From:	Alexander, Nic <npa@alexandercompany.com></npa@alexandercompany.com>
Sent:	Thursday, February 20, 2020 9:52 AM
То:	mattm@dream-bikes.org
Cc:	Koepke, Cynthia L - DNR; Schultz, Rebecca; Sterling, Alex
Subject:	Vapor Testing Results and Mitigation - DreamBikes
Attachments:	Northgate Environmental Test Results.pdf

Dear Matt,

Attached is a report from SCS engineers regarding the sub-slab vapor testing that occurred in your suite at the Northgate Shopping Center. By law, it is our duty to inform you of these test results. Please keep in mind that these levels were measured below the surface of the concrete slabs in your spaces – in other words, this is not the result of an air quality test in your workplace, and that air quality is not being questioned.

These chemicals are in place due to the previous tenancy of a dry cleaner at the shopping center many years ago. In order to remediate these issues, we will be working with SCS Engineers and other contractors to eventually install a vapor mitigation system within your space. This will consist of a series of pipes along your walls with an exhaust behind the building. We are striving to ensure that these systems will be as unobtrusive as possible, and we will provide you with more details on this project as we have them.

Please confirm that you have received this e-mail, and let me know should you have any questions or concerns. Sincerely,



Vice President

PLEASE NOTE OUR NEW ADDRESS: 2450 Rimrock Road, Suite 100, Madison, WI 53713 p: 608.268.8104 w: www.alexandercompany.com

historic preservation | urban revitalization | adaptive reuse

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#### SCS ENGINEERS

November 21, 2019 File No. 25211374.51

Mr. Joe Alexander, President The Alexander Company 2450 Rimrock Road, Suite 100 Madison, WI 53713

Subject: Vapor Testing Results – 1117, 1131, and 1133 N. Sherman Ave. Northgate Shopping Center, Madison, Wisconsin

Dear Mr. Alexander:

SCS Engineers (SCS), on behalf of Northgate Partnership, recently conducted vapor testing at the Northgate Shopping Center. Samples were collected at 1117 N. Sherman Ave. (Martial Arts), 1131 N. Sherman Ave. (Dream Bikes), and 1133 N. Sherman Ave. (Boomerangs). The sampling locations are shown on the attached figure, and the sampling results are summarized in the attached tables. The lab report is also attached.

The sampling results indicate the presence of two chemicals (tetrachloroethene and trichloroethene) in subsurface vapor at concentrations that are greater than the Wisconsin Department of Natural Resources (WDNR) vapor risk screening levels. The chemicals were also detected in an air sample collected in the unoccupied, unused, restricted access area of the basement below Martial Arts. The concentrations in the air sample were in excess of commercial indoor air vapor action levels.

The purpose of the vapor testing was to obtain information needed to design vapor mitigation systems for areas of the shopping center. The retail spaces in these areas have been previously identified as having vapors in the subsurface that are greater than the WDNR screening levels, and recent results are consistent with previous results. We will be proceeding with design of the mitigation system.

The WDNR requires that property owners and tenants are notified of the results. We understand that Alexander Company will notify their tenants of the results. The attached WDNR fact sheet explaining vapor intrusion may be helpful when notifying tenants. The WDNR has requested that you copy the WDNR on the notification to your tenants. The WDNR project manager's contact information is listed on the next page.



Mr. Joe Alexander November 21, 2019 Page 2

Thank you for your cooperation. Please feel free to contact us at 608.224.2830 if you have any questions.

Sincerely,

Betty J. Socha, PhD, PG Senior Project Manager SCS Engineers

BJS/Imh/REL

Robert E Jong !-

Robert E. Langdon Senior Project Manager SCS Engineers

cc: Mr. Paul Roth, Northgate Partnership Ms. Maggie Mackey

> Ms. Cindy Koepke, WDNR South Central Region 3911 Fish hatchery Road Fitchburg, WI 53711-5397 608-275-3257 cynthia.koepke@wisconsin.gov

Encl. Table 1 – Sub-Slab Vapor Analytical Results Summary Table 2 – Indoor Air Analytical Results Summary
Figure 1 – Site Map
Pace Analytical Laboratory Report dated August 30, 2019
WDNR Vapor Intrusion Quick Facts, Pub-RR-892

I:\3745\Correspondence-Other\2019-11 Alexander Update\191121\_Alexander\_Vapor Monitoring Results.docx

## Table 1. Sub-Slab\* Vapor Analytical Results SummaryLaundry Land Cleaners/SCS Project #25211374.51

(Results are in ppbv)

N. Sherman Ave.	Business as of March 29, 2018	Sample Name	Sampling Date	Lab Notes	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride
1117	Martial Arts	1117 South	8/21/2019		<0.094	<0.12	<u>5,820</u>	7	<0.085
1131	Dream Bikes	1131 North	8/21/2019	(1)	<466	<608	<u>509,000</u>	<u>4,760</u>	<416
		1131 South	8/21/2019	(2)	<0.094	<0.12	<u>15,700</u>	1.3	<0.085
1133	Boomerangs	1133 North	8/21/2019		2.6	3.5	<u>7,950</u>	<u>167</u>	<0.085
		1133 South	8/21/2019		<0.094	<0.12	205	<0.082	<0.085
		Vapor Risk Screening Level (Sm Buildings)	all Commerc	cial	NE	NE	900	53	370

Abbreviations:

ppbv = parts per billion by volume

NE = No Established Standard

Notes:

\*Martial Arts sample was collected from beneath the basement floor-slab; other locations do not have basements and samples were collected from beneath the first-floor floor slab.

1. Samples were collected in 6L summa canisters over 30 minute period and analyzed using the US 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 November 2017 USEPA Regional Screening Level Tables.

3. Bold & underlined values meet or exceed Vapor Risk Screening Levels for small commercial buildings.

Laboratory Notes:

(1) Tetrachloroethene = Analyte concentration exceeded the calibration range. The reported result is estimated.

(2) Trichloroethene = Result may be biased high due to carryover from previously analyzed sample.

(3) Tetrachloroethene = The reported result is from a dilution.

(4) Internal laboratory standard quality control limit exceeded.

Created by:	TLC	Date: 10/26/2012
Last Rev by:	REL	Date: 9/3/2019
Checked by:	LMH	Date: 9/5/2019

I:\3745\Correspondence-Other\2019-11 Alexander Update\[Table 1\_Sub-Slab-Vapor\_Results\_Revised\_190903.xls]VOCs

#### Table 2. Indoor Air Analytical Results Summary Project #25211374.51 - Laundry Land Cleaners, Madison, WI (Results are in ppbv)

Sample Name/Location	Sampling Date	Lab Notes	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride
1117 North Indoor Air /Martial Arts Basement*	8/22/2019		<0.084	<0.11	<u>194</u>	<u>1.9</u>	<0.077
Method Blank			<0.13	<0.13	<0.074	<0.093	<0.20
(DUP)			<0.13	<0.13	<0.074	<0.093	<0.20
Indoor Air Vapor Action Level (Residential Buildir	ng)		NE	NE	6.2	0.39	0.65
Indoor Air Vapor Action Level (Small Commercia	Il Building)		NE	NE	27	1.6	11

Abbreviations:

ppbv = parts per billion by volume

NE = No Established Standard

DUP = Duplicate sample

Notes:

\*Sample collected in the unoccupied, unused, restricted access area of the basement.

1. Samples were collected in 6L summa canisters over 24 hour period and analyzed using the US EPA TO-15 analytical method.

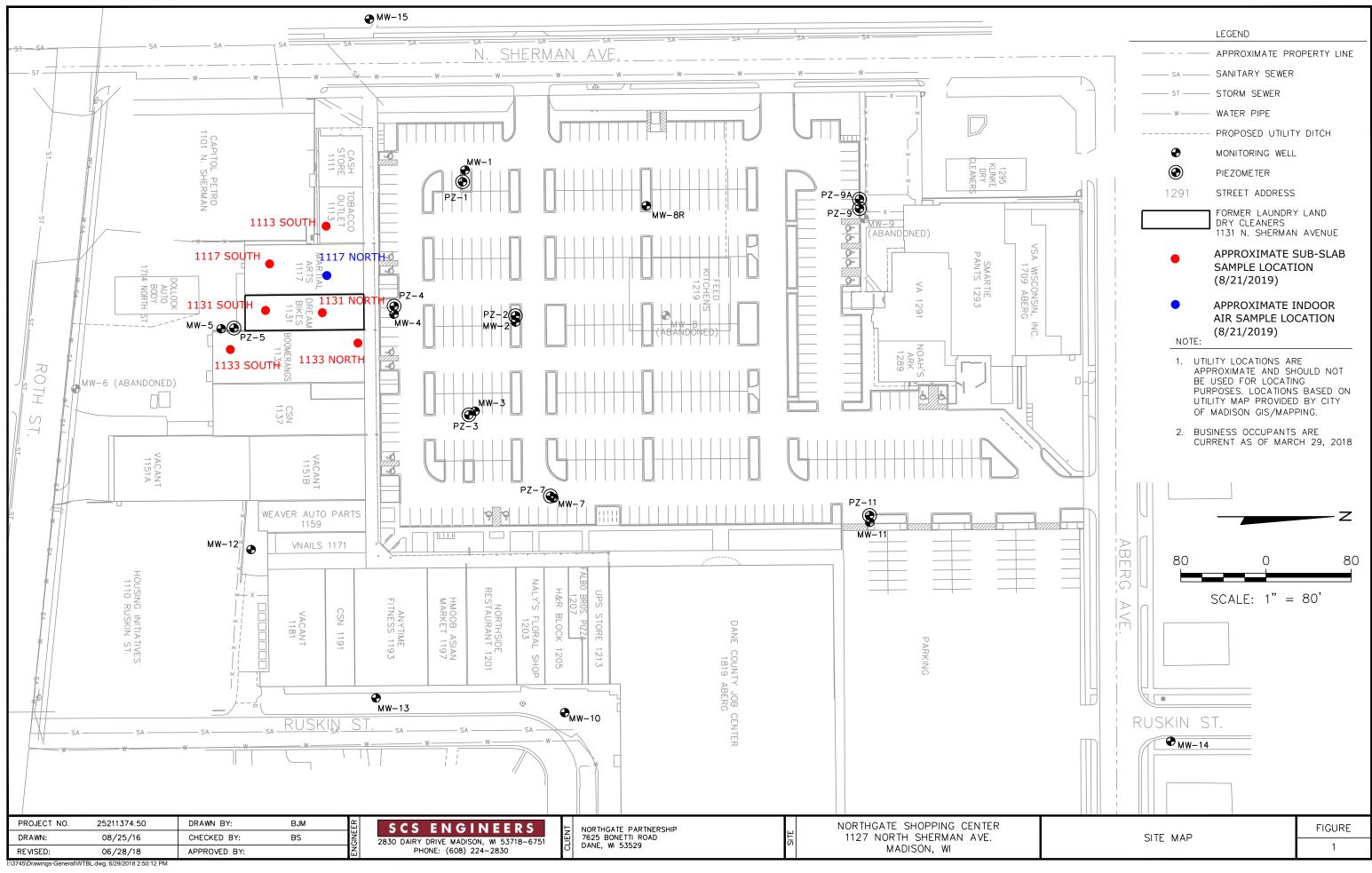
2. Vapor Action Levels are from Wisconsin Department of Natural Resources' WI Vapor Quick Look-Up Table, which is based on November 2017

USEPA Regional Screening Level Tables. Residential values are used for school and daycare facilities.

3. Bold & underlined values exceed Indoor Air Vapor Action Levels.

Created by:	TLC	Date: 10/26/2012
Last Rev by:	LMH	Date: 9/3/2019
Checked by:	REL	Date: 9/5/2019

I:\3745\Correspondence-Other\2019-11 Alexander Update\[Table 2\_Indoor-Air\_Results.xls]VOCs





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

August 30, 2019

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

RE: Project: 1133 North Pace Project No.: 10488801

Dear Rob Langdon:

Enclosed are the analytical results for sample(s) received by the laboratory on August 23, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Satt C. Ung

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

Enclosures





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

#### CERTIFICATIONS

Project:	1133 North
Pace Project No .:	10488801

#### **Minnesota Certification IDs**

1700 Elm Street SE, Minneapolis, MN 55414-2485 A2LA Certification #: 2926.01 Alabama Certification #: 40770 Alaska Contaminated Sites Certification #: 17-009 Alaska DW Certification #: MN00064 Arizona Certification #: AZ0014 Arkansas DW Certification #: MN00064 Arkansas WW Certification #: 88-0680 California Certification #: 2929 CNMI Saipan Certification #: MP0003 Colorado Certification #: MN00064 Connecticut Certification #: PH-0256 EPA Region 8+Wyoming DW Certification #: via MN 027-053-137 Florida Certification #: E87605 Georgia Certification #: 959 Guam EPA Certification #: MN00064 Hawaii Certification #: MN00064 Idaho Certification #: MN00064 Illinois Certification #: 200011 Indiana Certification #: C-MN-01 Iowa Certification #: 368 Kansas Certification #: E-10167 Kentucky DW Certification #: 90062 Kentucky WW Certification #: 90062 Louisiana DEQ Certification #: 03086 Louisiana DW Certification #: MN00064 Maine Certification #: MN00064 Marvland Certification #: 322 Massachusetts Certification #: M-MN064 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



#### SAMPLE SUMMARY

 Project:
 1133 North

 Pace Project No.:
 10488801

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10488801001	1133 North	Air	08/21/19 09:14	08/23/19 11:10
10488801002	1133 South	Air	08/21/19 09:50	08/23/19 11:10
10488801003	1117 South	Air	08/21/19 11:15	08/23/19 11:10
10488801004	1117 North Indoor Air	Air	08/22/19 10:50	08/23/19 11:10
10488801005	1131 North	Air	08/21/19 12:30	08/23/19 11:10
10488801006	1131 South	Air	08/21/19 12:55	08/23/19 11:10
10488801007	1113 South	Air	08/21/19 14:00	08/23/19 11:10



#### SAMPLE ANALYTE COUNT

Project:1133 NorthPace Project No.:10488801

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10488801001	 1133 North	TO-15	 CH1	5	PASI-M
10488801002	1133 South	TO-15	CH1	5	PASI-M
10488801003	1117 South	TO-15	CH1	5	PASI-M
10488801004	1117 North Indoor Air	TO-15	CH1	5	PASI-M
10488801005	1131 North	TO-15	CH1	5	PASI-M
10488801006	1131 South	TO-15	CH1	5	PASI-M
10488801007	1113 South	TO-15	CH1	5	PASI-M



#### ANALYTICAL RESULTS

Project:	1133 North

Pace Project No.: 10488801

Sample: 1133 North	Lab ID:	10488801001	Collecte	d: 08/21/1	9 09:14	Received: 08	3/23/19 11:10 M	atrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15							
cis-1,2-Dichloroethene	10.4	ug/m3	1.4	0.38	1.75		08/29/19 00:01	156-59-2	
trans-1,2-Dichloroethene	14.0	ug/m3	1.4	0.50	1.75		08/29/19 00:01	156-60-5	
Tetrachloroethene	54800	ug/m3	772	352	1120		08/30/19 01:17	127-18-4	
Trichloroethene	912	ug/m3	612	288	1120		08/30/19 01:17	79-01-6	
Vinyl chloride	<0.22	ug/m3	0.46	0.22	1.75		08/29/19 00:01	75-01-4	
Sample: 1133 South	Lab ID:	10488801002	Collecte	d: 08/21/1	9 09:50	Received: 08	B/23/19 11:10 M	atrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15							
cis-1,2-Dichloroethene	<0.38	ug/m3	1.4	0.38	1.75		08/28/19 22:04	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/m3	1.4	0.50	1.75		08/28/19 22:04		
Tetrachloroethene	1410	ug/m3	36.2	16.5	52.5		08/29/19 23:28	127-18-4	
Trichloroethene	<0.45	ug/m3	0.96	0.45	1.75		08/28/19 22:04		
Vinyl chloride	<0.22	ug/m3	0.46	0.22	1.75		08/28/19 22:04		
		-							
Sample: 1117 South	Lab ID:	10488801003	Collecte	d: 08/21/1	9 11:15	Received: 08	3/23/19 11:10 M	atrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15							
cis-1,2-Dichloroethene	<0.38	ug/m3	1.4	0.38	1.75		08/28/19 23:03	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/m3	1.4	0.50	1.75		08/28/19 23:03	156-60-5	
Tetrachloroethene	40100	ug/m3	386	176	560		08/30/19 00:50	127-18-4	
Trichloroethene	38.0	ug/m3	0.96	0.45	1.75		08/28/19 23:03	79-01-6	
Vinyl chloride	<0.22	ug/m3	0.46	0.22	1.75		08/28/19 23:03	75-01-4	
Sample: 1117 North Indoor Air	Lab ID:	10488801004	Collecte	d: 08/22/1	9 10:50	Received: 08	3/23/19 11:10 M	atrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15							
cis-1,2-Dichloroethene	<0.34	ug/m3	1.2	0.34	1.55		08/28/19 22:33	156-59-2	
		0					08/28/19 22:33		
trans-1,2-Dichloroethene	<0.44	ug/m3	1.2	0.44	1.55		00/20/19 22.33	156-60-5	
	<0.44 1340	ug/m3 ug/m3	1.2 32.0	0.44 14.6	46.5		08/29/19 23:55		
trans-1,2-Dichloroethene		-						127-18-4	



#### ANALYTICAL RESULTS

Project: 1133 North

Pace Project No.: 10488801

Sample: 1131 North	Lab ID:	10488801005	Collected	1: 08/21/1	9 12:30	Received: 08	23/19 11:10 Ma	atrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15							
cis-1,2-Dichloroethene	<1880	ug/m3	6930	1880	8602		08/29/19 01:25	156-59-2	
trans-1,2-Dichloroethene	<2450	ug/m3	6930	2450	8602		08/29/19 01:25	156-60-5	
Tetrachloroethene	3510000	ug/m3	5930	2700	8602		08/29/19 01:25	127-18-4	Е
Trichloroethene	26000	ug/m3	4700	2210	8602		08/29/19 01:25	79-01-6	
Vinyl chloride	<1080	ug/m3	2240	1080	8602		08/29/19 01:25	75-01-4	
Sample: 1131 South	Lab ID:	10488801006	Collected	1: 08/21/1	9 12:55	Received: 08	23/19 11:10 Ma	atrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15							
cis-1,2-Dichloroethene	<0.38	ug/m3	1.4	0.38	1.75		08/29/19 00:31	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/m3	1.4	0.50	1.75		08/29/19 00:31	156-60-5	
Tetrachloroethene	108000	ug/m3	772	352	1120		08/30/19 01:44	127-18-4	
Trichloroethene	7.2	ug/m3	0.96	0.45	1.75		08/29/19 00:31	79-01-6	C8
Vinyl chloride	<0.22	ug/m3	0.46	0.22	1.75		08/29/19 00:31	75-01-4	
Sample: 1113 South	Lab ID:	10488801007	Collected	d: 08/21/1	9 14:00	Received: 08	23/19 11:10 Ma	atrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15							
cis-1,2-Dichloroethene	<0.40	ug/m3	1.5	0.40	1.83		08/28/19 23:32	156-59-2	
trans-1,2-Dichloroethene	<0.52	ug/m3	1.5	0.52	1.83		08/28/19 23:32	156-60-5	
Tetrachloroethene	7290	ug/m3	202	92.0	293		08/30/19 00:23	127-18-4	
Trichloroethene	19.1	ug/m3	1.0	0.47	1.83		08/28/19 23:32	79-01-6	
	<0.23	ug/m3		0.23	1.83				



#### **QUALITY CONTROL DATA**

QC Batch: 629038		Analysis Me	ethod:	TO	)-15			
QC Batch Method: TO-15		Analysis De	escription:	то	15 MSV AIF	R Low Level		
Associated Lab Samples: 10	488801001, 10488801002,	10488801003,	1048880100	4, 10	488801005,	10488801006,	10488	8801007
METHOD BLANK: 3393194		Matrix	:: Air					
Associated Lab Samples: 10	488801001, 10488801002,				488801005,	10488801006,	10488	8801007
Parameter	Units	Blank Result	Reporting Limit	g	Analyze	d Quali	fiers	
cis-1,2-Dichloroethene	ug/m3	<0.11	·	).40	08/28/19 1			_
Tetrachloroethene	ug/m3	<0.16		).34	08/28/19 1			
trans-1,2-Dichloroethene	ug/m3	<0.10		).40	08/28/19 1			
Trichloroethene	ug/m3	<0.14		).40 ).27	08/28/19 1			
Vinyl chloride	ug/m3	<0.13		).27 ).13	08/28/19 1			
Vinyi chionde	ug/m3	<0.063		).13	06/26/19 1	0.39		
LABORATORY CONTROL SAM	IPLE: 3393195							
		Spike	LCS		LCS	% Rec		
Parameter	Units	Conc.	Result	%	6 Rec	Limits	Qu	alifiers
cis-1,2-Dichloroethene	ug/m3	40.3	41.5		103	70-130		
Tetrachloroethene	ug/m3	68.9	71.9		104	70-130		
trans-1,2-Dichloroethene	ug/m3	40.3	40.7		101	70-130		
Trichloroethene	ug/m3	54.6	57.8		106	70-130		
Vinyl chloride	ug/m3	26	28.3		109	70-130		
SAMPLE DUPLICATE: 33942	203							
		10487988001	Dup			Мах		
Parameter	Units	Result	Result		RPD	RPD		Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND		).34			25	
Tetrachloroethene	ug/m3	ND		).49			25	
trans-1,2-Dichloroethene	ug/m3	ND	<0	).44			25	
Trichloroethene	ug/m3	ND	<0	).40			25	
Vinyl chloride	ug/m3	ND	<(	).20			25	
SAMPLE DUPLICATE: 33942	204							
		10487973001	Dup			Max		
Parameter	Units	Result	Result		RPD	RPD		Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND		).33			25	
Tetrachloroethene	ug/m3	ND		).47			25	
rans-1,2-Dichloroethene	ug/m3	ND		).42			25	
Trichloroethene	ug/m3	5.5		5.9		8	25	
Vinyl chloride	ug/m3	ND	<0	).19			25	

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

#### **REPORT OF LABORATORY ANALYSIS**

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#### QUALIFIERS

Project:1133 NorthPace Project No.:10488801

#### 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

- C8 Result may be biased high due to carryover from previously analyzed sample.
- E Analyte concentration exceeded the calibration range. The reported result is estimated.



#### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:	1133 North
Pace Project No .:	10488801

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10488801001	1133 North	TO-15	629038		
10488801002	1133 South	TO-15	629038		
10488801003	1117 South	TO-15	629038		
10488801004	1117 North Indoor Air	TO-15	629038		
10488801005	1131 North	TO-15	629038		
10488801006	1131 South	TO-15	629038		
10488801007	1113 South	TO-15	629038		

ALR: CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.	Congiction SCS Even Journal Program I UST I Superfund I Emissions I Clean Air Act Moluntary Clean Up I Dry Clean I Reporting Units	3263     Location of Location of Sampling by State       Image: Sampling by State     Sampling by State       Image: Sampling by State     Image: Sampling by State       Image: Samma     Flow	Canitate Number	22-2-7-1 (884 5-0797-1-821 8-062081 WO#:10488801	10488801 10488801 10488801 10488801 1048 1048	FC046Rev.01, 03Feb2010
	Attention: Attention: Compary Name: Address: Dave Civida Befarence:	Pressure Pressure Pace Profile ## Pace Profile ## Pace Profile ## COLLECTED	DATE TIME DATE TIME CANFORTE DATE TIME DATE TIME CANFORTE	11.00-1871 1150 8224 070 215 11.072 821 120 821 123 28 11.072 821 123 821 123 28 11.072 821 123 821 125 28	RELINQUISHED BY / AFFILIATION DATE T	SAMPLER NAME A SAMPLER NAME A PRINT Name of SAMPLER SIGNATURE of SAMPLER
Pace Analytical Section B Section B	Dairy Dr.	Finall To:       Fax:       S C S & MG, Aer C       Purchase Order No.:         Phone:       2.4: 1) S C C       Project Name:       Project Name:         Requested Due Date/TAT:       Project Number:       Project Number:         Reduested Due Date/TAT:       Project Number:       Project Number:         Requested Due Date/TAT:       Project Number:       Project Number:         Samo Date/TAT:       Project Number:       Project Number:         Project Number:       Proj	High volume Putr LVP High volume Putr HVP Other PM10	4 1117 North Indon Arr 6 1131 North 8 1133 South	The second se	DRIGINAL DRIGINAL 1700 Elm Street SE, Suite 200, Minneapolls, MN 55414 Air Technical Phone: 61

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<b>S</b> *	7		Air Sa	Document Nar mple Condition U		t	Documer	it Revised: 31Jar Page 1 of 1	2019	7
F	ace Analytic	al [		Document No F-MN-A-106-rev	.: .:		Issuing Authority:			1
Air Sample Condition Upon Receipt	Client Nam	ne: Ngineers	· ·		oject #:	<u> </u>	<u>)#:1</u>	0488	801	
	TiFed Ex	Tups		 S	.+	PM:	KNH	Due [	)ate: 08/	/30/19
	Pace			sichen		CLI	ENT: SCS	Engineer	•	
Tracking Number:	083	0279 8	1036,8	025	ן ב	<u> </u>				
Custody Seal on Coole	r/Box Presen	t? 🗍 Yes	No	Seals Intact?	Yes	No				
Packing Materiai:	Bubble Wrap	Bubble I	Bags 🔀 Fo	am 🗌 None	□Tin	Can Othe	er:	Temp	Blank rec:	Yes 🗶 No
Temp. (TO17 and TO13 sa	amples only) (°(	c): ×	Corrected Te	ama (°C)• 💙	<b>C</b>		Thermor	neter Used:	<b>G87A917</b>	0600254
Temp should be above fr		·				te & Initials of I	Person Evamini	ng Contents	□G87A915 8/23	5100842
Type of ice Received	-				Da		-erson Examini	ing contents:		11147
- ,,,								Comments:		
Chain of Custody Present	?		 X	Yes 🔲 No		1.				
Chain of Custody Filled Ou	ut?			Yes 🗌 No		2.			<u></u>	
Chain of Custody Relinqui	shed?	•		Yes 🗍 No		3.	<b></b>			
Sampler Name and/or Sig	nature on COC	:?		Yes 🗌 No	□n/a	4.				
Samples Arrived within Ho	old Time?			]Yes ∐No	·	5.				
Short Hold Time Analysis	(<72 hr)?			Yes 🔽 No		6.				
Rush Turn Around Time R	equested?			Yes 🕅 No		7.				i
Sufficient Volume?			X	Yes 🗌 No		8.				
Correct Containers Used?			X	Yes 🗌 No		9.				
-Pace Containers Used?			X	Yes 🔲 No						
Containers Intact?			X	Yes 🗌 No		10.		······································		·
Media: (Air Can)	Airbag	Filter	TDT	Passive		11. Ind	ividually Certi	fied Cans Y	(list whi	ch samples)
Is sufficient information av	vailable to reco	oncile		_						
samples to the COC? Do cans need to be pressu	rized (2C and	ACTNA 104C	X	Yes No		12.				
DO NOT PRESSURIZE)?	inzeu (sciano /	431101 1946		Yes 🔲 No		13.				
Samples Received:					Pressure	e Gauge # 🕅	10AIR34 [	] 10AIR35		· · · · · · · · ·
	Can	isters					Ca	nisters		
Sample Number	Can ID	Flow Controller	initiai Pressure	Final Pressure		ple Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
1133 NORTH	0794	1169	-7	175 175	Jain	pie Nulliber	Call ID	Controller	Pressure	Pressure
1133 SOUTH	1468	1202	-7-	h	· · ·					
1117 SOUTH	1506	0795	-7	41						
1117 NOETH INTONE	2299	1881	-4	li li						
1131 NORTH	34- 8	1821	~6	w				+		·
	0797	8123/19 444								

CLIENT NOTIFICATION/RESOLUTION

1131 SOUTH

1113 SOUTH

Field	Data	Requir
	Duta	nequi

uired? Yes No

Person Contacted:

Comments/Resolution:

3486

0620

Date/Time:

0681

0816

 Project Manager Review:
 Carolyne Thut
 Date:
 8/26/19

 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)

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Pace Analytical Services, Inc. **1700 Elm Street – Suite 200 Minneapolis, MN 55414 Phone: 612.607.1700** Fax: 612.607.6444

Client: SCS Engineers				La	•	Number: 10488801	
Phone: 843.746.8525					Proje	ct Name: 1133 North	
Lab Sample No: 104888010	001	Pro	jSampleNum:	10488801001		Date Collected: 08/21	/19 9:14
Client Sample ID: 1133 N	North		Matrix:	Air		Date Received: 08/23	8/19 11:10
	Report Limit	Results	Report Limit	Results			
Parameters	ug/m3	ug/m3	ppbv	ppbv	DF	Analyzed	CAS No.
Air TO-15							
cis-1,2-Dichloroethene	1.4	10.4	0.35	2.6	1.75	08/29/19 0:01 CH1	156-59-2
Tetrachloroethene	772	54800	112	7950	1120	08/30/19 1:17 CH1	127-18-4
trans-1,2-Dichloroethene	1.4	14.0	0.35	3.5	1.75	08/29/19 0:01 CH1	156-60-5
Trichloroethene	612	912	112	167	1120	08/30/19 1:17 CH1	79-01-6
Vinyl chloride	0.46	<0.22	0.18	<0.085	1.75	08/29/19 0:01 CH1	75-01-4
Lab Sample No: 104888010 Client Sample ID: 1133 \$		Pro	jSampleNum: Matrix:			Date Collected: 08/21 Date Received: 08/23	
		<b>D</b> "				Date Received. 00/20	0/13/11.10
	Report Limit	Results	Report Limit	Results	55		0 4 0 M
Parameters	ug/m3	ug/m3	ppbv	ppbv	DF	Analyzed	CAS No.
Air TO-15							
cis-1,2-Dichloroethene	1.4	<0.38	0.35	<0.094	1.75	08/28/19 22:04 CH1	156-59-2
Tetrachloroethene	36.2	1410	5.3	205	52.5	08/29/19 23:28 CH1	127-18-4
trans-1,2-Dichloroethene	1.4	<0.50	0.35	<0.12	1.75	08/28/19 22:04 CH1	156-60-5
Trichloroethene	0.96	<0.45	0.18	<0.082	1.75	08/28/19 22:04 CH1	79-01-6
Vinyl chloride	0.46	<0.22	0.18	<0.085	1.75	08/28/19 22:04 CH1	75-01-4
_ab Sample No: 104888010	003	Pro	jSampleNum:	10488801003		Date Collected: 08/21	/19 11:15
Client Sample ID: 1117 S	South		Matrix:	Air		Date Received: 08/23	8/19 11:10
	Report Limit	Results	Report Limit	Results			
Parameters	ug/m3	ug/m3	ppbv	ppbv	DF	Analyzed	CAS No.
<b>Air</b> TO-15							
cis-1,2-Dichloroethene	1.4	<0.38	0.35	<0.094	1.75	08/28/19 23:03 CH1	156-59-2
Tetrachloroethene	386	40100	56	5820	560	08/30/19 0:50 CH1	127-18-4
trans-1,2-Dichloroethene	1.4	<0.50	0.35	<0.12	1.75	08/28/19 23:03 CH1	156-60-5
Trichloroethene	0.96	38.0	0.18	7	1.75	08/28/19 23:03 CH1	79-01-6
Vinyl chloride	0.46	<0.22	0.18	<0.085	1.75	08/28/19 23:03 CH1	75-01-4



Pace Analytical Services, Inc. **1700 Elm Street – Suite 200 Minneapolis, MN 55414 Phone: 612.607.1700** Fax: 612.607.6444

Client: SCS Engineers Phone: 843.746.8525				La	•	Number: 10488801 ct Name: 1133 North		
Lab Sample No: 104888010	)04	Pro	jSampleNum: 10	488801004		Date Collected: 08/22	/19 10:50	
Client Sample ID: 1117 N	North Indoor Air		Matrix: Ai			Date Received: 08/23	/19 11:10	
	Report Limit	Results	Report Limit	Results				
Parameters	ug/m3	ug/m3	ppbv	ppbv	DF	Analyzed	CAS No.	
<b>Air</b> TO-15								
cis-1,2-Dichloroethene	1.2	<0.34	0.3	<0.084	1.55	08/28/19 22:33 CH1	156-59-2	
Tetrachloroethene	32	1340	4.6	194	46.5	08/29/19 23:55 CH1	127-18-4	
trans-1,2-Dichloroethene	1.2	<0.44	0.3	<0.11	1.55	08/28/19 22:33 CH1	156-60-5	
Trichloroethene	0.85	10.2	0.16	1.9	1.55	08/28/19 22:33 CH1	79-01-6	
Vinyl chloride	0.4	<0.20	0.15	<0.077	1.55	08/28/19 22:33 CH1	75-01-4	
Lab Sample No: 10488801005 Client Sample ID: 1131 North		ProjSampleNum: 10488801005 Matrix: Air				Date Collected: 08/21 Date Received: 08/23		
	Report Limit	Results	Report Limit	Results				
Parameters	ug/m3	ug/m3	ppbv	ppbv	DF	Analyzed	CAS No.	
<b>Air</b> TO-15								
cis-1,2-Dichloroethene	6930	<1880	1720	<466	8602	08/29/19 1:25 CH1	156-59-2	
Tetrachloroethene	5930	3510000	860	509000	8602	08/29/19 1:25 CH1	127-18-4	
trans-1,2-Dichloroethene	6930	<2450	1720	<608	8602	08/29/19 1:25 CH1	156-60-5	
Trichloroethene	4700	26000	860	4760	8602	08/29/19 1:25 CH1	79-01-6	
Vinyl chloride	2240	<1080	862	<416	8602	08/29/19 1:25 CH1	75-01-4	
Lab Sample No: 104888010	006	Pro	jSampleNum: 1(	488801006		Date Collected: 08/21	/19 12:55	
Client Sample ID: 1131 S	South		Matrix: Ai	r		Date Received: 08/23	/19 11:10	
	Report Limit	Results	Report Limit	Results				
Parameters	ug/m3	ug/m3	ppbv	ppbv	DF	Analyzed	CAS No.	
<b>Air</b> TO-15								
cis-1,2-Dichloroethene	1.4	<0.38	0.35	<0.094	1.75	08/29/19 0:31 CH1	156-59-2	
Tetrachloroethene	772	108000	112	15700	1120	08/30/19 1:44 CH1	127-18-4	
trans-1,2-Dichloroethene	1.4	<0.50	0.35	<0.12	1.75	08/29/19 0:31 CH1	156-60-5	
Trichloroethene	0.96	7.2	0.18	1.3	1.75	08/29/19 0:31 CH1	79-01-6	



Client: Phone:		ngineers 6.8525				La	,	Project Number: 10488801 Project Name: 1133 North			
Lab Sample	e No:	1048880100	)7	Pro	jSampleNum: 1	0488801007		Date Collected: 08	/21/19 14:00		
Client Sample ID: 1113 South			outh		Matrix: A	ir		Date Received: 08	/23/19 11:10		
Parameters	6		Report Limit ug/m3	Results ug/m3	Report Limit ppbv	Results ppbv	DF	Analyzed	CAS No.		
<b>Air</b> TO-15											
cis-1,2	2-Dichloro	pethene	1.5	<0.40	0.37	<0.099	1.83	08/28/19 23:32 CH	1 156-59-2		
Tetrac	hloroethe	ene	202	7290	29.3	1060	293	08/30/19 0:23 CH	1 127-18-4		
trans-1	1,2-Dichlo	proethene	1.5	<0.52	0.37	<0.13	1.83	08/28/19 23:32 CH	1 156-60-5		
Trichlo	proethene	9	1	19.1	0.18	3.5	1.83	08/28/19 23:32 CH	1 79-01-6		
Vinyl c	chloride		0.48	<0.23	0.18	<0.089	1.83	08/28/19 23:32 CH	1 75-01-4		

### Wisconsin DNR vapor intrusion quick facts

# What is Vapor Intrusion?



Chemicals used in commercial or industrial activities – dry cleaning chemicals, chemical degreasers and petroleum products such as gasoline – are sometimes spilled and leak into nearby soil or groundwater. When this happens, these chemicals may release gases or vapors, which travel from the contaminated groundwater or soil and move into nearby homes or businesses. This is called vapor intrusion.

# Why are these chemical vapors a problem?

The chemicals that cause vapor intrusion are known as volatile organic compounds, or VOCs. Even when spilled into soil or water, these chemicals easily evaporate. They don't cause human health problems when they evaporate into the outside air, but when their vapors move into homes or businesses, they may cause long-term health problems for the people who live or work in those buildings. These vapors are usually odorless and colorless and undetectable without special testing equipment.

#### Why is vapor intrusion a concern?

Exposure to some chemical gases or vapors can cause an increased risk of adverse health effects. Whether or not a person experiences any health effects depends on several factors, including the amount and length of exposure, the toxicity of the chemical, and the individual's sensitivity to the chemical. When harmful chemical vapor intrusion is the result of environmental contamination, the Wisconsin Department of Natural Resources (DNR) requires that steps be taken to reduce or eliminate exposures which could be harmful to human health. The process when chemical vapors from contaminated soil or groundwater enter a home or other structure is called vapor intrusion.

# What should I expect if vapor intrusion is suspected near my home or business?

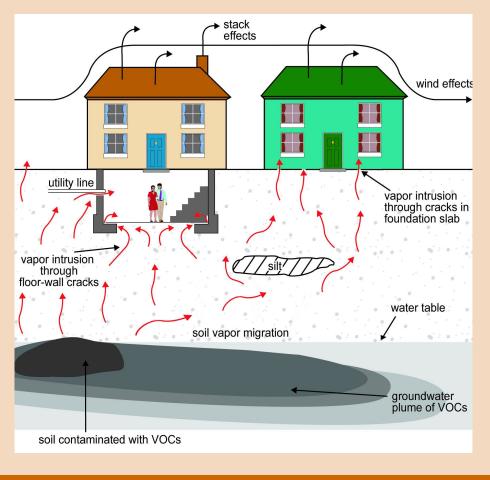
For businesses or other locations where VOC contamination has been found, the DNR requires that the potential for vapor intrusion be investigated. If you live near a site being cleaned up, you may be contacted by the site owner or others working on the cleanup. Your cooperation and consent will be requested before any testing or sampling is conducted on your property. Ask the person contacting you any questions you have about the work being done, or contact the DNR for more information (see DNR contact information on reverse). For more information about testing for vapor intrusion, see DNR-Pub-RR-954, "What to Expect During Vapor Intrusion Sampling."





# How Vapors Enter a Building

If you live near a commercial or industrial facility or landfill where VOCs have entered either the soil or groundwater, there may be a potential for those chemicals to travel as vapors into your home or business. Vapors can enter buildings in various ways, including through cracks in the foundation and openings for utility lines. Building ventilation and weather can influence the extent of vapor intrusion.



#### Adapted from U.S. Environmental Protection Agency (EPA) graphic. www.epa.gov/oswer/vaporintrusion/basic.html

#### Where can I find more information?

Health and vapor-related information can be found at the Wisconsin Department of Health Services (DHS) website at <u>dhs.wisconsin.gov</u>, search "Vapor." For other health-related questions, please contact your local health department: <u>www.dhs.wisconsin.gov/localhealth</u>.

For more DNR information, please visit the DNR's Remediation and Redevelopment (RR) Program's Vapor Intrusion page at <u>dnr.wi.gov/topic/Brownfields/Vapor.html</u>.

Additional information can be obtained through the DNR field office in your region. To find the correct office, visit the RR Program Staff Contacts page at <u>dnr.wi.gov/topic/Brownfields/Contact.html</u> or call the RR Program at (608) 266-2111.

This document contains information about certain state statutes and administrative rules but does not necessarily include all of the details found in the statutes and rules. Readers should consult the actual language of the statutes and rules to answer specific questions. The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240. This publication is available in alternative format upon request. Please call 608-267-3543 for more information.

From:	Alexander, Nic <npa@alexandercompany.com></npa@alexandercompany.com>
Sent:	Thursday, February 20, 2020 9:52 AM
То:	Mark Felton; Beverly Krizan (Beverly@doorcreekchurch.org)
Cc:	Sterling, Alex; Schultz, Rebecca; Koepke, Cynthia L - DNR
Subject:	Vapor Testing Results and Mitigation - Boomerangs
Attachments:	Northgate Environmental Test Results.pdf

Dear Mark / Bev,

Attached is a report from SCS engineers regarding the sub-slab vapor testing that occurred in your suite at the Northgate Shopping Center. By law, it is our duty to inform you of these test results. Please keep in mind that these levels were measured below the surface of the concrete slabs in your spaces – in other words, this is not the result of an air quality test in your workplace, and that air quality is not being questioned.

These chemicals are in place due to the previous tenancy of a dry cleaner at the shopping center many years ago. In order to remediate these issues, we will be working with SCS Engineers and other contractors to eventually install a vapor mitigation system within your space. This will consist of a series of pipes along your walls with an exhaust behind the building. We are striving to ensure that these systems will be as unobtrusive as possible, and we will provide you with more details on this project as we have them.

Please confirm that you have received this e-mail, and let me know should you have any questions or concerns. Sincerely,



PLEASE NOTE OUR NEW ADDRESS: 2450 Rimrock Road, Suite 100, Madison, WI 53713 p: 608.268.8104 w: www.alexandercompany.com

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#### SCS ENGINEERS

November 21, 2019 File No. 25211374.51

Mr. Joe Alexander, President The Alexander Company 2450 Rimrock Road, Suite 100 Madison, WI 53713

Subject: Vapor Testing Results – 1117, 1131, and 1133 N. Sherman Ave. Northgate Shopping Center, Madison, Wisconsin

Dear Mr. Alexander:

SCS Engineers (SCS), on behalf of Northgate Partnership, recently conducted vapor testing at the Northgate Shopping Center. Samples were collected at 1117 N. Sherman Ave. (Martial Arts), 1131 N. Sherman Ave. (Dream Bikes), and 1133 N. Sherman Ave. (Boomerangs). The sampling locations are shown on the attached figure, and the sampling results are summarized in the attached tables. The lab report is also attached.

The sampling results indicate the presence of two chemicals (tetrachloroethene and trichloroethene) in subsurface vapor at concentrations that are greater than the Wisconsin Department of Natural Resources (WDNR) vapor risk screening levels. The chemicals were also detected in an air sample collected in the unoccupied, unused, restricted access area of the basement below Martial Arts. The concentrations in the air sample were in excess of commercial indoor air vapor action levels.

The purpose of the vapor testing was to obtain information needed to design vapor mitigation systems for areas of the shopping center. The retail spaces in these areas have been previously identified as having vapors in the subsurface that are greater than the WDNR screening levels, and recent results are consistent with previous results. We will be proceeding with design of the mitigation system.

The WDNR requires that property owners and tenants are notified of the results. We understand that Alexander Company will notify their tenants of the results. The attached WDNR fact sheet explaining vapor intrusion may be helpful when notifying tenants. The WDNR has requested that you copy the WDNR on the notification to your tenants. The WDNR project manager's contact information is listed on the next page.



Mr. Joe Alexander November 21, 2019 Page 2

Thank you for your cooperation. Please feel free to contact us at 608.224.2830 if you have any questions.

Sincerely,

Betty J. Socha, PhD, PG Senior Project Manager SCS Engineers

BJS/Imh/REL

Robert E Jong !-

Robert E. Langdon Senior Project Manager SCS Engineers

cc: Mr. Paul Roth, Northgate Partnership Ms. Maggie Mackey

> Ms. Cindy Koepke, WDNR South Central Region 3911 Fish hatchery Road Fitchburg, WI 53711-5397 608-275-3257 cynthia.koepke@wisconsin.gov

Encl. Table 1 – Sub-Slab Vapor Analytical Results Summary Table 2 – Indoor Air Analytical Results Summary
Figure 1 – Site Map
Pace Analytical Laboratory Report dated August 30, 2019
WDNR Vapor Intrusion Quick Facts, Pub-RR-892

I:\3745\Correspondence-Other\2019-11 Alexander Update\191121\_Alexander\_Vapor Monitoring Results.docx

## Table 1. Sub-Slab\* Vapor Analytical Results SummaryLaundry Land Cleaners/SCS Project #25211374.51

(Results are in ppbv)

N. Sherman Ave.	Business as of March 29, 2018	Sample Name	Sampling Date	Lab Notes	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride
1117	Martial Arts	1117 South	8/21/2019		<0.094	<0.12	<u>5,820</u>	7	<0.085
1131	Dream Bikes	1131 North	8/21/2019	(1)	<466	<608	<u>509,000</u>	<u>4,760</u>	<416
		1131 South	8/21/2019	(2)	<0.094	<0.12	<u>15,700</u>	1.3	<0.085
1133	Boomerangs	1133 North	8/21/2019		2.6	3.5	<u>7,950</u>	<u>167</u>	<0.085
		1133 South	8/21/2019		<0.094	<0.12	205	<0.082	<0.085
		Vapor Risk Screening Level (Sm Buildings)	all Commerc	cial	NE	NE	900	53	370

Abbreviations:

ppbv = parts per billion by volume

NE = No Established Standard

Notes:

\*Martial Arts sample was collected from beneath the basement floor-slab; other locations do not have basements and samples were collected from beneath the first-floor floor slab.

1. Samples were collected in 6L summa canisters over 30 minute period and analyzed using the US 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 November 2017 USEPA Regional Screening Level Tables.

3. Bold & underlined values meet or exceed Vapor Risk Screening Levels for small commercial buildings.

Laboratory Notes:

(1) Tetrachloroethene = Analyte concentration exceeded the calibration range. The reported result is estimated.

(2) Trichloroethene = Result may be biased high due to carryover from previously analyzed sample.

(3) Tetrachloroethene = The reported result is from a dilution.

(4) Internal laboratory standard quality control limit exceeded.

Created by:	TLC	Date: 10/26/2012
Last Rev by:	REL	Date: 9/3/2019
Checked by:	LMH	Date: 9/5/2019

I:\3745\Correspondence-Other\2019-11 Alexander Update\[Table 1\_Sub-Slab-Vapor\_Results\_Revised\_190903.xls]VOCs

#### Table 2. Indoor Air Analytical Results Summary Project #25211374.51 - Laundry Land Cleaners, Madison, WI (Results are in ppbv)

Sample Name/Location	Sampling Date	Lab Notes	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride
1117 North Indoor Air /Martial Arts Basement*	8/22/2019		<0.084	<0.11	<u>194</u>	<u>1.9</u>	<0.077
Method Blank			<0.13	<0.13	<0.074	<0.093	<0.20
(DUP)			<0.13	<0.13	<0.074	<0.093	<0.20
Indoor Air Vapor Action Level (Residential Building)			NE	NE	6.2	0.39	0.65
Indoor Air Vapor Action Level (Small Commercia		NE	NE	27	1.6	11	

Abbreviations:

ppbv = parts per billion by volume

NE = No Established Standard

DUP = Duplicate sample

Notes:

\*Sample collected in the unoccupied, unused, restricted access area of the basement.

1. Samples were collected in 6L summa canisters over 24 hour period and analyzed using the US EPA TO-15 analytical method.

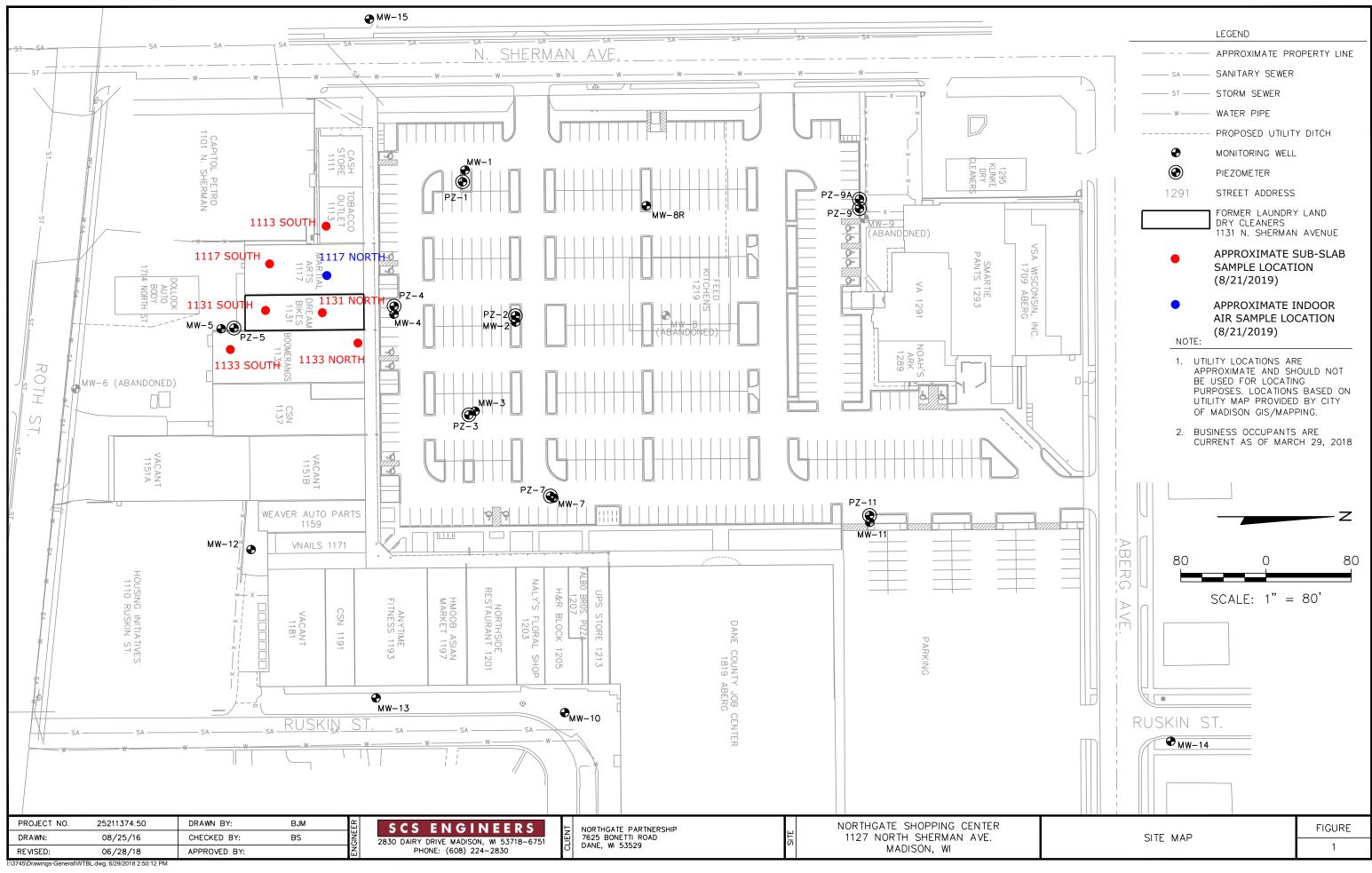
2. Vapor Action Levels are from Wisconsin Department of Natural Resources' WI Vapor Quick Look-Up Table, which is based on November 2017

USEPA Regional Screening Level Tables. Residential values are used for school and daycare facilities.

3. Bold & underlined values exceed Indoor Air Vapor Action Levels.

Created by:	TLC	Date: 10/26/2012
Last Rev by:	LMH	Date: 9/3/2019
Checked by:	REL	Date: 9/5/2019

I:\3745\Correspondence-Other\2019-11 Alexander Update\[Table 2\_Indoor-Air\_Results.xls]VOCs





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

August 30, 2019

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

RE: Project: 1133 North Pace Project No.: 10488801

Dear Rob Langdon:

Enclosed are the analytical results for sample(s) received by the laboratory on August 23, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Satt C. Ung

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

Enclosures





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

#### CERTIFICATIONS

Project:	1133 North
Pace Project No .:	10488801

#### **Minnesota Certification IDs**

1700 Elm Street SE, Minneapolis, MN 55414-2485 A2LA Certification #: 2926.01 Alabama Certification #: 40770 Alaska Contaminated Sites Certification #: 17-009 Alaska DW Certification #: MN00064 Arizona Certification #: AZ0014 Arkansas DW Certification #: MN00064 Arkansas WW Certification #: 88-0680 California Certification #: 2929 CNMI Saipan Certification #: MP0003 Colorado Certification #: MN00064 Connecticut Certification #: PH-0256 EPA Region 8+Wyoming DW Certification #: via MN 027-053-137 Florida Certification #: E87605 Georgia Certification #: 959 Guam EPA Certification #: MN00064 Hawaii Certification #: MN00064 Idaho Certification #: MN00064 Illinois Certification #: 200011 Indiana Certification #: C-MN-01 Iowa Certification #: 368 Kansas Certification #: E-10167 Kentucky DW Certification #: 90062 Kentucky WW Certification #: 90062 Louisiana DEQ Certification #: 03086 Louisiana DW Certification #: MN00064 Maine Certification #: MN00064 Marvland Certification #: 322 Massachusetts Certification #: M-MN064 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



#### SAMPLE SUMMARY

 Project:
 1133 North

 Pace Project No.:
 10488801

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10488801001	1133 North	Air	08/21/19 09:14	08/23/19 11:10
10488801002	1133 South	Air	08/21/19 09:50	08/23/19 11:10
10488801003	1117 South	Air	08/21/19 11:15	08/23/19 11:10
10488801004	1117 North Indoor Air	Air	08/22/19 10:50	08/23/19 11:10
10488801005	1131 North	Air	08/21/19 12:30	08/23/19 11:10
10488801006	1131 South	Air	08/21/19 12:55	08/23/19 11:10
10488801007	1113 South	Air	08/21/19 14:00	08/23/19 11:10



#### SAMPLE ANALYTE COUNT

Project:1133 NorthPace Project No.:10488801

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10488801001	 1133 North	TO-15	 CH1	5	PASI-M
10488801002	1133 South	TO-15	CH1	5	PASI-M
10488801003	1117 South	TO-15	CH1	5	PASI-M
10488801004	1117 North Indoor Air	TO-15	CH1	5	PASI-M
10488801005	1131 North	TO-15	CH1	5	PASI-M
10488801006	1131 South	TO-15	CH1	5	PASI-M
10488801007	1113 South	TO-15	CH1	5	PASI-M



#### ANALYTICAL RESULTS

Project:	1133 North

Pace Project No.: 10488801

Sample: 1133 North	Lab ID:	10488801001	Collecte	d: 08/21/1	9 09:14	Received: 08	3/23/19 11:10 M	atrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15							
cis-1,2-Dichloroethene	10.4	ug/m3	1.4	0.38	1.75		08/29/19 00:01	156-59-2	
trans-1,2-Dichloroethene	14.0	ug/m3	1.4	0.50	1.75		08/29/19 00:01	156-60-5	
Tetrachloroethene	54800	ug/m3	772	352	1120		08/30/19 01:17	127-18-4	
Trichloroethene	912	ug/m3	612	288	1120		08/30/19 01:17	79-01-6	
Vinyl chloride	<0.22	ug/m3	0.46	0.22	1.75		08/29/19 00:01	75-01-4	
Sample: 1133 South	Lab ID:	10488801002	Collecte	d: 08/21/1	9 09:50	Received: 08	B/23/19 11:10 M	atrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15							
cis-1,2-Dichloroethene	<0.38	ug/m3	1.4	0.38	1.75		08/28/19 22:04	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/m3	1.4	0.50	1.75		08/28/19 22:04		
Tetrachloroethene	1410	ug/m3	36.2	16.5	52.5		08/29/19 23:28	127-18-4	
Trichloroethene	<0.45	ug/m3	0.96	0.45	1.75		08/28/19 22:04		
Vinyl chloride	<0.22	ug/m3	0.46	0.22	1.75		08/28/19 22:04		
		-							
Sample: 1117 South	Lab ID:	10488801003	Collecte	d: 08/21/1	9 11:15	Received: 08	3/23/19 11:10 M	atrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15							
cis-1,2-Dichloroethene	<0.38	ug/m3	1.4	0.38	1.75		08/28/19 23:03	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/m3	1.4	0.50	1.75		08/28/19 23:03	156-60-5	
Tetrachloroethene	40100	ug/m3	386	176	560		08/30/19 00:50	127-18-4	
Trichloroethene	38.0	ug/m3	0.96	0.45	1.75		08/28/19 23:03	79-01-6	
Vinyl chloride	<0.22	ug/m3	0.46	0.22	1.75		08/28/19 23:03	75-01-4	
Sample: 1117 North Indoor Air	Lab ID:	10488801004	Collecte	d: 08/22/1	9 10:50	Received: 08	3/23/19 11:10 M	atrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15							
cis-1,2-Dichloroethene	<0.34	ug/m3	1.2	0.34	1.55		08/28/19 22:33	156-59-2	
		0					08/28/19 22:33		
trans-1,2-Dichloroethene	<0.44	ug/m3	1.2	0.44	1.55		00/20/19 22.33	156-60-5	
	<0.44 1340	ug/m3 ug/m3	1.2 32.0	0.44 14.6	46.5		08/29/19 23:55		
trans-1,2-Dichloroethene		-						127-18-4	



#### ANALYTICAL RESULTS

Project: 1133 North

Pace Project No.: 10488801

Sample: 1131 North	Lab ID:	10488801005	5 Collected: 08/21/19 12:30			Received: 08/23/19 11:10 Matrix: Air			
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15							
cis-1,2-Dichloroethene	<1880	ug/m3	6930	1880	8602		08/29/19 01:25	156-59-2	
trans-1,2-Dichloroethene	<2450	ug/m3	6930	2450	8602		08/29/19 01:25	156-60-5	
Tetrachloroethene	3510000	ug/m3	5930	2700	8602		08/29/19 01:25	127-18-4	Е
Trichloroethene	26000	ug/m3	4700	2210	8602		08/29/19 01:25	79-01-6	
Vinyl chloride	<1080	ug/m3	2240	1080	8602		08/29/19 01:25	75-01-4	
Sample: 1131 South	Lab ID:	10488801006	Collected	1: 08/21/1	9 12:55	Received: 08	23/19 11:10 Ma	atrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15							
cis-1,2-Dichloroethene	<0.38	ug/m3	1.4	0.38	1.75		08/29/19 00:31	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/m3	1.4	0.50	1.75		08/29/19 00:31	156-60-5	
Tetrachloroethene	108000	ug/m3	772	352	1120		08/30/19 01:44	127-18-4	
Trichloroethene	7.2	ug/m3	0.96	0.45	1.75		08/29/19 00:31	79-01-6	C8
Vinyl chloride	<0.22	ug/m3	0.46	0.22	1.75		08/29/19 00:31	75-01-4	
Sample: 1113 South	Lab ID:	10488801007	Collected	d: 08/21/1	9 14:00	Received: 08	23/19 11:10 Ma	atrix: Air	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical	Method: TO-15							
cis-1,2-Dichloroethene	<0.40	ug/m3	1.5	0.40	1.83		08/28/19 23:32	156-59-2	
trans-1,2-Dichloroethene	<0.52	ug/m3	1.5	0.52	1.83		08/28/19 23:32	156-60-5	
Tetrachloroethene	7290	ug/m3	202	92.0	293		08/30/19 00:23	127-18-4	
Trichloroethene	19.1	ug/m3	1.0	0.47	1.83		08/28/19 23:32	79-01-6	
	<0.23	ug/m3		0.23	1.83				



#### **QUALITY CONTROL DATA**

QC Batch: 629038		Analysis M	ethod:	TO	)-15			
QC Batch Method: TO-15		Analysis De	escription:	то	15 MSV AIF	Low Level		
Associated Lab Samples: 1	0488801001, 10488801002,	10488801003,	1048880100	4, 10	488801005,	10488801006,	1048	3801007
METHOD BLANK: 3393194		Matrix	: Air					
Associated Lab Samples: 1	0488801001, 10488801002,	10488801003,	1048880100	4, 10	488801005,	10488801006,	1048	3801007
		Blank	Reporting	g				
Parameter	Units	Result	Limit		Analyze	d Quali	fiers	_
cis-1,2-Dichloroethene	ug/m3	<0.11	(	0.40	08/28/19 1	0:39		
Tetrachloroethene	ug/m3	<0.16		).34	08/28/19 1			
trans-1,2-Dichloroethene	ug/m3	<0.14	(	0.40	08/28/19 1			
Trichloroethene	ug/m3	<0.13	; (	).27	08/28/19 1	0:39		
Vinyl chloride	ug/m3	<0.063	s (	).13	08/28/19 1	0:39		
LABORATORY CONTROL SA	MPLE: 3393195							
		Spike	LCS		LCS	% Rec		
Parameter	Units	Conc.	Result	%	6 Rec	Limits	Qu	alifiers
cis-1,2-Dichloroethene	ug/m3	40.3	41.5		103	70-130		
Tetrachloroethene	ug/m3	68.9	71.9		104	70-130		
rans-1,2-Dichloroethene	ug/m3	40.3	40.7		101	70-130		
Frichloroethene	ug/m3	54.6	57.8		106	70-130		
Vinyl chloride	ug/m3	26	28.3		109	70-130		
SAMPLE DUPLICATE: 3394	203							
		10487988001	Dup			Max		
Parameter	Units	Result	Result		RPD	RPD		Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND		).34			25	
Tetrachloroethene	ug/m3	ND		).49			25	
trans-1,2-Dichloroethene	ug/m3	ND		).44			25	
Trichloroethene	ug/m3	ND	) <0	0.40			25	
Vinyl chloride	ug/m3	NE	) <(	).20			25	
SAMPLE DUPLICATE: 3394	204							
		10487973001	Dup			Max		
Parameter	Units	Result	Result		RPD	RPD		Qualifiers
cis-1,2-Dichloroethene	ug/m3	ND		).33			25	
Tetrachloroethene	ug/m3	ND		).47			25	
rans-1,2-Dichloroethene	ug/m3	ND		).42			25	
Trichloroethene	ug/m3	5.5		5.9		8	25	
Vinyl chloride	ug/m3	ND	) <(	).19			25	

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

#### **REPORT OF LABORATORY ANALYSIS**

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#### QUALIFIERS

Project:1133 NorthPace Project No.:10488801

#### 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

- C8 Result may be biased high due to carryover from previously analyzed sample.
- E Analyte concentration exceeded the calibration range. The reported result is estimated.



#### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:	1133 North
Pace Project No .:	10488801

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10488801001	1133 North	TO-15	629038		
10488801002	1133 South	TO-15	629038		
10488801003	1117 South	TO-15	629038		
10488801004	1117 North Indoor Air	TO-15	629038		
10488801005	1131 North	TO-15	629038		
10488801006	1131 South	TO-15	629038		
10488801007	1113 South	TO-15	629038		

ALR: CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.	Congiction SCS Even Journal Program I UST I Superfund I Emissions I Clean Air Act Moluntary Clean Up I Dry Clean I Reporting Units	3263     Location of Location of Sampling by State       Image: Sampling by State     Sampling by State       Image: Sampling by State     Image: Sampling by State       Image: Samma     Flow	Canitate Number	22-2-7-1 (884 5-0797-1-821 8-062081 WO#:10488801	10488801 10488801 10488801 10488801 1048 1048	FC046Rev.01, 03Feb2010
	Attention: Attention: Compary Name: Address: Dave Civida Befarence:	Pressure Pressure Pace Profile ## Pace Profile ## Pace Profile ## COLLECTED	DATE TIME DATE TIME CANFORTE DATE TIME DATE TIME CANFORTE	11.00-1871 1150 8224 070 215 11.072 821 120 821 123 28 11.072 821 123 821 123 28 11.072 821 123 821 125 28	RELINQUISHED BY / AFFILIATION DATE T	SAMPLER NAME A SAMPLER NAME A PRINT Name of SAMPLER SIGNATURE of SAMPLER
Pace Analytical Section B Section B	Dairy Dr.	Finall To:       Fax:       S C S & MG, Aer C       Purchase Order No.:         Phone:       2.4: 1) S C C       Project Name:       Project Name:         Requested Due Date/TAT:       Project Number:       Project Number:         Reduested Due Date/TAT:       Project Number:       Project Number:         Requested Due Date/TAT:       Project Number:       Project Number:         Samo Date/TAT:       Project Number:       Project Number:         Project Number:       Proj	High volume Putr LVP High volume Putr HVP Other PM10	4 1117 North Indon Arr 6 1131 North 8 1133 South	The second se	DRIGINAL DRIGINAL 1700 Elm Street SE, Suite 200, Minneapolls, MN 55414 Air Technical Phone: 61

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<b>S</b> *	7		Air Sa	Document Nar mple Condition U		t	Documer	it Revised: 31Jar Page 1 of 1	2019	7
F	ace Analytic	al [		Document No F-MN-A-106-rev	.: .:		iss	uing Authority:		1
Air Sample Condition Upon Receipt	Client Nam	ne: Ngineers	· ·		oject #:	<u> </u>	<u>)#:1</u>	0488	801	
	TiFed Ex	Tups		 S	.+	PM:	KNH	Due [	)ate: 08/	/30/19
	Pace			sichen		CLI	ENT: SCS	Engineer	•	
Tracking Number:	083	0279 8	1036,8	025	ן ב	<u> </u>				
Custody Seal on Coole	r/Box Presen	t? 🗍 Yes	No	Seals Intact?	Yes	No				
Packing Materiai:	Bubble Wrap	Bubble I	Bags 🔀 Fo	am 🗌 None	□Tin	Can Othe	er:	Temp	Blank rec:	Yes 🗶 No
Temp. (TO17 and TO13 sa	amples only) (°(	c): ×	Corrected Te	ama (°C)• 💙	<b>C</b>		Thermor	neter Used:	<b>G87A917</b>	0600254
Temp should be above fr		·				te & Initials of I	Person Evamini	ng Contents	□G87A915 8/23	5100842
Type of ice Received	-				Da		-erson Examini	ing contents:		11147
- ,,,								Comments:		
Chain of Custody Present	?		 X	Yes 🔲 No		1.				
Chain of Custody Filled Ou	ut?			Yes 🗌 No		2.				
Chain of Custody Relinqui	shed?	•		Yes 🗍 No		3.	<b></b>			
Sampler Name and/or Sig	nature on COC	:?		Yes 🗌 No	□n/a	4.				
Samples Arrived within Ho	old Time?			]Yes ∐No	·	5.				
Short Hold Time Analysis	(<72 hr)?			Yes 🔽 No		6.				
Rush Turn Around Time R	equested?			Yes 🕅 No		7.				i
Sufficient Volume?			X	Yes 🔲 No		8.				
Correct Containers Used?			X	Yes 🗌 No		9.				
-Pace Containers Used?			X	Yes 🔲 No						
Containers Intact?			X	Yes 🗌 No		10.		······································		·
Media: (Air Can)	Airbag	Filter	TDT	Passive		11. Ind	ividually Certi	fied Cans Y	(list whi	ch samples)
Is sufficient information av	vailable to reco	oncile		_						
samples to the COC? Do cans need to be pressu	rized (2C and	ACTNA 104C	X	Yes No		12.				
DO NOT PRESSURIZE)?	inzeu (sciano /	431101 1946		Yes 🔲 No		13.				
Samples Received:					Pressure	e Gauge # 🕅	10AIR34 [	] 10AIR35		· · · · · · · · ·
	Can	isters					Ca	nisters		
Sample Number	Can ID	Flow Controller	) Initiai Pressure	Final Pressure		ple Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
1133 NORTH	0794	1169	-7	175 175	Jain	pie Nulliber	Call ID	Controller	Pressure	Pressure
1133 SOUTH	1468	1202	-7-	h	· · ·					
1117 SOUTH	1506	0795	-7	41						
1117 NOETH INHWE	2299	1881	-4	li li						
1131 NORTH	34- 8	1821	~6	w				+		·
	0797	8123/19 444								

CLIENT NOTIFICATION/RESOLUTION

1131 SOUTH

1113 SOUTH

	Field Data Required?	Yes	No
Date/Time:			

Person Contacted:

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n

- 7 ~8

Comments/Resolution:

3486

0620

0681

0816

 Project Manager Review:
 Carolyne Thut
 Date:
 8/26/19

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

 hold, incorrect preservative, out of temp, incorrect containers)



Pace Analytical Services, Inc. **1700 Elm Street – Suite 200 Minneapolis, MN 55414 Phone: 612.607.1700** Fax: 612.607.6444

Client: SCS Engineers Phone: 843.746.8525		Lab Project Number: 10488801 Project Name: 1133 North						
Lab Sample No: 104888010	001	ProjSampleNum: 10488801001 Date Collected: 08/21/19 9					/19 9:14	
Client Sample ID: 1133 N	lorth		Matrix: Ai		Date Received: 08/23/19 11:10			
	Report Limit	Results	Report Limit	Results				
Parameters	ug/m3	ug/m3	ppbv	ppbv	DF	Analyzed	CAS No.	
Air TO-15								
cis-1,2-Dichloroethene	1.4	10.4	0.35	2.6	1.75	08/29/19 0:01 CH1	156-59-2	
Tetrachloroethene	772	54800	112	7950	1120	08/30/19 1:17 CH1	127-18-4	
trans-1,2-Dichloroethene	1.4	14.0	0.35	3.5	1.75	08/29/19 0:01 CH1	156-60-5	
Trichloroethene	612	912	112	167	1120	08/30/19 1:17 CH1	79-01-6	
Vinyl chloride	0.46	<0.22	0.18	<0.085	1.75	08/29/19 0:01 CH1	75-01-4	
Lab Sample No: 104888010 Client Sample ID: 1133 S		ProjSampleNum: 10488801002 Matrix: Air			Date Collected: 08/21/19 9:50 Date Received: 08/23/19 11:10			
	Report Limit	Results	Report Limit	Results				
Parameters	ug/m3	ug/m3	ppbv	ppbv	DF	Analyzed	CAS No.	
Air TO-15								
cis-1,2-Dichloroethene	1.4	<0.38	0.35	<0.094	1.75	08/28/19 22:04 CH1	156-59-2	
Tetrachloroethene	36.2	1410	5.3	205	52.5	08/29/19 23:28 CH1	127-18-4	
trans-1,2-Dichloroethene	1.4	<0.50	0.35	<0.12	1.75	08/28/19 22:04 CH1	156-60-5	
Trichloroethene	0.96	<0.45	0.18	<0.082	1.75	08/28/19 22:04 CH1	79-01-6	
Vinyl chloride	0.46	<0.22	0.18	<0.085	1.75	08/28/19 22:04 CH1	75-01-4	
Lab Sample No: 10488801003		ProjSampleNum: 10488801003			Date Collected: 08/21/19 11:15			
Client Sample ID: 1117 S	South	Matrix: Air		r		Date Received: 08/23/19 11:10		
	Report Limit	Results	Report Limit	Results				
Parameters	ug/m3	ug/m3	ppbv	ppbv	DF	Analyzed	CAS No.	
Air TO-15								
cis-1,2-Dichloroethene	1.4	<0.38	0.35	<0.094	1.75	08/28/19 23:03 CH1	156-59-2	
Tetrachloroethene	386	40100	56	5820	560	08/30/19 0:50 CH1	127-18-4	
trans-1,2-Dichloroethene	1.4	<0.50	0.35	<0.12	1.75	08/28/19 23:03 CH1	156-60-5	
Trichloroethene	0.96	38.0	0.18	7	1.75	08/28/19 23:03 CH1	79-01-6	
Vinyl chloride	0.46	<0.22	0.18	<0.085	1.75	08/28/19 23:03 CH1	75-01-4	



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Client: SCS Engineers Phone: 843.746.8525		Lab Project Number: 10488801 Project Name: 1133 North						
Lab Sample No: 104888010	)04	Pro	jSampleNum: 10	488801004		Date Collected: 08/22	2/19 10:50	
Client Sample ID: 1117 N	North Indoor Air		Matrix: Ai		Date Received: 08/23/19 11:10			
	Report Limit	Results	Report Limit	Results				
Parameters	ug/m3	ug/m3	ppbv	ppbv	DF	Analyzed	CAS No.	
<b>Air</b> TO-15								
cis-1,2-Dichloroethene	1.2	<0.34	0.3	<0.084	1.55	08/28/19 22:33 CH1	156-59-2	
Tetrachloroethene	32	1340	4.6	194	46.5	08/29/19 23:55 CH1	127-18-4	
trans-1,2-Dichloroethene	1.2	<0.44	0.3	<0.11	1.55	08/28/19 22:33 CH1	156-60-5	
Trichloroethene	0.85	10.2	0.16	1.9	1.55	08/28/19 22:33 CH1	79-01-6	
Vinyl chloride	0.4	<0.20	0.15	<0.077	1.55	08/28/19 22:33 CH1	75-01-4	
Lab Sample No: 104888010 Client Sample ID: 1131 N		ProjSampleNum: 10488801005 Matrix: Air			Date Collected: 08/21/19 12:30 Date Received: 08/23/19 11:10			
	Report Limit	Results	Report Limit	Results				
Parameters	ug/m3	ug/m3	ppbv	ppbv	DF	Analyzed	CAS No.	
<b>Air</b> TO-15								
cis-1,2-Dichloroethene	6930	<1880	1720	<466	8602	08/29/19 1:25 CH1	156-59-2	
Tetrachloroethene	5930	3510000	860	509000	8602	08/29/19 1:25 CH1	127-18-4	
trans-1,2-Dichloroethene	6930	<2450	1720	<608	8602	08/29/19 1:25 CH1	156-60-5	
Trichloroethene	4700	26000	860	4760	8602	08/29/19 1:25 CH1	79-01-6	
Vinyl chloride	2240	<1080	862	<416	8602	08/29/19 1:25 CH1	75-01-4	
Lab Sample No: 104888010	006	ProjSampleNum: 10488801006			Date Collected: 08/21/19 12:55			
Client Sample ID: 1131 S	South	Matrix: Air		r	Date Received: 08/23/19 11:10			
	Report Limit	Results	Report Limit	Results				
Parameters	ug/m3	ug/m3	ppbv	ppbv	DF	Analyzed	CAS No.	
<b>Air</b> TO-15								
cis-1,2-Dichloroethene	1.4	<0.38	0.35	<0.094	1.75	08/29/19 0:31 CH1	156-59-2	
Tetrachloroethene	772	108000	112	15700	1120	08/30/19 1:44 CH1	127-18-4	
trans-1,2-Dichloroethene	1.4	<0.50	0.35	<0.12	1.75	08/29/19 0:31 CH1	156-60-5	
Trichloroethene	0.96	7.2	0.18	1.3	1.75	08/29/19 0:31 CH1	79-01-6	



Client: Phone:		ngineers 6.8525		Lab Project Number: 10488801 Project Name: 1133 North					
Lab Sample	e No:	1048880100	)7	Pro	jSampleNum: 1	0488801007		Date Collected: 08	/21/19 14:00
Client Sample ID: 1113		1113 So	South Matrix: Air			Date Received: 08/23/19 11:10			
Parameters	6		Report Limit ug/m3	Results ug/m3	Report Limit ppbv	Results ppbv	DF	Analyzed	CAS No.
<b>Air</b> TO-15									
cis-1,2	2-Dichloro	pethene	1.5	<0.40	0.37	<0.099	1.83	08/28/19 23:32 CH	1 156-59-2
Tetrac	hloroethe	ene	202	7290	29.3	1060	293	08/30/19 0:23 CH	1 127-18-4
trans-1,2-Dichloroethene 1.5		<0.52	0.37	<0.13	1.83	08/28/19 23:32 CH	1 156-60-5		
Trichlo	proethene	9	1	19.1	0.18	3.5	1.83	08/28/19 23:32 CH	1 79-01-6
Vinyl c	chloride		0.48	<0.23	0.18	<0.089	1.83	08/28/19 23:32 CH	1 75-01-4

### Wisconsin DNR vapor intrusion quick facts

# What is Vapor Intrusion?



Chemicals used in commercial or industrial activities – dry cleaning chemicals, chemical degreasers and petroleum products such as gasoline – are sometimes spilled and leak into nearby soil or groundwater. When this happens, these chemicals may release gases or vapors, which travel from the contaminated groundwater or soil and move into nearby homes or businesses. This is called vapor intrusion.

# Why are these chemical vapors a problem?

The chemicals that cause vapor intrusion are known as volatile organic compounds, or VOCs. Even when spilled into soil or water, these chemicals easily evaporate. They don't cause human health problems when they evaporate into the outside air, but when their vapors move into homes or businesses, they may cause long-term health problems for the people who live or work in those buildings. These vapors are usually odorless and colorless and undetectable without special testing equipment.

#### Why is vapor intrusion a concern?

Exposure to some chemical gases or vapors can cause an increased risk of adverse health effects. Whether or not a person experiences any health effects depends on several factors, including the amount and length of exposure, the toxicity of the chemical, and the individual's sensitivity to the chemical. When harmful chemical vapor intrusion is the result of environmental contamination, the Wisconsin Department of Natural Resources (DNR) requires that steps be taken to reduce or eliminate exposures which could be harmful to human health. The process when chemical vapors from contaminated soil or groundwater enter a home or other structure is called vapor intrusion.

# What should I expect if vapor intrusion is suspected near my home or business?

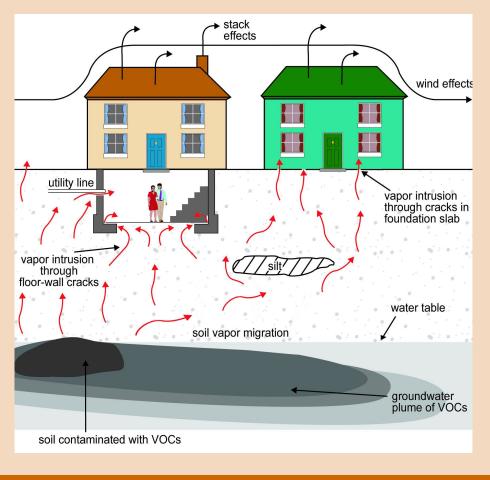
For businesses or other locations where VOC contamination has been found, the DNR requires that the potential for vapor intrusion be investigated. If you live near a site being cleaned up, you may be contacted by the site owner or others working on the cleanup. Your cooperation and consent will be requested before any testing or sampling is conducted on your property. Ask the person contacting you any questions you have about the work being done, or contact the DNR for more information (see DNR contact information on reverse). For more information about testing for vapor intrusion, see DNR-Pub-RR-954, "What to Expect During Vapor Intrusion Sampling."





# How Vapors Enter a Building

If you live near a commercial or industrial facility or landfill where VOCs have entered either the soil or groundwater, there may be a potential for those chemicals to travel as vapors into your home or business. Vapors can enter buildings in various ways, including through cracks in the foundation and openings for utility lines. Building ventilation and weather can influence the extent of vapor intrusion.



#### Adapted from U.S. Environmental Protection Agency (EPA) graphic. www.epa.gov/oswer/vaporintrusion/basic.html

#### Where can I find more information?

Health and vapor-related information can be found at the Wisconsin Department of Health Services (DHS) website at <u>dhs.wisconsin.gov</u>, search "Vapor." For other health-related questions, please contact your local health department: <u>www.dhs.wisconsin.gov/localhealth</u>.

For more DNR information, please visit the DNR's Remediation and Redevelopment (RR) Program's Vapor Intrusion page at <u>dnr.wi.gov/topic/Brownfields/Vapor.html</u>.

Additional information can be obtained through the DNR field office in your region. To find the correct office, visit the RR Program Staff Contacts page at <u>dnr.wi.gov/topic/Brownfields/Contact.html</u> or call the RR Program at (608) 266-2111.

This document contains information about certain state statutes and administrative rules but does not necessarily include all of the details found in the statutes and rules. Readers should consult the actual language of the statutes and rules to answer specific questions. The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240. This publication is available in alternative format upon request. Please call 608-267-3543 for more information.