point Center shopping mall was operated as a dry-cleaning facility from approximately 1984 until 2021, at which time the dry cleaner closed. The dry cleaning equipment was removed and the unit is currently vacant.

Soil and groundwater contamination related to dry cleaner operations was reported to the Wisconsin Department of Natural Resources (WDNR) in 2008. Site investigation, completed in 2015, was performed to evaluate the extent of contamination in soil, soil gas, and groundwater. A remedial action plan, including construction and operation of an SVES, was approved by the WDNR in 2016 and an interim action plan, including construction and operation of a VMS, was approved by the WDNR in 2019.



The VMS (**Figure 3**) was installed in the Pilgrim Cleaners unit and started up in July 2019. It was designed to reduce the potential for vapor intrusion into the building by depressurizing the sub-slab in an area where chlorinated volatile organic compounds (CVOCs) had been detected in sub-slab vapor in excess of WDNR vapor risk screening levels (VRSUs). VMS construction and maintenance documentation were submitted to the WDNR in a letter dated October 30, 2020.

The SVES was constructed at the back (east side) of the Pilgrim Cleaners unit and started up in October 2022. The system (**Figure 3**) was designed to remove CVOCs from soil where concentrations were shown to exceed WDNR soil-to-groundwater pathway residual contaminant levels (RCLs). An SVES construction documentation report was submitted to WDNR on January 19, 2023. The report included system operation details from system startup in October 2022 through December 2022.

By December 2022, the SVES had removed approximately 1.3 pounds of volatile organic compounds (VOCs), including approximately 0.9 pound of tetrachloroethylene (PCE). The PCE concentrations in the blower exhaust had decreased from 92,300 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) at system startup in October 2022 to 1,250  $\mu\text{g}/\text{m}^3$  in December 2022.

On June 19 and 20, 2023, SCS measured water levels and collected groundwater samples from site wells. Additional details regarding the June 2023 groundwater monitoring event are provided below.

On June 26, 2023, SCS submitted a request to WDNR to temporarily shut down the VMS and SVES in order to assess current sub-slab vapor concentrations and potential “rebound” of deeper soil gas concentrations. The temporary SVES shut down was approved by WDNR as documented in an email dated June 29, 2023. In a subsequent email dated August 16, 2023, the WDNR required continued operation of the VMS due to elevated sub-slab vapor concentrations observed with prior sampling in May 2012.

## **TEMPORARY SVES SHUT DOWN AND MONITORING**

### **Methods**

The SVES was shut down from July 7 to October 25, 2023. During this period SCS monitored influent and exhaust concentrations with a photoionization detector (PID) or by collection of samples for laboratory analysis of VOCs. The monitoring required occasionally running the system for a few minutes at a time to purge the SVES lines and extraction wells.

Laboratory samples were collected using laboratory-supplied Summa canisters equipped with 5-minute flow controllers. The samples were analyzed by Pace Analytical for analysis of VOCs by method TO-15. PID readings were taken by SCS field staff using a RAE Systems ppbRAE 3000 PID.

Influent sampling was performed using ports on the PVC piping to each extraction well, and exhaust samples were taken from a port on the blower exhaust line. A single influent sample for laboratory analysis was collected for extraction well SVE-1 in order to assess the composition of VOCs. This well was thought to have the highest influent concentration based on PID readings. Additional laboratory exhaust samples have been collected since the system was restarted.

Results of the SVES shut-down testing are presented in the Findings section below.

On December 5, 2023, the system was shut down for approximately 1 hour to test influent for PCE using Drager colorimetric gas detection tubes. The samples were collected by connecting the sample tubes to influent line ports with flexible tubing and then pulling influent through each tube using the manufacturer's pump and sampling instructions. PCE concentrations were read directly from the scale on the side each tube.

## Findings

Results from the planned July 7 to October 25, 2023, SVES shut-down period are presented below.

### PID and Laboratory Sample Results

Laboratory reports are included in **Attachment A**. SVES exhaust analytical results and other details are summarized in **Attachment B**. SVES PID readings are summarized in **Table 1**.

Influent for extraction well SVE-1 generally exhibited the highest PID readings for total VOCs, followed by readings for wells SVE-3 and SVE-2. The August 16, 2023, influent sample for extraction well SVE-1 exhibited a PCE concentration of 2,700 µg/m<sup>3</sup> while the corresponding exhaust sample collected on the same day exhibited a PCE concentration of 1,430 µg/m<sup>3</sup>, suggesting that the PCE influent concentration for SVE-1 is higher than the combination of influent from wells SVE-2 and SVE-3.

Elevated concentrations of constituents such as acetone, 2-butanone, and tetrahydrofuran were detected at concentrations up to 10,600,000 µg/m<sup>3</sup> in the SVE-1 influent sample. These constituents are not associated with dry cleaner contamination and likely originated from PVC primer or glue used to assemble the PVC piping that connects to each extraction well, and where the influent sample ports are located. PID monitoring from the SVES lines was discontinued as the instrument cannot differentiate between dry cleaner-related VOCs (e.g., PCE) and those related to SVES construction (e.g., tetrahydrofuran).

### Drager Tube Samples

Drager tube analytical results are summarized in **Table 2**. PCE was not detected in Drager tube samples for extraction wells SVE-1 or SVE-2 in excess of the detection limit (0.1 parts per million [ppm]) but was detected in the sample for extraction well SVE-3 in excess of the measurement range (4 ppm). These findings are not consistent with laboratory sample results which indicate that PCE is likely present at higher concentrations in the SVE-1 influent. It is possible that by December 5, 2023, PCE influent concentrations had decreased to less than the Drager tube detection limit and that water or other constituents in the SVES piping resulted in an erroneously high PCE concentration for SVE-3. While water was not observed in any of the Drager tubes it has been observed in the SVES moisture knockout tank indicating that condensate is present in the system.

### SVES Exhaust

The PCE exhaust concentration increased from 43 µg/m<sup>3</sup> as measured on July 5, 2023, 2 days prior to SVES shutdown to a high of 2,300 µg/m<sup>3</sup> as measured on October 25, 2023, immediately following restarting of the system. Based on the slope of the PCE concentration versus time curve, it appears that PCE would likely have stabilized at a concentration much lower than observed during initial startup of the SVES in October 2022. Within approximately 2.5 months of restarting the SVES, the exhaust PCE concentration dropped to 36.3 µg/m<sup>3</sup>, which is similar to the concentration

observed prior to temporary shutdown in July 2023. These findings suggest that much of the contaminant mass from the underlying soil has been removed by the SVES.

## Summary and Recommendations

SVES monitoring results indicate limited rebounding of soil gas concentrations with the SVES off and are inconclusive in determining if system performance modifications would be appropriate. However, based on the limited rebound and relatively short-term return to low SVES exhaust concentrations, it does not appear worthwhile to run the system for much longer.

Given these findings SCS recommends that the SVES continue to operate without modifications for an additional 6-month period, until approximately March 25, 2024. At that time, we propose to turn off the system and leave it in place until decommissioning is approved under regulatory case closure.

## SUB-SLAB SAMPLING

### Methods

Sub-slab samples were collected from the Pilgrim Cleaners and Weight Watchers units. Both units (**Figure 3**) are currently vacant and have had the highest historic sub-slab vapor CVOC concentrations based on prior testing completed in May 2012. The four original sub-slab ports were present and found to be in good condition; however, SCS replaced them with Vapor Pin™ ports for ease of sample collection and so that the ports could be capped flush with the flooring. The replacement ports were installed within a few feet of the original ports and the older ports were abandoned with concrete patch.

SCS collected sub-slab samples from the ports on October 25, 2023. The ports and SCS sampling equipment were tested for leaks prior to sample collection and no leaks were found. However, it was subsequently discovered that two of the sample canisters were faulty. One had a malfunctioning vacuum gage so vacuum could not be assessed, and a second canister had lost vacuum during return shipment to the laboratory. For this reason, samples from the Pilgrim Cleaners sub-slab port VP-2 and Weight Watchers port VP-1 were resampled on November 21, 2023. No issues were observed during the follow-up sampling event.

### Findings

Sub-slab concentrations for the October and November 2023 sampling events are summarized in **Table 3** along with prior sampling results. Laboratory reports are included in **Attachment A**.

The 2023 sub-slab sample concentrations are lower than those collected previously in 2012. Samples for Weight Watchers sub-slab ports 1 and 2 and Pilgrim Cleaners port 2, which previously exhibited sub-slab VRSLs in 2012, showed no exceedances. Only PCE for the sub-slab sample from Pilgrim Cleaners sub-slab port 1 exhibited a VRSL exceedance, and the PCE concentration was a fraction of that reported for the prior sampling in 2012. There were no exceedances for TCE or any other CVOCs with the 2023 sampling events.

## Summary and Recommendations

The recent sampling indicates a decrease in building sub-slab vapor concentrations and that expansion of the VMS beyond the Pilgrim Cleaners unit is not necessary. While not sampled since 2013, the Balance Chi Massage unit is the only other unit to have exhibited sub-slab exceedances. Given the relatively low 2013 concentrations for the Balance Chi Massage unit, and the significant improvement in sub-slab concentrations observed for the adjacent Weight Watchers and Pilgrim Cleaners units, it is likely that the concentrations for the Balance Chi Massage unit ports have also decreased to less than VRSLs.

Based on these findings we recommend another round of sub-slab vapor sampling for sub-slab ports in the Balance Chi Massage and Weigh Watchers units to rule out the need for expansion of the VMS.

## GROUNDWATER MONITORING

### Methods

On June 19 and 20, 2023, SCS measured water levels and collected groundwater samples from site monitoring wells (**Figure 2**). Monitoring well MW-3 could not be located and is believed to have been paved over since the prior sampling event in 2012. Monitoring well MW-2 was dry and could not be sampled. Samples were collected from the remaining wells by purging approximately 4 casing volumes from each well using dedicated bailers. Purge water was contained in a 55-gallon steel drum and stored behind the Pilgrim Cleaners unit for future disposal. Groundwater samples were transported to Eurofins for analysis of VOCs.

### Findings

The groundwater sample laboratory report is provided in **Attachment A**, and analytical results are summarized in **Table 4**. Water level information is summarized in **Table 5**. Groundwater contour maps for shallow and deep groundwater are included as **Figures 4** and **5**, and the estimated extent of PCE in shallow and deep groundwater is shown on **Figures 6** and **7**.

The June 2023 groundwater concentrations, groundwater flow, and extent of contamination appear similar to prior groundwater monitoring and suggest that the groundwater plume is stable.

## Summary and Recommendations

Based on groundwater monitoring results to date, SCS recommends that no further groundwater sampling be performed at this time.

Ms. Cindy Koepke  
February 7, 2024  
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Please contact Robert Langdon at 608-216-7329 if you have any questions regarding this letter.

Sincerely,



Robert Langdon  
Senior Project Manager  
SCS Engineers



Mark R. Huber, PE  
Project Director  
SCS Engineers

REL/Imh/MRH

cc: John Cresto, Pine Tree

- Encl. Table 1 – Soil Vapor Extraction System PID Readings  
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## Tables

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**Table 1. Soil Vapor Extraction System Photoionization Detector Readings**  
**Pilgrim Cleaners (High Point Center) / SCS Engineers Project #25211372.21**  
(Concentrations are in parts per million [ppm])

Date	Time	Extraction Well			SVES Exhaust	Notes
		SVE-1	SVE-2	SVE-3		
7/7/2023	11:48	NM	NM	NM	NM	Shut off SVES to start 3-month rebound monitoring period.
7/21/2023	12:30	425.2	180.0	402.4	NM	SVES influent measurements made while SVES was shutdown.
7/28/2023	13:00	7.096	4.853	12.92	NM	Turn on SVES for approximately 1 minute to purge lines and then take PID readings.
8/16/2023	13:45	445	165	385	NM	PID readings and SVE-1 influent TO-15 sample collected while SVES was shut down. Temporarily restart SVES for TO-15 exhaust sample.
8/16/2023	14:46	12.27	9.80	10.70	NM	Measure influent lines after running SVES blower for about 10 minutes.
8/16/2023	14:52	NM	NM	NM	1.64	Temporarily restart SVES for 5 minutes to take exhaust reading.
10/25/2025	17:40	NM	NM	NM	NM	Restart SVES at end of 3-month rebound monitoring period. Collect TO-15 exhaust sample.

Abbreviations:

SVE = soil vapor extraction

SVES = soil vapor extraction system

TO-15 = laboratory sample method for volatile organic compounds

PID = photoionization detector

NM = not measured

Created by: REL Date: 2/5/2024  
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**Table 2. Soil Vapor Extraction System Influent Drager Tube Results**  
**Pilgrim Cleaners (High Point Center) / SCS Engineers Project #25211372.21**  
 (Concentrations are in parts per million [ppm])

<b>Date</b>	<b>Extraction Well</b>		
	<b>SVE-1</b>	<b>SVE-2</b>	<b>SVE-3</b>
12/5/2023	< 0.1	< 0.1	> 4

Abbreviation:

SVE = soil vapor extraction

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**Table 3. Sub-Slab Vapor Analytical Results Summary**  
**Pilgrim Cleaners (High Point Center) / SCS Engineers Project #25211372.21**  
 (Concentrations are listed in parts per billion by volume [ppbv])

Current Tenant	Unit	Sample Number	Date	Lab Notes	cis-1,2-Dichloroethylene	trans-1,2-Dichloroethylene	PCE	TCE	Vinyl Chloride
Royal Indian Restaurant	4	1	5/7/2013	--	<40 *D	<40 *D	65	<40 *D	<40 *D
		2	5/7/2013	--	<40 *D	<40 *D	169	<40 *D	<40 *D
Look-N-Good Salon	5	1	5/7/2013	--	<40 *D	<40 *D	212	<40 *D	<40 *D
		2	5/7/2013	--	<40 *D	<40 *D	224	<40 *D	<40 *D
Hearing Life	6	1	5/8/2012	--	<100 *D	<100 *D	300	<100 *D	<100 *D
		2	5/8/2012	--	<200 *D	<200 *D	649	<200 *D	<200 *D
Vacant (Former Pilgrim Cleaners)	7	1	5/8/2012	--	<b>2,620</b>	<1330 *D	<b>6,170</b> *IS	<b>3,140</b> *IS	<1330 *D
			10/25/2023	--	147	35.3	<b>1,090</b>	5.67	<0.808
		2	5/8/2012	*IS	<b>61,000</b>	<60000 *D	<b>176,000</b>	<b>72,000</b>	<60000 *D
			11/21/2023	--	15.6	2.65	0.368	6.55	<0.316
Vacant (Former Weight Watchers)	8	1	5/8/2012	*IS	<b>31,300</b>	<20000 *D	<b>98,600</b>	<b>23,800</b>	<20000 *D
			11/21/2023	--	<0.261	<0.224	<0.271	2.08	<0.316
		2	5/8/2012	*IS	<b>15,400</b>	<12000 *D	<b>92,900</b>	<b>35,900</b>	<12000 *D
			10/25/2023	--	568	79.3	50.2	9.61	1.51
Balance Chi Massage	8B	1	5/7/2013	--	<200 *D	<200 *D	<b>1,170</b>	<200 *D	<200 *D
		2	5/7/2013	--	1,030	<800 *D	<b>1,810</b>	<800 *D	<800 *D
Dollar Tree Westfield	9-11	1	5/7/2013	--	<40 *D	<40 *D	43	<40 *D	<40 *D
		2	5/7/2013	--	<40 *D	<40 *D	41	<40 *D	<40 *D
Vapor Risk Screening Level (Small Commercial)					1,400	1,400	840	53	360

Abbreviations:

ppbv = parts per billion by volume

PCE = tetrachloroethene

TCE = trichloroethene

Notes:

1. Samples were collected in 6L summa canisters over 30-minute period and analyzed using the U.S. EPA 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 August 2023 U.S. EPA Regional Screening Level Tables.
3. **Bold and underlined** values meet or exceed the Vapor Risk Screening Level.

Laboratory Notes/Qualifiers:

\*D = Limit of detection not achievable due to dilution.

\*IS = The internal standard quality control limit is exceeded.

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**Table 4. Groundwater Analytical Results Summary - CVOCs**  
**Pilgrim Cleaners (High Point Center) / SCS Engineers Project #25211372.21**  
 (Results are in µg/L)

Sample	Date	Lab Notes	Chloromethane	cis-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Other CVOCs
Samples Collected and Reported by Sigma Environmental							
SGP-1	8/4/2008	--	<0.5	<0.44	<u>12.1</u>	<0.47	ND
SGP-4	8/4/2008	--	<0.5	10.3	<u>158</u>	2.96	trans-1,2-Dichloroethene 1.21 J Toluene 0.51 J Vinyl Chloride <u>4.1</u>
Samples Collected by SCS Engineers							
MW1	11/22/2010	--	<u>0.30</u> J	<0.50	<u>13</u>	<0.20	ND
	8/1/2012	(2)	<0.18	<0.12	<u>17</u>	<0.19	ND
	4/5/2013	--	<0.27	<0.30	<u>26</u>	<0.50	ND
	6/19/2023	--	<0.32	<0.41	<u>7.3</u> *	<0.16	ND
MW2	11/22/2010	(1)	<u>0.30</u> J	<u>7.1</u>	<u>94</u>	<u>4.3</u>	ND
MW2P	8/1/2012	(2)	<0.18	<0.12	<u>5.8</u>	<0.19	ND
	4/5/2013	--	<0.27	<0.30	<u>5.7</u>	<0.50	ND
	6/20/2023	--	<0.32	<0.41	<u>4.2</u> *	<0.16	1,2-Dichloroethane <u>5.0</u>
	6/20/2023 (dup)	--	<0.32 F2	<0.41 F1	<u>4.4</u> *	<0.16	1,2-Dichloroethane <u>3.9</u>
MW3	11/22/2010	--	<u>0.33</u> J	<0.50	<u>16</u>	<0.20	ND
	8/1/2012	(2)	<0.18	<0.12	<u>12</u>	<0.19	ND
MW4	8/1/2012	(2)	<0.18	<0.12	<u>2.5</u>	<0.19	ND
	4/5/2013	--	<0.27	<0.30	<u>1.9</u>	<0.50	ND
	6/20/2023	--	<0.32	<0.41	<0.37 *	<0.16	ND

**Table 4. Groundwater Analytical Results Summary - CVOCs**  
**Pilgrim Cleaners (High Point Center) / SCS Engineers Project #25211372.21**  
 (Results are in µg/L)

Sample	Date	Lab Notes	Chloromethane	cis-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Other CVOCs
MW5	8/1/2012	(2)	<0.18	<0.12	<u>30</u>	0.44 J1	ND
	4/5/2013	(3)	<0.27	<0.30	<u>25</u>	<0.50	ND
	6/19/2023	--	<0.32	<0.41	<u>30</u> *	<0.16	Methylene Chloride <u>4.4</u> J2, B
MW6	8/1/2012	(2)	<0.18	<0.12	<0.17	<0.19	ND
	4/5/2013	(3)	<0.27	<0.30	<0.29	<0.50	ND
	6/19/2023	--	<0.32	<0.41	<0.37 *	<0.16	ND
MW7	8/1/2012	(2)	<0.18	<0.12	<u>14</u>	<0.19	ND
	6/19/2023	--	<0.32	<0.41	<u>15</u> *	<0.16	ND
Trip Blank	11/22/2010	--	<0.30	<0.50	<0.50	<0.20	ND
	8/1/2012	(2)	<0.18	<0.12	<0.17	<0.19	ND
	4/5/2013	--	<0.27	<0.30	<0.29	<0.50	Acetone <u>4.5</u> J2
	6/19/2023	--	<0.32	<0.41	<0.37 *	<0.16	ND
NR 140 Enforcement Standards (ESs)		3	70	5	5	Acetone trans-1,2-Dichloroethene Toluene Vinyl Chloride 1,2-Dichloroethane Methylene Chloride	9,000 100 800 0.2 5.0 5.0
NR 140 Preventive Action Limits (PALs)		0.3	7	0.5	0.5	Acetone trans-1,2-Dichloroethene Toluene Vinyl Chloride 1,2-Dichloroethane Methylene Chloride	1,800 20 160 0.02 0.50 0.50

**Table 4. Groundwater Analytical Results Summary - CVOCs**  
**Pilgrim Cleaners (High Point Center) / SCS Engineers Project #25211372.21**

Abbreviations:

µg/L = micrograms per liter or parts per billion (ppb)

ND = Not Detected

CVOCs = Chlorinated VOCs

-- = Not Applicable

NE = No Standard Established

Notes:

NR 140 ESs - Wisconsin Administrative Code (WAC), Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards.

NR 140 PALs - WAC, Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards.

**Bold+underlined** values meet or exceed NR 140 enforcement standards.

*Italic+underlined* values meet or exceed NR 140 preventive action limits.

Laboratory Notes:

\* = Laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) is outside acceptance limits.

B = Compound was found in the blank and sample.

F1 = MS and/or MSD recovery exceeds control limits.

F2 = MS/MSD RPD exceeds control limits.

J = Results reported between the Method Detection Limit (MDL) and LOQ are less certain than results at or above the LOQ.

J1 = Result is less than the reporting limit but greater than or equal to the MDL and the concentration is an approximate value.

J2 = Reported value was between the limit of detection and the limit of quantitation.

- (1) Hexachlorobutadiene analysis - The RPD exceeded the acceptance limit.
- (2) 1,2-Dichloroethane, 1,2-Dichloropropane, Naphthalene = Laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) exceeds the control limits.
- (3) VOCs analysis - Sample received with improper preservation or temperature.

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**Table 5. Water Level Summary**  
**Pilgrim Cleaners (High Point Center) / SCS Engineers Project #25211372.21**

Raw Data	Depth of Water in feet below top of well casing							
	MW1	MW2	MW3	MW4	MW5	MW6	MW7	MW2P
<b>Measurement Date</b>								
November 5, 2010	56.54	60.14	62.71	--	--	--	--	--
November 22, 2010	56.94	61.08	65.66	--	--	--	--	--
June 4, 2012	67.8	64.82	74.21	--	--	--	--	--
July 2, 2012	NM	NM	NM	63.94	111.22	107.67	72.13	101.86
August 1, 2012	67.55	Dry	73.31	63.81	111.68	109.02	74.77	102.19
April 5, 2013	68.77	60.10	77.15	66.67	114.76	112.39	79.32	105.92
April 15, 2013	NM	NM	NM	66.40	114.66	112.33	NM	NM
June 19-20, 2023	60.23	Dry	NM	58.96	108.22	106.32	72.20	98.83

	Shallow wells (Perched?) Deep Wells (Water Table?)							
	Ground Water Elevation in feet above mean sea level (amsl)							
Well Number	MW1	MW2	MW3	MW4	MW5	MW6	MW7	MW2P
<b>Top of Casing Elevation (feet amsl)</b>	1,069.25	1,068.92	1,081.08	1,079.39	1,068.61	1,068.57	1,068.30	1,069.07
<b>Screen Length (ft)</b>	15.00	15.00	15.00	15.00	15.00	15.00	15.00	5.00
<b>Total Depth (ft from top of casing)</b>	69.80	64.80	76.80	74.80	118.70	118.20	79.60	119.80
<b>Top of Well Screen Elevation (ft)</b>	1,014.45	1,019.12	1,019.28	1,019.59	964.91	965.37	1,003.70	954.27
<b>Measurement Date</b>								
November 5, 2010	1,012.71	1,008.78	1,018.37	--	--	--	--	--
November 22, 2010	1,012.31	1,007.84	1,015.42	--	--	--	--	--
June 4, 2012	1,001.45	1,004.10	1,006.87	--	--	--	--	--
July 2, 2012	NM	NM	NM	1,015.45	957.39	960.90	996.17	967.21
August 1, 2012	1,001.70	Dry	1,007.77	1,015.58	956.93	959.55	993.53	966.88
April 5, 2013	1,000.48	1,008.82	1,003.93	1,012.72	953.85	956.18	988.98	963.15
April 15, 2013	NM	NM	NM	1,012.99	953.95	956.24	NM	NM
June 19-20, 2023	1,009.02	Dry	NM	1,020.43	960.39	962.25	996.10	970.24
<b>Bottom of Well Elevation (ft)</b>	999.45	1,004.12	1,004.28	1,004.59	949.91	950.37	988.70	949.27

Abbreviations:

-- = not applicable      NM = not measured

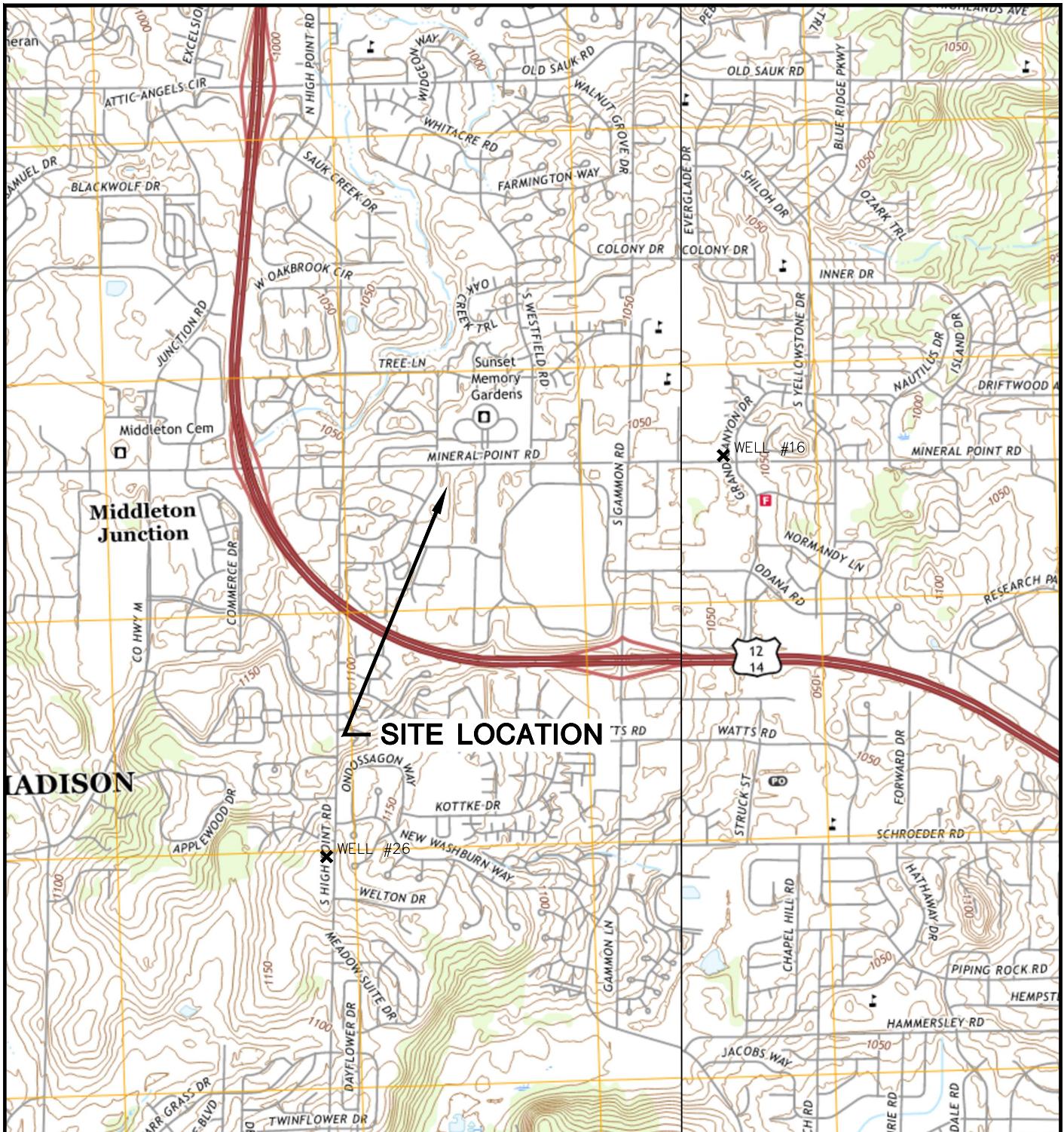
Note:

1) Monitoring well MW-3 could not be accessed in June 2023 as it was found to be paved over.

Created by:	TJK	Date:	11/11/2010
Last revision by:	REL	Date:	6/22/2023
Checked by:	AJR	Date:	6/23/2023
Proj Mgr QA/QC:	REL	Date:	7/7/2023

## Figures

- 1 Site Location Map
- 2 Site Area
- 3 Detailed Site Plan
- 4 Water Table Contour Map – Shallow
- 5 Water Table Contour Map – Deep
- 6 Groundwater Results – Shallow
- 7 Groundwater Results – Deep

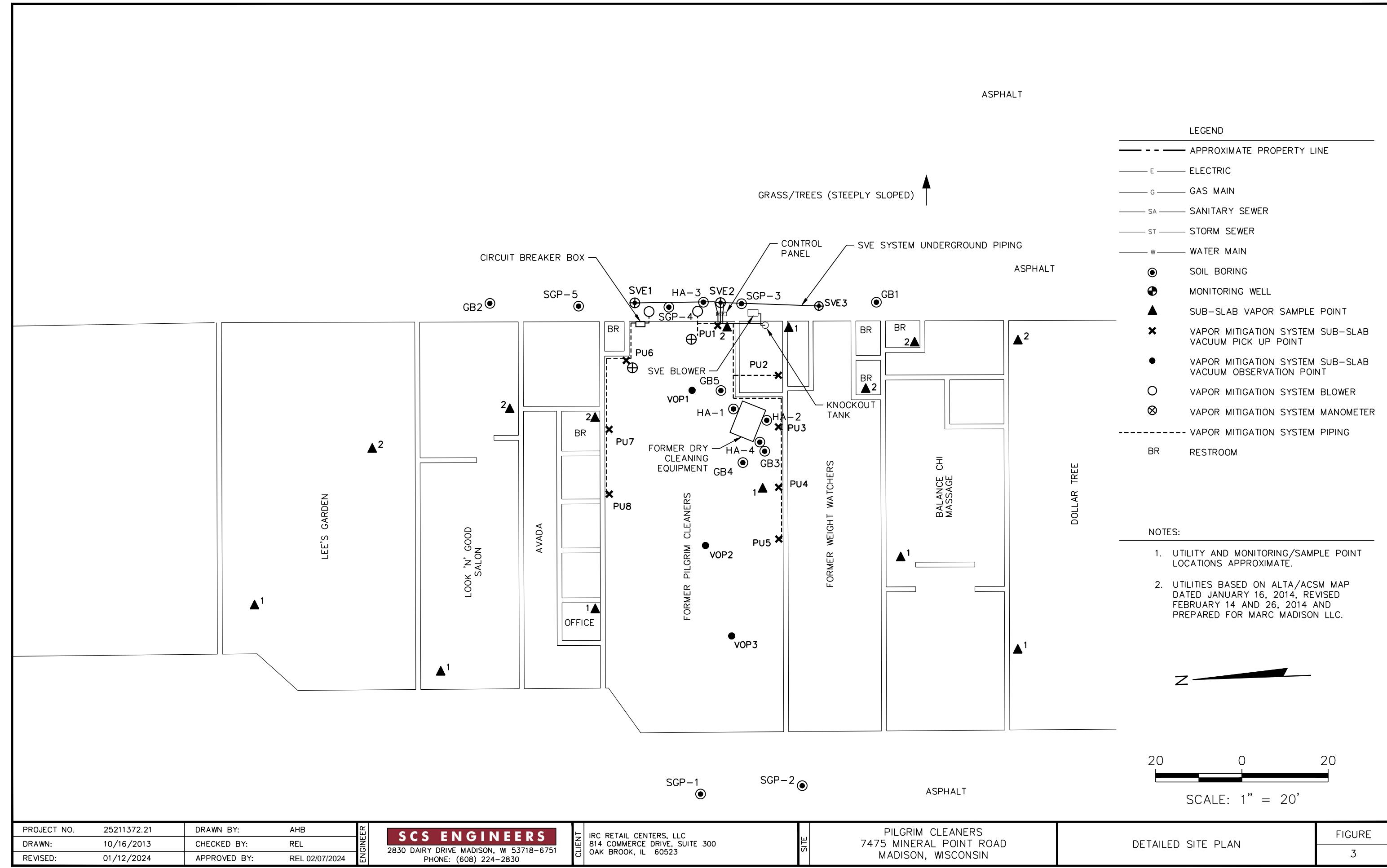


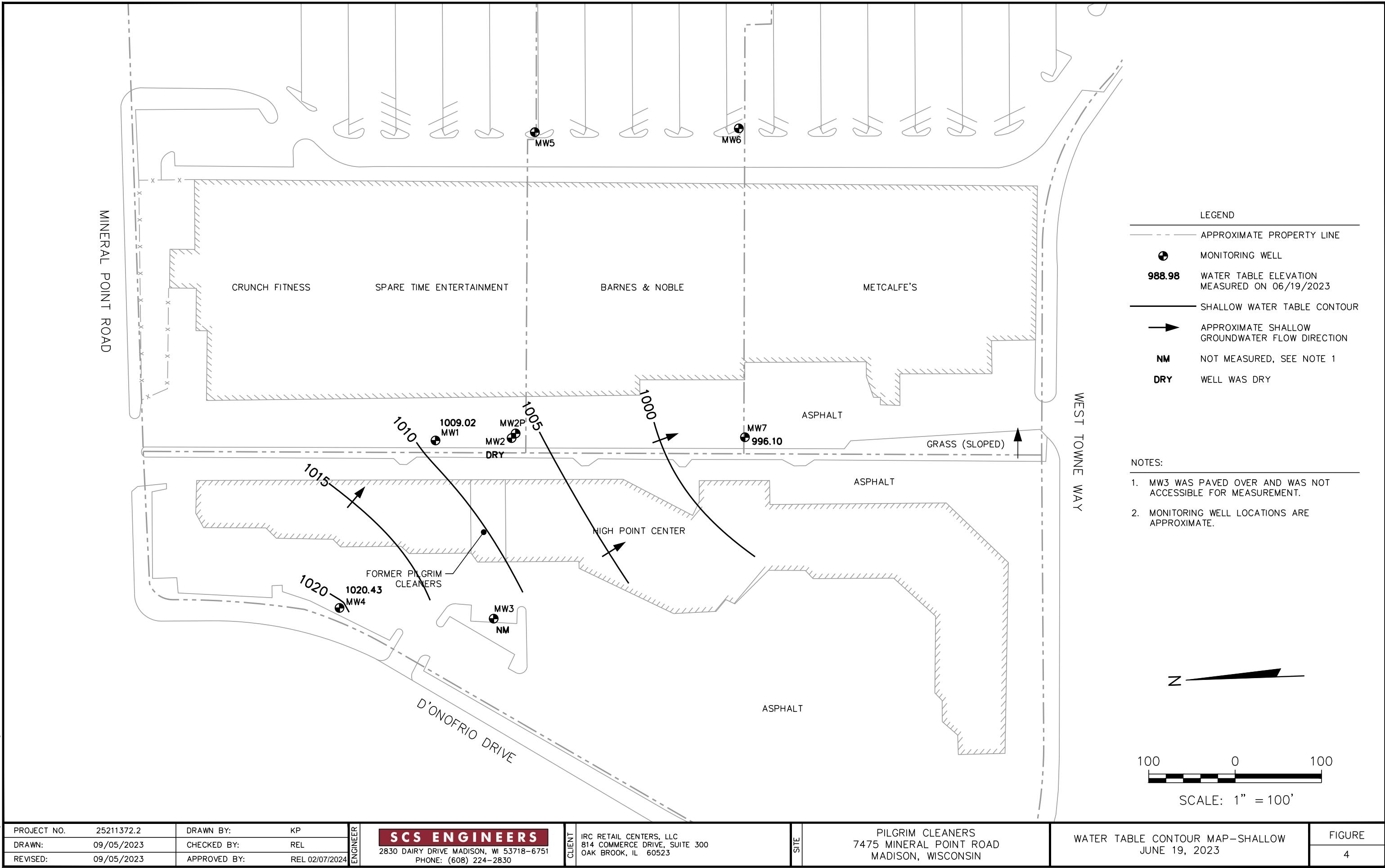
MIDDLETON  
WISCONSIN-DANE CO.  
7.5 MINUTE SERIES (TOPOGRAPHIC)  
SE/4 CROSS PLAINS 15' QUADRANGLE  
2022  
SCALE: 1" = 2,000'

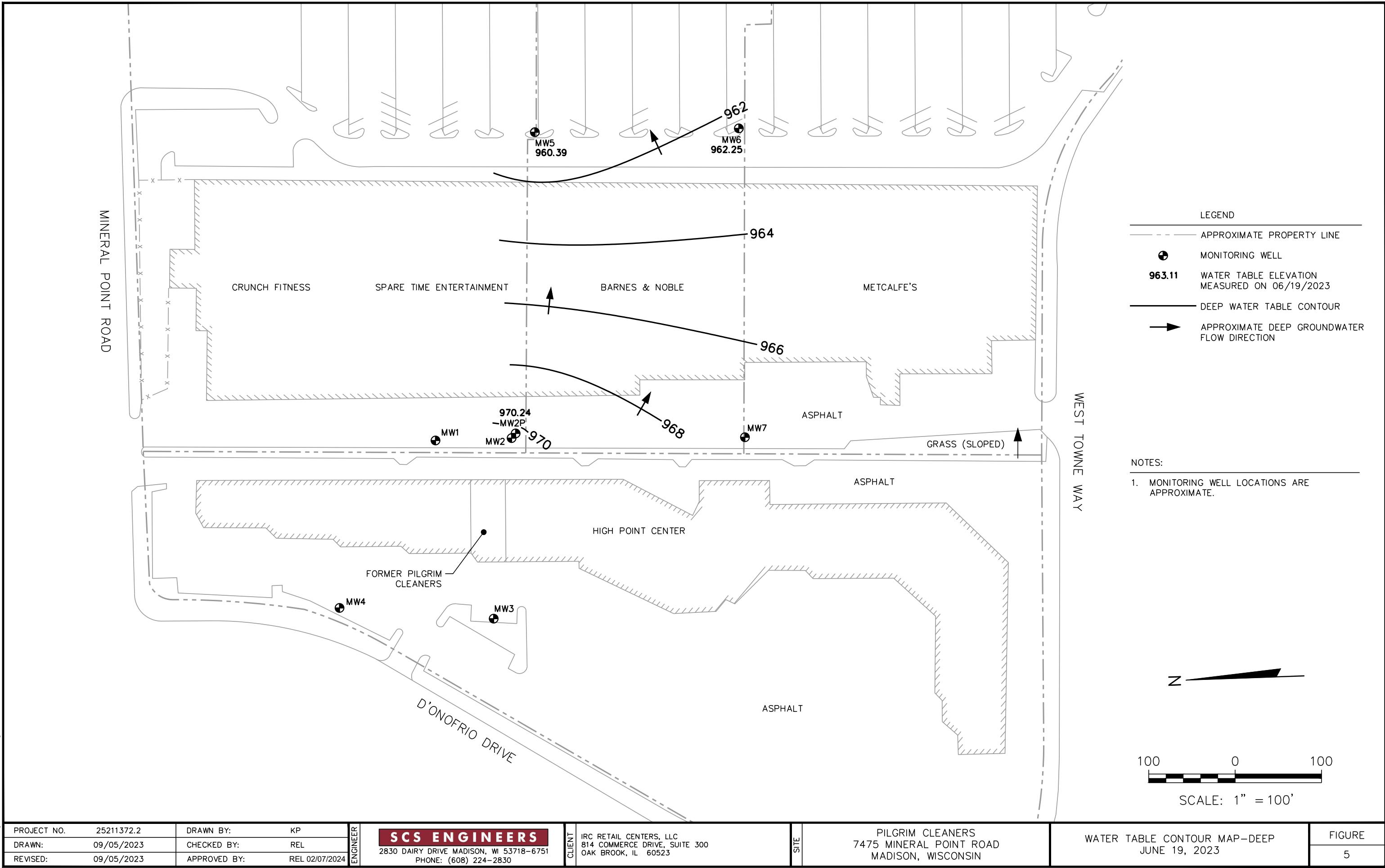


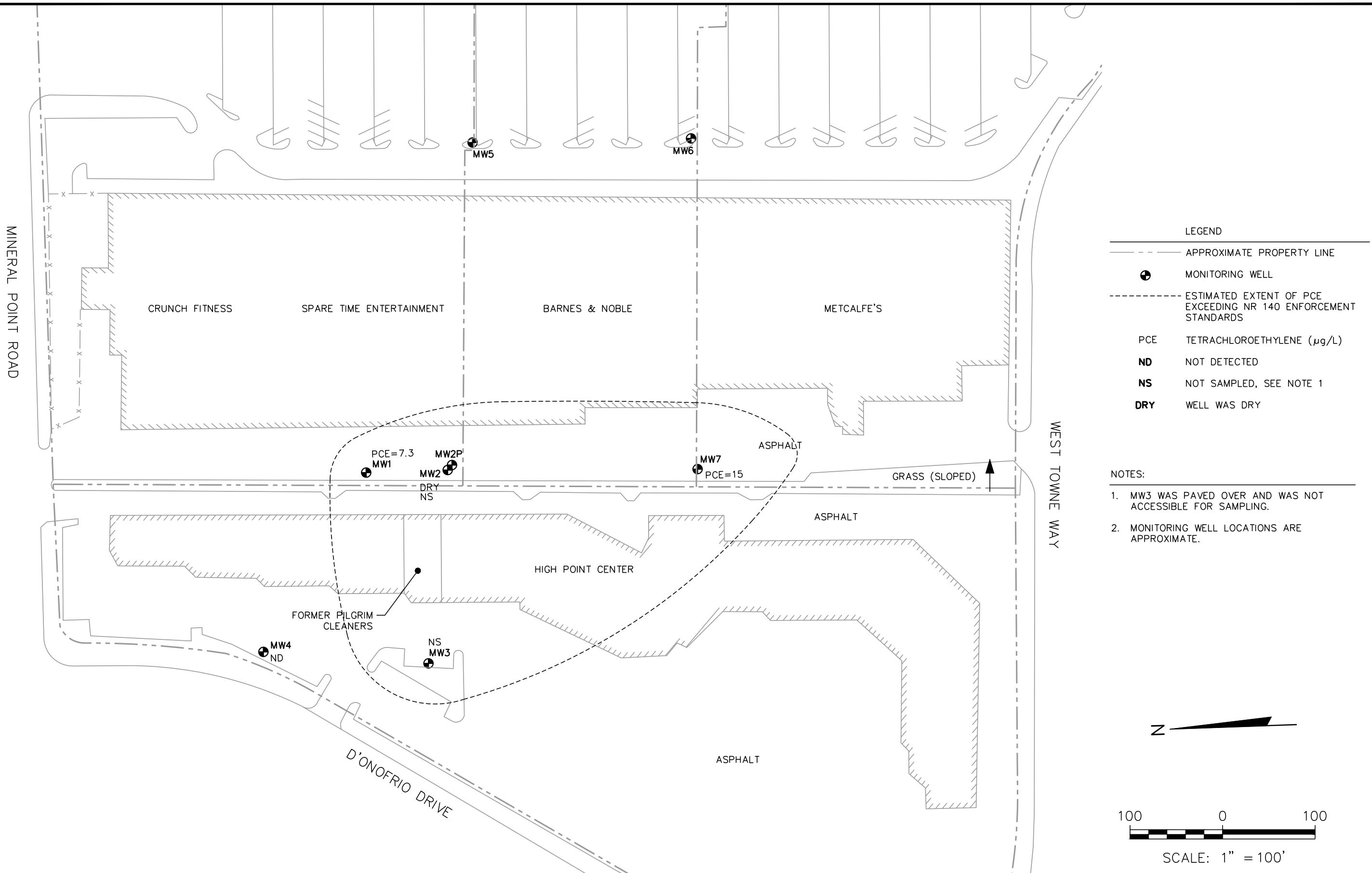
CLIENT	INLAND COMMERCIAL PROPERTY MANAGEMENT, INC. 2901 BUTTERFIELD ROAD OAK BROOK, ILLINOIS 60523		SITE	PILGRIM CLEANERS, INC. 7475 MINERAL POINT ROAD MADISON, WISCONSIN	SITE LOCATION MAP	
PROJECT NO.	3722	DRAWN BY:	KP/KH	ENGINEER	SCS ENGINEERS	FIGURE
DRAWN:	12/16/2008	CHECKED BY:	TK		2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830	
REVISED:	01/19/2023	APPROVED BY:	REL, 1/19/2023			1











PROJECT NO. 25211372.2  
DRAWN: 06/24/2014  
REVISED: 01/12/2024

DRAWN BY: AHB  
CHECKED BY: REL  
APPROVED BY: REL 02/07/2024

ENGINEER

**SCS ENGINEERS**  
2830 DAIRY DRIVE MADISON, WI 53718-6751  
PHONE: (608) 224-2830

CLIENT

IRC RETAIL CENTERS, LLC  
814 COMMERCE DRIVE, SUITE 300  
OAK BROOK, IL 60523

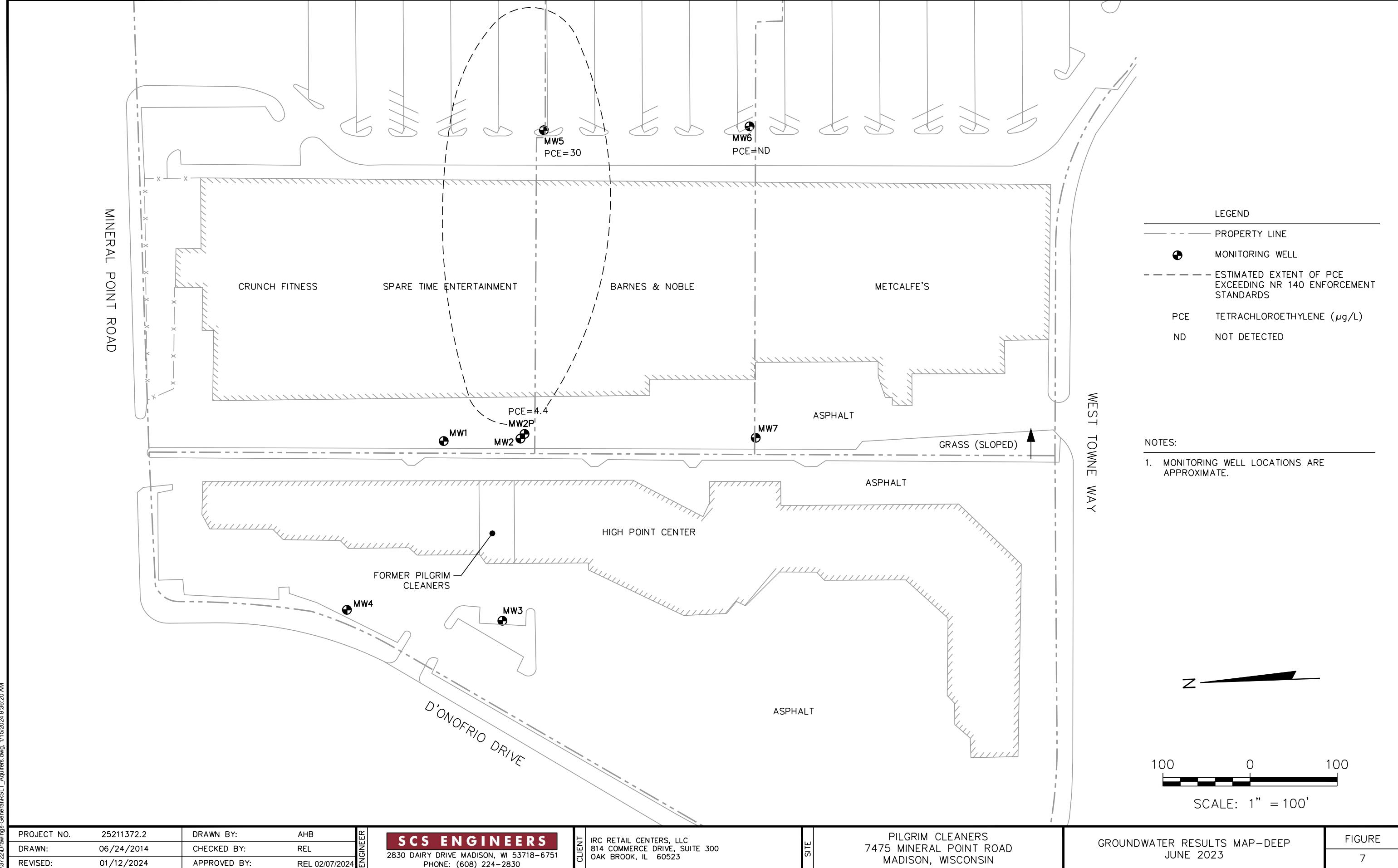
DESIGN

315

PILGRIM CLEANERS  
7475 MINERAL POINT ROAD  
MADISON, WISCONSIN

GROUNDWATER RESULTS-SHALLOW  
JUNE 2023

FIGURE  
6



Attachment A  
Laboratory Reports

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mr. Robert Langdon  
SCS Engineers  
2830 Dairy Dr  
Madison, Wisconsin 53718

Generated 7/6/2023 12:39:41 PM

## JOB DESCRIPTION

Pilgrim Cleaners - 25211372.21

## JOB NUMBER

500-235573-1

# Eurofins Chicago

## Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

Results relate only to the items tested and the sample(s) as received by the laboratory. The results, detection limits (LOD) and Quantitation Limits (LOQ) have been adjusted for sample dilutions and/or solids content.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

## Authorization



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7/6/2023 12:39:41 PM

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Authorized for release by  
Sandie Fredrick, Project Manager II  
[Sandra.Fredrick@et.eurofinsus.com](mailto:Sandra.Fredrick@et.eurofinsus.com)  
(920)261-1660

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# Case Narrative

Client: SCS Engineers  
Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Job ID: 500-235573-1**

**Laboratory: Eurofins Chicago**

## Narrative

### Job Narrative 500-235573-1

## Receipt

The samples were received on 6/21/2023 10:05 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.2° C.

## GC/MS VOA

Methods 8260B, 8260D: Methylene chloride was detected in the following items: MW5 (500-235573-2). Methylene chloride is a known lab contaminant; therefore all low level detects for this compound could be suspected as lab contamination.

Method 8260B: The following analyte(s) recovered outside control limits for the LCS associated with analytical batch 500-720115: Tetrachloroethene, 1,1,1,2-Tetrachloroethane and Chlorodibromomethane. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 500-720115 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

## Client Sample ID: MW6

Lab Sample ID: 500-235573-1

No Detections.

## Client Sample ID: MW5

Lab Sample ID: 500-235573-2

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	4.4	J B	5.0	1.6	ug/L	1		8260B	Total/NA
Tetrachloroethene	30	*	1.0	0.37	ug/L	1		8260B	Total/NA

## Client Sample ID: MW4

Lab Sample ID: 500-235573-3

No Detections.

## Client Sample ID: MW7

Lab Sample ID: 500-235573-4

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	15	*	1.0	0.37	ug/L	1		8260B	Total/NA

## Client Sample ID: MW1

Lab Sample ID: 500-235573-5

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	7.3	*	1.0	0.37	ug/L	1		8260B	Total/NA

## Client Sample ID: MW2P

Lab Sample ID: 500-235573-6

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	5.0		1.0	0.39	ug/L	1		8260B	Total/NA
Tetrachloroethene	4.2	*	1.0	0.37	ug/L	1		8260B	Total/NA

## Client Sample ID: MW2P DUP

Lab Sample ID: 500-235573-7

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	3.9		1.0	0.39	ug/L	1		8260B	Total/NA
Tetrachloroethene	4.4	*	1.0	0.37	ug/L	1		8260B	Total/NA

## Client Sample ID: HCL TB

Lab Sample ID: 500-235573-8

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

## Method Summary

Client: SCS Engineers  
Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

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

**Protocol References:**

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

**Laboratory References:**

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

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# Sample Summary

Client: SCS Engineers  
Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-235573-1	MW6	Water	06/19/23 13:00	06/21/23 10:05
500-235573-2	MW5	Water	06/19/23 14:00	06/21/23 10:05
500-235573-3	MW4	Water	06/20/23 10:35	06/21/23 10:05
500-235573-4	MW7	Water	06/19/23 16:15	06/21/23 10:05
500-235573-5	MW1	Water	06/19/23 10:35	06/21/23 10:05
500-235573-6	MW2P	Water	06/20/23 11:45	06/21/23 10:05
500-235573-7	MW2P DUP	Water	06/20/23 11:45	06/21/23 10:05
500-235573-8	HCL TB	Water	06/19/23 00:00	06/21/23 10:05

# Client Sample Results

Client: SCS Engineers

Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: MW6**

Date Collected: 06/19/23 13:00

Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-1**

Matrix: Water

**Method: SW846 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			06/23/23 13:59	1
Bromobenzene	<0.36		1.0	0.36	ug/L			06/23/23 13:59	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			06/23/23 13:59	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			06/23/23 13:59	1
Bromoform	<0.48		1.0	0.48	ug/L			06/23/23 13:59	1
Bromomethane	<0.80		3.0	0.80	ug/L			06/23/23 13:59	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			06/23/23 13:59	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			06/23/23 13:59	1
Chloroethane	<0.51		1.0	0.51	ug/L			06/23/23 13:59	1
Chloroform	<0.37		2.0	0.37	ug/L			06/23/23 13:59	1
Chloromethane	<0.32		5.0	0.32	ug/L			06/23/23 13:59	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			06/23/23 13:59	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			06/23/23 13:59	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			06/23/23 13:59	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			06/23/23 13:59	1
Dibromochloromethane	<0.49 *		1.0	0.49	ug/L			06/23/23 13:59	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			06/23/23 13:59	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			06/23/23 13:59	1
Dibromomethane	<0.27		1.0	0.27	ug/L			06/23/23 13:59	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			06/23/23 13:59	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			06/23/23 13:59	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			06/23/23 13:59	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			06/23/23 13:59	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			06/23/23 13:59	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			06/23/23 13:59	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			06/23/23 13:59	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			06/23/23 13:59	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			06/23/23 13:59	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			06/23/23 13:59	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			06/23/23 13:59	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			06/23/23 13:59	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			06/23/23 13:59	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			06/23/23 13:59	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			06/23/23 13:59	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			06/23/23 13:59	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			06/23/23 13:59	1
Naphthalene	<0.34		1.0	0.34	ug/L			06/23/23 13:59	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			06/23/23 13:59	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			06/23/23 13:59	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			06/23/23 13:59	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			06/23/23 13:59	1
Styrene	<0.39		1.0	0.39	ug/L			06/23/23 13:59	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			06/23/23 13:59	1
1,1,1,2-Tetrachloroethane	<0.46 *		1.0	0.46	ug/L			06/23/23 13:59	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			06/23/23 13:59	1
Tetrachloroethene	<0.37 *		1.0	0.37	ug/L			06/23/23 13:59	1
Toluene	<0.15		0.50	0.15	ug/L			06/23/23 13:59	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			06/23/23 13:59	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			06/23/23 13:59	1

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# Client Sample Results

Client: SCS Engineers  
 Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: MW6**

Date Collected: 06/19/23 13:00

Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-1**

Matrix: Water

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			06/23/23 13:59	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			06/23/23 13:59	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			06/23/23 13:59	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			06/23/23 13:59	1
Trichloroethene	<0.16		0.50	0.16	ug/L			06/23/23 13:59	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			06/23/23 13:59	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			06/23/23 13:59	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			06/23/23 13:59	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			06/23/23 13:59	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			06/23/23 13:59	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			06/23/23 13:59	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromofluorobenzene (Surr)	102		72 - 124				06/23/23 13:59	1	
Dibromofluoromethane (Surr)	111		75 - 120				06/23/23 13:59	1	
1,2-Dichloroethane-d4 (Surr)	109		75 - 126				06/23/23 13:59	1	
Toluene-d8 (Surr)	98		75 - 120				06/23/23 13:59	1	

# Client Sample Results

Client: SCS Engineers

Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: MW5**

Date Collected: 06/19/23 14:00

Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-2**

Matrix: Water

**Method: SW846 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			06/23/23 14:23	1
Bromobenzene	<0.36		1.0	0.36	ug/L			06/23/23 14:23	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			06/23/23 14:23	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			06/23/23 14:23	1
Bromoform	<0.48		1.0	0.48	ug/L			06/23/23 14:23	1
Bromomethane	<0.80		3.0	0.80	ug/L			06/23/23 14:23	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			06/23/23 14:23	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			06/23/23 14:23	1
Chloroethane	<0.51		1.0	0.51	ug/L			06/23/23 14:23	1
Chloroform	<0.37		2.0	0.37	ug/L			06/23/23 14:23	1
Chloromethane	<0.32		5.0	0.32	ug/L			06/23/23 14:23	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			06/23/23 14:23	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			06/23/23 14:23	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			06/23/23 14:23	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			06/23/23 14:23	1
Dibromochloromethane	<0.49 *		1.0	0.49	ug/L			06/23/23 14:23	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			06/23/23 14:23	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			06/23/23 14:23	1
Dibromomethane	<0.27		1.0	0.27	ug/L			06/23/23 14:23	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			06/23/23 14:23	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			06/23/23 14:23	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			06/23/23 14:23	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			06/23/23 14:23	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			06/23/23 14:23	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			06/23/23 14:23	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			06/23/23 14:23	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			06/23/23 14:23	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			06/23/23 14:23	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			06/23/23 14:23	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			06/23/23 14:23	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			06/23/23 14:23	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			06/23/23 14:23	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			06/23/23 14:23	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			06/23/23 14:23	1
<b>Methylene Chloride</b>	<b>4.4 JB</b>		5.0	1.6	ug/L			06/23/23 14:23	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			06/23/23 14:23	1
Naphthalene	<0.34		1.0	0.34	ug/L			06/23/23 14:23	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			06/23/23 14:23	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			06/23/23 14:23	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			06/23/23 14:23	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			06/23/23 14:23	1
Styrene	<0.39		1.0	0.39	ug/L			06/23/23 14:23	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			06/23/23 14:23	1
1,1,1,2-Tetrachloroethane	<0.46 *		1.0	0.46	ug/L			06/23/23 14:23	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			06/23/23 14:23	1
<b>Tetrachloroethene</b>	<b>30 *</b>		1.0	0.37	ug/L			06/23/23 14:23	1
Toluene	<0.15		0.50	0.15	ug/L			06/23/23 14:23	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			06/23/23 14:23	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			06/23/23 14:23	1

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# Client Sample Results

Client: SCS Engineers  
 Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: MW5**

Date Collected: 06/19/23 14:00

Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-2**

Matrix: Water

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			06/23/23 14:23	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			06/23/23 14:23	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			06/23/23 14:23	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			06/23/23 14:23	1
Trichloroethene	<0.16		0.50	0.16	ug/L			06/23/23 14:23	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			06/23/23 14:23	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			06/23/23 14:23	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			06/23/23 14:23	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			06/23/23 14:23	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			06/23/23 14:23	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			06/23/23 14:23	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromofluorobenzene (Surr)	104		72 - 124				06/23/23 14:23	1	
Dibromofluoromethane (Surr)	114		75 - 120				06/23/23 14:23	1	
1,2-Dichloroethane-d4 (Surr)	113		75 - 126				06/23/23 14:23	1	
Toluene-d8 (Surr)	96		75 - 120				06/23/23 14:23	1	

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# Client Sample Results

Client: SCS Engineers

Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: MW4**

Date Collected: 06/20/23 10:35

Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-3**

Matrix: Water

**Method: SW846 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			06/23/23 14:48	1
Bromobenzene	<0.36		1.0	0.36	ug/L			06/23/23 14:48	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			06/23/23 14:48	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			06/23/23 14:48	1
Bromoform	<0.48		1.0	0.48	ug/L			06/23/23 14:48	1
Bromomethane	<0.80		3.0	0.80	ug/L			06/23/23 14:48	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			06/23/23 14:48	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			06/23/23 14:48	1
Chloroethane	<0.51		1.0	0.51	ug/L			06/23/23 14:48	1
Chloroform	<0.37		2.0	0.37	ug/L			06/23/23 14:48	1
Chloromethane	<0.32		5.0	0.32	ug/L			06/23/23 14:48	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			06/23/23 14:48	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			06/23/23 14:48	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			06/23/23 14:48	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			06/23/23 14:48	1
Dibromochloromethane	<0.49 *		1.0	0.49	ug/L			06/23/23 14:48	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			06/23/23 14:48	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			06/23/23 14:48	1
Dibromomethane	<0.27		1.0	0.27	ug/L			06/23/23 14:48	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			06/23/23 14:48	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			06/23/23 14:48	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			06/23/23 14:48	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			06/23/23 14:48	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			06/23/23 14:48	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			06/23/23 14:48	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			06/23/23 14:48	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			06/23/23 14:48	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			06/23/23 14:48	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			06/23/23 14:48	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			06/23/23 14:48	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			06/23/23 14:48	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			06/23/23 14:48	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			06/23/23 14:48	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			06/23/23 14:48	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			06/23/23 14:48	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			06/23/23 14:48	1
Naphthalene	<0.34		1.0	0.34	ug/L			06/23/23 14:48	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			06/23/23 14:48	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			06/23/23 14:48	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			06/23/23 14:48	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			06/23/23 14:48	1
Styrene	<0.39		1.0	0.39	ug/L			06/23/23 14:48	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			06/23/23 14:48	1
1,1,1,2-Tetrachloroethane	<0.46 *		1.0	0.46	ug/L			06/23/23 14:48	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			06/23/23 14:48	1
Tetrachloroethene	<0.37 *		1.0	0.37	ug/L			06/23/23 14:48	1
Toluene	<0.15		0.50	0.15	ug/L			06/23/23 14:48	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			06/23/23 14:48	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			06/23/23 14:48	1

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# Client Sample Results

Client: SCS Engineers  
 Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: MW4**

Date Collected: 06/20/23 10:35

Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-3**

Matrix: Water

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			06/23/23 14:48	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			06/23/23 14:48	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			06/23/23 14:48	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			06/23/23 14:48	1
Trichloroethene	<0.16		0.50	0.16	ug/L			06/23/23 14:48	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			06/23/23 14:48	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			06/23/23 14:48	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			06/23/23 14:48	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			06/23/23 14:48	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			06/23/23 14:48	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			06/23/23 14:48	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromofluorobenzene (Surr)	106		72 - 124				06/23/23 14:48	1	
Dibromofluoromethane (Surr)	102		75 - 120				06/23/23 14:48	1	
1,2-Dichloroethane-d4 (Surr)	103		75 - 126				06/23/23 14:48	1	
Toluene-d8 (Surr)	105		75 - 120				06/23/23 14:48	1	

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# Client Sample Results

Client: SCS Engineers

Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: MW7**

Date Collected: 06/19/23 16:15

Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-4**

Matrix: Water

**Method: SW846 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			06/23/23 15:13	1
Bromobenzene	<0.36		1.0	0.36	ug/L			06/23/23 15:13	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			06/23/23 15:13	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			06/23/23 15:13	1
Bromoform	<0.48		1.0	0.48	ug/L			06/23/23 15:13	1
Bromomethane	<0.80		3.0	0.80	ug/L			06/23/23 15:13	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			06/23/23 15:13	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			06/23/23 15:13	1
Chloroethane	<0.51		1.0	0.51	ug/L			06/23/23 15:13	1
Chloroform	<0.37		2.0	0.37	ug/L			06/23/23 15:13	1
Chloromethane	<0.32		5.0	0.32	ug/L			06/23/23 15:13	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			06/23/23 15:13	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			06/23/23 15:13	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			06/23/23 15:13	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			06/23/23 15:13	1
Dibromochloromethane	<0.49 *		1.0	0.49	ug/L			06/23/23 15:13	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			06/23/23 15:13	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			06/23/23 15:13	1
Dibromomethane	<0.27		1.0	0.27	ug/L			06/23/23 15:13	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			06/23/23 15:13	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			06/23/23 15:13	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			06/23/23 15:13	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			06/23/23 15:13	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			06/23/23 15:13	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			06/23/23 15:13	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			06/23/23 15:13	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			06/23/23 15:13	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			06/23/23 15:13	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			06/23/23 15:13	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			06/23/23 15:13	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			06/23/23 15:13	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			06/23/23 15:13	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			06/23/23 15:13	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			06/23/23 15:13	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			06/23/23 15:13	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			06/23/23 15:13	1
Naphthalene	<0.34		1.0	0.34	ug/L			06/23/23 15:13	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			06/23/23 15:13	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			06/23/23 15:13	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			06/23/23 15:13	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			06/23/23 15:13	1
Styrene	<0.39		1.0	0.39	ug/L			06/23/23 15:13	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			06/23/23 15:13	1
1,1,1,2-Tetrachloroethane	<0.46 *		1.0	0.46	ug/L			06/23/23 15:13	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			06/23/23 15:13	1
<b>Tetrachloroethene</b>	<b>15 *</b>		1.0	0.37	ug/L			06/23/23 15:13	1
Toluene	<0.15		0.50	0.15	ug/L			06/23/23 15:13	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			06/23/23 15:13	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			06/23/23 15:13	1

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# Client Sample Results

Client: SCS Engineers  
 Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: MW7**

Date Collected: 06/19/23 16:15

Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-4**

Matrix: Water

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			06/23/23 15:13	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			06/23/23 15:13	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			06/23/23 15:13	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			06/23/23 15:13	1
Trichloroethene	<0.16		0.50	0.16	ug/L			06/23/23 15:13	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			06/23/23 15:13	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			06/23/23 15:13	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			06/23/23 15:13	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			06/23/23 15:13	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			06/23/23 15:13	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			06/23/23 15:13	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromofluorobenzene (Surr)	107		72 - 124				06/23/23 15:13	1	
Dibromofluoromethane (Surr)	119		75 - 120				06/23/23 15:13	1	
1,2-Dichloroethane-d4 (Surr)	118		75 - 126				06/23/23 15:13	1	
Toluene-d8 (Surr)	94		75 - 120				06/23/23 15:13	1	

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# Client Sample Results

Client: SCS Engineers

Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: MW1**

Date Collected: 06/19/23 10:35

Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-5**

Matrix: Water

**Method: SW846 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			06/23/23 15:37	1
Bromobenzene	<0.36		1.0	0.36	ug/L			06/23/23 15:37	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			06/23/23 15:37	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			06/23/23 15:37	1
Bromoform	<0.48		1.0	0.48	ug/L			06/23/23 15:37	1
Bromomethane	<0.80		3.0	0.80	ug/L			06/23/23 15:37	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			06/23/23 15:37	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			06/23/23 15:37	1
Chloroethane	<0.51		1.0	0.51	ug/L			06/23/23 15:37	1
Chloroform	<0.37		2.0	0.37	ug/L			06/23/23 15:37	1
Chloromethane	<0.32		5.0	0.32	ug/L			06/23/23 15:37	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			06/23/23 15:37	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			06/23/23 15:37	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			06/23/23 15:37	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			06/23/23 15:37	1
Dibromochloromethane	<0.49 *		1.0	0.49	ug/L			06/23/23 15:37	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			06/23/23 15:37	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			06/23/23 15:37	1
Dibromomethane	<0.27		1.0	0.27	ug/L			06/23/23 15:37	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			06/23/23 15:37	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			06/23/23 15:37	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			06/23/23 15:37	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			06/23/23 15:37	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			06/23/23 15:37	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			06/23/23 15:37	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			06/23/23 15:37	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			06/23/23 15:37	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			06/23/23 15:37	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			06/23/23 15:37	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			06/23/23 15:37	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			06/23/23 15:37	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			06/23/23 15:37	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			06/23/23 15:37	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			06/23/23 15:37	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			06/23/23 15:37	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			06/23/23 15:37	1
Naphthalene	<0.34		1.0	0.34	ug/L			06/23/23 15:37	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			06/23/23 15:37	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			06/23/23 15:37	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			06/23/23 15:37	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			06/23/23 15:37	1
Styrene	<0.39		1.0	0.39	ug/L			06/23/23 15:37	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			06/23/23 15:37	1
1,1,1,2-Tetrachloroethane	<0.46 *		1.0	0.46	ug/L			06/23/23 15:37	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			06/23/23 15:37	1
<b>Tetrachloroethene</b>	<b>7.3 *</b>		1.0	0.37	ug/L			06/23/23 15:37	1
Toluene	<0.15		0.50	0.15	ug/L			06/23/23 15:37	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			06/23/23 15:37	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			06/23/23 15:37	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: MW1**

Date Collected: 06/19/23 10:35

Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-5**

Matrix: Water

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			06/23/23 15:37	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			06/23/23 15:37	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			06/23/23 15:37	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			06/23/23 15:37	1
Trichloroethene	<0.16		0.50	0.16	ug/L			06/23/23 15:37	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			06/23/23 15:37	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			06/23/23 15:37	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			06/23/23 15:37	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			06/23/23 15:37	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			06/23/23 15:37	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			06/23/23 15:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		72 - 124		06/23/23 15:37	1
Dibromofluoromethane (Surr)	113		75 - 120		06/23/23 15:37	1
1,2-Dichloroethane-d4 (Surr)	112		75 - 126		06/23/23 15:37	1
Toluene-d8 (Surr)	103		75 - 120		06/23/23 15:37	1

# Client Sample Results

Client: SCS Engineers

Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: MW2P**

Date Collected: 06/20/23 11:45

Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-6**

Matrix: Water

**Method: SW846 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			06/23/23 16:02	1
Bromobenzene	<0.36		1.0	0.36	ug/L			06/23/23 16:02	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			06/23/23 16:02	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			06/23/23 16:02	1
Bromoform	<0.48		1.0	0.48	ug/L			06/23/23 16:02	1
Bromomethane	<0.80		3.0	0.80	ug/L			06/23/23 16:02	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			06/23/23 16:02	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			06/23/23 16:02	1
Chloroethane	<0.51		1.0	0.51	ug/L			06/23/23 16:02	1
Chloroform	<0.37		2.0	0.37	ug/L			06/23/23 16:02	1
Chloromethane	<0.32		5.0	0.32	ug/L			06/23/23 16:02	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			06/23/23 16:02	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			06/23/23 16:02	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			06/23/23 16:02	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			06/23/23 16:02	1
Dibromochloromethane	<0.49 *		1.0	0.49	ug/L			06/23/23 16:02	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			06/23/23 16:02	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			06/23/23 16:02	1
Dibromomethane	<0.27		1.0	0.27	ug/L			06/23/23 16:02	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			06/23/23 16:02	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			06/23/23 16:02	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			06/23/23 16:02	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			06/23/23 16:02	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			06/23/23 16:02	1
<b>1,2-Dichloroethane</b>	<b>5.0</b>		1.0	0.39	ug/L			06/23/23 16:02	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			06/23/23 16:02	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			06/23/23 16:02	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			06/23/23 16:02	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			06/23/23 16:02	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			06/23/23 16:02	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			06/23/23 16:02	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			06/23/23 16:02	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			06/23/23 16:02	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			06/23/23 16:02	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			06/23/23 16:02	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			06/23/23 16:02	1
Naphthalene	<0.34		1.0	0.34	ug/L			06/23/23 16:02	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			06/23/23 16:02	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			06/23/23 16:02	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			06/23/23 16:02	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			06/23/23 16:02	1
Styrene	<0.39		1.0	0.39	ug/L			06/23/23 16:02	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			06/23/23 16:02	1
1,1,1,2-Tetrachloroethane	<0.46 *		1.0	0.46	ug/L			06/23/23 16:02	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			06/23/23 16:02	1
<b>Tetrachloroethene</b>	<b>4.2 *</b>		1.0	0.37	ug/L			06/23/23 16:02	1
Toluene	<0.15		0.50	0.15	ug/L			06/23/23 16:02	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			06/23/23 16:02	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			06/23/23 16:02	1

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# Client Sample Results

Client: SCS Engineers  
Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: MW2P**

Date Collected: 06/20/23 11:45

Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-6**

Matrix: Water

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			06/23/23 16:02	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			06/23/23 16:02	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			06/23/23 16:02	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			06/23/23 16:02	1
Trichloroethene	<0.16		0.50	0.16	ug/L			06/23/23 16:02	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			06/23/23 16:02	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			06/23/23 16:02	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			06/23/23 16:02	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			06/23/23 16:02	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			06/23/23 16:02	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			06/23/23 16:02	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromofluorobenzene (Surr)	107		72 - 124				06/23/23 16:02	1	
Dibromofluoromethane (Surr)	114		75 - 120				06/23/23 16:02	1	
1,2-Dichloroethane-d4 (Surr)	113		75 - 126				06/23/23 16:02	1	
Toluene-d8 (Surr)	99		75 - 120				06/23/23 16:02	1	

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# Client Sample Results

Client: SCS Engineers

Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: MW2P DUP**

Date Collected: 06/20/23 11:45

Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-7**

Matrix: Water

**Method: SW846 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			06/23/23 16:26	1
Bromobenzene	<0.36		1.0	0.36	ug/L			06/23/23 16:26	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			06/23/23 16:26	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			06/23/23 16:26	1
Bromoform	<0.48		1.0	0.48	ug/L			06/23/23 16:26	1
Bromomethane	<0.80	F2	3.0	0.80	ug/L			06/23/23 16:26	1
Carbon tetrachloride	<0.38	F2	1.0	0.38	ug/L			06/23/23 16:26	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			06/23/23 16:26	1
Chloroethane	<0.51	F1	1.0	0.51	ug/L			06/23/23 16:26	1
Chloroform	<0.37		2.0	0.37	ug/L			06/23/23 16:26	1
Chloromethane	<0.32	F2	5.0	0.32	ug/L			06/23/23 16:26	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			06/23/23 16:26	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			06/23/23 16:26	1
cis-1,2-Dichloroethene	<0.41	F1	1.0	0.41	ug/L			06/23/23 16:26	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			06/23/23 16:26	1
Dibromochloromethane	<0.49	* F1	1.0	0.49	ug/L			06/23/23 16:26	1
1,2-Dibromo-3-Chloropropane	<2.0	F2	5.0	2.0	ug/L			06/23/23 16:26	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			06/23/23 16:26	1
Dibromomethane	<0.27		1.0	0.27	ug/L			06/23/23 16:26	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			06/23/23 16:26	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			06/23/23 16:26	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			06/23/23 16:26	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			06/23/23 16:26	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			06/23/23 16:26	1
<b>1,2-Dichloroethane</b>	<b>3.9</b>		1.0	0.39	ug/L			06/23/23 16:26	1
1,1-Dichloroethene	<0.39	F2	1.0	0.39	ug/L			06/23/23 16:26	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			06/23/23 16:26	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			06/23/23 16:26	1
2,2-Dichloropropane	<0.44	F1 F2	1.0	0.44	ug/L			06/23/23 16:26	1
1,1-Dichloropropene	<0.30	F1	1.0	0.30	ug/L			06/23/23 16:26	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			06/23/23 16:26	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			06/23/23 16:26	1
Isopropylbenzene	<0.39	F1	1.0	0.39	ug/L			06/23/23 16:26	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			06/23/23 16:26	1
Methylene Chloride	<1.6	F2	5.0	1.6	ug/L			06/23/23 16:26	1
Methyl tert-butyl ether	<0.39	F1 F2	1.0	0.39	ug/L			06/23/23 16:26	1
Naphthalene	<0.34	F1 F2	1.0	0.34	ug/L			06/23/23 16:26	1
n-Butylbenzene	<0.39	F1	1.0	0.39	ug/L			06/23/23 16:26	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			06/23/23 16:26	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			06/23/23 16:26	1
sec-Butylbenzene	<0.40	F1	1.0	0.40	ug/L			06/23/23 16:26	1
Styrene	<0.39		1.0	0.39	ug/L			06/23/23 16:26	1
tert-Butylbenzene	<0.40	F1	1.0	0.40	ug/L			06/23/23 16:26	1
1,1,1,2-Tetrachloroethane	<0.46	*	1.0	0.46	ug/L			06/23/23 16:26	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			06/23/23 16:26	1
<b>Tetrachloroethene</b>	<b>4.4</b>	*	1.0	0.37	ug/L			06/23/23 16:26	1
Toluene	<0.15		0.50	0.15	ug/L			06/23/23 16:26	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			06/23/23 16:26	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			06/23/23 16:26	1

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# Client Sample Results

Client: SCS Engineers  
 Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: MW2P DUP**

**Lab Sample ID: 500-235573-7**

**Matrix: Water**

Date Collected: 06/20/23 11:45  
 Date Received: 06/21/23 10:05

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46	F2	1.0	0.46	ug/L			06/23/23 16:26	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			06/23/23 16:26	1
1,1,1-Trichloroethane	<0.38	F2	1.0	0.38	ug/L			06/23/23 16:26	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			06/23/23 16:26	1
Trichloroethene	<0.16		0.50	0.16	ug/L			06/23/23 16:26	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			06/23/23 16:26	1
1,2,3-Trichloropropane	<0.41	F1	2.0	0.41	ug/L			06/23/23 16:26	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			06/23/23 16:26	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			06/23/23 16:26	1
Vinyl chloride	<0.20	F1	1.0	0.20	ug/L			06/23/23 16:26	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			06/23/23 16:26	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		109		72 - 124				06/23/23 16:26	1
Dibromofluoromethane (Surr)		110		75 - 120				06/23/23 16:26	1
1,2-Dichloroethane-d4 (Surr)		108		75 - 126				06/23/23 16:26	1
Toluene-d8 (Surr)		101		75 - 120				06/23/23 16:26	1

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# Client Sample Results

Client: SCS Engineers

Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: HCL TB**

Date Collected: 06/19/23 00:00

Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-8**

Matrix: Water

**Method: SW846 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			06/23/23 16:51	1
Bromobenzene	<0.36		1.0	0.36	ug/L			06/23/23 16:51	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			06/23/23 16:51	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			06/23/23 16:51	1
Bromoform	<0.48		1.0	0.48	ug/L			06/23/23 16:51	1
Bromomethane	<0.80		3.0	0.80	ug/L			06/23/23 16:51	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			06/23/23 16:51	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			06/23/23 16:51	1
Chloroethane	<0.51		1.0	0.51	ug/L			06/23/23 16:51	1
Chloroform	<0.37		2.0	0.37	ug/L			06/23/23 16:51	1
Chloromethane	<0.32		5.0	0.32	ug/L			06/23/23 16:51	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			06/23/23 16:51	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			06/23/23 16:51	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			06/23/23 16:51	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			06/23/23 16:51	1
Dibromochloromethane	<0.49 *		1.0	0.49	ug/L			06/23/23 16:51	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			06/23/23 16:51	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			06/23/23 16:51	1
Dibromomethane	<0.27		1.0	0.27	ug/L			06/23/23 16:51	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			06/23/23 16:51	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			06/23/23 16:51	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			06/23/23 16:51	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			06/23/23 16:51	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			06/23/23 16:51	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			06/23/23 16:51	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			06/23/23 16:51	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			06/23/23 16:51	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			06/23/23 16:51	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			06/23/23 16:51	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			06/23/23 16:51	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			06/23/23 16:51	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			06/23/23 16:51	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			06/23/23 16:51	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			06/23/23 16:51	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			06/23/23 16:51	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			06/23/23 16:51	1
Naphthalene	<0.34		1.0	0.34	ug/L			06/23/23 16:51	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			06/23/23 16:51	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			06/23/23 16:51	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			06/23/23 16:51	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			06/23/23 16:51	1
Styrene	<0.39		1.0	0.39	ug/L			06/23/23 16:51	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			06/23/23 16:51	1
1,1,1,2-Tetrachloroethane	<0.46 *		1.0	0.46	ug/L			06/23/23 16:51	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			06/23/23 16:51	1
Tetrachloroethene	<0.37 *		1.0	0.37	ug/L			06/23/23 16:51	1
Toluene	<0.15		0.50	0.15	ug/L			06/23/23 16:51	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			06/23/23 16:51	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			06/23/23 16:51	1

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# Client Sample Results

Client: SCS Engineers  
 Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: HCL TB**

Date Collected: 06/19/23 00:00

Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-8**

Matrix: Water

## Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			06/23/23 16:51	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			06/23/23 16:51	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			06/23/23 16:51	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			06/23/23 16:51	1
Trichloroethene	<0.16		0.50	0.16	ug/L			06/23/23 16:51	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			06/23/23 16:51	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			06/23/23 16:51	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			06/23/23 16:51	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			06/23/23 16:51	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			06/23/23 16:51	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			06/23/23 16:51	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
4-Bromofluorobenzene (Surr)	108		72 - 124				06/23/23 16:51	1	
Dibromofluoromethane (Surr)	117		75 - 120				06/23/23 16:51	1	
1,2-Dichloroethane-d4 (Surr)	116		75 - 126				06/23/23 16:51	1	
Toluene-d8 (Surr)	95		75 - 120				06/23/23 16:51	1	

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# Definitions/Glossary

Client: SCS Engineers  
Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Reported value was between the limit of detection and the limit of quantitation.

## 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
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

Client: SCS Engineers

Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

## GC/MS VOA

Analysis Batch: 720115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-235573-1	MW6	Total/NA	Water	8260B	1
500-235573-2	MW5	Total/NA	Water	8260B	2
500-235573-3	MW4	Total/NA	Water	8260B	3
500-235573-4	MW7	Total/NA	Water	8260B	4
500-235573-5	MW1	Total/NA	Water	8260B	5
500-235573-6	MW2P	Total/NA	Water	8260B	6
500-235573-7	MW2P DUP	Total/NA	Water	8260B	7
500-235573-8	HCL TB	Total/NA	Water	8260B	8
MB 500-720115/6	Method Blank	Total/NA	Water	8260B	9
LCS 500-720115/4	Lab Control Sample	Total/NA	Water	8260B	10
500-235573-7 MS	MW2P DUP	Total/NA	Water	8260B	11
500-235573-7 MSD	MW2P DUP	Total/NA	Water	8260B	12

# Surrogate Summary

Client: SCS Engineers

Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (72-124)	DBFM (75-120)	DCA (75-126)	TOL (75-120)
500-235573-1	MW6	102	111	109	98
500-235573-2	MW5	104	114	113	96
500-235573-3	MW4	106	102	103	105
500-235573-4	MW7	107	119	118	94
500-235573-5	MW1	108	113	112	103
500-235573-6	MW2P	107	114	113	99
500-235573-7	MW2P DUP	109	110	108	101
500-235573-7 MS	MW2P DUP	89	94	94	110
500-235573-7 MSD	MW2P DUP	86	91	89	103
500-235573-8	HCL TB	108	117	116	95
LCS 500-720115/4	Lab Control Sample	88	92	86	103
MB 500-720115/6	Method Blank	101	106	105	99

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

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

TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: SCS Engineers

Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

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

**Lab Sample ID: MB 500-720115/6**

**Matrix: Water**

**Analysis Batch: 720115**

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			06/23/23 10:43	1
Bromobenzene	<0.36		1.0	0.36	ug/L			06/23/23 10:43	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			06/23/23 10:43	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			06/23/23 10:43	1
Bromoform	<0.48		1.0	0.48	ug/L			06/23/23 10:43	1
Bromomethane	<0.80		3.0	0.80	ug/L			06/23/23 10:43	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			06/23/23 10:43	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			06/23/23 10:43	1
Chloroethane	<0.51		1.0	0.51	ug/L			06/23/23 10:43	1
Chloroform	<0.37		2.0	0.37	ug/L			06/23/23 10:43	1
Chloromethane	<0.32		5.0	0.32	ug/L			06/23/23 10:43	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			06/23/23 10:43	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			06/23/23 10:43	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			06/23/23 10:43	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			06/23/23 10:43	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			06/23/23 10:43	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			06/23/23 10:43	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			06/23/23 10:43	1
Dibromomethane	<0.27		1.0	0.27	ug/L			06/23/23 10:43	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			06/23/23 10:43	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			06/23/23 10:43	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			06/23/23 10:43	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			06/23/23 10:43	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			06/23/23 10:43	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			06/23/23 10:43	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			06/23/23 10:43	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			06/23/23 10:43	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			06/23/23 10:43	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			06/23/23 10:43	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			06/23/23 10:43	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			06/23/23 10:43	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			06/23/23 10:43	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			06/23/23 10:43	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			06/23/23 10:43	1
Methylene Chloride	2.30 J		5.0	1.6	ug/L			06/23/23 10:43	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			06/23/23 10:43	1
Naphthalene	<0.34		1.0	0.34	ug/L			06/23/23 10:43	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			06/23/23 10:43	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			06/23/23 10:43	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			06/23/23 10:43	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			06/23/23 10:43	1
Styrene	<0.39		1.0	0.39	ug/L			06/23/23 10:43	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			06/23/23 10:43	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			06/23/23 10:43	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			06/23/23 10:43	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			06/23/23 10:43	1
Toluene	<0.15		0.50	0.15	ug/L			06/23/23 10:43	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			06/23/23 10:43	1

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# QC Sample Results

Client: SCS Engineers

Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

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

**Lab Sample ID: MB 500-720115/6**

**Matrix: Water**

**Analysis Batch: 720115**

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			06/23/23 10:43	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			06/23/23 10:43	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			06/23/23 10:43	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			06/23/23 10:43	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			06/23/23 10:43	1
Trichloroethene	<0.16		0.50	0.16	ug/L			06/23/23 10:43	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			06/23/23 10:43	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			06/23/23 10:43	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			06/23/23 10:43	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			06/23/23 10:43	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			06/23/23 10:43	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			06/23/23 10:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		72 - 124		06/23/23 10:43	1
Dibromofluoromethane (Surr)	106		75 - 120		06/23/23 10:43	1
1,2-Dichloroethane-d4 (Surr)	105		75 - 126		06/23/23 10:43	1
Toluene-d8 (Surr)	99		75 - 120		06/23/23 10:43	1

**Lab Sample ID: LCS 500-720115/4**

**Matrix: Water**

**Analysis Batch: 720115**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene	50.0	53.1		ug/L		106	70 - 120
Bromobenzene	50.0	52.1		ug/L		104	70 - 122
Bromochloromethane	50.0	54.4		ug/L		109	65 - 122
Bromodichloromethane	50.0	52.3		ug/L		105	69 - 120
Bromoform	50.0	64.8		ug/L		130	56 - 132
Bromomethane	50.0	30.8		ug/L		62	40 - 152
Carbon tetrachloride	50.0	66.1		ug/L		132	59 - 133
Chlorobenzene	50.0	55.7		ug/L		111	70 - 120
Chloroethane	50.0	32.2		ug/L		64	48 - 136
Chloroform	50.0	48.0		ug/L		96	70 - 120
Chloromethane	50.0	49.3		ug/L		99	56 - 152
2-Chlorotoluene	50.0	47.4		ug/L		95	70 - 125
4-Chlorotoluene	50.0	49.6		ug/L		99	68 - 124
cis-1,2-Dichloroethene	50.0	45.7		ug/L		91	70 - 125
cis-1,3-Dichloropropene	50.0	53.3		ug/L		107	64 - 127
Dibromochloromethane	50.0	71.0 *		ug/L		142	68 - 125
1,2-Dibromo-3-Chloropropane	50.0	47.4		ug/L		95	56 - 123
1,2-Dibromoethane (EDB)	50.0	60.4		ug/L		121	70 - 125
Dibromomethane	50.0	58.1		ug/L		116	70 - 120
1,2-Dichlorobenzene	50.0	52.7		ug/L		105	70 - 125
1,3-Dichlorobenzene	50.0	56.4		ug/L		113	70 - 125
1,4-Dichlorobenzene	50.0	55.2		ug/L		110	70 - 120
Dichlorodifluoromethane	50.0	44.3		ug/L		89	40 - 159
1,1-Dichloroethane	50.0	48.0		ug/L		96	70 - 125

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# QC Sample Results

Client: SCS Engineers

Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

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

**Lab Sample ID: LCS 500-720115/4**

**Matrix: Water**

**Analysis Batch: 720115**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,2-Dichloroethane	50.0	51.4		ug/L		103	68 - 127
1,1-Dichloroethene	50.0	51.4		ug/L		103	67 - 122
1,2-Dichloropropane	50.0	60.1		ug/L		120	67 - 130
1,3-Dichloropropane	50.0	54.4		ug/L		109	62 - 136
2,2-Dichloropropane	50.0	43.5		ug/L		87	58 - 139
1,1-Dichloropropene	50.0	47.9		ug/L		96	70 - 121
Ethylbenzene	50.0	48.3		ug/L		97	70 - 123
Hexachlorobutadiene	50.0	65.6		ug/L		131	51 - 150
Isopropylbenzene	50.0	45.6		ug/L		91	70 - 126
Methylene Chloride	50.0	49.7		ug/L		99	69 - 125
Methyl tert-butyl ether	50.0	38.6		ug/L		77	55 - 123
Naphthalene	50.0	40.6		ug/L		81	53 - 144
n-Butylbenzene	50.0	44.3		ug/L		89	68 - 125
N-Propylbenzene	50.0	48.2		ug/L		96	69 - 127
p-Isopropyltoluene	50.0	52.2		ug/L		104	70 - 125
sec-Butylbenzene	50.0	49.1		ug/L		98	70 - 123
Styrene	50.0	52.4		ug/L		105	70 - 120
tert-Butylbenzene	50.0	48.6		ug/L		97	70 - 121
1,1,1,2-Tetrachloroethane	50.0	63.4	*	ug/L		127	70 - 125
1,1,2,2-Tetrachloroethane	50.0	51.1		ug/L		102	62 - 140
Tetrachloroethene	50.0	68.4	*	ug/L		137	70 - 128
Toluene	50.0	56.5		ug/L		113	70 - 125
trans-1,2-Dichloroethene	50.0	51.2		ug/L		102	70 - 125
trans-1,3-Dichloropropene	50.0	53.4		ug/L		107	62 - 128
1,2,3-Trichlorobenzene	50.0	58.3		ug/L		117	51 - 145
1,2,4-Trichlorobenzene	50.0	46.7		ug/L		93	57 - 137
1,1,1-Trichloroethane	50.0	57.3		ug/L		115	70 - 125
1,1,2-Trichloroethane	50.0	61.6		ug/L		123	71 - 130
Trichloroethene	50.0	60.1		ug/L		120	70 - 125
Trichlorofluoromethane	50.0	47.7		ug/L		95	55 - 128
1,2,3-Trichloropropane	50.0	51.6		ug/L		103	50 - 133
1,2,4-Trimethylbenzene	50.0	49.7		ug/L		99	70 - 123
1,3,5-Trimethylbenzene	50.0	50.2		ug/L		100	70 - 123
Vinyl chloride	50.0	37.0		ug/L		74	64 - 126
Xylenes, Total	100	102		ug/L		102	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surrogate)	88		72 - 124
Dibromofluoromethane (Surrogate)	92		75 - 120
1,2-Dichloroethane-d4 (Surrogate)	86		75 - 126
Toluene-d8 (Surrogate)	103		75 - 120

**Lab Sample ID: 500-235573-7 MS**

**Matrix: Water**

**Analysis Batch: 720115**

**Client Sample ID: MW2P DUP**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Benzene	<0.15		50.0	38.8		ug/L		78	70 - 120

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# QC Sample Results

Client: SCS Engineers

Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

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

**Lab Sample ID: 500-235573-7 MS**

**Matrix: Water**

**Analysis Batch: 720115**

**Client Sample ID: MW2P DUP**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Bromobenzene	<0.36		50.0	38.7		ug/L	77	70 - 122	
Bromochloromethane	<0.43		50.0	41.4		ug/L	83	65 - 122	
Bromodichloromethane	<0.37		50.0	40.8		ug/L	82	69 - 120	
Bromoform	<0.48		50.0	49.5		ug/L	99	56 - 132	
Bromomethane	<0.80	F2	50.0	23.1		ug/L	46	40 - 152	
Carbon tetrachloride	<0.38	F2	50.0	44.5		ug/L	89	59 - 133	
Chlorobenzene	<0.39		50.0	40.8		ug/L	82	70 - 120	
Chloroethane	<0.51	F1	50.0	23.5	F1	ug/L	47	48 - 136	
Chloroform	<0.37		50.0	36.4		ug/L	73	70 - 120	
Chloromethane	<0.32	F2	50.0	40.2		ug/L	80	56 - 152	
2-Chlorotoluene	<0.31		50.0	35.6		ug/L	71	70 - 125	
4-Chlorotoluene	<0.35		50.0	36.9		ug/L	74	68 - 124	
cis-1,2-Dichloroethene	<0.41	F1	50.0	32.2	F1	ug/L	64	70 - 125	
cis-1,3-Dichloropropene	<0.42		50.0	40.2		ug/L	80	64 - 127	
Dibromochloromethane	<0.49	* F1	50.0	58.9		ug/L	118	68 - 125	
1,2-Dibromo-3-Chloropropane	<2.0	F2	50.0	33.2		ug/L	66	56 - 123	
1,2-Dibromoethane (EDB)	<0.39		50.0	49.7		ug/L	99	70 - 125	
Dibromomethane	<0.27		50.0	44.8		ug/L	90	70 - 120	
1,2-Dichlorobenzene	<0.33		50.0	40.4		ug/L	81	70 - 125	
1,3-Dichlorobenzene	<0.40		50.0	41.9		ug/L	84	70 - 125	
1,4-Dichlorobenzene	<0.36		50.0	40.4		ug/L	81	70 - 120	
Dichlorodifluoromethane	<0.67		50.0	34.4		ug/L	69	40 - 159	
1,1-Dichloroethane	<0.41		50.0	36.3		ug/L	73	70 - 125	
1,2-Dichloroethane	3.9		50.0	43.3		ug/L	79	68 - 127	
1,1-Dichloroethene	<0.39	F2	50.0	35.4		ug/L	71	67 - 122	
1,2-Dichloropropane	<0.43		50.0	47.5		ug/L	95	67 - 130	
1,3-Dichloropropane	<0.36		50.0	44.8		ug/L	90	62 - 136	
2,2-Dichloropropane	<0.44	F1 F2	50.0	28.4	F1	ug/L	57	58 - 139	
1,1-Dichloropropene	<0.30	F1	50.0	34.7	F1	ug/L	69	70 - 121	
Ethylbenzene	<0.18		50.0	34.8		ug/L	70	70 - 123	
Hexachlorobutadiene	<0.45		50.0	46.7		ug/L	93	51 - 150	
Isopropylbenzene	<0.39	F1	50.0	31.3	F1	ug/L	63	70 - 126	
Methylene Chloride	<1.6	F2	50.0	37.8		ug/L	76	69 - 125	
Methyl tert-butyl ether	<0.39	F1 F2	50.0	26.5	F1	ug/L	53	55 - 123	
Naphthalene	<0.34	F1 F2	50.0	24.8	F1	ug/L	50	53 - 144	
n-Butylbenzene	<0.39	F1	50.0	29.8	F1	ug/L	60	68 - 125	
N-Propylbenzene	<0.41		50.0	34.3		ug/L	69	69 - 127	
p-Isopropyltoluene	<0.36		50.0	35.2		ug/L	70	70 - 125	
sec-Butylbenzene	<0.40	F1	50.0	34.6	F1	ug/L	69	70 - 123	
Styrene	<0.39		50.0	37.2		ug/L	74	70 - 120	
tert-Butylbenzene	<0.40	F1	50.0	34.3	F1	ug/L	69	70 - 121	
1,1,1,2-Tetrachloroethane	<0.46	*	50.0	50.1		ug/L	100	70 - 125	
1,1,2,2-Tetrachloroethane	<0.40		50.0	43.0		ug/L	86	62 - 140	
Tetrachloroethene	4.4	*	50.0	56.2		ug/L	104	70 - 128	
Toluene	<0.15		50.0	45.5		ug/L	91	70 - 125	
trans-1,2-Dichloroethene	<0.35		50.0	37.1		ug/L	74	70 - 125	
trans-1,3-Dichloropropene	<0.36		50.0	41.2		ug/L	82	62 - 128	
1,2,3-Trichlorobenzene	<0.46	F2	50.0	38.7		ug/L	77	51 - 145	
1,2,4-Trichlorobenzene	<0.34		50.0	30.1		ug/L	60	57 - 137	

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# QC Sample Results

Client: SCS Engineers

Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

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

**Lab Sample ID: 500-235573-7 MS**

**Matrix: Water**

**Analysis Batch: 720115**

**Client Sample ID: MW2P DUP**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,1,1-Trichloroethane	<0.38	F2	50.0	38.0		ug/L	76	70 - 125	
1,1,2-Trichloroethane	<0.35		50.0	53.3		ug/L	107	71 - 130	
Trichloroethene	<0.16		50.0	42.1		ug/L	84	70 - 125	
Trichlorofluoromethane	<0.43		50.0	37.8		ug/L	76	55 - 128	
1,2,3-Trichloropropane	<0.41	F1	50.0	<0.41	F1	ug/L	0	50 - 133	
1,2,4-Trimethylbenzene	<0.36		50.0	35.7		ug/L	71	70 - 123	
1,3,5-Trimethylbenzene	<0.25		50.0	35.4		ug/L	71	70 - 123	
Vinyl chloride	<0.20	F1	50.0	29.5	F1	ug/L	59	64 - 126	
Xylenes, Total	<0.22		100	71.8		ug/L	72	70 - 125	

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	89		72 - 124
Dibromofluoromethane (Surr)	94		75 - 120
1,2-Dichloroethane-d4 (Surr)	94		75 - 126
Toluene-d8 (Surr)	110		75 - 120

**Lab Sample ID: 500-235573-7 MSD**

**Matrix: Water**

**Analysis Batch: 720115**

**Client Sample ID: MW2P DUP**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.15		50.0	44.1		ug/L	88	70 - 120	13	20	
Bromobenzene	<0.36		50.0	43.8		ug/L	88	70 - 122	12	20	
Bromochloromethane	<0.43		50.0	48.6		ug/L	97	65 - 122	16	20	
Bromodichloromethane	<0.37		50.0	46.8		ug/L	94	69 - 120	14	20	
Bromoform	<0.48		50.0	54.2		ug/L	108	56 - 132	9	20	
Bromomethane	<0.80	F2	50.0	28.6	F2	ug/L	57	40 - 152	21	20	
Carbon tetrachloride	<0.38	F2	50.0	55.1	F2	ug/L	110	59 - 133	21	20	
Chlorobenzene	<0.39		50.0	47.1		ug/L	94	70 - 120	14	20	
Chloroethane	<0.51	F1	50.0	28.4		ug/L	57	48 - 136	19	20	
Chloroform	<0.37		50.0	42.5		ug/L	85	70 - 120	15	20	
Chloromethane	<0.32	F2	50.0	50.5	F2	ug/L	101	56 - 152	23	20	
2-Chlorotoluene	<0.31		50.0	38.9		ug/L	78	70 - 125	9	20	
4-Chlorotoluene	<0.35		50.0	40.2		ug/L	80	68 - 124	9	20	
cis-1,2-Dichloroethene	<0.41	F1	50.0	39.5		ug/L	79	70 - 125	20	20	
cis-1,3-Dichloropropene	<0.42		50.0	44.1		ug/L	88	64 - 127	9	20	
Dibromochloromethane	<0.49	* F1	50.0	63.0	F1	ug/L	126	68 - 125	7	20	
1,2-Dibromo-3-Chloropropane	<2.0	F2	50.0	42.5	F2	ug/L	85	56 - 123	25	20	
1,2-Dibromoethane (EDB)	<0.39		50.0	52.9		ug/L	106	70 - 125	6	20	
Dibromomethane	<0.27		50.0	49.6		ug/L	99	70 - 120	10	20	
1,2-Dichlorobenzene	<0.33		50.0	44.5		ug/L	89	70 - 125	10	20	
1,3-Dichlorobenzene	<0.40		50.0	46.1		ug/L	92	70 - 125	10	20	
1,4-Dichlorobenzene	<0.36		50.0	46.7		ug/L	93	70 - 120	14	20	
Dichlorodifluoromethane	<0.67		50.0	39.2		ug/L	78	40 - 159	13	20	
1,1-Dichloroethane	<0.41		50.0	42.5		ug/L	85	70 - 125	16	20	
1,2-Dichloroethane	3.9		50.0	47.2		ug/L	86	68 - 127	9	20	
1,1-Dichloroethene	<0.39	F2	50.0	43.4	F2	ug/L	87	67 - 122	21	20	
1,2-Dichloropropane	<0.43		50.0	54.5		ug/L	109	67 - 130	14	20	

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# QC Sample Results

Client: SCS Engineers

Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

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

**Lab Sample ID: 500-235573-7 MSD**

**Matrix: Water**

**Analysis Batch: 720115**

**Client Sample ID: MW2P DUP**  
**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
1,3-Dichloropropane	<0.36		50.0	49.1		ug/L	98	62 - 136	9	20	
2,2-Dichloropropane	<0.44	F1 F2	50.0	35.1	F2	ug/L	70	58 - 139	21	20	
1,1-Dichloropropene	<0.30	F1	50.0	39.4		ug/L	79	70 - 121	13	20	
Ethylbenzene	<0.18		50.0	39.6		ug/L	79	70 - 123	13	20	
Hexachlorobutadiene	<0.45		50.0	52.1		ug/L	104	51 - 150	11	20	
Isopropylbenzene	<0.39	F1	50.0	36.1		ug/L	72	70 - 126	14	20	
Methylene Chloride	<1.6	F2	50.0	46.8	F2	ug/L	94	69 - 125	21	20	
Methyl tert-butyl ether	<0.39	F1 F2	50.0	33.9	F2	ug/L	68	55 - 123	25	20	
Naphthalene	<0.34	F1 F2	50.0	33.7	F2	ug/L	67	53 - 144	30	20	
n-Butylbenzene	<0.39	F1	50.0	33.7	F1	ug/L	67	68 - 125	12	20	
N-Propylbenzene	<0.41		50.0	39.1		ug/L	78	69 - 127	13	20	
p-Isopropyltoluene	<0.36		50.0	40.8		ug/L	82	70 - 125	15	20	
sec-Butylbenzene	<0.40	F1	50.0	39.1		ug/L	78	70 - 123	12	20	
Styrene	<0.39		50.0	42.8		ug/L	86	70 - 120	14	20	
tert-Butylbenzene	<0.40	F1	50.0	37.9		ug/L	76	70 - 121	10	20	
1,1,1,2-Tetrachloroethane	<0.46	*	50.0	52.8		ug/L	106	70 - 125	5	20	
1,1,2,2-Tetrachloroethane	<0.40		50.0	45.6		ug/L	91	62 - 140	6	20	
Tetrachloroethene	4.4	*	50.0	60.7		ug/L	113	70 - 128	8	20	
Toluene	<0.15		50.0	48.3		ug/L	97	70 - 125	6	20	
trans-1,2-Dichloroethene	<0.35		50.0	44.7		ug/L	89	70 - 125	19	20	
trans-1,3-Dichloropropene	<0.36		50.0	46.7		ug/L	93	62 - 128	12	20	
1,2,3-Trichlorobenzene	<0.46	F2	50.0	48.1	F2	ug/L	96	51 - 145	22	20	
1,2,4-Trichlorobenzene	<0.34		50.0	36.1		ug/L	72	57 - 137	18	20	
1,1,1-Trichloroethane	<0.38	F2	50.0	46.8	F2	ug/L	94	70 - 125	21	20	
1,1,2-Trichloroethane	<0.35		50.0	56.6		ug/L	113	71 - 130	6	20	
Trichloroethene	<0.16		50.0	47.7		ug/L	95	70 - 125	12	20	
Trichlorofluoromethane	<0.43		50.0	44.5		ug/L	89	55 - 128	16	20	
1,2,3-Trichloropropane	<0.41	F1	50.0	<0.41	F1	ug/L	0	50 - 133	NC	20	
1,2,4-Trimethylbenzene	<0.36		50.0	40.4		ug/L	81	70 - 123	12	20	
1,3,5-Trimethylbenzene	<0.25		50.0	39.9		ug/L	80	70 - 123	12	20	
Vinyl chloride	<0.20	F1	50.0	36.2		ug/L	72	64 - 126	20	20	
Xylenes, Total	<0.22		100	82.3		ug/L	82	70 - 125	14	20	

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	86		72 - 124
Dibromofluoromethane (Surr)	91		75 - 120
1,2-Dichloroethane-d4 (Surr)	89		75 - 126
Toluene-d8 (Surr)	103		75 - 120

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# Lab Chronicle

Client: SCS Engineers  
Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: MW6**

Date Collected: 06/19/23 13:00  
Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-1**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	720115	W1T	EET CHI	06/23/23 13:59

**Client Sample ID: MW5**

Date Collected: 06/19/23 14:00  
Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-2**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	720115	W1T	EET CHI	06/23/23 14:23

**Client Sample ID: MW4**

Date Collected: 06/20/23 10:35  
Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-3**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	720115	W1T	EET CHI	06/23/23 14:48

**Client Sample ID: MW7**

Date Collected: 06/19/23 16:15  
Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-4**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	720115	W1T	EET CHI	06/23/23 15:13

**Client Sample ID: MW1**

Date Collected: 06/19/23 10:35  
Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-5**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	720115	W1T	EET CHI	06/23/23 15:37

**Client Sample ID: MW2P**

Date Collected: 06/20/23 11:45  
Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-6**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	720115	W1T	EET CHI	06/23/23 16:02

**Client Sample ID: MW2P DUP**

Date Collected: 06/20/23 11:45  
Date Received: 06/21/23 10:05

**Lab Sample ID: 500-235573-7**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	720115	W1T	EET CHI	06/23/23 16:26

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# Lab Chronicle

Client: SCS Engineers  
Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

**Client Sample ID: HCL TB**

**Lab Sample ID: 500-235573-8**

**Matrix: Water**

**Date Collected: 06/19/23 00:00**

**Date Received: 06/21/23 10:05**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	720115	W1T	EET CHI	06/23/23 16:51

**Laboratory References:**

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

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## Accreditation/Certification Summary

Client: SCS Engineers

Project/Site: Pilgrim Cleaners - 25211372.21

Job ID: 500-235573-1

### Laboratory: Eurofins Chicago

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

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-23

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## Eurofins Chicago

2417 Bond Street

University Park IL 60484

Phone 708-534-5200 Fax 708 534 5211

## Chain of Custody Record

eurofins

<b>Client Information</b>		Sampler <i>Paul Grove, Bridget Russel</i>	Lab PM Fredrick Sandie	Carri er	COC No. 500-113308-46833 1						
Client Contact Mr Robert Langdon		Phone	E-Mail Sandra.Fredrick@et.eurofinsus.com	Sta	Page Page 1 of 1						
Company SCS Engineers		PWS D	Analysis Requested		Job # <i>500-235573</i>						
Address 2830 Dairy Dr Ci Madison		Due Date Requested									
State Zip WI 53718		TAT Requested (days)									
Phone		Compliance Project. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
Email rlangdon@scsengineers.com		PO # 25211372 21									
Project Name Pilgrim Cleaners 25211372 21		WO #									
Site		Project # 50006561									
		SSCN#									
Sample Identification		Sample Date <i>6/19</i>	Sample Time <i>1300</i>	Sample Type (C=Comp, G=grab) <i>G</i>	Matrix (W=water, S=solid, O=waste/oil) <i>BT-Tissue, A-Air</i>	Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>	Permit Missed PMSD (Yes or No) <input checked="" type="checkbox"/>	8250B VOC	Total Number of containers	Special Instructions/Note	
1	<i>mw6</i>	<i>6/19</i>	<i>1300</i>	<i>G</i>	<i>Water</i>	<i>N</i>	<i>X</i>				
2	<i>mw 5</i>	<i>6/19</i>	<i>1400</i>	<i>G</i>	<i>Water</i>	<i>N</i>	<i>X</i>				
3	<i>mw4</i>	<i>6/20</i>	<i>1035</i>	<i>G</i>	<i>Water</i>	<i>N</i>	<i>X</i>				
4	<i>mw7</i>	<i>6/19</i>	<i>1615</i>	<i>G</i>	<i>Water</i>	<i>N</i>	<i>X</i>				
5	<i>mw1</i>	<i>6/19</i>	<i>1035</i>	<i>G</i>	<i>Water</i>	<i>N</i>	<i>X</i>				
6	<i>mw2 P</i>	<i>6/20</i>	<i>1145</i>	<i>G</i>	<i>Water</i>	<i>N</i>	<i>X</i>				
7	<i>mw 2P DUP</i>	<i>6/20</i>	<i>1145</i>	<i>G</i>	<i>Water</i>	<i>N</i>	<i>X</i>				
8	<i>HCL TB</i>				<i>Water</i>						
					<i>Water</i>						
					<i>Water</i>						
					<i>Water</i>						
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months					
Deliverable Requested I II III IV Other specify)						Special Instructions/QC Requirements					
Empty Kit Reinquished by			Date	Time		Method of Shipment					
<i>Bridget Russell</i>			<i>6/20/2023 / 1345</i>	<i>SCS</i>		<i>Stephanie Hamandley</i>			<i>6/21/23 1005</i>	<i>EETA</i>	
Reinquished by			Date/Time	Company		Received by			Date/Time	Company	
Reinquished by			Date/Time	Company		Received by			Date/Time	Company	
Custody Seals Intact Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Custody Seal No			Outer Temperature and Other Remarks			<i>1.3 + 0.2</i>			

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ORIGIN ID: RRLA (262) 202-5955  
RYAN MATZUK  
SCS ENGINEERS MADISON  
2830 DAIRY DRIVE

MADISON, WI 53718  
UNITED STATES US

TO SAMPLE RECEIPT  
EUROFINS CHICAGO  
2417 BOND STREET

SHI DATE  
ACTWC 2  
CAD (269)

SMAY 3  
MAN



RECEIVED BY

500-235573 Waybill

UNIVERSITY PARK IL 60484

(708) 534-5200

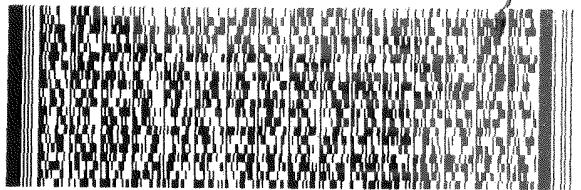
REF

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DEPT

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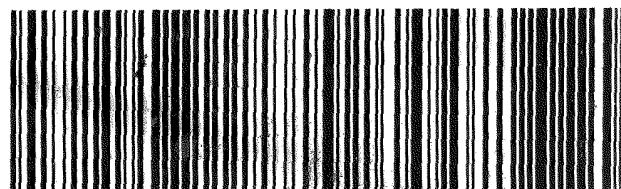
FedEx

T TRK# 0221 6483 4233 3290

WED - 21 JUN 10:30  
PRIORITY OVERNIGHT

XN JOTA

60484  
IL-US OR



#4533189 06/20 5B3J2/29AB/FE2D

## Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 500-235573-1

**Login Number:** 235573

**List Source:** Eurofins Chicago

**List Number:** 1

**Creator:** Hernandez, Stephanie

Question	Answer	Comment	
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True		1
The cooler's custody seal, if present, is intact.	True		2
Sample custody seals, if present, are intact.	True		3
The cooler or samples do not appear to have been compromised or tampered with.	True		4
Samples were received on ice.	True		5
Cooler Temperature is acceptable.	True		6
Cooler Temperature is recorded.	True	0.2	7
COC is present.	True		8
COC is filled out in ink and legible.	True		9
COC is filled out with all pertinent information.	True		10
Is the Field Sampler's name present on COC?	True		11
There are no discrepancies between the containers received and the COC.	True		12
Samples are received within Holding Time (excluding tests with immediate HTs)	True		13
Sample containers have legible labels.	True		14
Containers are not broken or leaking.	True		15
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 <6mm (1/4").	True		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		



# ANALYTICAL REPORT

July 11, 2023

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>GI

<sup>8</sup>AI

<sup>9</sup>Sc

## SCS Engineers - Madison, WI

Sample Delivery Group: L1632619  
Samples Received: 07/06/2023  
Project Number: 25211372.21  
Description: Pilgrim Cleaners

Report To: Rob Langdon  
2830 Dairy Drive  
Madison, WI 53718-6751

Entire Report Reviewed By:

Jennifer A McCurdy  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)

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Ss: Sample Summary	3	<sup>3</sup> Ss
Cn: Case Narrative	4	<sup>4</sup> Cn
Sr: Sample Results	5	<sup>5</sup> Sr
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# SAMPLE SUMMARY

PILGRAM CLEANERS-14 L1632619-01 Air		Collected by Ethan Schaefer	Collected date/time 07/05/23 09:19	Received date/time 07/06/23 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time
Volatile Organic Compounds (MS) by Method TO-15	WG2090344	1	07/06/23 20:19	07/06/23 20:19

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc

# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Jennifer A McCurdy  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.95	4.63	7.03	16.7	1		<a href="#">WG2090344</a>
Allyl chloride	107-05-1	76.53	0.380	1.19	ND	ND	1		<a href="#">WG2090344</a>
Benzene	71-43-2	78.10	0.238	0.760	7.22	23.1	1		<a href="#">WG2090344</a>
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND	1		<a href="#">WG2090344</a>
Bromodichloromethane	75-27-4	164	0.234	1.57	ND	ND	1		<a href="#">WG2090344</a>
Bromoform	75-25-2	253	0.244	2.52	ND	ND	1		<a href="#">WG2090344</a>
Bromomethane	74-83-9	94.90	0.327	1.27	ND	ND	1		<a href="#">WG2090344</a>
1,3-Butadiene	106-99-0	54.10	0.347	0.768	ND	ND	1		<a href="#">WG2090344</a>
Carbon disulfide	75-15-0	76.10	0.340	1.06	ND	ND	1		<a href="#">WG2090344</a>
Carbon tetrachloride	56-23-5	154	0.244	1.54	ND	ND	1		<a href="#">WG2090344</a>
Chlorobenzene	108-90-7	113	0.277	1.28	ND	ND	1		<a href="#">WG2090344</a>
Chloroethane	75-00-3	64.50	0.332	0.876	ND	ND	1		<a href="#">WG2090344</a>
Chloroform	67-66-3	119	0.239	1.16	ND	ND	1		<a href="#">WG2090344</a>
Chloromethane	74-87-3	50.50	0.343	0.708	ND	ND	1		<a href="#">WG2090344</a>
2-Chlorotoluene	95-49-8	126	0.276	1.42	ND	ND	1		<a href="#">WG2090344</a>
Cyclohexane	110-82-7	84.20	0.251	0.864	1.98	6.82	1		<a href="#">WG2090344</a>
Dibromochloromethane	124-48-1	208	0.242	2.06	ND	ND	1		<a href="#">WG2090344</a>
1,2-Dibromoethane	106-93-4	188	0.240	1.85	ND	ND	1		<a href="#">WG2090344</a>
1,2-Dichlorobenzene	95-50-1	147	0.427	2.57	ND	ND	1		<a href="#">WG2090344</a>
1,3-Dichlorobenzene	541-73-1	147	0.607	3.65	ND	ND	1		<a href="#">WG2090344</a>
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND	1		<a href="#">WG2090344</a>
1,2-Dichloroethane	107-06-2	99	0.233	0.943	ND	ND	1		<a href="#">WG2090344</a>
1,1-Dichloroethane	75-34-3	98	0.241	0.966	ND	ND	1		<a href="#">WG2090344</a>
1,1-Dichloroethene	75-35-4	96.90	0.254	1.01	ND	ND	1		<a href="#">WG2090344</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.261	1.03	9.91	39.3	1		<a href="#">WG2090344</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.224	0.888	0.936	3.71	1		<a href="#">WG2090344</a>
1,2-Dichloropropane	78-87-5	113	0.253	1.17	ND	ND	1		<a href="#">WG2090344</a>
cis-1,3-Dichloropropene	10061-01-5	111	0.230	1.04	ND	ND	1		<a href="#">WG2090344</a>
trans-1,3-Dichloropropene	10061-02-6	111	0.243	1.10	ND	ND	1		<a href="#">WG2090344</a>
1,4-Dioxane	123-91-1	88.10	0.278	1.00	ND	ND	1		<a href="#">WG2090344</a>
Ethanol	64-17-5	46.10	0.883	1.66	62.3	117	1		<a href="#">WG2090344</a>
Ethylbenzene	100-41-4	106	0.278	1.21	6.76	29.3	1		<a href="#">WG2090344</a>
4-Ethyltoluene	622-96-8	120	0.261	1.28	6.42	31.5	1		<a href="#">WG2090344</a>
Trichlorofluoromethane	75-69-4	137.40	0.273	1.53	1.20	6.74	1		<a href="#">WG2090344</a>
Dichlorodifluoromethane	75-71-8	120.92	0.457	2.26	32.2	159	1		<a href="#">WG2090344</a>
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.264	2.02	ND	ND	1		<a href="#">WG2090344</a>
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.297	2.08	ND	ND	1		<a href="#">WG2090344</a>
Heptane	142-82-5	100	0.347	1.42	4.94	20.2	1		<a href="#">WG2090344</a>
Hexachloro-1,3-butadiene	87-68-3	261	0.350	3.74	ND	ND	1		<a href="#">WG2090344</a>
n-Hexane	110-54-3	86.20	0.687	2.42	10.2	36.0	1		<a href="#">WG2090344</a>
Isopropylbenzene	98-82-8	120.20	0.259	1.27	0.526	2.59	1		<a href="#">WG2090344</a>
Methylene Chloride	75-09-2	84.90	0.326	1.13	2.90	10.1	1		<a href="#">WG2090344</a>
Methyl Butyl Ketone	591-78-6	100	0.443	1.81	ND	ND	1		<a href="#">WG2090344</a>
2-Butanone (MEK)	78-93-3	72.10	0.271	0.799	5.18	15.3	1		<a href="#">WG2090344</a>
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.255	1.04	0.297	1.22	1		<a href="#">WG2090344</a>
Methyl methacrylate	80-62-6	100.12	0.292	1.20	ND	ND	1		<a href="#">WG2090344</a>
MTBE	1634-04-4	88.10	0.216	0.778	ND	ND	1		<a href="#">WG2090344</a>
Naphthalene	91-20-3	128	1.17	6.13	1.84	9.63	1		<a href="#">WG2090344</a>
2-Propanol	67-63-0	60.10	0.880	2.16	7.95	19.5	1		<a href="#">WG2090344</a>
Propene	115-07-1	42.10	0.311	0.536	ND	ND	1		<a href="#">WG2090344</a>
Styrene	100-42-5	104	0.263	1.12	ND	ND	1		<a href="#">WG2090344</a>
1,1,2-Tetrachloroethane	79-34-5	168	0.248	1.70	ND	ND	1		<a href="#">WG2090344</a>
Tetrachloroethylene	127-18-4	166	0.271	1.84	6.28	42.6	1		<a href="#">WG2090344</a>
Tetrahydrofuran	109-99-9	72.10	0.245	0.722	ND	ND	1		<a href="#">WG2090344</a>
Toluene	108-88-3	92.10	0.290	1.09	46.6	176	1		<a href="#">WG2090344</a>
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND	1		<a href="#">WG2090344</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.245	1.33	ND	ND		1	<a href="#">WG2090344</a>
1,1,2-Trichloroethane	79-00-5	133	0.258	1.40	ND	ND		1	<a href="#">WG2090344</a>
Trichloroethylene	79-01-6	131	0.227	1.22	1.19	6.38		1	<a href="#">WG2090344</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.255	1.25	6.90	33.9		1	<a href="#">WG2090344</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.260	1.28	1.62	7.95		1	<a href="#">WG2090344</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.443	2.07	4.35	20.3		1	<a href="#">WG2090344</a>
Vinyl chloride	75-01-4	62.50	0.316	0.808	ND	ND		1	<a href="#">WG2090344</a>
Vinyl Bromide	593-60-2	106.95	0.284	1.24	ND	ND		1	<a href="#">WG2090344</a>
Vinyl acetate	108-05-4	86.10	0.387	1.36	ND	ND		1	<a href="#">WG2090344</a>
Xylenes, Total	1330-20-7	106.16	0.450	1.95	37.3	162		1	<a href="#">WG2090344</a>
m&p-Xylene	1330-20-7	106	0.450	1.95	27.9	121		1	<a href="#">WG2090344</a>
o-Xylene	95-47-6	106	0.276	1.20	9.42	40.8		1	<a href="#">WG2090344</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.6				<a href="#">WG2090344</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## QUALITY CONTROL SUMMARY

[L1632619-01](#)

## Method Blank (MB)

(MB) R3946134-3 07/06/23 13:53

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv	
Acetone	U		0.584	1.95	<sup>1</sup> Cp
Allyl chloride	U		0.114	0.380	<sup>2</sup> Tc
Benzene	U		0.0715	0.238	<sup>3</sup> Ss
Benzyl Chloride	U		0.0598	0.199	<sup>4</sup> Cn
Bromodichloromethane	U		0.0702	0.234	<sup>5</sup> Sr
Bromoform	U		0.0732	0.244	<sup>6</sup> Qc
Bromomethane	U		0.0982	0.327	<sup>7</sup> Gl
1,3-Butadiene	U		0.104	0.347	<sup>8</sup> Al
Carbon disulfide	U		0.102	0.340	<sup>9</sup> Sc
Carbon tetrachloride	U		0.0732	0.244	
Chlorobenzene	U		0.0832	0.277	
Chloroethane	U		0.0996	0.332	
Chloroform	U		0.0717	0.239	
Chloromethane	U		0.103	0.343	
2-Chlorotoluene	U		0.0828	0.276	
Cyclohexane	U		0.0753	0.251	
Dibromochloromethane	U		0.0727	0.242	
1,2-Dibromoethane	U		0.0721	0.240	
1,2-Dichlorobenzene	U		0.128	0.427	
1,3-Dichlorobenzene	U		0.182	0.607	
1,4-Dichlorobenzene	U		0.0557	0.186	
1,2-Dichloroethane	U		0.0700	0.233	
1,1-Dichloroethane	U		0.0723	0.241	
1,1-Dichloroethene	U		0.0762	0.254	
cis-1,2-Dichloroethene	U		0.0784	0.261	
trans-1,2-Dichloroethene	U		0.0673	0.224	
1,2-Dichloropropane	U		0.0760	0.253	
cis-1,3-Dichloropropene	U		0.0689	0.230	
trans-1,3-Dichloropropene	U		0.0728	0.243	
1,4-Dioxane	U		0.0833	0.278	
Ethanol	0.655	<u>J</u>	0.265	0.883	
Ethylbenzene	U		0.0835	0.278	
4-Ethyltoluene	U		0.0783	0.261	
Trichlorofluoromethane	U		0.0819	0.273	
Dichlorodifluoromethane	U		0.137	0.457	
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.264	
1,2-Dichlorotetrafluoroethane	U		0.0890	0.297	
Heptane	U		0.104	0.347	
Hexachloro-1,3-butadiene	U		0.105	0.350	
n-Hexane	U		0.206	0.687	

## QUALITY CONTROL SUMMARY

L1632619-01

## Method Blank (MB)

(MB) R3946134-3 07/06/23 13:53

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv									
Isopropylbenzene	U		0.0777	0.259									
Methylene Chloride	U		0.0979	0.326									
Methyl Butyl Ketone	U		0.133	0.443									
2-Butanone (MEK)	U		0.0814	0.271									
4-Methyl-2-pentanone (MIBK)	U		0.0765	0.255									
Methyl methacrylate	U		0.0876	0.292									
MTBE	U		0.0647	0.216									
Naphthalene	U		0.350	1.17									
2-Propanol	U		0.264	0.880									
Propene	U		0.0932	0.311									
Styrene	U		0.0788	0.263									
1,1,2,2-Tetrachloroethane	U		0.0743	0.248									
Tetrachloroethylene	U		0.0814	0.271									
Tetrahydrofuran	U		0.0734	0.245									
Toluene	U		0.0870	0.290									
1,2,4-Trichlorobenzene	U		0.148	0.493									
1,1,1-Trichloroethane	U		0.0736	0.245									
1,1,2-Trichloroethane	U		0.0775	0.258									
Trichloroethylene	U		0.0680	0.227									
1,2,4-Trimethylbenzene	U		0.0764	0.255									
1,3,5-Trimethylbenzene	U		0.0779	0.260									
2,2,4-Trimethylpentane	U		0.133	0.443									
Vinyl chloride	U		0.0949	0.316									
Vinyl Bromide	U		0.0852	0.284									
Vinyl acetate	U		0.116	0.387									
Xylenes, Total	U		0.135	0.450									
m&p-Xylene	U		0.135	0.450									
o-Xylene	U		0.0828	0.276									
(S) 1,4-Bromo fluorobenzene	98.5			60.0-140									

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3946134-1 07/06/23 12:25 • (LCSD) R3946134-2 07/06/23 13:11

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Acetone	3.75	4.04	4.30	108	115	70.0-130			6.24	25
Allyl chloride	3.75	3.84	4.48	102	119	70.0-130			15.4	25
Benzene	3.75	4.33	4.34	115	116	70.0-130			0.231	25
Benzyl Chloride	3.75	4.12	4.15	110	111	70.0-152			0.726	25

## QUALITY CONTROL SUMMARY

L1632619-01

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3946134-1 07/06/23 12:25 • (LCSD) R3946134-2 07/06/23 13:11

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromodichloromethane	3.75	4.28	4.21	114	112	70.0-130			1.65	25
Bromoform	3.75	4.20	4.18	112	111	70.0-130			0.477	25
Bromomethane	3.75	4.02	4.06	107	108	70.0-130			0.990	25
1,3-Butadiene	3.75	4.32	4.37	115	117	70.0-130			1.15	25
Carbon disulfide	3.75	3.92	4.33	105	115	70.0-130			9.94	25
Carbon tetrachloride	3.75	4.30	4.30	115	115	70.0-130			0.000	25
Chlorobenzene	3.75	4.27	4.17	114	111	70.0-130			2.37	25
Chloroethane	3.75	4.33	4.25	115	113	70.0-130			1.86	25
Chloroform	3.75	4.31	4.29	115	114	70.0-130			0.465	25
Chloromethane	3.75	4.30	4.16	115	111	70.0-130			3.31	25
2-Chlorotoluene	3.75	4.27	4.36	114	116	70.0-130			2.09	25
Cyclohexane	3.75	4.41	4.44	118	118	70.0-130			0.678	25
Dibromochloromethane	3.75	4.26	4.12	114	110	70.0-130			3.34	25
1,2-Dibromoethane	3.75	4.36	4.21	116	112	70.0-130			3.50	25
1,2-Dichlorobenzene	3.75	4.09	4.18	109	111	70.0-130			2.18	25
1,3-Dichlorobenzene	3.75	4.11	4.23	110	113	70.0-130			2.88	25
1,4-Dichlorobenzene	3.75	4.20	4.26	112	114	70.0-130			1.42	25
1,2-Dichloroethane	3.75	4.36	4.23	116	113	70.0-130			3.03	25
1,1-Dichloroethane	3.75	4.38	4.39	117	117	70.0-130			0.228	25
1,1-Dichloroethene	3.75	4.00	4.35	107	116	70.0-130			8.38	25
cis-1,2-Dichloroethene	3.75	4.38	4.42	117	118	70.0-130			0.909	25
trans-1,2-Dichloroethene	3.75	3.88	4.38	103	117	70.0-130			12.1	25
1,2-Dichloropropane	3.75	4.44	4.37	118	117	70.0-130			1.59	25
cis-1,3-Dichloropropene	3.75	4.28	4.22	114	113	70.0-130			1.41	25
trans-1,3-Dichloropropene	3.75	4.37	4.24	117	113	70.0-130			3.02	25
1,4-Dioxane	3.75	4.36	4.28	116	114	70.0-140			1.85	25
Ethanol	3.75	4.48	4.45	119	119	55.0-148			0.672	25
Ethylbenzene	3.75	4.26	4.25	114	113	70.0-130			0.235	25
4-Ethyltoluene	3.75	4.27	4.34	114	116	70.0-130			1.63	25
Trichlorofluoromethane	3.75	4.22	4.23	113	113	70.0-130			0.237	25
Dichlorodifluoromethane	3.75	4.29	4.18	114	111	64.0-139			2.60	25
1,1,2-Trichlorotrifluoroethane	3.75	3.99	4.33	106	115	70.0-130			8.17	25
1,2-Dichlorotetrafluoroethane	3.75	4.34	4.34	116	116	70.0-130			0.000	25
Heptane	3.75	4.57	4.50	122	120	70.0-130			1.54	25
Hexachloro-1,3-butadiene	3.75	4.05	4.10	108	109	70.0-151			1.23	25
n-Hexane	3.75	3.95	4.54	105	121	70.0-130			13.9	25
Isopropylbenzene	3.75	4.35	4.47	116	119	70.0-130			2.72	25
Methylene Chloride	3.75	3.96	4.35	106	116	70.0-130			9.39	25
Methyl Butyl Ketone	3.75	4.66	4.63	124	123	70.0-149			0.646	25
2-Butanone (MEK)	3.75	4.64	4.56	124	122	70.0-130			1.74	25

ACCOUNT:

SCS Engineers - Madison, WI

PROJECT:

25211372.21

SDG:

L1632619

DATE/TIME:

07/11/23 15:51

PAGE:

9 of 13

## QUALITY CONTROL SUMMARY

L1632619-01

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3946134-1 07/06/23 12:25 • (LCSD) R3946134-2 07/06/23 13:11

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	3.75	4.44	4.48	118	119	70.0-139			0.897	25
Methyl methacrylate	3.75	4.41	4.45	118	119	70.0-130			0.903	25
MTBE	3.75	3.89	4.22	104	113	70.0-130			8.14	25
Naphthalene	3.75	4.20	4.34	112	116	70.0-159			3.28	25
2-Propanol	3.75	3.89	4.28	104	114	70.0-139			9.55	25
Propene	3.75	4.35	4.35	116	116	64.0-144			0.000	25
Styrene	3.75	4.47	4.50	119	120	70.0-130			0.669	25
1,1,2,2-Tetrachloroethane	3.75	4.20	4.26	112	114	70.0-130			1.42	25
Tetrachloroethylene	3.75	4.22	4.16	113	111	70.0-130			1.43	25
Tetrahydrofuran	3.75	4.48	4.43	119	118	70.0-137			1.12	25
Toluene	3.75	4.39	4.34	117	116	70.0-130			1.15	25
1,2,4-Trichlorobenzene	3.75	4.06	4.11	108	110	70.0-160			1.22	25
1,1,1-Trichloroethane	3.75	4.30	4.26	115	114	70.0-130			0.935	25
1,1,2-Trichloroethane	3.75	4.30	4.21	115	112	70.0-130			2.12	25
Trichloroethylene	3.75	4.31	4.33	115	115	70.0-130			0.463	25
1,2,4-Trimethylbenzene	3.75	4.34	4.41	116	118	70.0-130			1.60	25
1,3,5-Trimethylbenzene	3.75	4.32	4.41	115	118	70.0-130			2.06	25
2,2,4-Trimethylpentane	3.75	4.45	4.45	119	119	70.0-130			0.000	25
Vinyl chloride	3.75	4.22	4.22	113	113	70.0-130			0.000	25
Vinyl Bromide	3.75	4.12	4.16	110	111	70.0-130			0.966	25
Vinyl acetate	3.75	4.22	4.26	113	114	70.0-130			0.943	25
Xylenes, Total	11.3	13.0	13.1	115	116	70.0-130			0.766	25
m&p-Xylene	7.50	8.68	8.71	116	116	70.0-130			0.345	25
o-Xylene	3.75	4.29	4.37	114	117	70.0-130			1.85	25
(S) 1,4-Bromofluorobenzene			98.0	99.5	60.0-140					

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

**Results Disclaimer -** Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

# ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc





# ANALYTICAL REPORT

August 25, 2023

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>GI

<sup>8</sup>AI

<sup>9</sup>Sc

## SCS Engineers - Madison, WI

Sample Delivery Group: L1647673  
Samples Received: 08/18/2023  
Project Number: 25211 372.21  
Description: Pilgrim Cleaners

Report To: Rob Langdon  
2830 Dairy Drive  
Madison, WI 53718-6751

Entire Report Reviewed By:

Jennifer A McCurdy  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)

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SVE LINE 1 L1647673-02	7	7 GI
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Volatile Organic Compounds (MS) by Method TO-15	9	9 Sc
Gl: Glossary of Terms	15	
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Sc: Sample Chain of Custody	17	

# SAMPLE SUMMARY

			Collected by	Collected date/time	Received date/time	
			Robert Langdon	08/16/23 14:35	08/18/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2117579	1	08/20/23 21:15	08/20/23 21:15	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2120361	10	08/24/23 14:21	08/24/23 14:21	DAH	Mt. Juliet, TN

			Collected by	Collected date/time	Received date/time	
			Robert Langdon	08/16/23 14:15	08/18/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2117579	100	08/21/23 01:48	08/21/23 01:48	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2120361	10000	08/24/23 18:31	08/24/23 18:31	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2121049	50000	08/25/23 13:47	08/25/23 13:47	DAH	Mt. Juliet, TN

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc

# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Jennifer A McCurdy  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.95	4.63	9.71	23.1		1	WG2117579
Allyl chloride	107-05-1	76.53	0.380	1.19	ND	ND		1	WG2117579
Benzene	71-43-2	78.10	0.238	0.760	ND	ND		1	WG2117579
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG2117579
Bromodichloromethane	75-27-4	164	0.234	1.57	ND	ND		1	WG2117579
Bromoform	75-25-2	253	0.244	2.52	ND	ND		1	WG2117579
Bromomethane	74-83-9	94.90	0.327	1.27	ND	ND		1	WG2117579
1,3-Butadiene	106-99-0	54.10	0.347	0.768	ND	ND		1	WG2117579
Carbon disulfide	75-15-0	76.10	0.340	1.06	ND	ND		1	WG2117579
Carbon tetrachloride	56-23-5	154	0.244	1.54	ND	ND		1	WG2117579
Chlorobenzene	108-90-7	113	0.277	1.28	ND	ND		1	WG2117579
Chloroethane	75-00-3	64.50	0.332	0.876	ND	ND		1	WG2117579
Chloroform	67-66-3	119	0.239	1.16	ND	ND		1	WG2117579
Chloromethane	74-87-3	50.50	0.343	0.708	ND	ND		1	WG2117579
2-Chlorotoluene	95-49-8	126	0.276	1.42	ND	ND		1	WG2117579
Cyclohexane	110-82-7	84.20	0.251	0.864	ND	ND		1	WG2117579
Dibromochloromethane	124-48-1	208	0.242	2.06	ND	ND		1	WG2117579
1,2-Dibromoethane	106-93-4	188	0.240	1.85	ND	ND		1	WG2117579
1,2-Dichlorobenzene	95-50-1	147	0.427	2.57	ND	ND		1	WG2117579
1,3-Dichlorobenzene	541-73-1	147	0.607	3.65	ND	ND		1	WG2117579
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG2117579
1,2-Dichloroethane	107-06-2	99	0.233	0.943	ND	ND		1	WG2117579
1,1-Dichloroethane	75-34-3	98	0.241	0.966	ND	ND		1	WG2117579
1,1-Dichloroethene	75-35-4	96.90	0.254	1.01	ND	ND		1	WG2117579
cis-1,2-Dichloroethene	156-59-2	96.90	0.261	1.03	14.0	55.5		1	WG2117579
trans-1,2-Dichloroethene	156-60-5	96.90	0.224	0.888	1.37	5.43		1	WG2117579
1,2-Dichloropropane	78-87-5	113	0.253	1.17	ND	ND		1	WG2117579
cis-1,3-Dichloropropene	10061-01-5	111	0.230	1.04	ND	ND		1	WG2117579
trans-1,3-Dichloropropene	10061-02-6	111	0.243	1.10	ND	ND		1	WG2117579
1,4-Dioxane	123-91-1	88.10	0.278	1.00	ND	ND		1	WG2117579
Ethanol	64-17-5	46.10	0.883	1.66	5.77	10.9		1	WG2117579
Ethylbenzene	100-41-4	106	0.278	1.21	ND	ND		1	WG2117579
4-Ethyltoluene	622-96-8	120	0.261	1.28	ND	ND		1	WG2117579
Trichlorofluoromethane	75-69-4	137.40	0.273	1.53	1.86	10.5		1	WG2117579
Dichlorodifluoromethane	75-71-8	120.92	0.457	2.26	56.4	279		1	WG2117579
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.264	2.02	ND	ND		1	WG2117579
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.297	2.08	ND	ND		1	WG2117579
Heptane	142-82-5	100	0.347	1.42	ND	ND	J4	1	WG2117579
Hexachloro-1,3-butadiene	87-68-3	261	0.350	3.74	ND	ND		1	WG2117579
n-Hexane	110-54-3	86.20	0.687	2.42	ND	ND		1	WG2117579
Isopropylbenzene	98-82-8	120.20	0.259	1.27	ND	ND		1	WG2117579
Methylene Chloride	75-09-2	84.90	0.326	1.13	ND	ND		1	WG2117579
Methyl Butyl Ketone	591-78-6	100	0.443	1.81	ND	ND		1	WG2117579
2-Butanone (MEK)	78-93-3	72.10	0.271	0.799	25.9	76.4		1	WG2117579
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.255	1.04	ND	ND		1	WG2117579
Methyl methacrylate	80-62-6	100.12	0.292	1.20	ND	ND		1	WG2117579
MTBE	1634-04-4	88.10	0.216	0.778	ND	ND		1	WG2117579
Naphthalene	91-20-3	128	1.17	6.13	ND	ND		1	WG2117579
2-Propanol	67-63-0	60.10	0.880	2.16	ND	ND		1	WG2117579
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG2117579
Styrene	100-42-5	104	0.263	1.12	ND	ND		1	WG2117579
1,1,2-Tetrachloroethane	79-34-5	168	0.248	1.70	ND	ND		1	WG2117579
Tetrachloroethylene	127-18-4	166	2.71	18.4	210	1430		10	WG2120361
Tetrahydrofuran	109-99-9	72.10	0.245	0.722	95.3	281		1	WG2117579
Toluene	108-88-3	92.10	0.290	1.09	ND	ND		1	WG2117579
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG2117579

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.245	1.33	ND	ND		1	<a href="#">WG2117579</a>
1,1,2-Trichloroethane	79-00-5	133	0.258	1.40	ND	ND		1	<a href="#">WG2117579</a>
Trichloroethylene	79-01-6	131	0.227	1.22	3.19	17.1		1	<a href="#">WG2117579</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.255	1.25	ND	ND		1	<a href="#">WG2117579</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.260	1.28	ND	ND		1	<a href="#">WG2117579</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.443	2.07	ND	ND		1	<a href="#">WG2117579</a>
Vinyl chloride	75-01-4	62.50	0.316	0.808	ND	ND		1	<a href="#">WG2117579</a>
Vinyl Bromide	593-60-2	106.95	0.284	1.24	ND	ND		1	<a href="#">WG2117579</a>
Vinyl acetate	108-05-4	86.10	0.387	1.36	ND	ND		1	<a href="#">WG2117579</a>
Xylenes, Total	1330-20-7	106.16	0.450	1.95	ND	ND		1	<a href="#">WG2117579</a>
m&p-Xylene	1330-20-7	106	0.450	1.95	ND	ND		1	<a href="#">WG2117579</a>
o-Xylene	95-47-6	106	0.276	1.20	ND	ND		1	<a href="#">WG2117579</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.7				<a href="#">WG2117579</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				<a href="#">WG2120361</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	19500	46300	768000	1820000		10000	WG2120361
Allyl chloride	107-05-1	76.53	38.0	119	ND	ND		100	WG2117579
Benzene	71-43-2	78.10	23.8	76.0	33.8	108		100	WG2117579
Benzyl Chloride	100-44-7	127	19.9	103	ND	ND		100	WG2117579
Bromodichloromethane	75-27-4	164	23.4	157	ND	ND		100	WG2117579
Bromoform	75-25-2	253	24.4	252	ND	ND		100	WG2117579
Bromomethane	74-83-9	94.90	32.7	127	ND	ND		100	WG2117579
1,3-Butadiene	106-99-0	54.10	34.7	76.8	ND	ND		100	WG2117579
Carbon disulfide	75-15-0	76.10	34.0	106	35.3	110		100	WG2117579
Carbon tetrachloride	56-23-5	154	24.4	154	ND	ND		100	WG2117579
Chlorobenzene	108-90-7	113	27.7	128	ND	ND		100	WG2117579
Chloroethane	75-00-3	64.50	33.2	87.6	ND	ND		100	WG2117579
Chloroform	67-66-3	119	23.9	116	ND	ND		100	WG2117579
Chloromethane	74-87-3	50.50	34.3	70.8	121	250		100	WG2117579
2-Chlorotoluene	95-49-8	126	27.6	142	ND	ND		100	WG2117579
Cyclohexane	110-82-7	84.20	25.1	86.4	ND	ND		100	WG2117579
Dibromochloromethane	124-48-1	208	24.2	206	ND	ND		100	WG2117579
1,2-Dibromoethane	106-93-4	188	24.0	185	ND	ND		100	WG2117579
1,2-Dichlorobenzene	95-50-1	147	42.7	257	ND	ND		100	WG2117579
1,3-Dichlorobenzene	541-73-1	147	60.7	365	ND	ND		100	WG2117579
1,4-Dichlorobenzene	106-46-7	147	18.6	112	ND	ND		100	WG2117579
1,2-Dichloroethane	107-06-2	99	23.3	94.3	ND	ND		100	WG2117579
1,1-Dichloroethane	75-34-3	98	24.1	96.6	ND	ND		100	WG2117579
1,1-Dichloroethene	75-35-4	96.90	25.4	101	ND	ND		100	WG2117579
cis-1,2-Dichloroethene	156-59-2	96.90	26.1	103	ND	ND		100	WG2117579
trans-1,2-Dichloroethene	156-60-5	96.90	22.4	88.8	ND	ND		100	WG2117579
1,2-Dichloropropane	78-87-5	113	25.3	117	ND	ND		100	WG2117579
cis-1,3-Dichloropropene	10061-01-5	111	23.0	104	ND	ND		100	WG2117579
trans-1,3-Dichloropropene	10061-02-6	111	24.3	110	ND	ND		100	WG2117579
1,4-Dioxane	123-91-1	88.10	27.8	100	ND	ND		100	WG2117579
Ethanol	64-17-5	46.10	88.3	166	2100	3960		100	WG2117579
Ethylbenzene	100-41-4	106	27.8	121	44.5	193		100	WG2117579
4-Ethyltoluene	622-96-8	120	26.1	128	ND	ND		100	WG2117579
Trichlorofluoromethane	75-69-4	137.40	27.3	153	ND	ND		100	WG2117579
Dichlorodifluoromethane	75-71-8	120.92	45.7	226	52.1	258		100	WG2117579
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	26.4	202	ND	ND		100	WG2117579
1,2-Dichlorotetrafluoroethane	76-14-2	171	29.7	208	ND	ND		100	WG2117579
Heptane	142-82-5	100	34.7	142	ND	ND	J4	100	WG2117579
Hexachloro-1,3-butadiene	87-68-3	261	35.0	374	ND	ND		100	WG2117579
n-Hexane	110-54-3	86.20	68.7	242	148	522		100	WG2117579
Isopropylbenzene	98-82-8	120.20	25.9	127	ND	ND		100	WG2117579
Methylene Chloride	75-09-2	84.90	32.6	113	68.4	238		100	WG2117579
Methyl Butyl Ketone	591-78-6	100	44.3	181	ND	ND		100	WG2117579
2-Butanone (MEK)	78-93-3	72.10	13600	40100	1220000	3600000		50000	WG2121049
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	25.5	104	ND	ND		100	WG2117579
Methyl methacrylate	80-62-6	100.12	29.2	120	ND	ND		100	WG2117579
MTBE	1634-04-4	88.10	21.6	77.8	ND	ND		100	WG2117579
Naphthalene	91-20-3	128	117	613	ND	ND		100	WG2117579
2-Propanol	67-63-0	60.10	88.0	216	ND	ND		100	WG2117579
Propene	115-07-1	42.10	31.1	53.6	ND	ND		100	WG2117579
Styrene	100-42-5	104	26.3	112	ND	ND		100	WG2117579
1,1,2-Tetrachloroethane	79-34-5	168	24.8	170	ND	ND		100	WG2117579
Tetrachloroethylene	127-18-4	166	27.1	184	397	2700		100	WG2117579
Tetrahydrofuran	109-99-9	72.10	12200	36000	3580000	10600000		50000	WG2121049
Toluene	108-88-3	92.10	29.0	109	48.8	184		100	WG2117579
1,2,4-Trichlorobenzene	120-82-1	181	49.3	365	ND	ND		100	WG2117579

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	24.5	133	ND	ND		100	<a href="#">WG2117579</a>
1,1,2-Trichloroethane	79-00-5	133	25.8	140	ND	ND		100	<a href="#">WG2117579</a>
Trichloroethylene	79-01-6	131	22.7	122	ND	ND		100	<a href="#">WG2117579</a>
1,2,4-Trimethylbenzene	95-63-6	120	25.5	125	ND	ND		100	<a href="#">WG2117579</a>
1,3,5-Trimethylbenzene	108-67-8	120	26.0	128	ND	ND		100	<a href="#">WG2117579</a>
2,2,4-Trimethylpentane	540-84-1	114.22	44.3	207	3800	17800		100	<a href="#">WG2117579</a>
Vinyl chloride	75-01-4	62.50	31.6	80.8	ND	ND		100	<a href="#">WG2117579</a>
Vinyl Bromide	593-60-2	106.95	28.4	124	ND	ND		100	<a href="#">WG2117579</a>
Vinyl acetate	108-05-4	86.10	38.7	136	ND	ND		100	<a href="#">WG2117579</a>
Xylenes, Total	1330-20-7	106.16	45.0	195	147	638		100	<a href="#">WG2117579</a>
m&p-Xylene	1330-20-7	106	45.0	195	104	451		100	<a href="#">WG2117579</a>
o-Xylene	95-47-6	106	27.6	120	43.1	187		100	<a href="#">WG2117579</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		65.5				<a href="#">WG2117579</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		101				<a href="#">WG2120361</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				<a href="#">WG2121049</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

WG2117579

Volatile Organic Compounds (MS) by Method TO-15

## QUALITY CONTROL SUMMARY

[L1647673-01,02](#)

## Method Blank (MB)

(MB) R3964849-3 08/20/23 10:26

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	
Acetone	U		0.584	1.95	<sup>1</sup> Cp
Allyl chloride	U		0.114	0.380	<sup>2</sup> Tc
Benzene	U		0.0715	0.238	<sup>3</sup> Ss
Benzyl Chloride	U		0.0598	0.199	<sup>4</sup> Cn
Bromodichloromethane	U		0.0702	0.234	<sup>5</sup> Sr
Bromoform	U		0.0732	0.244	<sup>6</sup> Qc
Bromomethane	U		0.0982	0.327	<sup>7</sup> Gl
1,3-Butadiene	U		0.104	0.347	<sup>8</sup> Al
Carbon disulfide	U		0.102	0.340	<sup>9</sup> Sc
Carbon tetrachloride	U		0.0732	0.244	
Chlorobenzene	U		0.0832	0.277	
Chloroethane	U		0.0996	0.332	
Chloroform	U		0.0717	0.239	
Chloromethane	U		0.103	0.343	
2-Chlorotoluene	U		0.0828	0.276	
Cyclohexane	U		0.0753	0.251	
Dibromochloromethane	U		0.0727	0.242	
1,2-Dibromoethane	U		0.0721	0.240	
1,2-Dichlorobenzene	U		0.128	0.427	
1,3-Dichlorobenzene	U		0.182	0.607	
1,4-Dichlorobenzene	U		0.0557	0.186	
1,2-Dichloroethane	U		0.0700	0.233	
1,1-Dichloroethane	U		0.0723	0.241	
1,1-Dichloroethene	U		0.0762	0.254	
cis-1,2-Dichloroethene	U		0.0784	0.261	
trans-1,2-Dichloroethene	U		0.0673	0.224	
1,2-Dichloropropane	U		0.0760	0.253	
cis-1,3-Dichloropropene	U		0.0689	0.230	
trans-1,3-Dichloropropene	U		0.0728	0.243	
1,4-Dioxane	U		0.0833	0.278	
Ethanol	U		0.265	0.883	
Ethylbenzene	U		0.0835	0.278	
4-Ethyltoluene	U		0.0783	0.261	
Trichlorofluoromethane	U		0.0819	0.273	
Dichlorodifluoromethane	U		0.137	0.457	
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.264	
1,2-Dichlorotetrafluoroethane	U		0.0890	0.297	
Heptane	U		0.104	0.347	
Hexachloro-1,3-butadiene	U		0.105	0.350	
n-Hexane	U		0.206	0.687	

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Volatile Organic Compounds (MS) by Method TO-15

## QUALITY CONTROL SUMMARY

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## Method Blank (MB)

(MB) R3964849-3 08/20/23 10:26

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv								
Isopropylbenzene	U		0.0777	0.259								
Methylene Chloride	U		0.0979	0.326								
Methyl Butyl Ketone	U		0.133	0.443								
2-Butanone (MEK)	U		0.0814	0.271								
4-Methyl-2-pentanone (MIBK)	U		0.0765	0.255								
Methyl methacrylate	U		0.0876	0.292								
MTBE	U		0.0647	0.216								
Naphthalene	U		0.350	1.17								
2-Propanol	U		0.264	0.880								
Propene	U		0.0932	0.311								
Styrene	U		0.0788	0.263								
1,1,2,2-Tetrachloroethane	U		0.0743	0.248								
Tetrachloroethylene	U		0.0814	0.271								
Tetrahydrofuran	U		0.0734	0.245								
Toluene	U		0.0870	0.290								
1,2,4-Trichlorobenzene	U		0.148	0.493								
1,1,1-Trichloroethane	U		0.0736	0.245								
1,1,2-Trichloroethane	U		0.0775	0.258								
Trichloroethylene	U		0.0680	0.227								
1,2,4-Trimethylbenzene	U		0.0764	0.255								
1,3,5-Trimethylbenzene	U		0.0779	0.260								
2,2,4-Trimethylpentane	U		0.133	0.443								
Vinyl chloride	U		0.0949	0.316								
Vinyl Bromide	U		0.0852	0.284								
Vinyl acetate	U		0.116	0.387								
Xylenes, Total	U		0.135	0.450								
m&p-Xylene	U		0.135	0.450								
o-Xylene	U		0.0828	0.276								
(S) 1,4-Bromo fluorobenzene	99.2			60.0-140								

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3964849-1 08/20/23 09:07 • (LCSD) R3964849-2 08/20/23 09:47

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Acetone	3.75	4.42	4.43	118	118	70.0-130			0.226	25
Allyl chloride	3.75	4.03	3.95	107	105	70.0-130			2.01	25
Benzene	3.75	4.25	4.27	113	114	70.0-130			0.469	25
Benzyl Chloride	3.75	4.56	4.48	122	119	70.0-152			1.77	25

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## QUALITY CONTROL SUMMARY

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## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3964849-1 08/20/23 09:07 • (LCSD) R3964849-2 08/20/23 09:47

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromodichloromethane	3.75	4.29	4.37	114	117	70.0-130			1.85	25
Bromoform	3.75	4.30	4.33	115	115	70.0-130			0.695	25
Bromomethane	3.75	4.24	4.34	113	116	70.0-130			2.33	25
1,3-Butadiene	3.75	4.42	4.49	118	120	70.0-130			1.57	25
Carbon disulfide	3.75	4.40	4.46	117	119	70.0-130			1.35	25
Carbon tetrachloride	3.75	4.32	4.31	115	115	70.0-130			0.232	25
Chlorobenzene	3.75	4.30	4.33	115	115	70.0-130			0.695	25
Chloroethane	3.75	4.31	4.43	115	118	70.0-130			2.75	25
Chloroform	3.75	4.33	4.32	115	115	70.0-130			0.231	25
Chloromethane	3.75	4.29	4.35	114	116	70.0-130			1.39	25
2-Chlorotoluene	3.75	4.46	4.53	119	121	70.0-130			1.56	25
Cyclohexane	3.75	4.20	4.20	112	112	70.0-130			0.000	25
Dibromochloromethane	3.75	4.29	4.31	114	115	70.0-130			0.465	25
1,2-Dibromoethane	3.75	4.35	4.37	116	117	70.0-130			0.459	25
1,2-Dichlorobenzene	3.75	4.45	4.46	119	119	70.0-130			0.224	25
1,3-Dichlorobenzene	3.75	4.43	4.50	118	120	70.0-130			1.57	25
1,4-Dichlorobenzene	3.75	4.47	4.52	119	121	70.0-130			1.11	25
1,2-Dichloroethane	3.75	4.37	4.42	117	118	70.0-130			1.14	25
1,1-Dichloroethane	3.75	4.37	4.39	117	117	70.0-130			0.457	25
1,1-Dichloroethene	3.75	4.36	4.42	116	118	70.0-130			1.37	25
cis-1,2-Dichloroethene	3.75	4.40	4.42	117	118	70.0-130			0.454	25
trans-1,2-Dichloroethene	3.75	4.40	4.45	117	119	70.0-130			1.13	25
1,2-Dichloropropane	3.75	4.35	4.43	116	118	70.0-130			1.82	25
cis-1,3-Dichloropropene	3.75	4.40	4.38	117	117	70.0-130			0.456	25
trans-1,3-Dichloropropene	3.75	4.33	4.38	115	117	70.0-130			1.15	25
1,4-Dioxane	3.75	4.42	4.37	118	117	70.0-140			1.14	25
Ethanol	3.75	4.32	4.48	115	119	55.0-148			3.64	25
Ethylbenzene	3.75	4.22	4.22	113	113	70.0-130			0.000	25
4-Ethyltoluene	3.75	4.33	4.40	115	117	70.0-130			1.60	25
Trichlorofluoromethane	3.75	4.40	4.39	117	117	70.0-130			0.228	25
Dichlorodifluoromethane	3.75	4.38	4.44	117	118	64.0-139			1.36	25
1,1,2-Trichlorotrifluoroethane	3.75	4.34	4.37	116	117	70.0-130			0.689	25
1,2-Dichlorotetrafluoroethane	3.75	4.36	4.39	116	117	70.0-130			0.686	25
Heptane	3.75	2.56	2.78	68.3	74.1	70.0-130	J4		8.24	25
Hexachloro-1,3-butadiene	3.75	4.28	4.22	114	113	70.0-151			1.41	25
n-Hexane	3.75	4.26	4.30	114	115	70.0-130			0.935	25
Isopropylbenzene	3.75	4.19	4.35	112	116	70.0-130			3.75	25
Methylene Chloride	3.75	4.31	4.37	115	117	70.0-130			1.38	25
Methyl Butyl Ketone	3.75	4.38	4.42	117	118	70.0-149			0.909	25
2-Butanone (MEK)	3.75	4.38	4.44	117	118	70.0-130			1.36	25

ACCOUNT:

SCS Engineers - Madison, WI

PROJECT:

25211 372.21

SDG:

L1647673

DATE/TIME:

08/25/23 18:20

PAGE:

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1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## QUALITY CONTROL SUMMARY

L1647673-01,02

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3964849-1 08/20/23 09:07 • (LCSD) R3964849-2 08/20/23 09:47

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	3.75	4.39	4.42	117	118	70.0-139			0.681	25
Methyl methacrylate	3.75	4.21	4.32	112	115	70.0-130			2.58	25
MTBE	3.75	4.26	4.39	114	117	70.0-130			3.01	25
Naphthalene	3.75	4.43	4.38	118	117	70.0-159			1.14	25
2-Propanol	3.75	4.49	4.52	120	121	70.0-139			0.666	25
Propene	3.75	4.46	4.51	119	120	64.0-144			1.11	25
Styrene	3.75	4.23	4.32	113	115	70.0-130			2.11	25
1,1,2,2-Tetrachloroethane	3.75	4.55	4.65	121	124	70.0-130			2.17	25
Tetrachloroethylene	3.75	4.26	4.30	114	115	70.0-130			0.935	25
Tetrahydrofuran	3.75	4.25	4.26	113	114	70.0-137			0.235	25
Toluene	3.75	4.28	4.27	114	114	70.0-130			0.234	25
1,2,4-Trichlorobenzene	3.75	4.37	4.29	117	114	70.0-160			1.85	25
1,1,1-Trichloroethane	3.75	4.25	4.30	113	115	70.0-130			1.17	25
1,1,2-Trichloroethane	3.75	4.30	4.31	115	115	70.0-130			0.232	25
Trichloroethylene	3.75	4.38	4.39	117	117	70.0-130			0.228	25
1,2,4-Trimethylbenzene	3.75	4.35	4.38	116	117	70.0-130			0.687	25
1,3,5-Trimethylbenzene	3.75	4.41	4.41	118	118	70.0-130			0.000	25
2,2,4-Trimethylpentane	3.75	4.33	4.32	115	115	70.0-130			0.231	25
Vinyl chloride	3.75	4.38	4.44	117	118	70.0-130			1.36	25
Vinyl Bromide	3.75	4.32	4.42	115	118	70.0-130			2.29	25
Vinyl acetate	3.75	4.68	4.40	125	117	70.0-130			6.17	25
Xylenes, Total	11.3	12.6	12.7	112	112	70.0-130			0.791	25
m&p-Xylene	7.50	8.47	8.54	113	114	70.0-130			0.823	25
o-Xylene	3.75	4.10	4.20	109	112	70.0-130			2.41	25
(S) 1,4-Bromofluorobenzene			98.8	100		60.0-140				

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

WG2120361

Volatile Organic Compounds (MS) by Method TO-15

## QUALITY CONTROL SUMMARY

[L1647673-01,02](#)

## Method Blank (MB)

(MB) R3965365-3 08/24/23 10:49

Analyst	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Acetone	U		0.584	1.95
Tetrachloroethylene	U		0.0814	0.271
(S) 1,4-Bromofluorobenzene	98.7			60.0-140

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3965365-1 08/24/23 09:20 • (LCSD) R3965365-2 08/24/23 10:06

Analyst	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Acetone	3.75	4.04	4.19	108	112	70.0-130			3.65	25
Tetrachloroethylene	3.75	4.15	4.16	111	111	70.0-130			0.241	25
(S) 1,4-Bromofluorobenzene			99.0	98.6		60.0-140				

ACCOUNT:

SCS Engineers - Madison, WI

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WG2121049

Volatile Organic Compounds (MS) by Method TO-15

## QUALITY CONTROL SUMMARY

[L1647673-02](#)

## Method Blank (MB)

(MB) R3965539-3 08/25/23 09:55

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	ppbv		ppbv	ppbv
2-Butanone (MEK)	U		0.0814	0.271
Tetrahydrofuran	U		0.0734	0.245
(S) 1,4-Bromofluorobenzene	99.6			60.0-140

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3965539-1 08/25/23 08:55 • (LCSD) R3965539-2 08/25/23 09:26

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
2-Butanone (MEK)	3.75	3.92	4.04	105	108	70.0-130			3.02	25
Tetrahydrofuran	3.75	3.80	3.88	101	103	70.0-137			2.08	25
(S) 1,4-Bromofluorobenzene			100	100		60.0-140				

ACCOUNT:

SCS Engineers - Madison, WI

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# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

**Results Disclaimer -** Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDL	Method Detection Limit.	<sup>1</sup> Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	<sup>2</sup> Tc
RDL	Reported Detection Limit.	<sup>3</sup> Ss
Rec.	Recovery.	<sup>4</sup> Cn
RPD	Relative Percent Difference.	<sup>5</sup> Sr
SDG	Sample Delivery Group.	<sup>6</sup> Qc
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.	<sup>7</sup> GI
U	Not detected at the Reporting Limit (or MDL where applicable).	<sup>8</sup> AI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	<sup>9</sup> Sc
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

### Qualifier      Description

J4	The associated batch QC was outside the established quality control range for accuracy.
----	---

# ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Company Name/Address:

**SCS Engineers - Madison, WI**2830 Dairy Drive  
Madison, WI 53718-6751

Billing Information:

Rob Langdon  
2830 Dairy Drive  
Madison, WI 53718-6751

Report To:

**Rob Langdon**Project **Pilgrim Cleaners**  
Description:City/State  
Collected:

Madison, WI

Please Circle:  
PT MT CT ETPhone:  
**608-224-2830**

Client Project #

25211372.21

Lab Project #

SCSENGMWI-PILGRIM

Collected by (print):

*Robert Langdon*

Rush? (Lab MUST Be Notified)

Same Day     Three Day  
 Next Day     Five Day  
 Two Day

Site/Facility ID #

/

P.O. #

/

Date Results Needed

Sample ID

Can #

Flow Cont. #

Date

Time

Initial

Final

TO-15 Summa

Pilgrim Cleaners 15  
SVE Line 1022854 024932  
005493 0103458/16/23 1435  
8/16/23 1415-29 -4 X  
-28 -3 X-01  
-02

Sample Receipt Checklist  
 COC Seal Present/Intact:  Y  N If Applicable  
 COC Signed/Accurate:  Y  N VOA Zero Headspace:  Y  N  
 Bottles arrive intact:  Y  N Pres.Correct/Check:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
 RAD Screen <0.5 mR/hr:  Y  N

Remarks:

Samples returned via:

UPS FedEx Courier \_\_\_\_\_

Tracking #

Hold #

Relinquished by : (Signature)

Date:

8/17/23 1500

Time:

Received by: (Signature)

Date: Time:

Condition: (lab use only)

Relinquished by : (Signature)

Date:

Time:

Received by: (Signature)

Date: Time:

COC Seal Intact:  Y  N  NA

Relinquished by : (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: Time:

NCF:


 PEOPLE ADVANCING SCIENCE

MT JULIET, TN

 12065 Lebanon Road Mt Juliet, TN 37122  
 Phone: 615-758-5858 Alt: 800-767-5859  
 Submitting a sample via this chain of custody  
 constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at:  
<https://info.pacelabs.com/hubsfs/pas-standard-terms.pdf>
SDG # *U16471073*

J107

Acctnum: *SCSENGMWI*

Template: T226997

Prelogin: P998016

PM: 3828 - Jennifer A McCurdy

PB: *CSH0749HS*

Shipped Via: FedEX Ground

Rem./Contaminant Sample # (lab only)



# ANALYTICAL REPORT

November 14, 2023

Revised Report

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

## SCS Engineers - Madison, WI

Sample Delivery Group: L1671420  
Samples Received: 10/28/2023  
Project Number: 25211372.21  
Description: Pilgrim Cleaners

Report To: Rob Langdon  
2830 Dairy Drive  
Madison, WI 53718-6751

Entire Report Reviewed By:

Jennifer A McCurdy  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

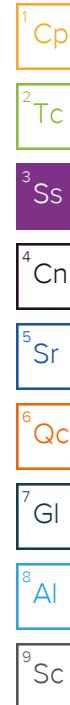
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)

# TABLE OF CONTENTS

Cp: Cover Page	1	<sup>1</sup> Cp
Tc: Table of Contents	2	<sup>2</sup> Tc
Ss: Sample Summary	3	<sup>3</sup> Ss
Cn: Case Narrative	4	<sup>4</sup> Cn
Sr: Sample Results	5	<sup>5</sup> Sr
VP-1 (PILGRIM UNIT) L1671420-01	5	<sup>6</sup> Qc
VP-2 (WT. WATCHERS UNIT) L1671420-04	6	<sup>7</sup> Gl
PILGRIM CLEANERS 15 L1671420-05	7	<sup>8</sup> Al
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Gl: Glossary of Terms	17	
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# SAMPLE SUMMARY

VP-1 (PILGRIM UNIT) L1671420-01 Air			Collected by Robert Langdon	Collected date/time 10/25/23 16:21	Received date/time 10/28/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2164908	1	11/05/23 18:49	11/05/23 18:49	JAP	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2165394	20	11/06/23 22:44	11/06/23 22:44	JAP	Mt. Juliet, TN
VP-2 (WT. WATCHERS UNIT) L1671420-04 Air			Collected by Robert Langdon	Collected date/time 10/25/23 17:32	Received date/time 10/28/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2165398	1	11/06/23 13:58	11/06/23 13:58	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2167838	100	11/09/23 16:43	11/09/23 16:43	DAH	Mt. Juliet, TN
PILGRIM CLEANERS 15 L1671420-05 Air			Collected by Robert Langdon	Collected date/time 10/25/23 17:54	Received date/time 10/28/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2165398	1	11/06/23 14:40	11/06/23 14:40	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2166803	10	11/08/23 13:59	11/08/23 13:59	DAH	Mt. Juliet, TN



# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Jennifer A McCurdy  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> SC

## Report Revision History

---

Level II Report - Version 1: 11/14/23 07:48

## Project Narrative

---

For sample ID, VP-1 (WT. WATCHERS UNIT): Cannister Valve broken. Valve was stuck in the open position. Unable to analyze.  
11/03/23 JM  
VP-2 (Pilgrim Unit) - Faulty Flow controller. Do not analyze per client. 11/13/23 JM  
Revise to report only needed compounds. 11/14/23 JM

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
cis-1,2-Dichloroethene	156-59-2	96.90	5.23	20.7	147	583		20	<a href="#">WG2165394</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.224	0.888	35.3	140		1	<a href="#">WG2164908</a>
Tetrachloroethylene	127-18-4	166	5.43	36.9	1090	7400		20	<a href="#">WG2165394</a>
Trichloroethylene	79-01-6	131	0.227	1.22	5.67	30.4		1	<a href="#">WG2164908</a>
Vinyl chloride	75-01-4	62.50	0.316	0.808	ND	ND		1	<a href="#">WG2164908</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		106				<a href="#">WG2164908</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		93.0				<a href="#">WG2165394</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al<sup>9</sup> Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
cis-1,2-Dichloroethene	156-59-2	96.90	26.1	103	568	2250		100	<a href="#">WG2167838</a>
trans-1,2-Dichloroethene	156-60-5	96.90	22.4	88.8	79.3	314		100	<a href="#">WG2167838</a>
Tetrachloroethylene	127-18-4	166	0.271	1.84	50.2	341		1	<a href="#">WG2165398</a>
Trichloroethylene	79-01-6	131	0.227	1.22	9.61	51.5		1	<a href="#">WG2165398</a>
Vinyl chloride	75-01-4	62.50	0.316	0.808	1.51	3.86		1	<a href="#">WG2165398</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.4				<a href="#">WG2165398</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		115				<a href="#">WG2167838</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.95	4.63	5.32	12.6	1		WG2165398
Allyl chloride	107-05-1	76.53	0.380	1.19	ND	ND	1		WG2165398
Benzene	71-43-2	78.10	0.238	0.760	ND	ND	1		WG2165398
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND	1		WG2165398
Bromodichloromethane	75-27-4	164	0.234	1.57	ND	ND	1		WG2165398
Bromoform	75-25-2	253	0.244	2.52	ND	ND	1		WG2165398
Bromomethane	74-83-9	94.90	0.327	1.27	ND	ND	1		WG2165398
1,3-Butadiene	106-99-0	54.10	0.347	0.768	ND	ND	1		WG2165398
Carbon disulfide	75-15-0	76.10	0.340	1.06	ND	ND	1		WG2165398
Carbon tetrachloride	56-23-5	154	0.244	1.54	ND	ND	1		WG2165398
Chlorobenzene	108-90-7	113	0.277	1.28	ND	ND	1		WG2165398
Chloroethane	75-00-3	64.50	0.332	0.876	ND	ND	1		WG2165398
Chloroform	67-66-3	119	0.239	1.16	ND	ND	1		WG2165398
Chloromethane	74-87-3	50.50	0.343	0.708	ND	ND	1		WG2165398
2-Chlorotoluene	95-49-8	126	0.276	1.42	ND	ND	1		WG2165398
Cyclohexane	110-82-7	84.20	0.251	0.864	ND	ND	1		WG2165398
Dibromochloromethane	124-48-1	208	0.242	2.06	ND	ND	1		WG2165398
1,2-Dibromoethane	106-93-4	188	0.240	1.85	ND	ND	1		WG2165398
1,2-Dichlorobenzene	95-50-1	147	0.427	2.57	ND	ND	1		WG2165398
1,3-Dichlorobenzene	541-73-1	147	0.607	3.65	ND	ND	1		WG2165398
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND	1		WG2165398
1,2-Dichloroethane	107-06-2	99	0.233	0.943	ND	ND	1		WG2165398
1,1-Dichloroethane	75-34-3	98	0.241	0.966	ND	ND	1		WG2165398
1,1-Dichloroethene	75-35-4	96.90	0.254	1.01	ND	ND	1		WG2165398
cis-1,2-Dichloroethene	156-59-2	96.90	2.61	10.3	7.29	28.9	10		WG2166803
trans-1,2-Dichloroethene	156-60-5	96.90	0.224	0.888	1.32	5.23	1		WG2165398
1,2-Dichloropropane	78-87-5	113	0.253	1.17	ND	ND	1		WG2165398
cis-1,3-Dichloropropene	10061-01-5	111	0.230	1.04	ND	ND	1		WG2165398
trans-1,3-Dichloropropene	10061-02-6	111	0.243	1.10	ND	ND	1		WG2165398
1,4-Dioxane	123-91-1	88.10	0.278	1.00	ND	ND	1		WG2165398
Ethanol	64-17-5	46.10	0.883	1.66	16.5	31.1	1		WG2165398
Ethylbenzene	100-41-4	106	0.278	1.21	ND	ND	1		WG2165398
4-Ethyltoluene	622-96-8	120	0.261	1.28	ND	ND	1		WG2165398
Trichlorofluoromethane	75-69-4	137.40	0.273	1.53	2.87	16.1	1		WG2165398
Dichlorodifluoromethane	75-71-8	120.92	0.457	2.26	47.8	236	1		WG2165398
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.264	2.02	ND	ND	1		WG2165398
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.297	2.08	ND	ND	1		WG2165398
Heptane	142-82-5	100	0.347	1.42	ND	ND	1		WG2165398
Hexachloro-1,3-butadiene	87-68-3	261	0.350	3.74	ND	ND	1		WG2165398
n-Hexane	110-54-3	86.20	0.687	2.42	ND	ND	1		WG2165398
Isopropylbenzene	98-82-8	120.20	0.259	1.27	ND	ND	1		WG2165398
Methylene Chloride	75-09-2	84.90	0.326	1.13	0.904	3.14	1		WG2165398
Methyl Butyl Ketone	591-78-6	100	0.443	1.81	ND	ND	1		WG2165398
2-Butanone (MEK)	78-93-3	72.10	0.271	0.799	ND	ND	1		WG2165398
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.255	1.04	ND	ND	1		WG2165398
Methyl methacrylate	80-62-6	100.12	0.292	1.20	ND	ND	1		WG2165398
MTBE	1634-04-4	88.10	0.216	0.778	ND	ND	1		WG2165398
Naphthalene	91-20-3	128	1.17	6.13	ND	ND	1		WG2165398
2-Propanol	67-63-0	60.10	0.880	2.16	ND	ND	1		WG2165398
Propene	115-07-1	42.10	0.311	0.536	ND	ND	1		WG2165398
Styrene	100-42-5	104	0.263	1.12	ND	ND	1		WG2165398
1,1,2-Tetrachloroethane	79-34-5	168	0.248	1.70	ND	ND	1		WG2165398
Tetrachloroethylene	127-18-4	166	2.71	18.4	339	2300	10		WG2166803
Tetrahydrofuran	109-99-9	72.10	0.245	0.722	ND	ND	1		WG2165398
Toluene	108-88-3	92.10	0.290	1.09	0.489	1.84	1		WG2165398
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND	1		WG2165398

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.245	1.33	0.374	2.03		1	<a href="#">WG2165398</a>
1,1,2-Trichloroethane	79-00-5	133	0.258	1.40	ND	ND		1	<a href="#">WG2165398</a>
Trichloroethylene	79-01-6	131	0.227	1.22	2.57	13.8		1	<a href="#">WG2165398</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.255	1.25	ND	ND		1	<a href="#">WG2165398</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.260	1.28	ND	ND		1	<a href="#">WG2165398</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.443	2.07	ND	ND		1	<a href="#">WG2165398</a>
Vinyl chloride	75-01-4	62.50	0.316	0.808	ND	ND		1	<a href="#">WG2165398</a>
Vinyl Bromide	593-60-2	106.95	0.284	1.24	ND	ND		1	<a href="#">WG2165398</a>
Vinyl acetate	108-05-4	86.10	0.387	1.36	ND	ND		1	<a href="#">WG2165398</a>
Xylenes, Total	1330-20-7	106.16	0.450	1.95	0.623	2.71		1	<a href="#">WG2165398</a>
m&p-Xylene	1330-20-7	106	0.450	1.95	ND	ND		1	<a href="#">WG2165398</a>
o-Xylene	95-47-6	106	0.276	1.20	ND	ND		1	<a href="#">WG2165398</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.2				<a href="#">WG2165398</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.9				<a href="#">WG2166803</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

WG2164908

Volatile Organic Compounds (MS) by Method TO-15

## QUALITY CONTROL SUMMARY

[L1671420-01](#)

## Method Blank (MB)

(MB) R3995901-3 11/05/23 11:05

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	ppbv		ppbv	ppbv
trans-1,2-Dichloroethene	U		0.0673	0.224
Trichloroethylene	U		0.0680	0.227
Vinyl chloride	U		0.0949	0.316
(S) 1,4-Bromofluorobenzene	101		60.0-140	

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3995901-1 11/05/23 09:50 • (LCSD) R3995901-2 11/05/23 10:28

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
trans-1,2-Dichloroethene	3.75	3.85	3.86	103	103	70.0-130			0.259	25
Trichloroethylene	3.75	3.76	3.88	100	103	70.0-130			3.14	25
Vinyl chloride	3.75	3.82	3.92	102	105	70.0-130			2.58	25
(S) 1,4-Bromofluorobenzene			101	102	60.0-140					

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## QUALITY CONTROL SUMMARY

[L1671420-01](#)

## Method Blank (MB)

(MB) R3996481-1 11/06/23 09:20

Analyst	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	ppbv		ppbv	ppbv
cis-1,2-Dichloroethene	U		0.0784	0.261
Tetrachloroethylene	U		0.0814	0.271
(S) 1,4-Bromofluorobenzene	95.4			60.0-140

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3996481-2 11/06/23 11:48 • (LCSD) R3996481-3 11/06/23 12:18

Analyst	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
cis-1,2-Dichloroethene	3.75	3.58	3.57	95.5	95.2	70.0-130			0.280	25
Tetrachloroethylene	3.75	3.61	3.50	96.3	93.3	70.0-130			3.09	25
(S) 1,4-Bromofluorobenzene				94.7	97.3	60.0-140				

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Volatile Organic Compounds (MS) by Method TO-15

## QUALITY CONTROL SUMMARY

L1671420-04,05

## Method Blank (MB)

(MB) R3996722-3 11/06/23 10:51

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	1 <sup>1</sup> Cp
Acetone	U		0.584	1.95	
Allyl chloride	U		0.114	0.380	
Benzene	U		0.0715	0.238	
Benzyl Chloride	U		0.0598	0.199	
Bromodichloromethane	U		0.0702	0.234	
Bromoform	U		0.0732	0.244	
Bromomethane	U		0.0982	0.327	
1,3-Butadiene	U		0.104	0.347	
Carbon disulfide	U		0.102	0.340	
Carbon tetrachloride	U		0.0732	0.244	
Chlorobenzene	U		0.0832	0.277	
Chloroethane	U		0.0996	0.332	
Chloroform	U		0.0717	0.239	
Chloromethane	U		0.103	0.343	
2-Chlorotoluene	U		0.0828	0.276	
Cyclohexane	U		0.0753	0.251	
Dibromochloromethane	U		0.0727	0.242	
1,2-Dibromoethane	U		0.0721	0.240	
1,2-Dichlorobenzene	U		0.128	0.427	
1,3-Dichlorobenzene	U		0.182	0.607	
1,4-Dichlorobenzene	U		0.0557	0.186	
1,2-Dichloroethane	U		0.0700	0.233	
1,1-Dichloroethane	U		0.0723	0.241	
1,1-Dichloroethene	U		0.0762	0.254	
trans-1,2-Dichloroethene	U		0.0673	0.224	
1,2-Dichloropropane	U		0.0760	0.253	
cis-1,3-Dichloropropene	U		0.0689	0.230	
trans-1,3-Dichloropropene	U		0.0728	0.243	
1,4-Dioxane	U		0.0833	0.278	
Ethanol	1.36		0.265	0.883	
Ethylbenzene	U		0.0835	0.278	
4-Ethyltoluene	U		0.0783	0.261	
Trichlorofluoromethane	U		0.0819	0.273	
Dichlorodifluoromethane	U		0.137	0.457	
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.264	
1,2-Dichlorotetrafluoroethane	U		0.0890	0.297	
Heptane	U		0.104	0.347	
Hexachloro-1,3-butadiene	U		0.105	0.350	
n-Hexane	U		0.206	0.687	
Isopropylbenzene	U		0.0777	0.259	

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Volatile Organic Compounds (MS) by Method TO-15

## QUALITY CONTROL SUMMARY

L1671420-04,05

## Method Blank (MB)

(MB) R3996722-3 11/06/23 10:51

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv	1 Cp
Methylene Chloride	U		0.0979	0.326	2 Tc
Methyl Butyl Ketone	U		0.133	0.443	3 Ss
2-Butanone (MEK)	U		0.0814	0.271	4 Cn
4-Methyl-2-pentanone (MIBK)	U		0.0765	0.255	5 Sr
Methyl methacrylate	U		0.0876	0.292	6 Qc
MTBE	U		0.0647	0.216	7 Gl
Naphthalene	U		0.350	1.17	8 Al
2-Propanol	U		0.264	0.880	9 Sc
Propene	0.159	J	0.0932	0.311	
Styrene	U		0.0788	0.263	
1,1,2,2-Tetrachloroethane	U		0.0743	0.248	
Tetrachloroethylene	U		0.0814	0.271	
Tetrahydrofuran	U		0.0734	0.245	
Toluene	U		0.0870	0.290	
1,2,4-Trichlorobenzene	U		0.148	0.493	
1,1,1-Trichloroethane	U		0.0736	0.245	
1,1,2-Trichloroethane	U		0.0775	0.258	
Trichloroethylene	U		0.0680	0.227	
1,2,4-Trimethylbenzene	U		0.0764	0.255	
1,3,5-Trimethylbenzene	U		0.0779	0.260	
2,2,4-Trimethylpentane	U		0.133	0.443	
Vinyl chloride	U		0.0949	0.316	
Vinyl Bromide	U		0.0852	0.284	
Vinyl acetate	U		0.116	0.387	
Xylenes, Total	U		0.135	0.450	
m&p-Xylene	U		0.135	0.450	
o-Xylene	U		0.0828	0.276	
(S) 1,4-Bromofluorobenzene	102		60.0-140		

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3996722-1 11/06/23 09:28 • (LCSD) R3996722-2 11/06/23 10:10

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	3.75	3.59	3.58	95.7	95.5	70.0-130			0.279	25
Allyl chloride	3.75	4.04	4.65	108	124	70.0-130			14.0	25
Benzene	3.75	3.61	3.75	96.3	100	70.0-130			3.80	25
Benzyl Chloride	3.75	3.62	3.76	96.5	100	70.0-152			3.79	25
Bromodichloromethane	3.75	4.02	3.95	107	105	70.0-130			1.76	25

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## QUALITY CONTROL SUMMARY

L1671420-04,05

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3996722-1 11/06/23 09:28 • (LCSD) R3996722-2 11/06/23 10:10

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromoform	3.75	3.96	4.04	106	108	70.0-130			2.00	25
Bromomethane	3.75	3.73	3.74	99.5	99.7	70.0-130			0.268	25
1,3-Butadiene	3.75	3.41	3.34	90.9	89.1	70.0-130			2.07	25
Carbon disulfide	3.75	3.63	3.87	96.8	103	70.0-130			6.40	25
Carbon tetrachloride	3.75	3.84	3.88	102	103	70.0-130			1.04	25
Chlorobenzene	3.75	3.77	3.90	101	104	70.0-130			3.39	25
Chloroethane	3.75	3.89	3.91	104	104	70.0-130			0.513	25
Chloroform	3.75	3.65	3.75	97.3	100	70.0-130			2.70	25
Chloromethane	3.75	3.66	3.68	97.6	98.1	70.0-130			0.545	25
2-Chlorotoluene	3.75	3.57	3.73	95.2	99.5	70.0-130			4.38	25
Cyclohexane	3.75	3.84	3.69	102	98.4	70.0-130			3.98	25
Dibromochloromethane	3.75	3.96	4.12	106	110	70.0-130			3.96	25
1,2-Dibromoethane	3.75	3.87	3.91	103	104	70.0-130			1.03	25
1,2-Dichlorobenzene	3.75	3.73	3.86	99.5	103	70.0-130			3.43	25
1,3-Dichlorobenzene	3.75	3.70	3.80	98.7	101	70.0-130			2.67	25
1,4-Dichlorobenzene	3.75	3.84	3.91	102	104	70.0-130			1.81	25
1,2-Dichloroethane	3.75	3.84	3.86	102	103	70.0-130			0.519	25
1,1-Dichloroethane	3.75	3.67	3.71	97.9	98.9	70.0-130			1.08	25
1,1-Dichloroethene	3.75	3.54	3.68	94.4	98.1	70.0-130			3.88	25
trans-1,2-Dichloroethene	3.75	3.62	3.65	96.5	97.3	70.0-130			0.825	25
1,2-Dichloropropane	3.75	3.56	3.71	94.9	98.9	70.0-130			4.13	25
cis-1,3-Dichloropropene	3.75	3.76	3.83	100	102	70.0-130			1.84	25
trans-1,3-Dichloropropene	3.75	3.58	3.80	95.5	101	70.0-130			5.96	25
1,4-Dioxane	3.75	3.77	3.81	101	102	70.0-140			1.06	25
Ethanol	3.75	4.66	4.56	124	122	55.0-148			2.17	25
Ethylbenzene	3.75	3.56	3.75	94.9	100	70.0-130			5.20	25
4-Ethyltoluene	3.75	3.65	3.70	97.3	98.7	70.0-130			1.36	25
Trichlorofluoromethane	3.75	3.84	3.88	102	103	70.0-130			1.04	25
Dichlorodifluoromethane	3.75	3.69	3.64	98.4	97.1	64.0-139			1.36	25
1,1,2-Trichlorotrifluoroethane	3.75	3.76	3.86	100	103	70.0-130			2.62	25
1,2-Dichlortetrafluoroethane	3.75	3.80	3.68	101	98.1	70.0-130			3.21	25
Heptane	3.75	3.55	3.64	94.7	97.1	70.0-130			2.50	25
Hexachloro-1,3-butadiene	3.75	3.77	3.95	101	105	70.0-151			4.66	25
n-Hexane	3.75	3.57	3.57	95.2	95.2	70.0-130			0.000	25
Isopropylbenzene	3.75	3.79	3.87	101	103	70.0-130			2.09	25
Methylene Chloride	3.75	3.53	3.54	94.1	94.4	70.0-130			0.283	25
Methyl Butyl Ketone	3.75	3.72	3.68	99.2	98.1	70.0-149			1.08	25
2-Butanone (MEK)	3.75	3.72	3.79	99.2	101	70.0-130			1.86	25
4-Methyl-2-pentanone (MIBK)	3.75	3.63	3.59	96.8	95.7	70.0-139			1.11	25
Methyl methacrylate	3.75	3.17	3.53	84.5	94.1	70.0-130			10.7	25

ACCOUNT:

SCS Engineers - Madison, WI

PROJECT:

25211372.21

SDG:

L1671420

DATE/TIME:

11/14/23 09:29

PAGE:

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## QUALITY CONTROL SUMMARY

L1671420-04,05

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3996722-1 11/06/23 09:28 • (LCSD) R3996722-2 11/06/23 10:10

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
MTBE	3.75	3.45	3.48	92.0	92.8	70.0-130			0.866	25
Naphthalene	3.75	3.73	3.81	99.5	102	70.0-159			2.12	25
2-Propanol	3.75	3.81	3.64	102	97.1	70.0-139			4.56	25
Propene	3.75	3.64	3.67	97.1	97.9	64.0-144			0.821	25
Styrene	3.75	3.70	3.85	98.7	103	70.0-130			3.97	25
1,1,2,2-Tetrachloroethane	3.75	3.55	3.81	94.7	102	70.0-130			7.07	25
Tetrachloroethylene	3.75	3.97	4.04	106	108	70.0-130			1.75	25
Tetrahydrofuran	3.75	3.59	3.56	95.7	94.9	70.0-137			0.839	25
Toluene	3.75	3.66	3.65	97.6	97.3	70.0-130			0.274	25
1,2,4-Trichlorobenzene	3.75	3.64	3.80	97.1	101	70.0-160			4.30	25
1,1,1-Trichloroethane	3.75	3.60	3.75	96.0	100	70.0-130			4.08	25
1,1,2-Trichloroethane	3.75	3.72	3.68	99.2	98.1	70.0-130			1.08	25
Trichloroethylene	3.75	3.64	3.65	97.1	97.3	70.0-130			0.274	25
1,2,4-Trimethylbenzene	3.75	3.72	3.71	99.2	98.9	70.0-130			0.269	25
1,3,5-Trimethylbenzene	3.75	4.47	4.53	119	121	70.0-130			1.33	25
2,2,4-Trimethylpentane	3.75	3.65	3.60	97.3	96.0	70.0-130			1.38	25
Vinyl chloride	3.75	3.41	3.47	90.9	92.5	70.0-130			1.74	25
Vinyl Bromide	3.75	3.92	3.83	105	102	70.0-130			2.32	25
Vinyl acetate	3.75	3.30	3.62	88.0	96.5	70.0-130			9.25	25
Xylenes, Total	11.3	10.7	11.1	94.7	98.2	70.0-130			3.67	25
m&p-Xylene	7.50	7.13	7.41	95.1	98.8	70.0-130			3.85	25
o-Xylene	3.75	3.53	3.68	94.1	98.1	70.0-130			4.16	25
(S) 1,4-Bromofluorobenzene			101	100	60.0-140					

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## QUALITY CONTROL SUMMARY

[L1671420-05](#)

## Method Blank (MB)

(MB) R3997202-3 11/08/23 11:06

Analyst	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	ppbv		ppbv	ppbv
cis-1,2-Dichloroethene	U		0.0784	0.261
Tetrachloroethylene	U		0.0814	0.271
(S) 1,4-Bromofluorobenzene	96.4			60.0-140

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3997202-1 11/08/23 09:45 • (LCSD) R3997202-2 11/08/23 10:27

Analyst	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
cis-1,2-Dichloroethene	3.75	3.12	3.13	83.2	83.5	70.0-130			0.320	25
Tetrachloroethylene	3.75	4.09	4.01	109	107	70.0-130			1.98	25
(S) 1,4-Bromofluorobenzene			95.3	96.3		60.0-140				

WG2167838

Volatile Organic Compounds (MS) by Method TO-15

## QUALITY CONTROL SUMMARY

[L1671420-04](#)

## Method Blank (MB)

(MB) R3997840-3 11/09/23 14:18

Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	ppbv		ppbv	ppbv
cis-1,2-Dichloroethene	U		0.0784	0.261
trans-1,2-Dichloroethene	U		0.0673	0.224
(S) 1,4-Bromofluorobenzene	114			60.0-140

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3997840-1 11/09/23 10:06 • (LCSD) R3997840-2 11/09/23 10:47

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
cis-1,2-Dichloroethene	3.75	4.08	4.12	109	110	70.0-130			0.976	25
trans-1,2-Dichloroethene	3.75	4.42	4.40	118	117	70.0-130			0.454	25
(S) 1,4-Bromofluorobenzene			114	114		60.0-140				

ACCOUNT:

SCS Engineers - Madison, WI

PROJECT:

25211372.21

SDG:

L1671420

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11/14/23 09:29

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# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

**Results Disclaimer -** Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDL	Method Detection Limit.	<sup>1</sup> Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	<sup>2</sup> Tc
RDL	Reported Detection Limit.	<sup>3</sup> Ss
Rec.	Recovery.	<sup>4</sup> Cn
RPD	Relative Percent Difference.	<sup>5</sup> Sr
SDG	Sample Delivery Group.	<sup>6</sup> Qc
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.	<sup>7</sup> GI
U	Not detected at the Reporting Limit (or MDL where applicable).	<sup>8</sup> AI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	<sup>9</sup> Sc
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

### Qualifier      Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
---	---

# ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Pace® Location Requested (City/State):

## AIR CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields.

Company Name:  
**SCS Engineers - Madison, WI**Street Address:  
2830 Dairy Drive  
Madison, WI 53718-6751

City, State Zip:

Customer Project #: *25211372.21*

Project Name:

**Pilgrim Cleaners**

Site Collection Info/Facility ID (as applicable):

**SCSENGMWI-PILGRIM**

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET

State origin of sample(s): *WI*

Data Deliverables:

[ ] Level II [ ] Level III [ ] Level IV

Regulatory Program (CAA, RCRA, etc.) as applicable: *WDNR*Rush (Pre-approval required):  
2 Day 3 day 5 day OtherPermit # as applicable: *PA*Date Results Requested: *standard*Units for Reporting: *ug/m³ PPBV mg/m³ PPMV*

\* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)

Customer Sample ID	Matrix *	Summa Canister ID	Flow Controller ID	Begin Collection		End Collection		Start Pressure / Vacuum (in Hg)	End Pressure Vacuum (in Hg)	Duration	Flow Rate m³/min or L/min	Total Volume Sampled m³ or L	TO-15 Summa Dry Cleaner VOC	Analyses Requested	Proj. Manager: 3828 - Jennifer A McCurdy	AcctNum / Client ID: SCSENGMWI	Table #: T226997	Profile / Template: P1029653	Prelog / Bottle Ord. ID: <i>U6071420</i>
				Date	Time	Date	Time												
VP-1 (Pilgrim unit)	SV	28695 013111		10/25/23	11:55	10/26/23	16:21	-28	-5				X	-01					
VP-2 (Pilgrim unit)	SV	12671006495		10/25/23	13:30	10/25/23	16:30	-28	-210				X	-02	Gas sensor FC is faulty				
VP-1 (Wt. Watchers Unit)	SV	22530 10995		10/25/23	16:55	10/25/23	17:16	-30	-15				X	-03	valve handle gripped				
VP-2 (Wt. Watchers Unit)	SV	11249 02882		10/25/23	17:05	10/25/23	17:32	-27	-9				X	-04	100%				
Pilgrim Cleaners 15	SV	2295801029		10/25/23	12:20	10/25/23	12:54	-29	-4				X	-05	All Joe				

Sample Receipt Checklist	
SCC Seal Present/Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	If Applicable
CC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	VOA Zero Headspace: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Pres. Correct/Check: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
RH Screen <0.5 mR/hr: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

Customer Remarks / Special Conditions / Possible Hazards:

*\*Dry cleaner VOCs = PCB, TCE, Cist Trans, 1,2 PCB, and Vinyl chloride*Relinquished by/Company: (Signature) *J.A.*Date/Time: *10/10/23*Received by/Company: (Signature) *RECEIVED 10/10/23 SCS*

Additional Instructions from Pace®:

Received by/Company: (Signature) *RECEIVED 10/10/23 SCS*

Date/Time:

Tracking Number:

Received by/Company: (Signature) *SCS*Date/Time: *10/17/23 13:00*Received by/Company: (Signature) *J.A.*

Date/Time:

Received by/Company: (Signature) *J.A.*Date/Time: *10/28/23 09:00*Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at <https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/>

Scan QR code for instructions

**J130**Proj. Manager:  
3828 - Jennifer A McCurdyAcctNum / Client ID:  
**SCSENGMWI**

Table #: T226997

Profile / Template: **P1029653**Prelog / Bottle Ord. ID: *U6071420*

Sample Comment

*TWO BOXES SHIPPED*



# ANALYTICAL REPORT

December 01, 2023

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

## SCS Engineers - Madison, WI

Sample Delivery Group: L1681074  
Samples Received: 11/22/2023  
Project Number:  
Description: Pilgrim Cleaners

Report To: Rob Langdon  
2830 Dairy Drive  
Madison, WI 53718-6751

Entire Report Reviewed By:

Jennifer A McCurdy  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

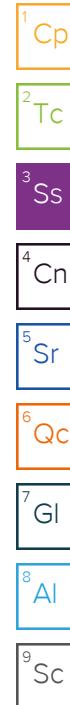
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)

# TABLE OF CONTENTS

Cp: Cover Page	1	<sup>1</sup> Cp
Tc: Table of Contents	2	<sup>2</sup> Tc
Ss: Sample Summary	3	<sup>3</sup> Ss
Cn: Case Narrative	4	<sup>4</sup> Cn
Sr: Sample Results	5	<sup>5</sup> Sr
PILGRIM-16 L1681074-01	5	<sup>6</sup> Qc
VP-2 (PILGRIM UNIT) L1681074-02	7	<sup>7</sup> GI
VP-1 (WT WATCHERS UNIT) L1681074-03	8	<sup>8</sup> AI
Qc: Quality Control Summary	9	<sup>9</sup> SC
Volatile Organic Compounds (MS) by Method TO-15	9	
Gl: Glossary of Terms	14	
Al: Accreditations & Locations	15	
Sc: Sample Chain of Custody	16	

# SAMPLE SUMMARY

			Collected by Robert Langdon	Collected date/time 11/21/23 16:10	Received date/time 11/22/23 13:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2177610	1	11/26/23 16:30	11/26/23 16:30	DAH	Mt. Juliet, TN
<b>VP-2 (PILGRIM UNIT) L1681074-02 Air</b>			Collected by Robert Langdon	Collected date/time 11/21/23 16:07	Received date/time 11/22/23 13:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2177610	1	11/26/23 23:34	11/26/23 23:34	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2179374	1	11/29/23 16:38	11/29/23 16:38	SDS	Mt. Juliet, TN
<b>VP-1 (WT WATCHERS UNIT) L1681074-03 Air</b>			Collected by Robert Langdon	Collected date/time 11/21/23 15:45	Received date/time 11/22/23 13:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2177610	1	11/27/23 00:13	11/27/23 00:13	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2179374	1	11/29/23 17:17	11/29/23 17:17	SDS	Mt. Juliet, TN



# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Jennifer A McCurdy  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.95	4.63	4.87	11.6		1	WG2177610
Allyl chloride	107-05-1	76.53	0.380	1.19	ND	ND		1	WG2177610
Benzene	71-43-2	78.10	0.238	0.760	0.956	3.05		1	WG2177610
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG2177610
Bromodichloromethane	75-27-4	164	0.234	1.57	ND	ND		1	WG2177610
Bromoform	75-25-2	253	0.244	2.52	ND	ND		1	WG2177610
Bromomethane	74-83-9	94.90	0.327	1.27	ND	ND		1	WG2177610
1,3-Butadiene	106-99-0	54.10	0.347	0.768	ND	ND		1	WG2177610
Carbon disulfide	75-15-0	76.10	0.340	1.06	ND	ND		1	WG2177610
Carbon tetrachloride	56-23-5	154	0.244	1.54	ND	ND		1	WG2177610
Chlorobenzene	108-90-7	113	0.277	1.28	ND	ND		1	WG2177610
Chloroethane	75-00-3	64.50	0.332	0.876	ND	ND		1	WG2177610
Chloroform	67-66-3	119	0.239	1.16	ND	ND		1	WG2177610
Chloromethane	74-87-3	50.50	0.343	0.708	ND	ND		1	WG2177610
2-Chlorotoluene	95-49-8	126	0.276	1.42	ND	ND		1	WG2177610
Cyclohexane	110-82-7	84.20	0.251	0.864	ND	ND		1	WG2177610
Dibromochloromethane	124-48-1	208	0.242	2.06	ND	ND		1	WG2177610
1,2-Dibromoethane	106-93-4	188	0.240	1.85	ND	ND		1	WG2177610
1,2-Dichlorobenzene	95-50-1	147	0.427	2.57	ND	ND		1	WG2177610
1,3-Dichlorobenzene	541-73-1	147	0.607	3.65	ND	ND		1	WG2177610
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG2177610
1,2-Dichloroethane	107-06-2	99	0.233	0.943	ND	ND		1	WG2177610
1,1-Dichloroethane	75-34-3	98	0.241	0.966	ND	ND		1	WG2177610
1,1-Dichloroethene	75-35-4	96.90	0.254	1.01	ND	ND		1	WG2177610
cis-1,2-Dichloroethene	156-59-2	96.90	0.261	1.03	8.68	34.4		1	WG2177610
trans-1,2-Dichloroethene	156-60-5	96.90	0.224	0.888	1.04	4.12		1	WG2177610
1,2-Dichloropropane	78-87-5	113	0.253	1.17	ND	ND		1	WG2177610
cis-1,3-Dichloropropene	10061-01-5	111	0.230	1.04	ND	ND		1	WG2177610
trans-1,3-Dichloropropene	10061-02-6	111	0.243	1.10	ND	ND		1	WG2177610
1,4-Dioxane	123-91-1	88.10	0.278	1.00	ND	ND		1	WG2177610
Ethanol	64-17-5	46.10	0.883	1.66	86.1	162		1	WG2177610
Ethylbenzene	100-41-4	106	0.278	1.21	0.552	2.39		1	WG2177610
4-Ethyltoluene	622-96-8	120	0.261	1.28	0.973	4.78		1	WG2177610
Trichlorofluoromethane	75-69-4	137.40	0.273	1.53	1.31	7.36		1	WG2177610
Dichlorodifluoromethane	75-71-8	120.92	0.457	2.26	22.9	113		1	WG2177610
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.264	2.02	ND	ND		1	WG2177610
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.297	2.08	ND	ND		1	WG2177610
Heptane	142-82-5	100	0.347	1.42	ND	ND		1	WG2177610
Hexachloro-1,3-butadiene	87-68-3	261	0.350	3.74	ND	ND		1	WG2177610
n-Hexane	110-54-3	86.20	0.687	2.42	ND	ND		1	WG2177610
Isopropylbenzene	98-82-8	120.20	0.259	1.27	ND	ND		1	WG2177610
Methylene Chloride	75-09-2	84.90	0.326	1.13	ND	ND		1	WG2177610
Methyl Butyl Ketone	591-78-6	100	0.443	1.81	ND	ND		1	WG2177610
2-Butanone (MEK)	78-93-3	72.10	0.271	0.799	ND	ND		1	WG2177610
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.255	1.04	ND	ND		1	WG2177610
Methyl methacrylate	80-62-6	100.12	0.292	1.20	ND	ND		1	WG2177610
MTBE	1634-04-4	88.10	0.216	0.778	ND	ND		1	WG2177610
Naphthalene	91-20-3	128	1.17	6.13	ND	ND		1	WG2177610
2-Propanol	67-63-0	60.10	0.880	2.16	5.47	13.4		1	WG2177610
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG2177610
Styrene	100-42-5	104	0.263	1.12	ND	ND		1	WG2177610
1,1,2,2-Tetrachloroethane	79-34-5	168	0.248	1.70	ND	ND		1	WG2177610
Tetrachloroethylene	127-18-4	166	0.271	1.84	60.5	411		1	WG2177610
Tetrahydrofuran	109-99-9	72.10	0.245	0.722	ND	ND		1	WG2177610
Toluene	108-88-3	92.10	0.290	1.09	1.92	7.23		1	WG2177610
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG2177610

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.245	1.33	ND	ND		1	<a href="#">WG2177610</a>
1,1,2-Trichloroethane	79-00-5	133	0.258	1.40	ND	ND		1	<a href="#">WG2177610</a>
Trichloroethylene	79-01-6	131	0.227	1.22	1.41	7.55		1	<a href="#">WG2177610</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.255	1.25	1.26	6.18		1	<a href="#">WG2177610</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.260	1.28	0.327	1.60		1	<a href="#">WG2177610</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.443	2.07	ND	ND		1	<a href="#">WG2177610</a>
Vinyl chloride	75-01-4	62.50	0.316	0.808	ND	ND		1	<a href="#">WG2177610</a>
Vinyl Bromide	593-60-2	106.95	0.284	1.24	ND	ND		1	<a href="#">WG2177610</a>
Vinyl acetate	108-05-4	86.10	0.387	1.36	ND	ND		1	<a href="#">WG2177610</a>
Xylenes, Total	1330-20-7	106.16	0.450	1.95	3.29	14.3		1	<a href="#">WG2177610</a>
m&p-Xylene	1330-20-7	106	0.450	1.95	2.38	10.3		1	<a href="#">WG2177610</a>
o-Xylene	95-47-6	106	0.276	1.20	0.910	3.95		1	<a href="#">WG2177610</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		101				<a href="#">WG2177610</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch	
cis-1,2-Dichloroethene	156-59-2	96.90	0.261	1.03	15.6	61.8		1	WG2179374	<sup>1</sup> Cp
trans-1,2-Dichloroethene	156-60-5	96.90	0.224	0.888	2.65	10.5		1	WG2177610	<sup>2</sup> Tc
Tetrachloroethylene	127-18-4	166	0.271	1.84	0.368	2.50		1	WG2177610	<sup>3</sup> Ss
Trichloroethylene	79-01-6	131	0.227	1.22	6.55	35.1		1	WG2179374	<sup>4</sup> Cn
Vinyl chloride	75-01-4	62.50	0.316	0.808	ND	ND		1	WG2177610	<sup>5</sup> Sr
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.3				WG2177610	<sup>6</sup> Qc
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.5				WG2179374	<sup>7</sup> Gl
										<sup>8</sup> Al
										<sup>9</sup> Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
cis-1,2-Dichloroethene	156-59-2	96.90	0.261	1.03	ND	ND		1	<a href="#">WG2177610</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.224	0.888	ND	ND		1	<a href="#">WG2177610</a>
Tetrachloroethylene	127-18-4	166	0.271	1.84	ND	ND		1	<a href="#">WG2177610</a>
Trichloroethylene	79-01-6	131	0.227	1.22	2.08	11.1		1	<a href="#">WG2179374</a>
Vinyl chloride	75-01-4	62.50	0.316	0.808	ND	ND		1	<a href="#">WG2177610</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.1				<a href="#">WG2177610</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.9				<a href="#">WG2179374</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al<sup>9</sup> Sc

## QUALITY CONTROL SUMMARY

L1681074-01,02,03

## Method Blank (MB)

(MB) R4005956-3 11/26/23 10:22

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	1 Cp
Acetone	U		0.584	1.95	
Allyl chloride	U		0.114	0.380	
Benzene	U		0.0715	0.238	
Benzyl Chloride	U		0.0598	0.199	
Bromodichloromethane	U		0.0702	0.234	
Bromoform	U		0.0732	0.244	
Bromomethane	U		0.0982	0.327	
1,3-Butadiene	U		0.104	0.347	
Carbon disulfide	U		0.102	0.340	
Carbon tetrachloride	U		0.0732	0.244	
Chlorobenzene	U		0.0832	0.277	
Chloroethane	U		0.0996	0.332	
Chloroform	U		0.0717	0.239	
Chloromethane	U		0.103	0.343	
2-Chlorotoluene	U		0.0828	0.276	
Cyclohexane	U		0.0753	0.251	
Dibromochloromethane	U		0.0727	0.242	
1,2-Dibromoethane	U		0.0721	0.240	
1,2-Dichlorobenzene	U		0.128	0.427	
1,3-Dichlorobenzene	U		0.182	0.607	
1,4-Dichlorobenzene	U		0.0557	0.186	
1,2-Dichloroethane	U		0.0700	0.233	
1,1-Dichloroethane	U		0.0723	0.241	
1,1-Dichloroethene	U		0.0762	0.254	
cis-1,2-Dichloroethene	U		0.0784	0.261	
trans-1,2-Dichloroethene	U		0.0673	0.224	
1,2-Dichloropropane	U		0.0760	0.253	
cis-1,3-Dichloropropene	U		0.0689	0.230	
trans-1,3-Dichloropropene	U		0.0728	0.243	
1,4-Dioxane	U		0.0833	0.278	
Ethanol	0.459	J	0.265	0.883	
Ethylbenzene	U		0.0835	0.278	
4-Ethyltoluene	U		0.0783	0.261	
Trichlorofluoromethane	U		0.0819	0.273	
Dichlorodifluoromethane	U		0.137	0.457	
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.264	
1,2-Dichlorotetrafluoroethane	U		0.0890	0.297	
Heptane	U		0.104	0.347	
Hexachloro-1,3-butadiene	U		0.105	0.350	
n-Hexane	U		0.206	0.687	

## QUALITY CONTROL SUMMARY

L1681074-01,02,03

## Method Blank (MB)

(MB) R4005956-3 11/26/23 10:22

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv								
Isopropylbenzene	U		0.0777	0.259								
Methylene Chloride	U		0.0979	0.326								
Methyl Butyl Ketone	U		0.133	0.443								
2-Butanone (MEK)	U		0.0814	0.271								
4-Methyl-2-pentanone (MIBK)	U		0.0765	0.255								
Methyl methacrylate	U		0.0876	0.292								
MTBE	U		0.0647	0.216								
Naphthalene	U		0.350	1.17								
2-Propanol	U		0.264	0.880								
Propene	U		0.0932	0.311								
Styrene	U		0.0788	0.263								
1,1,2,2-Tetrachloroethane	U		0.0743	0.248								
Tetrachloroethylene	U		0.0814	0.271								
Tetrahydrofuran	U		0.0734	0.245								
Toluene	U		0.0870	0.290								
1,2,4-Trichlorobenzene	U		0.148	0.493								
1,1,1-Trichloroethane	U		0.0736	0.245								
1,1,2-Trichloroethane	U		0.0775	0.258								
Trichloroethylene	U		0.0680	0.227								
1,2,4-Trimethylbenzene	U		0.0764	0.255								
1,3,5-Trimethylbenzene	U		0.0779	0.260								
2,2,4-Trimethylpentane	U		0.133	0.443								
Vinyl chloride	U		0.0949	0.316								
Vinyl Bromide	U		0.0852	0.284								
Vinyl acetate	U		0.116	0.387								
Xylenes, Total	U		0.135	0.450								
m&p-Xylene	U		0.135	0.450								
o-Xylene	U		0.0828	0.276								
(S) 1,4-Bromo <sup>f</sup> luorobenzene	98.8			60.0-140								

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4005956-1 11/26/23 09:04 • (LCSD) R4005956-2 11/26/23 09:44

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	3.75	3.34	3.37	89.1	89.9	70.0-130			0.894	25
Allyl chloride	3.75	3.20	3.24	85.3	86.4	70.0-130			1.24	25
Benzene	3.75	3.48	3.48	92.8	92.8	70.0-130			0.000	25
Benzyl Chloride	3.75	3.41	3.60	90.9	96.0	70.0-152			5.42	25

## QUALITY CONTROL SUMMARY

L1681074-01,02,03

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4005956-1 11/26/23 09:04 • (LCSD) R4005956-2 11/26/23 09:44

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromodichloromethane	3.75	3.44	3.43	91.7	91.5	70.0-130			0.291	25
Bromoform	3.75	3.34	3.33	89.1	88.8	70.0-130			0.300	25
Bromomethane	3.75	3.36	3.49	89.6	93.1	70.0-130			3.80	25
1,3-Butadiene	3.75	3.64	3.73	97.1	99.5	70.0-130			2.44	25
Carbon disulfide	3.75	3.36	3.40	89.6	90.7	70.0-130			1.18	25
Carbon tetrachloride	3.75	3.46	3.47	92.3	92.5	70.0-130			0.289	25
Chlorobenzene	3.75	3.50	3.53	93.3	94.1	70.0-130			0.853	25
Chloroethane	3.75	3.33	3.36	88.8	89.6	70.0-130			0.897	25
Chloroform	3.75	3.46	3.50	92.3	93.3	70.0-130			1.15	25
Chloromethane	3.75	3.37	3.39	89.9	90.4	70.0-130			0.592	25
2-Chlorotoluene	3.75	3.31	3.39	88.3	90.4	70.0-130			2.39	25
Cyclohexane	3.75	3.49	3.51	93.1	93.6	70.0-130			0.571	25
Dibromochloromethane	3.75	3.44	3.44	91.7	91.7	70.0-130			0.000	25
1,2-Dibromoethane	3.75	3.49	3.48	93.1	92.8	70.0-130			0.287	25
1,2-Dichlorobenzene	3.75	3.22	3.41	85.9	90.9	70.0-130			5.73	25
1,3-Dichlorobenzene	3.75	3.20	3.38	85.3	90.1	70.0-130			5.47	25
1,4-Dichlorobenzene	3.75	3.27	3.44	87.2	91.7	70.0-130			5.07	25
1,2-Dichloroethane	3.75	3.43	3.41	91.5	90.9	70.0-130			0.585	25
1,1-Dichloroethane	3.75	3.48	3.49	92.8	93.1	70.0-130			0.287	25
1,1-Dichloroethene	3.75	3.42	3.51	91.2	93.6	70.0-130			2.60	25
cis-1,2-Dichloroethene	3.75	3.48	3.51	92.8	93.6	70.0-130			0.858	25
trans-1,2-Dichloroethene	3.75	3.46	3.50	92.3	93.3	70.0-130			1.15	25
1,2-Dichloropropane	3.75	3.49	3.46	93.1	92.3	70.0-130			0.863	25
cis-1,3-Dichloropropene	3.75	3.46	3.43	92.3	91.5	70.0-130			0.871	25
trans-1,3-Dichloropropene	3.75	3.47	3.48	92.5	92.8	70.0-130			0.288	25
1,4-Dioxane	3.75	3.59	3.57	95.7	95.2	70.0-140			0.559	25
Ethanol	3.75	3.30	3.32	88.0	88.5	55.0-148			0.604	25
Ethylbenzene	3.75	3.46	3.44	92.3	91.7	70.0-130			0.580	25
4-Ethyltoluene	3.75	3.27	3.46	87.2	92.3	70.0-130			5.65	25
Trichlorofluoromethane	3.75	3.88	3.76	103	100	70.0-130			3.14	25
Dichlorodifluoromethane	3.75	3.43	3.40	91.5	90.7	64.0-139			0.878	25
1,1,2-Trichlorotrifluoroethane	3.75	3.43	3.44	91.5	91.7	70.0-130			0.291	25
1,2-Dichlorotetrafluoroethane	3.75	3.51	3.47	93.6	92.5	70.0-130			1.15	25
Heptane	3.75	3.48	3.53	92.8	94.1	70.0-130			1.43	25
Hexachloro-1,3-butadiene	3.75	3.30	3.42	88.0	91.2	70.0-151			3.57	25
n-Hexane	3.75	3.47	3.53	92.5	94.1	70.0-130			1.71	25
Isopropylbenzene	3.75	3.41	3.42	90.9	91.2	70.0-130			0.293	25
Methylene Chloride	3.75	3.17	3.27	84.5	87.2	70.0-130			3.11	25
Methyl Butyl Ketone	3.75	3.54	3.61	94.4	96.3	70.0-149			1.96	25
2-Butanone (MEK)	3.75	3.43	3.52	91.5	93.9	70.0-130			2.59	25

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## QUALITY CONTROL SUMMARY

L1681074-01,02,03

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4005956-1 11/26/23 09:04 • (LCSD) R4005956-2 11/26/23 09:44

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	3.75	3.65	3.66	97.3	97.6	70.0-139			0.274	25
Methyl methacrylate	3.75	3.38	3.37	90.1	89.9	70.0-130			0.296	25
MTBE	3.75	3.49	3.55	93.1	94.7	70.0-130			1.70	25
Naphthalene	3.75	3.51	3.67	93.6	97.9	70.0-159			4.46	25
2-Propanol	3.75	3.21	3.23	85.6	86.1	70.0-139			0.621	25
Propene	3.75	3.40	3.34	90.7	89.1	64.0-144			1.78	25
Styrene	3.75	3.42	3.42	91.2	91.2	70.0-130			0.000	25
1,1,2,2-Tetrachloroethane	3.75	3.16	3.28	84.3	87.5	70.0-130			3.73	25
Tetrachloroethylene	3.75	3.44	3.44	91.7	91.7	70.0-130			0.000	25
Tetrahydrofuran	3.75	3.56	3.65	94.9	97.3	70.0-137			2.50	25
Toluene	3.75	3.46	3.46	92.3	92.3	70.0-130			0.000	25
1,2,4-Trichlorobenzene	3.75	3.39	3.57	90.4	95.2	70.0-160			5.17	25
1,1,1-Trichloroethane	3.75	3.45	3.49	92.0	93.1	70.0-130			1.15	25
1,1,2-Trichloroethane	3.75	3.39	3.42	90.4	91.2	70.0-130			0.881	25
Trichloroethylene	3.75	3.44	3.47	91.7	92.5	70.0-130			0.868	25
1,2,4-Trimethylbenzene	3.75	3.36	3.57	89.6	95.2	70.0-130			6.06	25
1,3,5-Trimethylbenzene	3.75	3.39	3.57	90.4	95.2	70.0-130			5.17	25
2,2,4-Trimethylpentane	3.75	3.58	3.67	95.5	97.9	70.0-130			2.48	25
Vinyl chloride	3.75	3.34	3.47	89.1	92.5	70.0-130			3.82	25
Vinyl Bromide	3.75	3.76	3.45	100	92.0	70.0-130			8.60	25
Vinyl acetate	3.75	3.48	3.44	92.8	91.7	70.0-130			1.16	25
Xylenes, Total	11.3	10.6	10.5	93.8	92.9	70.0-130			0.948	25
m&p-Xylene	7.50	7.11	7.07	94.8	94.3	70.0-130			0.564	25
o-Xylene	3.75	3.48	3.47	92.8	92.5	70.0-130			0.288	25
(S) 1,4-Bromofluorobenzene				98.1	97.5	60.0-140				

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## QUALITY CONTROL SUMMARY

[L1681074-02,03](#)

## Method Blank (MB)

(MB) R4006000-3 11/29/23 10:27

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv
cis-1,2-Dichloroethene	U		0.0784	0.261
Trichloroethylene	U		0.0680	0.227
(S) 1,4-Bromofluorobenzene	96.1			60.0-140

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4006000-1 11/29/23 09:09 • (LCSD) R4006000-2 11/29/23 09:48

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
cis-1,2-Dichloroethene	3.75	3.57	3.63	95.2	96.8	70.0-130			1.67	25
Trichloroethylene	3.75	3.61	3.66	96.3	97.6	70.0-130			1.38	25
(S) 1,4-Bromofluorobenzene				97.7	97.8	60.0-140				

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

**Results Disclaimer -** Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

### Qualifier      Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
---	---

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

# ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Pace

Pace® Location Requested (City/State):

**Air CHAIN-OF-CUSTODY Analytical Request Document**  
 Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Company Name:  
**SCS Engineers - Madison, WI**  
 Street Address:  
**2830 Dairy Drive  
Madison, WI 53718-6751**

City, State Zip:

Customer Project #:

Project Name:  
**Pilgrim Cleaners**

Site Collection Info/Facility ID (as applicable):

**SCSENGMWI-PILGRIM**

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET

Data Deliverables:

[ ] Level II    [ ] Level III    [ ] Level IV

Regulatory Program (CAA, RCRA, etc.) as applicable:

Rush (Pre-approval required):  
2 Day 3 day 5 day Other \_\_\_\_\_

Permit # as applicable:

[ ] EQUIS

[ ] Other \_\_\_\_\_

Date Results Requested: *standard*Units for Reporting: *ug/m³ PPBV mg/m³ PPMV*

\* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)

*11/21/23*  
 REB Customer Sample ID

Matrix \*    Summa Canister ID    Flow Controller ID

 Begin Collection    End Collection  
 Date Time      Date Time

 Field Information  
 Canister      PUF / FILTER  
 Pressure / Vacuum

Start Pressure / Vacuum (in Hg)	End Pressure / Vacuum (in Hg)	Duration (minutes)	Flow Rate	Total Volume	
				m³/min or L/min	m³ or L
-29	-65			X	01
-29	-6			X	02
-6				X	03

## Analyses Requested

*11/11/23*Proj. Manager:  
**3828 - Jennifer A McCurdy**AcctNum / Client ID:  
**SCSENGMWI**

Table #:

Profile / Template: **T226997**Prelog / Bottle Ord. ID: **P1036683***UG81074*

Sample Comment

*full 1/2 lst  
short lst ✗  
short lst ✗  
short lst ✗*
*TW6  
B0415  
Shipp  
BAK*

## Sample Receipt Checklist

COC Seal Present/Intact:  Y  N    Airs:  1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28  29  30  31  32  33  34  35  36  37  38  39  40  41  42  43  44  45  46  47  48  49  50  51  52  53  54  55  56  57  58  59  60  61  62  63  64  65  66  67  68  69  70  71  72  73  74  75  76  77  78  79  80  81  82  83  84  85  86  87  88  89  90  91  92  93  94  95  96  97  98  99  100  101  102  103  104  105  106  107  108  109  110  111  112  113  114  115  116  117  118  119  120  121  122  123  124  125  126  127  128  129  130  131  132  133  134  135  136  137  138  139  140  141  142  143  144  145  146  147  148  149  150  151  152  153  154  155  156  157  158  159  160  161  162  163  164  165  166  167  168  169  170  171  172  173  174  175  176  177  178  179  180  181  182  183  184  185  186  187  188  189  190  191  192  193  194  195  196  197  198  199  200  201  202  203  204  205  206  207  208  209  210  211  212  213  214  215  216  217  218  219  220  221  222  223  224  225  226  227  228  229  230  231  232  233  234  235  236  237  238  239  240  241  242  243  244  245  246  247  248  249  250  251  252  253  254  255  256  257  258  259  260  261  262  263  264  265  266  267  268  269  270  271  272  273  274  275  276  277  278  279  280  281  282  283  284  285  286  287  288  289  290  291  292  293  294  295  296  297  298  299  300  301  302  303  304  305  306  307  308  309  310  311  312  313  314  315  316  317  318  319  320  321  322  323  324  325  326  327  328  329  330  331  332  333  334  335  336  337  338  339  340  341  342  343  344  345  346  347  348  349  350  351  352  353  354  355  356  357  358  359  360  361  362  363  364  365  366  367  368  369  370  371  372  373  374  375  376  377  378  379  380  381  382  383  384  385  386  387  388  389  390  391  392  393  394  395  396  397  398  399  400  401  402  403  404  405  406  407  408  409  410  411  412  413  414  415  416  417  418  419  420  421  422  423  424  425  426  427  428  429  430  431  432  433  434  435  436  437  438  439  440  441  442  443  444  445  446  447  448  449  450  451  452  453  454  455  456  457  458  459  460  461  462  463  464  465  466  467  468  469  470  471  472  473  474  475  476  477  478  479  480  481  482  483  484  485  486  487  488  489  490  491  492  493  494  495  496  497  498  499  500  501  502  503  504  505  506  507  508  509  510  511  512  513  514  515  516  517  518  519  520  521  522  523  524  525  526  527  528  529  530  531  532  533  534  535  536  537  538  539  540  541  542  543  544  545  546  547  548  549  550  551  552  553  554  555  556  557  558  559  560  561  562  563  564  565  566  567  568  569  570  571  572  573  574  575  576  577  578  579  580  581  582  583  584  585  586  587  588  589  590  591  592  593  594  595  596  597  598  599  600  601  602  603  604  605  606  607  608  609  610  611  612  613  614  615  616  617  618  619  620  621  622  623  624  625  626  627  628  629  630  631  632  633  634  635  636  637  638  639  640  641  642  643  644  645  646  647  648  649  650  651  652  653  654  655  656  657  658  659  660  661  662  663  664  665  666  667  668  669  670  671  672  673  674  675  676  677  678  679  680  681  682  683  684  685  686  687  688  689  690  691  692  693  694  695  696  697  698  699  700  701  702  703  704  705  706  707  708  709  710  711  712  713  714  715  716  717  718  719  720  721  722  723  724  725  726  727  728  729  730  731  732  733  734  735  736  737  738  739  740  741  742  743  744  745  746  747  748  749  750  751  752  753  754  755  756  757  758  759  760  761  762  763  764  765  766  767  768  769  770  771  772  773  774  775  776  777  778  779  780  781  782  783  784  785  786  787  788  789  790  791  792  793  794  795  796  797  798  799  800  801  802  803  804  805  806  807  808  809  810  811  812  813  814  815  816  817  818  819  820  821  822  823  824  825  826  827  828  829  830  831  832  833  834  835  836  837  838  839  840  841  842  843  844  845  846  847  848  849  850  851  852  853  854  855  856  857  858  859  860  861  862  863  864  865  866  867  868  869  870  871  872  873  874  875  876  877  878  879  880  881  882  883  884  885  886  887  888  889  890  891  892  893  894  895  896  897  898  899  900  901  902  903  904  905  906  907  908  909  910  911  912  913  914  915  916  917  918  919  920  921  922  923  924  925  926  927  928  929  930  931  932  933  934  935  936  937  938  939  940  941  942  943  944  945  946  947  948  949  950  951  952  95



# ANALYTICAL REPORT

January 15, 2024

Revised Report

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

## SCS Engineers - Madison, WI

Sample Delivery Group: L1694581  
Samples Received: 01/09/2024  
Project Number: 25211372.21  
Description: Pilgrim Cleaners

Report To: Rob Langdon  
2830 Dairy Drive  
Madison, WI 53718-6751

Entire Report Reviewed By:

Jennifer A McCurdy  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)

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Tc: Table of Contents	2	<sup>2</sup> Tc
Ss: Sample Summary	3	<sup>3</sup> Ss
Cn: Case Narrative	4	<sup>4</sup> Cn
Sr: Sample Results	5	<sup>5</sup> Sr
<b>PILGRIM CLEANERS-17 L1694581-01</b>	<b>5</b>	<sup>6</sup> Qc
Qc: Quality Control Summary	7	<sup>7</sup> GI
<b>Volatile Organic Compounds (MS) by Method TO-15</b>	<b>7</b>	<sup>8</sup> AI
Gl: Glossary of Terms	11	
Al: Accreditations & Locations	12	
Sc: Sample Chain of Custody	13	<sup>9</sup> SC

# SAMPLE SUMMARY

PILGRIM CLEANERS-17 L1694581-01 Air		Collected by Ethan Schaefer	Collected date/time 01/08/24 12:37	Received date/time 01/09/24 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time
Volatile Organic Compounds (MS) by Method TO-15	WG2205520	1	01/11/24 16:17	01/11/24 16:17

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc

# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Jennifer A McCurdy  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> SC

## Report Revision History

---

Level II Report - Version 1: 01/15/24 15:42

## Project Narrative

---

revise to include all compounds and correct Sample ID per client's email. 01/15/24 JM

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.95	4.63	7.30	17.3		1	WG2205520
Allyl chloride	107-05-1	76.53	0.380	1.19	ND	ND		1	WG2205520
Benzene	71-43-2	78.10	0.238	0.760	0.385	1.23		1	WG2205520
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG2205520
Bromodichloromethane	75-27-4	164	0.234	1.57	ND	ND		1	WG2205520
Bromoform	75-25-2	253	0.244	2.52	ND	ND		1	WG2205520
Bromomethane	74-83-9	94.90	0.327	1.27	ND	ND		1	WG2205520
1,3-Butadiene	106-99-0	54.10	0.347	0.768	ND	ND		1	WG2205520
Carbon disulfide	75-15-0	76.10	0.340	1.06	ND	ND		1	WG2205520
Carbon tetrachloride	56-23-5	154	0.244	1.54	ND	ND		1	WG2205520
Chlorobenzene	108-90-7	113	0.277	1.28	ND	ND		1	WG2205520
Chloroethane	75-00-3	64.50	0.332	0.876	ND	ND		1	WG2205520
Chloroform	67-66-3	119	0.239	1.16	ND	ND		1	WG2205520
Chloromethane	74-87-3	50.50	0.343	0.708	0.401	0.828		1	WG2205520
2-Chlorotoluene	95-49-8	126	0.276	1.42	ND	ND		1	WG2205520
Cyclohexane	110-82-7	84.20	0.251	0.864	ND	ND		1	WG2205520
Dibromochloromethane	124-48-1	208	0.242	2.06	ND	ND		1	WG2205520
1,2-Dibromoethane	106-93-4	188	0.240	1.85	ND	ND		1	WG2205520
1,2-Dichlorobenzene	95-50-1	147	0.427	2.57	ND	ND		1	WG2205520
1,3-Dichlorobenzene	541-73-1	147	0.607	3.65	ND	ND		1	WG2205520
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG2205520
1,2-Dichloroethane	107-06-2	99	0.233	0.943	ND	ND		1	WG2205520
1,1-Dichloroethane	75-34-3	98	0.241	0.966	ND	ND		1	WG2205520
1,1-Dichloroethene	75-35-4	96.90	0.254	1.01	ND	ND		1	WG2205520
cis-1,2-Dichloroethene	156-59-2	96.90	0.261	1.03	3.09	12.2		1	WG2205520
trans-1,2-Dichloroethene	156-60-5	96.90	0.224	0.888	0.360	1.43		1	WG2205520
1,2-Dichloropropane	78-87-5	113	0.253	1.17	ND	ND		1	WG2205520
cis-1,3-Dichloropropene	10061-01-5	111	0.230	1.04	ND	ND		1	WG2205520
trans-1,3-Dichloropropene	10061-02-6	111	0.243	1.10	ND	ND		1	WG2205520
1,4-Dioxane	123-91-1	88.10	0.278	1.00	ND	ND		1	WG2205520
Ethanol	64-17-5	46.10	0.883	1.66	160	302	E	1	WG2205520
Ethylbenzene	100-41-4	106	0.278	1.21	0.467	2.02		1	WG2205520
4-Ethyltoluene	622-96-8	120	0.261	1.28	ND	ND		1	WG2205520
Trichlorofluoromethane	75-69-4	137.40	0.273	1.53	0.650	3.65		1	WG2205520
Dichlorodifluoromethane	75-71-8	120.92	0.457	2.26	8.53	42.2		1	WG2205520
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.264	2.02	ND	ND		1	WG2205520
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.297	2.08	ND	ND		1	WG2205520
Heptane	142-82-5	100	0.347	1.42	0.358	1.46		1	WG2205520
Hexachloro-1,3-butadiene	87-68-3	261	0.350	3.74	ND	ND		1	WG2205520
n-Hexane	110-54-3	86.20	0.687	2.42	ND	ND		1	WG2205520
Isopropylbenzene	98-82-8	120.20	0.259	1.27	ND	ND		1	WG2205520
Methylene Chloride	75-09-2	84.90	0.326	1.13	1.16	4.03		1	WG2205520
Methyl Butyl Ketone	591-78-6	100	0.443	1.81	ND	ND		1	WG2205520
2-Butanone (MEK)	78-93-3	72.10	0.271	0.799	ND	ND		1	WG2205520
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.255	1.04	ND	ND		1	WG2205520
Methyl methacrylate	80-62-6	100.12	0.292	1.20	ND	ND		1	WG2205520
MTBE	1634-04-4	88.10	0.216	0.778	ND	ND		1	WG2205520
Naphthalene	91-20-3	128	1.17	6.13	ND	ND		1	WG2205520
2-Propanol	67-63-0	60.10	0.880	2.16	19.9	48.9		1	WG2205520
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG2205520
Styrene	100-42-5	104	0.263	1.12	ND	ND		1	WG2205520
1,1,2-Tetrachloroethane	79-34-5	168	0.248	1.70	ND	ND		1	WG2205520
Tetrachloroethylene	127-18-4	166	0.271	1.84	5.34	36.3		1	WG2205520
Tetrahydrofuran	109-99-9	72.10	0.245	0.722	ND	ND		1	WG2205520
Toluene	108-88-3	92.10	0.290	1.09	2.61	9.83		1	WG2205520
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG2205520

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.245	1.33	ND	ND		1	<a href="#">WG2205520</a>
1,1,2-Trichloroethane	79-00-5	133	0.258	1.40	ND	ND		1	<a href="#">WG2205520</a>
Trichloroethylene	79-01-6	131	0.227	1.22	0.320	1.71		1	<a href="#">WG2205520</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.255	1.25	0.365	1.79		1	<a href="#">WG2205520</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.260	1.28	ND	ND		1	<a href="#">WG2205520</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.443	2.07	ND	ND		1	<a href="#">WG2205520</a>
Vinyl chloride	75-01-4	62.50	0.316	0.808	ND	ND		1	<a href="#">WG2205520</a>
Vinyl Bromide	593-60-2	106.95	0.284	1.24	ND	ND		1	<a href="#">WG2205520</a>
Vinyl acetate	108-05-4	86.10	0.387	1.36	ND	ND		1	<a href="#">WG2205520</a>
Xylenes, Total	1330-20-7	106.16	0.450	1.95	1.86	8.08		1	<a href="#">WG2205520</a>
m&p-Xylene	179601-23-1	106	0.450	1.95	1.37	5.94		1	<a href="#">WG2205520</a>
o-Xylene	95-47-6	106	0.276	1.20	0.494	2.14		1	<a href="#">WG2205520</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.8				<a href="#">WG2205520</a>

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

## QUALITY CONTROL SUMMARY

[L1694581-01](#)

## Method Blank (MB)

(MB) R4022247-3 01/11/24 11:03

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	
Acetone	U		0.584	1.95	<sup>1</sup> Cp
Allyl chloride	U		0.114	0.380	<sup>2</sup> Tc
Benzene	U		0.0715	0.238	<sup>3</sup> Ss
Benzyl Chloride	U		0.0598	0.199	<sup>4</sup> Cn
Bromodichloromethane	U		0.0702	0.234	<sup>5</sup> Sr
Bromoform	U		0.0732	0.244	<sup>6</sup> Qc
Bromomethane	U		0.0982	0.327	<sup>7</sup> Gl
1,3-Butadiene	U		0.104	0.347	<sup>8</sup> Al
Carbon disulfide	U		0.102	0.340	<sup>9</sup> Sc
Carbon tetrachloride	U		0.0732	0.244	
Chlorobenzene	U		0.0832	0.277	
Chloroethane	U		0.0996	0.332	
Chloroform	U		0.0717	0.239	
Chloromethane	U		0.103	0.343	
2-Chlorotoluene	U		0.0828	0.276	
Cyclohexane	U		0.0753	0.251	
Dibromochloromethane	U		0.0727	0.242	
1,2-Dibromoethane	U		0.0721	0.240	
1,2-Dichlorobenzene	U		0.128	0.427	
1,3-Dichlorobenzene	U		0.182	0.607	
1,4-Dichlorobenzene	U		0.0557	0.186	
1,2-Dichloroethane	U		0.0700	0.233	
1,1-Dichloroethane	U		0.0723	0.241	
1,1-Dichloroethene	U		0.0762	0.254	
cis-1,2-Dichloroethene	U		0.0784	0.261	
trans-1,2-Dichloroethene	U		0.0673	0.224	
1,2-Dichloropropane	U		0.0760	0.253	
cis-1,3-Dichloropropene	U		0.0689	0.230	
trans-1,3-Dichloropropene	U		0.0728	0.243	
1,4-Dioxane	U		0.0833	0.278	
Ethanol	0.272	<u>J</u>	0.265	0.883	
Ethylbenzene	U		0.0835	0.278	
4-Ethyltoluene	U		0.0783	0.261	
Trichlorofluoromethane	U		0.0819	0.273	
Dichlorodifluoromethane	U		0.137	0.457	
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.264	
1,2-Dichlorotetrafluoroethane	U		0.0890	0.297	
Heptane	U		0.104	0.347	
Hexachloro-1,3-butadiene	U		0.105	0.350	
n-Hexane	U		0.206	0.687	

## QUALITY CONTROL SUMMARY

[L1694581-01](#)

## Method Blank (MB)

(MB) R4022247-3 01/11/24 11:03

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv								
Isopropylbenzene	U		0.0777	0.259								
Methylene Chloride	U		0.0979	0.326								
Methyl Butyl Ketone	U		0.133	0.443								
2-Butanone (MEK)	U		0.0814	0.271								
4-Methyl-2-pentanone (MIBK)	U		0.0765	0.255								
Methyl methacrylate	U		0.0876	0.292								
MTBE	U		0.0647	0.216								
Naphthalene	U		0.350	1.17								
2-Propanol	U		0.264	0.880								
Propene	U		0.0932	0.311								
Styrene	U		0.0788	0.263								
1,1,2,2-Tetrachloroethane	U		0.0743	0.248								
Tetrachloroethylene	U		0.0814	0.271								
Tetrahydrofuran	U		0.0734	0.245								
Toluene	U		0.0870	0.290								
1,2,4-Trichlorobenzene	U		0.148	0.493								
1,1,1-Trichloroethane	U		0.0736	0.245								
1,1,2-Trichloroethane	U		0.0775	0.258								
Trichloroethylene	U		0.0680	0.227								
1,2,4-Trimethylbenzene	U		0.0764	0.255								
1,3,5-Trimethylbenzene	U		0.0779	0.260								
2,2,4-Trimethylpentane	U		0.133	0.443								
Vinyl chloride	U		0.0949	0.316								
Vinyl Bromide	U		0.0852	0.284								
Vinyl acetate	U		0.116	0.387								
Xylenes, Total	U		0.135	0.450								
m&p-Xylene	U		0.135	0.450								
o-Xylene	U		0.0828	0.276								
(S) 1,4-Bromo <sup>1</sup> fluorobenzene	99.4			60.0-140								

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4022247-1 01/11/24 09:29 • (LCSD) R4022247-2 01/11/24 10:18

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits		
Acetone	3.75	3.38	3.50	90.1	93.3	70.0-130			3.49	25		
Allyl chloride	3.75	3.42	3.46	91.2	92.3	70.0-130			1.16	25		
Benzene	3.75	3.75	3.76	100	100	70.0-130			0.266	25		
Benzyl Chloride	3.75	3.61	3.66	96.3	97.6	70.0-152			1.38	25		

## QUALITY CONTROL SUMMARY

L1694581-01

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4022247-1 01/11/24 09:29 • (LCSD) R4022247-2 01/11/24 10:18

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromodichloromethane	3.75	3.68	3.74	98.1	99.7	70.0-130			1.62	25
Bromoform	3.75	3.75	3.78	100	101	70.0-130			0.797	25
Bromomethane	3.75	3.56	3.50	94.9	93.3	70.0-130			1.70	25
1,3-Butadiene	3.75	3.21	3.17	85.6	84.5	70.0-130			1.25	25
Carbon disulfide	3.75	3.54	3.50	94.4	93.3	70.0-130			1.14	25
Carbon tetrachloride	3.75	3.75	3.73	100	99.5	70.0-130			0.535	25
Chlorobenzene	3.75	3.82	3.87	102	103	70.0-130			1.30	25
Chloroethane	3.75	3.32	3.19	88.5	85.1	70.0-130			3.99	25
Chloroform	3.75	3.63	3.66	96.8	97.6	70.0-130			0.823	25
Chloromethane	3.75	3.38	3.37	90.1	89.9	70.0-130			0.296	25
2-Chlorotoluene	3.75	3.64	3.71	97.1	98.9	70.0-130			1.90	25
Cyclohexane	3.75	3.73	3.67	99.5	97.9	70.0-130			1.62	25
Dibromochloromethane	3.75	3.79	3.79	101	101	70.0-130			0.000	25
1,2-Dibromoethane	3.75	3.84	3.89	102	104	70.0-130			1.29	25
1,2-Dichlorobenzene	3.75	3.65	3.72	97.3	99.2	70.0-130			1.90	25
1,3-Dichlorobenzene	3.75	3.72	3.76	99.2	100	70.0-130			1.07	25
1,4-Dichlorobenzene	3.75	3.79	3.79	101	101	70.0-130			0.000	25
1,2-Dichloroethane	3.75	3.64	3.73	97.1	99.5	70.0-130			2.44	25
1,1-Dichloroethane	3.75	3.70	3.71	98.7	98.9	70.0-130			0.270	25
1,1-Dichloroethene	3.75	3.70	3.64	98.7	97.1	70.0-130			1.63	25
cis-1,2-Dichloroethene	3.75	3.53	3.71	94.1	98.9	70.0-130			4.97	25
trans-1,2-Dichloroethene	3.75	3.69	3.64	98.4	97.1	70.0-130			1.36	25
1,2-Dichloropropane	3.75	3.62	3.62	96.5	96.5	70.0-130			0.000	25
cis-1,3-Dichloropropene	3.75	3.76	3.79	100	101	70.0-130			0.795	25
trans-1,3-Dichloropropene	3.75	3.75	3.79	100	101	70.0-130			1.06	25
1,4-Dioxane	3.75	3.62	3.65	96.5	97.3	70.0-140			0.825	25
Ethanol	3.75	3.52	3.30	93.9	88.0	55.0-148			6.45	25
Ethylbenzene	3.75	3.63	3.69	96.8	98.4	70.0-130			1.64	25
4-Ethyltoluene	3.75	3.78	3.76	101	100	70.0-130			0.531	25
Trichlorofluoromethane	3.75	3.71	3.68	98.9	98.1	70.0-130			0.812	25
Dichlorodifluoromethane	3.75	3.75	3.51	100	93.6	64.0-139			6.61	25
1,1,2-Trichlorotrifluoroethane	3.75	3.76	3.70	100	98.7	70.0-130			1.61	25
1,2-Dichlorotetrafluoroethane	3.75	3.91	3.89	104	104	70.0-130			0.513	25
Heptane	3.75	3.41	3.47	90.9	92.5	70.0-130			1.74	25
Hexachloro-1,3-butadiene	3.75	3.69	3.73	98.4	99.5	70.0-151			1.08	25
n-Hexane	3.75	3.40	3.39	90.7	90.4	70.0-130			0.295	25
Isopropylbenzene	3.75	3.74	3.71	99.7	98.9	70.0-130			0.805	25
Methylene Chloride	3.75	3.44	3.50	91.7	93.3	70.0-130			1.73	25
Methyl Butyl Ketone	3.75	3.57	3.56	95.2	94.9	70.0-149			0.281	25
2-Butanone (MEK)	3.75	3.85	3.93	103	105	70.0-130			2.06	25

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr    <sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al    <sup>9</sup>Sc

## QUALITY CONTROL SUMMARY

L1694581-01

## Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4022247-1 01/11/24 09:29 • (LCSD) R4022247-2 01/11/24 10:18

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	3.75	3.57	3.49	95.2	93.1	70.0-139			2.27	25
Methyl methacrylate	3.75	3.64	3.49	97.1	93.1	70.0-130			4.21	25
MTBE	3.75	3.70	3.67	98.7	97.9	70.0-130			0.814	25
Naphthalene	3.75	3.84	3.85	102	103	70.0-159			0.260	25
2-Propanol	3.75	3.25	3.23	86.7	86.1	70.0-139			0.617	25
Propene	3.75	3.28	3.25	87.5	86.7	64.0-144			0.919	25
Styrene	3.75	3.79	3.70	101	98.7	70.0-130			2.40	25
1,1,2,2-Tetrachloroethane	3.75	3.72	3.68	99.2	98.1	70.0-130			1.08	25
Tetrachloroethylene	3.75	3.80	3.83	101	102	70.0-130			0.786	25
Tetrahydrofuran	3.75	3.34	3.33	89.1	88.8	70.0-137			0.300	25
Toluene	3.75	3.69	3.68	98.4	98.1	70.0-130			0.271	25
1,2,4-Trichlorobenzene	3.75	3.79	3.88	101	103	70.0-160			2.35	25
1,1,1-Trichloroethane	3.75	3.74	3.75	99.7	100	70.0-130			0.267	25
1,1,2-Trichloroethane	3.75	3.76	3.75	100	100	70.0-130			0.266	25
Trichloroethylene	3.75	3.74	3.78	99.7	101	70.0-130			1.06	25
1,2,4-Trimethylbenzene	3.75	3.68	3.69	98.1	98.4	70.0-130			0.271	25
1,3,5-Trimethylbenzene	3.75	3.66	3.69	97.6	98.4	70.0-130			0.816	25
2,2,4-Trimethylpentane	3.75	3.52	3.62	93.9	96.5	70.0-130			2.80	25
Vinyl chloride	3.75	3.48	3.43	92.8	91.5	70.0-130			1.45	25
Vinyl Bromide	3.75	3.37	3.38	89.9	90.1	70.0-130			0.296	25
Vinyl acetate	3.75	3.74	3.81	99.7	102	70.0-130			1.85	25
Xylenes, Total	11.3	11.0	11.2	97.3	99.1	70.0-130			1.80	25
m&p-Xylene	7.50	7.41	7.51	98.8	100	70.0-130			1.34	25
o-Xylene	3.75	3.63	3.67	96.8	97.9	70.0-130			1.10	25
(S) 1,4-Bromofluorobenzene				98.4	98.2	60.0-140				

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

**Results Disclaimer -** Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDL	Method Detection Limit.	<sup>1</sup> Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	<sup>2</sup> Tc
RDL	Reported Detection Limit.	<sup>3</sup> Ss
Rec.	Recovery.	<sup>4</sup> Cn
RPD	Relative Percent Difference.	<sup>5</sup> Sr
SDG	Sample Delivery Group.	<sup>6</sup> Qc
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.	<sup>7</sup> GI
U	Not detected at the Reporting Limit (or MDL where applicable).	<sup>8</sup> Al
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	<sup>9</sup> Sc
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.

# ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Pace

Pace® Location Requested (City/State):

Company Name:  
**SCS Engineers - Madison, WI**

Street Address:  
**2830 Dairy Drive  
Madison, WI 53718-6751**

City, State Zip:  
**Madison, WI  
25211372.21**

Customer Project #:  
**Pilgrim Cleaners**

Project Name:  
**Site Collection Info/Facility ID (as applicable):  
SCSENGMWI-PILGRIM**

Time Zone Collected: [ ] AK [ ] PT [ ] MT [X] CT [ ] ET

Data Deliverables:

[ ] Level II [ ] Level III [ ] Level IV

[ ] EQUIS

[ ] Other

### Air CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Contact/Report To: **Rob Langdon**

Phone #: **608-224-2830**

E-Mail: **rlangdon@scsengineers.com**

Cc E-Mail:

Invoice to:

Invoice

E-Mail:

Purchase Order # (if applicable):

Quote #:

State origin of sample(s): **WT**

Regulatory Program (CAA, RCRA, etc.) as applicable:

Rush (Pre-approval required):  
2 Day 3 day 5 day Other \_\_\_\_\_

Permit # as applicable:

Date Results Requested:

Units for Reporting: ug/m³ PPBV mg/m³ PPMV

\* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)

Customer Sample ID	Matrix *	Summa Canister ID	Flow Controller ID	Begin Collection		End Collection		Start Pressure / Vacuum (in Hg)	End Pressure / Vacuum (in Hg)	Duration (minutes)	Flow Rate m³/min or L/min	Total Volume Sampled m³ or L	TO-15 Summa
				Date	Time	Date	Time						
Pilgrim Cleaners - 15	SV	2004422438	11/18/24 12:32	11/18/24 12:37	-28	-4							

Sample Receipt Checklist  
 COC Seal Present/Intact:  N Airs  
 COC Signed/Accurate:  N Size: 1L  
 Bottles arrive intact:  N Tag Color: G W P B 1.4L  
 Correct bottles used:  N Tubing Shunt

T/P#:

Customer Remarks / Special Conditions / Possible Hazards:

Relinquished by/Company: (Signature)

*SCS*

Date/Time:

*11/18/24 16:30*

Relinquished by/Company: (Signature)

Date/Time:

Relinquished by/Company: (Signature)

Date/Time:

Relinquished by/Company: (Signature)

Date/Time:

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at <https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/>

LAB USE ONLY- Affix Workorder/Login Label Here



Scan QR code for instructions

H228

AN 1/2/24

Proj. Manager:  
3828 - Jennifer A McCurdy

AcctNum / Client ID:

SCSENGMWI

Table #:

Profile / Template: T226997

Prelog / Bottle Ord. ID: P1046724

U104581  
Sample Comment

-01

Additional Instructions from Pace®:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C):	Corrected Temp. (°C):
------------	-----------------	-------------------------	------------------	-----------------------

Date/Time: \_\_\_\_\_ Tracking Number: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Delivered by: In-Person Courier

FedEX UPS Other

Page: \_\_\_\_ of \_\_\_\_

Attachment B  
SVE System Air Emissions

**SVE System Air Emissions**  
**Pilgrim Cleaners, Madison, Wisconsin**

Date	Notes	Time on Hour Meter	Velocity <sup>(3)</sup>	Flow Rate	System Vacuum	PCE <sup>(1, 4)</sup>	Total PCE	PCE Rem. over Period <sup>(2)</sup>	PCE Removal Rate	Total PCE Removed	Total VOCs <sup>(4)</sup>	Total VOCs	VOCs Rem. over Period <sup>(5)</sup>	VOC Removal Rate	Total VOCs Removed
		hrs.	FPM	CFM	in. water	µg/m³	lb./ft³	lbs.	lbs./hr.	lbs.	µg/m³	lb./ft³	lbs.	lbs./hr.	lbs.
10/10/22		0.77	1690	85.3	-50	92,300	5.8E-06	-	-	0.0	124,335.0	7.8E-06	-	-	0.00
10/11/22		17.97	1650	83.2	-51	23,300	1.5E-06	0.310	0.0180	0.310	29,919.5	1.9E-06	0.413	0.0240	0.41
10/12/22		33.15	1520	76.7	-51	5,780	3.6E-07	0.063	0.0042	0.373	7,676.9	4.8E-07	0.082	0.0054	0.50
10/18/22		159.25	1550	78.2	-52	1,610	1.0E-07	0.136	0.0011	0.510	2,786.7	1.7E-07	0.193	0.0015	0.69
10/24/22	<sup>(6)</sup>	263.77	1840	92.8	-40	1,020	6.4E-08	0.048	0.0005	0.557	1,703.1	1.1E-07	0.082	0.0008	0.77
11/1/22		391.87	1500	75.7	-53	1,320	8.2E-08	0.042	0.0003	0.600	2,094.1	1.3E-07	0.069	0.0005	0.84
12/9/22		1,214.62	1480	74.7	-51	1,250	7.8E-08	0.296	0.0004	0.896	1,779.3	1.1E-07	0.445	0.0005	1.28
1/5/23		1,822.0	1,580	79.7	-47	258	1.6E-08	0.137	0.0002	1.032	517.23	3.2E-08	0.208	0.0003	1.49
2/3/23		2,494	1,700	85.8	-50	11.7	7.3E-10	0.029	0.0000	1.061	172.80	1.1E-08	0.074	0.0001	1.57
3/3/23		3,101	1,600	80.7	-55	50.6	3.2E-09	0.006	0.0000	1.067	431.69	2.7E-08	0.055	0.0001	1.62
4/3/23	<sup>(7)</sup>	3,687	1,490	75.2	-56	50.6	3.2E-09	0.008	0.0000	1.075	431.69	2.7E-08	0.071	0.0001	1.69
5/5/23		4,277	1,510	76.2	-58	58.8	3.7E-09	0.009	0.0000	1.085	457.13	2.9E-08	0.075	0.0001	1.77
6/5/23		4,800	1,620	81.7	-54	612	3.8E-08	0.054	0.0001	1.138	1,002.12	6.3E-08	0.117	0.0002	1.89
7/5/23		5,280	1,510	76.2	-56	43	2.7E-09	0.045	0.0001	1.183	996.64	6.2E-08	0.137	0.0003	2.02
7/7/23	<sup>(8)</sup>	5,314	1,510	76.2	-56	43	2.7E-09	0.000	0.0000	1.183	996.64	6.2E-08	0.010	0.0003	2.03
10/25/23		5,314	1,230	62.0	-50	2,300	1.4E-07	0.000	0.0000	1.183	2,653.45	1.7E-07	0.000	0.0000	2.03
11/21/23		5,956	1,230	62.0	-54	411	2.6E-08	0.202	0.0003	1.386	803.91	5.0E-08	0.258	0.0004	2.29
1/8/24		7,027	1,197	60.4	-56	36	2.3E-09	0.054	0.0001	1.440	495.26	3.1E-08	0.157	0.0001	2.45

Abbreviations:

SVE = soil vapor extraction

FPM = feet per minute

µg/m³ = micrograms per cubic meter

PCE = tetrachloroethylene

CFM = cubic feet per minute

lbs. = pounds

VOCs = volatile organic compounds

lb./ft³ = pounds per cubic foot

lbs./hr. = pounds per hour

Notes:

(1) PCE concentrations based on summa canister sample results of SVE system exhaust gas. If not detected, reporting or detection limits are used.

(2) PCE removed over period (lbs.) = PCE (lb./ft³) \* Exhaust Flow Rate (CFM) \* Time Between Periods (hrs.) \* 60 (min/hr.).

(3) Velocity measured using hot-wire anemometer.

(4) VOCs concentrations based on summa canister sample results of SVE system exhaust gas. If not detected, reporting or detection limits are used.

(5) VOCs removed over period (lbs.) = VOCs (lb./ft³) \* Exhaust Flow Rate (CFM) \* Time Between Periods (hrs.) \* 60 (min/hr.).

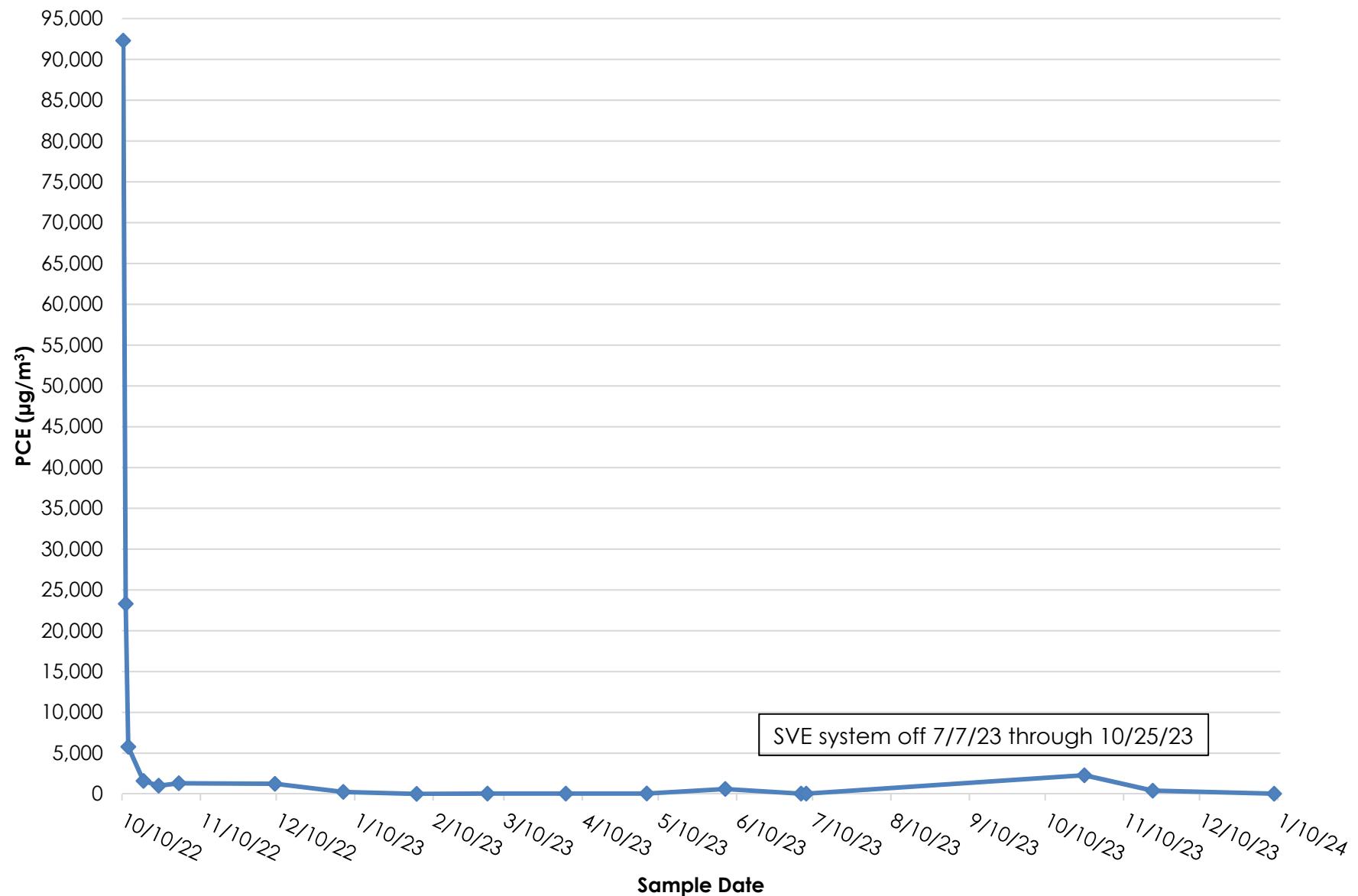
(6) The sample obtained on 10/24/22 was diluted by air intentionally bleed into the SVE system.

(7) 4/3/2023 SVE system exhaust sample was lost by the laboratory. Used 3/3/2023 result.

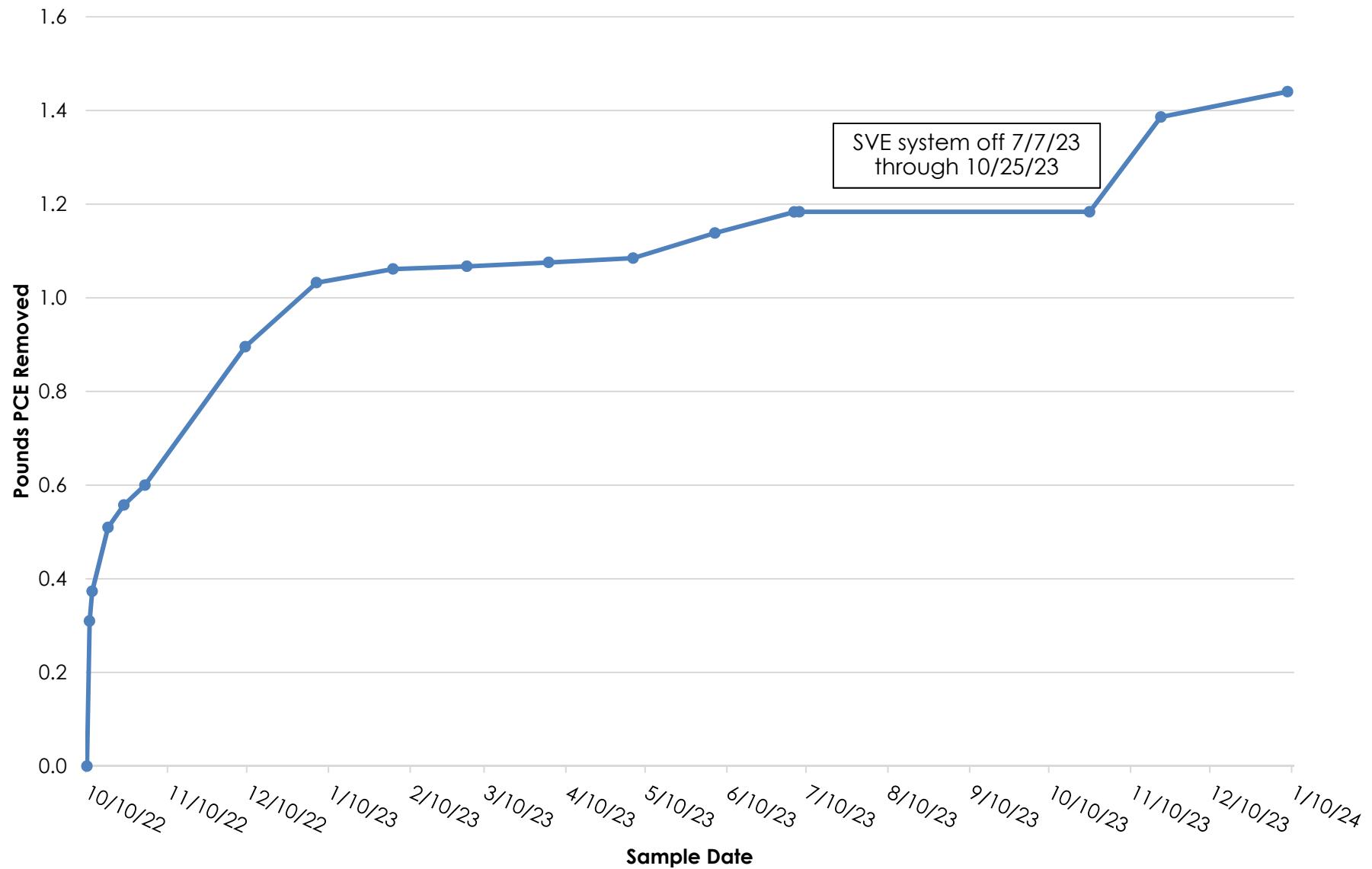
(8) SVE system was turned off from 7/7/2023 to October 25, 2023.

Last revision by: REL Date: 12/1/2024  
 Checked by: MBH Date: 2/1/2024  
 Proj Mgr. QA/QC: REL Date: 2/1/2024

**PCE in SVE System Exhaust  
Pilgrim Cleaners, Madison, Wisconsin**



**Figure 4**  
**Total PCE Removed**  
**Pilgrim Cleaners, Madison, Wisconsin**



**Figure 5**  
**Total VOCs Removed**  
**Pilgrim Cleaners, Madison, Wisconsin**

