State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
Plymouth Service Center
1155 Pilgrim Road
Plymouth WI 53073

Tony Evers, Governor
Preston D. Cole, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

April 1, 2020

Mr. Brian Behrens
Behrens 1106 LLC
1297 Hwy W
Grafton, WI 53024

SUBJECT: Results of 3nd Round Vapor Intrusion Sampling at 1102 Bridge St., Grafton, WI
Related to former Quality Cleaners, 1226 11th Avenue, Grafton, WI
BRRTS #: 02-46-560212, FID #: 246166470

Dear Mr. Behrens:

Included are the findings of a recent investigation on your property by the Wisconsin Department of Natural Resources (DNR). As you are aware, this investigation was conducted because of the potential for contaminant vapors from the nearby former Quality Cleaners property, identified above, to migrate through soils, accumulate beneath the foundation of your property, and possibly enter the indoor air. The contaminants of concern at the former Quality Cleaners property are the dry-cleaning solvent perchloroethylene (PCE), and its daughter product trichloroethylene (TCE). The history of this site and the potential concerns to neighboring residents were described in detail in the original letter sent to you.

On February 6, 2020 the environmental contractor, AECOM, hired by the DNR, collected a 3nd round of samples. The samples were submitted to Pace Analytical for TO-15 analysis, which includes the contaminants of concern listed above.

Your Test Results

Attached is a copy of the laboratory report for your sub-slab sample. The results show that a small amount of PCE was detected in the sample taken from beneath your foundation. Although PCE was detected in soil vapors beneath your foundation floor, the level at which it was detected is such that it does not pose a threat. This is called "a detection below screening level" and is explained in the enclosed fact sheet.

At this time, there does not appear to be a risk from the PCE vapor entering your property from beneath the foundation. Additional sampling needs to be conducted in order to confirm these results. AECOM will contact you soon to schedule another sampling visit.

The laboratory report also shows very low levels of volatile organic compounds (VOCs) other than PCE and TCE in soil vapors from beneath your home/building. This is likely due to trace amounts of VOCs from products such as paints, adhesives, fragrances, etc. that are commonly found in the typical home or office, and unrelated to the activities that took place at Quality Cleaners in the past.

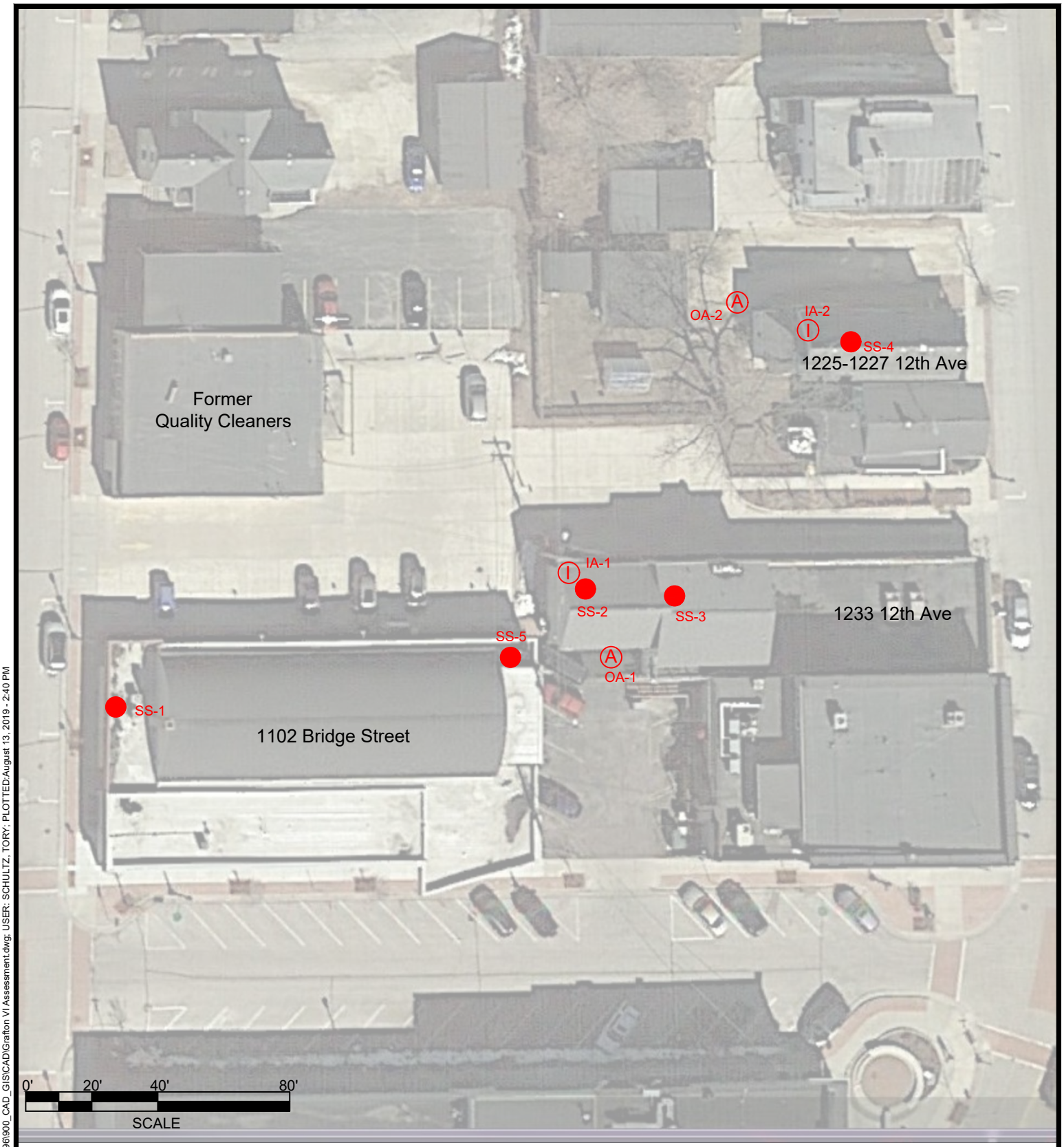
Please call me, the DNR project manager, at your earliest convenience, at 920-893-8523, or via email at johnm.feeney@wisconsin.gov if you have any questions. Please direct health related questions to Mr. Curtis Hedman at the Department of Health and Human Services at 608-266-6677, or email at Curtis.Hedman@wisconsin.gov.

Sincerely,

John Feeney, PG
Hydrogeologist
Remediation & Redevelopment Program

Cc: Mr. Tory Schultz, AECOM
Mr. Curtis Hedman, DHS

Attachments: Email with Tabulated Results
Sample Location Map
Laboratory Analytical Sheets



Legend:

- Sub-slab Vapor Probe and Identification Number
- Indoor Air Sample Location and Identification Number
- Ambient Air Sample Location and Identification Number

Notes:

1. Aerial photograph from Google Earth Pro dated 10/10/2013.

AECOM
Milwaukee Office
1555 RiverCenter Dr
Milwaukee, WI
414.944.6080

GRAFTON VI ASSESSMENT

VAPOR INTRUSION ASSESSMENT
SAMPLE LOCATIONS

Project Number:	Drawn By:	Date:	Figure No. 1
60602996	TAS	2/6/2020	

File: \\usmwk1fs001\prod\Data\Projects\60602996\900_CAD_GIS\CAD\Grafton VI Assessment.dwg, USER: SCHULTZ, TORY, PLOTTED:August 13, 2019 - 2:40 PM

Feeney, John M - DNR

From: Schultz, Tory <Tory.Schultz@aecom.com>
Sent: Thursday, February 20, 2020 4:44 PM
To: Feeney, John M - DNR
Cc: Altenbach, Lanette; Mulcahy, Connor
Subject: Former Quality Cleaners Off-site Vapor Intrusion Assessment (BRRTS #02-46-560212) - Third (partial) Sample Event Results (warming season)
Attachments: Lab.Report_FED2019_1225_1227_12thAve.pdf; Lab.Report_FED2019_1233_12thAve.pdf; Lab.Report_FED2019_1102BridgeSt.pdf; Figure 1 Sample Locations_event3.pdf

Good afternoon John,

Here are the results of AECOM's VI testing in Grafton during February 2020. We received the last of the sample results late yesterday.

On February 5th-6th, 2020, AECOM conducted work associated with the Former Quality Cleaners Off-site Vapor Intrusion Assessment. Five sub-slab vapor pins at off-site locations were sampled (SS-1, SS-2, SS-3, SS-4, and SS-5). One indoor air and one outdoor ambient air sample were collected from 1233 12th Avenue, and one indoor air and one outdoor ambient air sample were collected from 1225-1227 12th Avenue. Samples were collected in laboratory-supplied Summa canisters and were analyzed by method TO-15 by Pace Analytical in Minneapolis, MN. Field sampling was conducted in general accordance with the WDNR vapor intrusion guidance (RR-986) and compared to the most conservative values (Residential Wisc. Admin § NR 700.03(49g)) shown on the WI Vapor Quick Look-Up Table for Indoor Air Vapor Action Levels (VAL) and Vapor Risk Screening Levels (VRSL), dated November 2017. Results from this vapor intrusion sampling event collected during the warming season and previous events are summarized below. Laboratory reports are attached for inclusion into residential notification letters. All ambient, indoor air, and sub-slab vapor samples were reported below VALs and VRSLs, respectively. Figure 1 shows locations of the vapor pins on each property along with the indoor and outdoor ambient air sample collection points.

Sample Methodology

Vapor pins were installed during the initial site visit on July 23, 2019 and November 19, 2019 for SS-5. Indoor and outdoor ambient air samples were initiated on February 5th, 2020. On February 6th, 2020, field staff returned to the properties to collect sub-slab vapor samples and collect the 24-hour ambient outdoor and indoor air samples. Prior to collection of sub-slab vapor samples, leak testing by use of a water dam and shut-in test with a laboratory-supplied Purge Manifold Assembly confirmed each vapor pin was properly installed and the sample train was constructed without leaks.

Table 1 – Summary of Air Sampling Results for PCE (µg/m³)

Assessment Property	Sample ID	July 2019 (Cooling)	November 2019 (Warming)	February 2020 (Warming)
1102 Bridge Street	SS-1	3.9	1.7	1.0 J
	SS-5	Vapor Pin installed at later date	2.8	3.9
1233 12th Avenue	SS-2	1,390	85.4	35.9
	SS-3	169	491	335
	OA-1 (AA-1)	ND	ND	ND
	IA-1 (AI-1)	1.1	2.5	2.5
1225-1227 12th Avenue	SS-4	2.8	Access Denied During this event	0.79 J
	OA-2 (AA-2)	ND		ND
	IA-2 (AI-2)	ND		2.3

Notes:
SS = sub-slab vapor sample collected at a rate of approximately 200mL/minute
OA = Outdoor Ambient air 24-hour sample duration, labeled "AA" during July 2019 sampling event.
IA = indoor air 24-hour sample duration, labeled "AI" during July 2019 sampling event.
Sub-Slab vapor risk screening level 1,400 µg/m^3
ND = Non Detect
J = Estimated concentration at or above the Limit of Detection but below the Limit of Quantitation

Deviations from the Sampling and Analysis Plan

1. In place of a helium shroud to confirm a proper seal of the VP, Pace Analytical supplied a dedicated Purge Manifold Assembly (PMA) for each sample location to perform a shut-in test on the sample train prior to sample collection. Leak testing each sample train was conducted according to Pace Analytical's Assembly of the Purge Manifold Assembly (PMA).

Fourth Sampling Event Schedule

The work plan for this project included three sampling events. Because of the denial of access at 1225-1227 12th Avenue during the November 2019 sampling event and the late vapor pin installation date at SS-5 (1102 Bridge Street), these locations have been sampled twice. A fourth sample event is recommended to allow the third (final) sampling of SS-5 as well as sub-slab, indoor ambient, and outdoor ambient air samples at 1225-1227 12th Avenue. Because SS-5 has been sampled during the warming season (Nov. 2019 and Feb. 2020), it is proposed a fourth sampling event be conducted during the cooling season in late-spring or summer of 2020. The total cost for the proposed fourth sampling event is estimated to be $3,500. Remaining budget under the current contract is $6,800.

Please let us know if you have comments or questions.

Thank you,

Tory Schultz
Senior Project Manager, Environment, Central Region
D +1-414-944-6168
M +1-414-690-8405
tory.schultz@aecom.com

AECOM
1555 N River Center Drive, STE 214
Milwaukee, WI 53212, United States
T +1-414-944-6080
aecom.com

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

February 11, 2020

Lanette Altenbach
AECOM
1555 N RiverCenter Drive
Suite 214
Milwaukee, WI 53212

RE: Project: 60602996 Grafton VI
Pace Project No.: 10507761

Dear Lanette Altenbach:
Enclosed are the analytical results for sample(s) received by the laboratory on February 07, 2020. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Carolynne Trout

Carolynne Trout
carolynne.trout@pacelabs.com
1(612)607-6351
Project Manager

Enclosures

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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: 60602996 Grafton VI
Pace Project No.: 10507761

Pace Analytical Services Minneapolis

A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Massachusetts DWP Certification #: via MN 027-053-137
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Certifcation #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01

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Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: 60602996 Grafton VI
Pace Project No.: 10507761

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10507761001	**SS-1**	Air	02/06/20 11:11	02/07/20 09:45
10507761002	**SS-5**	Air	02/06/20 11:14	02/07/20 09:45

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SAMPLE ANALYTE COUNT

Project: 60602996 Grafton VI
Pace Project No.: 10507761

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10507761001	**SS-1**	TO-15	MJL	61	PASI-M
10507761002	**SS-5**	TO-15	MJL	61	PASI-M

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SUMMARY OF DETECTION

Project: 60602996 Grafton VI
Pace Project No.: 10507761

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
10507761001	**SS-1**					
TO-15	Acetone	15.1	ug/m3	3.9	02/09/20 15:34	
TO-15	Benzene	0.57	ug/m3	0.52	02/09/20 15:34	
TO-15	2-Butanone (MEK)	6.9	ug/m3	4.8	02/09/20 15:34	
TO-15	Dichlorodifluoromethane	3.2	ug/m3	1.6	02/09/20 15:34	
TO-15	Ethanol	38.0	ug/m3	3.1	02/09/20 15:34	
TO-15	Ethyl acetate	2.8	ug/m3	1.2	02/09/20 15:34	
TO-15	Ethylbenzene	1.1J	ug/m3	1.4	02/09/20 15:34	
TO-15	n-Hexane	0.87J	ug/m3	1.2	02/09/20 15:34	
TO-15	2-Propanol	41.4	ug/m3	4.0	02/09/20 15:34	
TO-15	Propylene	0.73	ug/m3	0.56	02/09/20 15:34	
TO-15	Tetrachloroethene	1.0J	ug/m3	1.1	02/09/20 15:34	
TO-15	Toluene	3.3	ug/m3	1.2	02/09/20 15:34	
TO-15	Trichlorofluoromethane	1.7J	ug/m3	1.8	02/09/20 15:34	
TO-15	1,2,4-Trimethylbenzene	1.3J	ug/m3	1.6	02/09/20 15:34	
TO-15	1,3,5-Trimethylbenzene	0.94J	ug/m3	1.6	02/09/20 15:34	
TO-15	m&p-Xylene	4.7	ug/m3	2.8	02/09/20 15:34	
TO-15	o-Xylene	1.6	ug/m3	1.4	02/09/20 15:34	
10507761002	**SS-5**					
TO-15	Acetone	9.6	ug/m3	3.6	02/09/20 16:02	
TO-15	Benzene	0.73	ug/m3	0.48	02/09/20 16:02	
TO-15	2-Butanone (MEK)	4.5	ug/m3	4.5	02/09/20 16:02	
TO-15	Carbon disulfide	1.8	ug/m3	0.94	02/09/20 16:02	
TO-15	Chloromethane	0.45J	ug/m3	0.63	02/09/20 16:02	
TO-15	Cyclohexane	0.67J	ug/m3	2.6	02/09/20 16:02	
TO-15	Dichlorodifluoromethane	3.0	ug/m3	1.5	02/09/20 16:02	
TO-15	Ethanol	43.9	ug/m3	2.9	02/09/20 16:02	
TO-15	Ethyl acetate	2.8	ug/m3	1.1	02/09/20 16:02	
TO-15	Ethylbenzene	1.5	ug/m3	1.3	02/09/20 16:02	
TO-15	n-Heptane	0.80J	ug/m3	1.2	02/09/20 16:02	
TO-15	2-Propanol	3.2J	ug/m3	3.7	02/09/20 16:02	
TO-15	Tetrachloroethene	3.9	ug/m3	1.0	02/09/20 16:02	
TO-15	Toluene	4.7	ug/m3	1.1	02/09/20 16:02	
TO-15	Trichlorofluoromethane	1.6J	ug/m3	1.7	02/09/20 16:02	
TO-15	1,2,4-Trimethylbenzene	2.3	ug/m3	1.5	02/09/20 16:02	
TO-15	1,3,5-Trimethylbenzene	1.3J	ug/m3	1.5	02/09/20 16:02	
TO-15	m&p-Xylene	5.8	ug/m3	2.6	02/09/20 16:02	
TO-15	o-Xylene	2.0	ug/m3	1.3	02/09/20 16:02	

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ANALYTICAL RESULTS

Project: 60602996 Grafton VI
Pace Project No.: 10507761

Sample: SS-1 **Lab ID: 10507761001** Collected: 02/06/20 11:11 Received: 02/07/20 09:45 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Acetone	**15.1**	ug/m3	3.9	1.9	1.61		02/09/20 15:34	67-64-1	
Benzene	**0.57**	ug/m3	0.52	0.25	1.61		02/09/20 15:34	71-43-2	
Benzyl chloride	**<1.9**	ug/m3	4.2	1.9	1.61		02/09/20 15:34	100-44-7	
Bromodichloromethane	**<0.59**	ug/m3	2.2	0.59	1.61		02/09/20 15:34	75-27-4	
Bromoform	**<2.3**	ug/m3	8.5	2.3	1.61		02/09/20 15:34	75-25-2	
Bromomethane	**<0.37**	ug/m3	1.3	0.37	1.61		02/09/20 15:34	74-83-9	
1,3-Butadiene	**<0.21**	ug/m3	0.72	0.21	1.61		02/09/20 15:34	106-99-0	
2-Butanone (MEK)	**6.9**	ug/m3	4.8	0.59	1.61		02/09/20 15:34	78-93-3	
Carbon disulfide	**<0.35**	ug/m3	1.0	0.35	1.61		02/09/20 15:34	75-15-0	
Carbon tetrachloride	**<0.69**	ug/m3	2.1	0.69	1.61		02/09/20 15:34	56-23-5	
Chlorobenzene	**<0.44**	ug/m3	1.5	0.44	1.61		02/09/20 15:34	108-90-7	
Chloroethane	**<0.42**	ug/m3	0.86	0.42	1.61		02/09/20 15:34	75-00-3	
Chloroform	**<0.32**	ug/m3	0.80	0.32	1.61		02/09/20 15:34	67-66-3	
Chloromethane	**<0.25**	ug/m3	0.68	0.25	1.61		02/09/20 15:34	74-87-3	
Cyclohexane	**<0.57**	ug/m3	2.8	0.57	1.61		02/09/20 15:34	110-82-7	
Dibromochloromethane	**<1.2**	ug/m3	2.8	1.2	1.61		02/09/20 15:34	124-48-1	
1,2-Dibromoethane (EDB)	**<0.59**	ug/m3	1.3	0.59	1.61		02/09/20 15:34	106-93-4	
1,2-Dichlorobenzene	**<0.80**	ug/m3	2.0	0.80	1.61		02/09/20 15:34	95-50-1	
1,3-Dichlorobenzene	**<0.94**	ug/m3	2.0	0.94	1.61		02/09/20 15:34	541-73-1	
1,4-Dichlorobenzene	**<1.6**	ug/m3	4.9	1.6	1.61		02/09/20 15:34	106-46-7	
Dichlorodifluoromethane	**3.2**	ug/m3	1.6	0.47	1.61		02/09/20 15:34	75-71-8	
1,1-Dichloroethane	**<0.36**	ug/m3	1.3	0.36	1.61		02/09/20 15:34	75-34-3	
1,2-Dichloroethane	**<0.24**	ug/m3	0.66	0.24	1.61		02/09/20 15:34	107-06-2	
1,1-Dichloroethene	**<0.44**	ug/m3	1.3	0.44	1.61		02/09/20 15:34	75-35-4	
cis-1,2-Dichloroethene	**<0.35**	ug/m3	1.3	0.35	1.61		02/09/20 15:34	156-59-2	
trans-1,2-Dichloroethene	**<0.46**	ug/m3	1.3	0.46	1.61		02/09/20 15:34	156-60-5	
1,2-Dichloropropane	**<0.37**	ug/m3	1.5	0.37	1.61		02/09/20 15:34	78-87-5	
cis-1,3-Dichloropropene	**<0.49**	ug/m3	1.5	0.49	1.61		02/09/20 15:34	10061-01-5	
trans-1,3-Dichloropropene	**<0.71**	ug/m3	1.5	0.71	1.61		02/09/20 15:34	10061-02-6	
Dichlorotetrafluoroethane	**<0.70**	ug/m3	2.3	0.70	1.61		02/09/20 15:34	76-14-2	
Ethanol	**38.0**	ug/m3	3.1	1.3	1.61		02/09/20 15:34	64-17-5	
Ethyl acetate	**2.8**	ug/m3	1.2	0.31	1.61		02/09/20 15:34	141-78-6	
Ethylbenzene	**1.1J**	ug/m3	1.4	0.49	1.61		02/09/20 15:34	100-41-4	
4-Ethyltoluene	**<0.92**	ug/m3	4.0	0.92	1.61		02/09/20 15:34	622-96-8	
n-Heptane	**<0.61**	ug/m3	1.3	0.61	1.61		02/09/20 15:34	142-82-5	
Hexachloro-1,3-butadiene	**<3.2**	ug/m3	8.7	3.2	1.61		02/09/20 15:34	87-68-3	
n-Hexane	**0.87J**	ug/m3	1.2	0.50	1.61		02/09/20 15:34	110-54-3	
2-Hexanone	**<1.2**	ug/m3	6.7	1.2	1.61		02/09/20 15:34	591-78-6	
Methylene Chloride	**<1.9**	ug/m3	5.7	1.9	1.61		02/09/20 15:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.83**	ug/m3	6.7	0.83	1.61		02/09/20 15:34	108-10-1	
Methyl-tert-butyl ether	**<1.1**	ug/m3	5.9	1.1	1.61		02/09/20 15:34	1634-04-4	
Naphthalene	**<2.1**	ug/m3	4.3	2.1	1.61		02/09/20 15:34	91-20-3	
2-Propanol	**41.4**	ug/m3	4.0	1.1	1.61		02/09/20 15:34	67-63-0	
Propylene	**0.73**	ug/m3	0.56	0.23	1.61		02/09/20 15:34	115-07-1	
Styrene	**<0.55**	ug/m3	1.4	0.55	1.61		02/09/20 15:34	100-42-5	
1,1,2,2-Tetrachloroethane	**<0.50**	ug/m3	1.1	0.50	1.61		02/09/20 15:34	79-34-5	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 60602996 Grafton VI
Pace Project No.: 10507761

Sample: SS-1 **Lab ID: 10507761001** Collected: 02/06/20 11:11 Received: 02/07/20 09:45 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Tetrachloroethene	**1.0J**	ug/m3	1.1	0.51	1.61		02/09/20 15:34	127-18-4	
Tetrahydrofuran	**<0.42**	ug/m3	0.97	0.42	1.61		02/09/20 15:34	109-99-9	
Toluene	**3.3**	ug/m3	1.2	0.57	1.61		02/09/20 15:34	108-88-3	
1,2,4-Trichlorobenzene	**<6.0**	ug/m3	12.1	6.0	1.61		02/09/20 15:34	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/m3	1.8	0.50	1.61		02/09/20 15:34	71-55-6	
1,1,2-Trichloroethane	**<0.39**	ug/m3	0.89	0.39	1.61		02/09/20 15:34	79-00-5	
Trichloroethene	**<0.41**	ug/m3	0.88	0.41	1.61		02/09/20 15:34	79-01-6	
Trichlorofluoromethane	**1.7J**	ug/m3	1.8	0.59	1.61		02/09/20 15:34	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<0.91**	ug/m3	2.5	0.91	1.61		02/09/20 15:34	76-13-1	
1,2,4-Trimethylbenzene	**1.3J**	ug/m3	1.6	0.73	1.61		02/09/20 15:34	95-63-6	
1,3,5-Trimethylbenzene	**0.94J**	ug/m3	1.6	0.64	1.61		02/09/20 15:34	108-67-8	
Vinyl acetate	**<0.43**	ug/m3	1.2	0.43	1.61		02/09/20 15:34	108-05-4	
Vinyl chloride	**<0.20**	ug/m3	0.42	0.20	1.61		02/09/20 15:34	75-01-4	
m&p-Xylene	**4.7**	ug/m3	2.8	1.1	1.61		02/09/20 15:34	179601-23-1	
o-Xylene	**1.6**	ug/m3	1.4	0.55	1.61		02/09/20 15:34	95-47-6	

Sample: SS-5 **Lab ID: 10507761002** Collected: 02/06/20 11:14 Received: 02/07/20 09:45 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
Acetone	**9.6**	ug/m3	3.6	1.8	1.49		02/09/20 16:02	67-64-1	
Benzene	**0.73**	ug/m3	0.48	0.23	1.49		02/09/20 16:02	71-43-2	
Benzyl chloride	**<1.8**	ug/m3	3.9	1.8	1.49		02/09/20 16:02	100-44-7	
Bromodichloromethane	**<0.55**	ug/m3	2.0	0.55	1.49		02/09/20 16:02	75-27-4	
Bromoform	**<2.1**	ug/m3	7.8	2.1	1.49		02/09/20 16:02	75-25-2	
Bromomethane	**<0.34**	ug/m3	1.2	0.34	1.49		02/09/20 16:02	74-83-9	
1,3-Butadiene	**<0.19**	ug/m3	0.67	0.19	1.49		02/09/20 16:02	106-99-0	
2-Butanone (MEK)	**4.5**	ug/m3	4.5	0.55	1.49		02/09/20 16:02	78-93-3	
Carbon disulfide	**1.8**	ug/m3	0.94	0.33	1.49		02/09/20 16:02	75-15-0	
Carbon tetrachloride	**<0.64**	ug/m3	1.9	0.64	1.49		02/09/20 16:02	56-23-5	
Chlorobenzene	**<0.41**	ug/m3	1.4	0.41	1.49		02/09/20 16:02	108-90-7	
Chloroethane	**<0.39**	ug/m3	0.80	0.39	1.49		02/09/20 16:02	75-00-3	
Chloroform	**<0.29**	ug/m3	0.74	0.29	1.49		02/09/20 16:02	67-66-3	
Chloromethane	**0.45J**	ug/m3	0.63	0.23	1.49		02/09/20 16:02	74-87-3	
Cyclohexane	**0.67J**	ug/m3	2.6	0.53	1.49		02/09/20 16:02	110-82-7	
Dibromochloromethane	**<1.1**	ug/m3	2.6	1.1	1.49		02/09/20 16:02	124-48-1	
1,2-Dibromoethane (EDB)	**<0.55**	ug/m3	1.2	0.55	1.49		02/09/20 16:02	106-93-4	
1,2-Dichlorobenzene	**<0.74**	ug/m3	1.8	0.74	1.49		02/09/20 16:02	95-50-1	
1,3-Dichlorobenzene	**<0.87**	ug/m3	1.8	0.87	1.49		02/09/20 16:02	541-73-1	
1,4-Dichlorobenzene	**<1.5**	ug/m3	4.6	1.5	1.49		02/09/20 16:02	106-46-7	
Dichlorodifluoromethane	**3.0**	ug/m3	1.5	0.44	1.49		02/09/20 16:02	75-71-8	
1,1-Dichloroethane	**<0.34**	ug/m3	1.2	0.34	1.49		02/09/20 16:02	75-34-3	
1,2-Dichloroethane	**<0.22**	ug/m3	0.61	0.22	1.49		02/09/20 16:02	107-06-2	

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ANALYTICAL RESULTS

Project: 60602996 Grafton VI
Pace Project No.: 10507761

Sample: SS-5 **Lab ID: 10507761002** Collected: 02/06/20 11:14 Received: 02/07/20 09:45 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15								
1,1-Dichloroethene	**<0.41**	ug/m3	1.2	0.41	1.49		02/09/20 16:02	75-35-4	
cis-1,2-Dichloroethene	**<0.33**	ug/m3	1.2	0.33	1.49		02/09/20 16:02	156-59-2	
trans-1,2-Dichloroethene	**<0.42**	ug/m3	1.2	0.42	1.49		02/09/20 16:02	156-60-5	
1,2-Dichloropropane	**<0.34**	ug/m3	1.4	0.34	1.49		02/09/20 16:02	78-87-5	
cis-1,3-Dichloropropene	**<0.45**	ug/m3	1.4	0.45	1.49		02/09/20 16:02	10061-01-5	
trans-1,3-Dichloropropene	**<0.66**	ug/m3	1.4	0.66	1.49		02/09/20 16:02	10061-02-6	
Dichlorotetrafluoroethane	**<0.65**	ug/m3	2.1	0.65	1.49		02/09/20 16:02	76-14-2	
Ethanol	**43.9**	ug/m3	2.9	1.2	1.49		02/09/20 16:02	64-17-5	
Ethyl acetate	**2.8**	ug/m3	1.1	0.28	1.49		02/09/20 16:02	141-78-6	
Ethylbenzene	**1.5**	ug/m3	1.3	0.45	1.49		02/09/20 16:02	100-41-4	
4-Ethyltoluene	**<0.85**	ug/m3	3.7	0.85	1.49		02/09/20 16:02	622-96-8	
n-Heptane	**0.80J**	ug/m3	1.2	0.57	1.49		02/09/20 16:02	142-82-5	
Hexachloro-1,3-butadiene	**<2.9**	ug/m3	8.1	2.9	1.49		02/09/20 16:02	87-68-3	
n-Hexane	**<0.46**	ug/m3	1.1	0.46	1.49		02/09/20 16:02	110-54-3	
2-Hexanone	**<1.1**	ug/m3	6.2	1.1	1.49		02/09/20 16:02	591-78-6	
Methylene Chloride	**<1.8**	ug/m3	5.3	1.8	1.49		02/09/20 16:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.77**	ug/m3	6.2	0.77	1.49		02/09/20 16:02	108-10-1	
Methyl-tert-butyl ether	**<0.99**	ug/m3	5.5	0.99	1.49		02/09/20 16:02	1634-04-4	
Naphthalene	**<2.0**	ug/m3	4.0	2.0	1.49		02/09/20 16:02	91-20-3	
2-Propanol	**3.2J**	ug/m3	3.7	1.0	1.49		02/09/20 16:02	67-63-0	
Propylene	**<0.21**	ug/m3	0.52	0.21	1.49		02/09/20 16:02	115-07-1	
Styrene	**<0.51**	ug/m3	1.3	0.51	1.49		02/09/20 16:02	100-42-5	
1,1,2,2-Tetrachloroethane	**<0.46**	ug/m3	1.0	0.46	1.49		02/09/20 16:02	79-34-5	
Tetrachloroethene	**3.9**	ug/m3	1.0	0.47	1.49		02/09/20 16:02	127-18-4	
Tetrahydrofuran	**<0.39**	ug/m3	0.89	0.39	1.49		02/09/20 16:02	109-99-9	
Toluene	**4.7**	ug/m3	1.1	0.52	1.49		02/09/20 16:02	108-88-3	
1,2,4-Trichlorobenzene	**<5.5**	ug/m3	11.2	5.5	1.49		02/09/20 16:02	120-82-1	
1,1,1-Trichloroethane	**<0.46**	ug/m3	1.7	0.46	1.49		02/09/20 16:02	71-55-6	
1,1,2-Trichloroethane	**<0.36**	ug/m3	0.83	0.36	1.49		02/09/20 16:02	79-00-5	
Trichloroethene	**<0.38**	ug/m3	0.81	0.38	1.49		02/09/20 16:02	79-01-6	
Trichlorofluoromethane	**1.6J**	ug/m3	1.7	0.55	1.49		02/09/20 16:02	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<0.84**	ug/m3	2.3	0.84	1.49		02/09/20 16:02	76-13-1	
1,2,4-Trimethylbenzene	**2.3**	ug/m3	1.5	0.67	1.49		02/09/20 16:02	95-63-6	
1,3,5-Trimethylbenzene	**1.3J**	ug/m3	1.5	0.59	1.49		02/09/20 16:02	108-67-8	
Vinyl acetate	**<0.40**	ug/m3	1.1	0.40	1.49		02/09/20 16:02	108-05-4	
Vinyl chloride	**<0.19**	ug/m3	0.39	0.19	1.49		02/09/20 16:02	75-01-4	
m&p-Xylene	**5.8**	ug/m3	2.6	1.0	1.49		02/09/20 16:02	179601-23-1	
o-Xylene	**2.0**	ug/m3	1.3	0.51	1.49		02/09/20 16:02	95-47-6	

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QUALITY CONTROL DATA

Project: 60602996 Grafton VI
Pace Project No.: 10507761

QC Batch: 659083 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10507761001, 10507761002

METHOD BLANK: 3537594 Matrix: Air
Associated Lab Samples: 10507761001, 10507761002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	<0.15	0.56	02/09/20 11:16	
1,1,2,2-Tetrachloroethane	ug/m3	<0.15	0.35	02/09/20 11:16	
1,1,2-Trichloroethane	ug/m3	<0.12	0.28	02/09/20 11:16	
1,1,2-Trichlorotrifluoroethane	ug/m3	<0.28	0.78	02/09/20 11:16	
1,1-Dichloroethane	ug/m3	<0.11	0.41	02/09/20 11:16	
1,1-Dichloroethene	ug/m3	<0.14	0.40	02/09/20 11:16	
1,2,4-Trichlorobenzene	ug/m3	<1.9	3.8	02/09/20 11:16	
1,2,4-Trimethylbenzene	ug/m3	<0.23	0.50	02/09/20 11:16	
1,2-Dibromoethane (EDB)	ug/m3	<0.18	0.39	02/09/20 11:16	
1,2-Dichlorobenzene	ug/m3	<0.25	0.61	02/09/20 11:16	
1,2-Dichloroethane	ug/m3	<0.075	0.21	02/09/20 11:16	
1,2-Dichloropropane	ug/m3	<0.12	0.47	02/09/20 11:16	
1,3,5-Trimethylbenzene	ug/m3	<0.20	0.50	02/09/20 11:16	
1,3-Butadiene	ug/m3	<0.064	0.22	02/09/20 11:16	
1,3-Dichlorobenzene	ug/m3	<0.29	0.61	02/09/20 11:16	
1,4-Dichlorobenzene	ug/m3	<0.50	1.5	02/09/20 11:16	
2-Butanone (MEK)	ug/m3	<0.18	1.5	02/09/20 11:16	
2-Hexanone	ug/m3	<0.37	2.1	02/09/20 11:16	
2-Propanol	ug/m3	<0.35	1.2	02/09/20 11:16	
4-Ethyltoluene	ug/m3	<0.28	1.2	02/09/20 11:16	
4-Methyl-2-pentanone (MIBK)	ug/m3	<0.26	2.1	02/09/20 11:16	
Acetone	ug/m3	<0.60	1.2	02/09/20 11:16	
Benzene	ug/m3	<0.076	0.16	02/09/20 11:16	
Benzyl chloride	ug/m3	<0.60	1.3	02/09/20 11:16	
Bromodichloromethane	ug/m3	<0.18	0.68	02/09/20 11:16	
Bromoform	ug/m3	<0.71	2.6	02/09/20 11:16	
Bromomethane	ug/m3	<0.11	0.39	02/09/20 11:16	
Carbon disulfide	ug/m3	<0.11	0.32	02/09/20 11:16	
Carbon tetrachloride	ug/m3	<0.21	0.64	02/09/20 11:16	
Chlorobenzene	ug/m3	<0.14	0.47	02/09/20 11:16	
Chloroethane	ug/m3	<0.13	0.27	02/09/20 11:16	
Chloroform	ug/m3	<0.098	0.25	02/09/20 11:16	
Chloromethane	ug/m3	<0.078	0.21	02/09/20 11:16	
cis-1,2-Dichloroethene	ug/m3	<0.11	0.40	02/09/20 11:16	
cis-1,3-Dichloropropene	ug/m3	<0.15	0.46	02/09/20 11:16	
Cyclohexane	ug/m3	<0.18	0.88	02/09/20 11:16	
Dibromochloromethane	ug/m3	<0.36	0.86	02/09/20 11:16	
Dichlorodifluoromethane	ug/m3	<0.15	0.50	02/09/20 11:16	
Dichlorotetrafluoroethane	ug/m3	<0.22	0.71	02/09/20 11:16	
Ethanol	ug/m3	<0.41	0.96	02/09/20 11:16	
Ethyl acetate	ug/m3	<0.095	0.37	02/09/20 11:16	

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QUALITY CONTROL DATA

Project: 60602996 Grafton VI
Pace Project No.: 10507761

METHOD BLANK: 3537594 Matrix: Air
Associated Lab Samples: 10507761001, 10507761002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/m3	<0.15	0.44	02/09/20 11:16	
Hexachloro-1,3-butadiene	ug/m3	<0.98	2.7	02/09/20 11:16	
m&p-Xylene	ug/m3	<0.35	0.88	02/09/20 11:16	
Methyl-tert-butyl ether	ug/m3	<0.33	1.8	02/09/20 11:16	
Methylene Chloride	ug/m3	<0.60	1.8	02/09/20 11:16	
n-Heptane	ug/m3	<0.19	0.42	02/09/20 11:16	
n-Hexane	ug/m3	<0.16	0.36	02/09/20 11:16	
Naphthalene	ug/m3	<0.66	1.3	02/09/20 11:16	
o-Xylene	ug/m3	<0.17	0.44	02/09/20 11:16	
Propylene	ug/m3	<0.070	0.18	02/09/20 11:16	
Styrene	ug/m3	<0.17	0.43	02/09/20 11:16	
Tetrachloroethene	ug/m3	<0.16	0.34	02/09/20 11:16	
Tetrahydrofuran	ug/m3	<0.13	0.30	02/09/20 11:16	
Toluene	ug/m3	<0.18	0.38	02/09/20 11:16	
trans-1,2-Dichloroethene	ug/m3	<0.14	0.40	02/09/20 11:16	
trans-1,3-Dichloropropene	ug/m3	<0.22	0.46	02/09/20 11:16	
Trichloroethene	ug/m3	<0.13	0.27	02/09/20 11:16	
Trichlorofluoromethane	ug/m3	<0.18	0.57	02/09/20 11:16	
Vinyl acetate	ug/m3	<0.14	0.36	02/09/20 11:16	
Vinyl chloride	ug/m3	<0.063	0.13	02/09/20 11:16	

LABORATORY CONTROL SAMPLE: 3537595

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	57	61.5	108	70-130	
1,1,2,2-Tetrachloroethane	ug/m3	71.9	73.1	102	70-132	
1,1,2-Trichloroethane	ug/m3	57.3	62.5	109	70-133	
1,1,2-Trichlorotrifluoroethane	ug/m3	80.3	86.1	107	70-130	
1,1-Dichloroethane	ug/m3	42.7	46.4	109	70-130	
1,1-Dichloroethene	ug/m3	41.4	45.9	111	69-137	
1,2,4-Trichlorobenzene	ug/m3	156	135	87	70-130	
1,2,4-Trimethylbenzene	ug/m3	51.5	56.8	110	70-137	
1,2-Dibromoethane (EDB)	ug/m3	80.3	88.1	110	70-138	
1,2-Dichlorobenzene	ug/m3	63.1	70.8	112	70-136	
1,2-Dichloroethane	ug/m3	42.4	45.9	108	70-130	
1,2-Dichloropropane	ug/m3	48.6	51.0	105	70-132	
1,3,5-Trimethylbenzene	ug/m3	51.6	63.9	124	70-136	
1,3-Butadiene	ug/m3	23.3	24.3	104	67-139	
1,3-Dichlorobenzene	ug/m3	63.4	73.1	115	70-138	
1,4-Dichlorobenzene	ug/m3	63.4	74.6	118	70-145	
2-Butanone (MEK)	ug/m3	31.4	31.5	100	61-130	
2-Hexanone	ug/m3	42.8	46.6	109	70-138	
2-Propanol	ug/m3	119	134	113	70-136	
4-Ethyltoluene	ug/m3	52.4	65.4	125	70-142	

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QUALITY CONTROL DATA

Project: 60602996 Grafton VI
Pace Project No.: 10507761

LABORATORY CONTROL SAMPLE: 3537595

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Methyl-2-pentanone (MIBK)	ug/m3	43.6	51.0	117	70-134	
Acetone	ug/m3	126	121	96	59-137	
Benzene	ug/m3	33.5	33.2	99	70-133	
Benzyl chloride	ug/m3	55.1	62.4	113	70-139	
Bromodichloromethane	ug/m3	71.5	81.6	114	70-130	
Bromoform	ug/m3	110	125	114	60-140	
Bromomethane	ug/m3	41.3	41.6	101	70-131	
Carbon disulfide	ug/m3	33.3	34.0	102	70-130	
Carbon tetrachloride	ug/m3	66.2	79.1	119	70-133	
Chlorobenzene	ug/m3	48.3	52.0	108	70-131	
Chloroethane	ug/m3	28.1	29.4	105	70-141	
Chloroform	ug/m3	51.1	52.9	104	70-130	
Chloromethane	ug/m3	21.9	22.5	103	64-137	
cis-1,2-Dichloroethene	ug/m3	41.6	44.7	107	70-132	
cis-1,3-Dichloropropene	ug/m3	47.7	55.3	116	70-138	
Cyclohexane	ug/m3	36.7	39.9	109	70-133	
Dibromochloromethane	ug/m3	90.7	101	111	70-139	
Dichlorodifluoromethane	ug/m3	51.6	55.8	108	70-130	
Dichlorotetrafluoroethane	ug/m3	72.7	78.5	108	65-133	
Ethanol	ug/m3	103	99.8	97	65-135	
Ethyl acetate	ug/m3	38.6	40.9	106	70-135	
Ethylbenzene	ug/m3	45.6	50.2	110	70-142	
Hexachloro-1,3-butadiene	ug/m3	112	129	116	70-134	
m&p-Xylene	ug/m3	91.2	106	116	70-141	
Methyl-tert-butyl ether	ug/m3	38.4	40.7	106	70-131	
Methylene Chloride	ug/m3	182	181	100	69-130	
n-Heptane	ug/m3	43.6	44.6	102	70-130	
n-Hexane	ug/m3	37.6	38.2	102	70-131	
Naphthalene	ug/m3	57.7	40.8	71	63-130	
o-Xylene	ug/m3	45.5	52.9	116	70-135	
Propylene	ug/m3	18.2	16.6	91	63-139	
Styrene	ug/m3	44.9	49.2	110	70-143	
Tetrachloroethene	ug/m3	71	77.3	109	70-136	
Tetrahydrofuran	ug/m3	31.5	33.7	107	70-137	
Toluene	ug/m3	39.5	43.1	109	70-136	
trans-1,2-Dichloroethene	ug/m3	42.2	42.8	101	70-132	
trans-1,3-Dichloropropene	ug/m3	47.7	55.0	115	70-139	
Trichloroethene	ug/m3	56.3	62.5	111	70-132	
Trichlorofluoromethane	ug/m3	59.7	67.9	114	65-136	
Vinyl acetate	ug/m3	34.5	37.6	109	66-140	
Vinyl chloride	ug/m3	26.7	26.4	99	68-141	

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 60602996 Grafton VI
Pace Project No.: 10507761

SAMPLE DUPLICATE: 3537741

Parameter	Units	10507760001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	<0.43	<0.43		25	
1,1,2,2-Tetrachloroethane	ug/m3	<0.43	<0.43		25	
1,1,2-Trichloroethane	ug/m3	<0.34	<0.34		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	<0.78	<0.78		25	
1,1-Dichloroethane	ug/m3	<0.31	<0.31		25	
1,1-Dichloroethene	ug/m3	<0.38	<0.38		25	
1,2,4-Trichlorobenzene	ug/m3	<5.2	<5.2		25	
1,2,4-Trimethylbenzene	ug/m3	<0.63	<0.63		25	
1,2-Dibromoethane (EDB)	ug/m3	<0.51	<0.51		25	
1,2-Dichlorobenzene	ug/m3	<0.69	<0.69		25	
1,2-Dichloroethane	ug/m3	<0.21	<0.21		25	
1,2-Dichloropropane	ug/m3	<0.32	<0.32		25	
1,3,5-Trimethylbenzene	ug/m3	<0.55	<0.55		25	
1,3-Butadiene	ug/m3	<0.18	<0.18		25	
1,3-Dichlorobenzene	ug/m3	<0.81	<0.81		25	
1,4-Dichlorobenzene	ug/m3	<1.4	<1.4		25	
2-Butanone (MEK)	ug/m3	<0.51	<0.51		25	
2-Hexanone	ug/m3	<1.0	<1.0		25	
2-Propanol	ug/m3	2.4J	2.2J		25	
4-Ethyltoluene	ug/m3	<0.79	<0.79		25	
4-Methyl-2-pentanone (MIBK)	ug/m3	<0.72	<0.72		25	
Acetone	ug/m3	5.0	4.3	15	25	
Benzene	ug/m3	0.72	0.70	2	25	
Benzyl chloride	ug/m3	<1.7	<1.7		25	
Bromodichloromethane	ug/m3	<0.51	<0.51		25	
Bromoform	ug/m3	<2.0	<2.0		25	
Bromomethane	ug/m3	<0.32	<0.32		25	
Carbon disulfide	ug/m3	<0.30	<0.30		25	
Carbon tetrachloride	ug/m3	0.62J	<0.60		25	
Chlorobenzene	ug/m3	<0.38	<0.38		25	
Chloroethane	ug/m3	<0.36	<0.36		25	
Chloroform	ug/m3	<0.27	<0.27		25	
Chloromethane	ug/m3	1.0	0.77	27	25	R1
cis-1,2-Dichloroethene	ug/m3	<0.30	<0.30		25	
cis-1,3-Dichloropropene	ug/m3	<0.42	<0.42		25	
Cyclohexane	ug/m3	<0.49	<0.49		25	
Dibromochloromethane	ug/m3	<1.0	<1.0		25	
Dichlorodifluoromethane	ug/m3	3.4	3.2	3	25	
Dichlorotetrafluoroethane	ug/m3	<0.61	<0.61		25	
Ethanol	ug/m3	9.1	8.0	13	25	
Ethyl acetate	ug/m3	<0.26	<0.26		25	
Ethylbenzene	ug/m3	<0.42	<0.42		25	
Hexachloro-1,3-butadiene	ug/m3	<2.7	<2.7		25	
m&p-Xylene	ug/m3	<0.97	<0.97		25	
Methyl-tert-butyl ether	ug/m3	<0.92	<0.92		25	
Methylene Chloride	ug/m3	1.8J	<1.7		25	
n-Heptane	ug/m3	<0.53	<0.53		25	

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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 60602996 Grafton VI
Pace Project No.: 10507761

SAMPLE DUPLICATE: 3537741

Parameter	Units	10507760001 Result	Dup Result	RPD	Max RPD	Qualifiers
n-Hexane	ug/m3	0.56J	0.47J		25	
Naphthalene	ug/m3	<1.8	<1.8		25	
o-Xylene	ug/m3	<0.48	<0.48		25	
Propylene	ug/m3	<0.19	<0.19		25	
Styrene	ug/m3	<0.48	<0.48		25	
Tetrachloroethene	ug/m3	<0.44	<0.44		25	
Tetrahydrofuran	ug/m3	<0.36	<0.36		25	
Toluene	ug/m3	0.65J	0.57J		25	
trans-1,2-Dichloroethene	ug/m3	<0.40	<0.40		25	
trans-1,3-Dichloropropene	ug/m3	<0.61	<0.61		25	
Trichloroethene	ug/m3	<0.35	<0.35		25	
Trichlorofluoromethane	ug/m3	1.7	1.8	3	25	
Vinyl acetate	ug/m3	<0.38	<0.38		25	
Vinyl chloride	ug/m3	<0.18	<0.18		25	

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(612)607-1700

QUALIFIERS

Project: 60602996 Grafton VI
Pace Project No.: 10507761

DEFINITIONS

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

ND - Not Detected at or above LOD.

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

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

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

R1	RPD value was outside control limits.

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 60602996 Grafton VI
Pace Project No.: 10507761

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10507761001	**SS-1**	TO-15	659083		
10507761002	**SS-5**	TO-15	659083		

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AIR: CHAIN-OF-C

The Chain-of-Custody is a LEGAL DOC

WO# : 10507761

10507761

48316 Page: 1 of 1

Section A Required Client Information:

Company: AECOM
Address: 1555 N. RiverCenter Dr
Milwaukee WI 53212
Email To: tory.schultz@aecom.com
Phone: 414-690-8405 Fax:
Requested Due Date/TAT: Std

Section B Required Project Information:

Report To: AECOM
Copy To: Lanette Altenbach
lanette.altenbach@AECOM.com
Purchase Order No.:
Project Name: Grafton VI
Project Number: 60602996

Section C Invoice Information:

Attention: USAPIMAGING@aecom.com
Company Name: 11
Address: 11
Pace Quote Reference:
Pace Project Manager/Sales Rep.
Pace Profile #: 40280

Program: ☐ UST ☐ Superfund ☐ Emissions ☐ Clean Air Act ☐ Voluntary Clean Up ☐ Dry Clean ☐ RCRA ☒ Other

Location of Sampling by State: WI

Reporting Units: ug/m³ ✓ mg/m³ ___ PPBV ___ PPMV ___ Other ___

Report Level: II.___ III.___ IV.___ Other___

'Section D Required Client Information

AIR SAMPLE ID
Sample IDs MUST BE UNIQUE

Valid Media Codes

MEDIA	CODE
Tedlar Bag	TB
1 Liter Summa Can	1LC
6 Liter Summa Can	6LC
Low Volume Puff	LVP
High Volume Puff	HVP
Other	PM10

ITEM #	AIR SAMPLE ID	MEDIA CODE	PID Reading (Client only)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	Method: PM10	3C - Fixed Gas (%)	TO-3 BTEX	TO-3M (Methane)	TO-14	TO-15 Full List VOCs	TO-15 Short List BTEX	TO-15 Short List Chlorinated	TO-15 Short List (other)	Pace Lab ID
1	SS-1	6LC		02.05.20	1038	02.06.20	1111	-26	-5	1698	2374					X					001
2	SS-5	6LC		02.05.20	1033	02.06.20	1114	-29	-3	-601	2424					X					002
3		6LC																			
4		6LC																			
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

02.06.20

Comments :

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	02.06.20	1700	FEDEX	2/7/20	945

SAMPLE CONDITIONS

—	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Connor Mulcahy

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 02/06/20

ORIGINAL

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414 Air Technical Phone: 612.607.6386

Pace Analytical®	Document Name: Air Sample Condition Upon Receipt	Document Revised: 19Nov2019 Page 1 of 1
	Document No.: F-MN-A-106-rev.20	Pace Analytical Services - Minneapolis

Air Sample Condition Upon Receipt **Client Name:** AECOM **Project #:** **WO#: 10507761**

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial **See Exception** ☒

Tracking Number: _____

PM: CT1 **Due Date: 02/14/20**

CLIENT: AECOM-WI

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Tin Can ☐ Other: _____ **Temp Blank rec:** ☐ Yes ☒ No

Temp. (TO17 and TO13 samples only) (°C): X **Corrected Temp (°C):** X **Thermometer Used:** ☐ G87A9170600254 ☐ G87A9155100842

Temp should be above freezing to 6°C **Correction Factor:** X **Date & Initials of Person Examining Contents:** 2/7/20 CMY

Type of ice Received ☐ Blue ☐ Wet ☒ None

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

Gauge # ☒ 10AIR26 ☐ 10AIR34 ☐ 10AIR35 ☐ 4097

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
SS-1	1698	2374	-5	-5					
SS-5	0601	2424	-3	-5					

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: Carolyne Trout **Date:** 2/7/20

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

Pace Analytical	Document Name: SCUR Exception Form – Coolers Above 6°C	Document Revised: 08Apr2019 Page 1 of 1
	Document No.: F-MN-C-298-Rev.02	Issuing Authority: Pace Minnesota Quality Office

During sample triage, this form is to be placed in each cooler that arrives above 6.0 degrees Celsius

SCUR Exceptions: **Workorder #:**

Out of Temp Sample IDs	Container Type	# of Containers

PM Notified? ☐Yes ☐No

If yes, indicate who was contacted/date/time.
If no, indicate reason why.

Multiple Cooler Project? ☐Yes ☐No
If you answered yes, fill out information to the left.

No Temp Blank

Read Temp	Corrected Temp	Average Temp

Tracking Number/Temperature

1093 0282 9201	
1083 0282 9234	
1093 0282 9223	
1093 0282 9212	

Other Issues

Issue Type: Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preserv.	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance after addition?	Initials
								☐Yes ☐No	
								☐Yes ☐No	
								☐Yes ☐No	
								☐Yes ☐No	