

February 27, 2024  
File No. 25222269.06

Mr. Edgar Amilcar Tovar Perez  
2737 N. 29<sup>th</sup> Street  
Milwaukee, WI 53210

Subject: Sample Results Notification  
2737 N. 29<sup>th</sup> Street, Milwaukee  
WDNR Findley Adhesives  
BRRTS No. 03-41-005301

Dear Mr. Perez:

On behalf of the Wisconsin Department of Natural Resources (WDNR) through the Vapor Intrusion Zone Contract (VIZC), SCS Engineers (SCS) is providing sample results for sub-slab vapor and indoor air samples which were collected from your property by SCS in January 2024. The approximate sample locations are shown on the attached map (**Figure 1**).

The samples were submitted for analysis of five specific chlorinated volatile organic compounds (CVOCs), including tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene, trans-1,2-dichloroethene, and vinyl chloride. The sample laboratory reports are included as **Attachment A**.

CVOCs were not detected in the indoor air samples collected from your property. A minor concentration of PCE was detected in a sub-slab sample below the WDNR residential sub-slab vapor risk screening level (VRSL). No other CVOCs were detected in the samples. The sample results indicate there is not an indoor air health risk related to vapor intrusion of CVOCs.

The WDNR Publication RR-977 Understanding Chemical Vapor Testing Results with additional information for you is included as **Attachment B**. Up to two additional sampling events are planned for your property to evaluate potential variability of sub-slab vapor and indoor air concentrations. SCS will contact you in advance of these additional events to schedule access.

Once the final sampling event is completed, a final report with these findings will be prepared and submitted to the WDNR and listed on the Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web (BOTW).

Please contact Rob Hoverman of WDNR at (414) 497-0896 or [robert.hoverman@wisconsin.gov](mailto:robert.hoverman@wisconsin.gov) or Nathan Kloczko of Wisconsin Department of Health (DHS) at (608) 867-4448 or [Nathan.kloczko@dhs.wisconsin.gov](mailto:Nathan.kloczko@dhs.wisconsin.gov) if you have questions concerning the analytical results.



Edgar Amilcar Tovar Perez

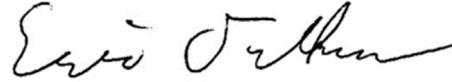
February 27, 2024

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Sincerely,



Robert Langdon  
Senior Project Manager  
SCS Engineers



Eric Oelkers, PG  
Senior Project Hydrogeologist  
SCS Engineers

REL/lmh/EO/TK

cc: Rob Hoverman, WDNR  
Nathan Kloczko, DHS

Attachments: Table 1 - Sub-Slab Vapor Analytical Results Summary  
Table 2 - Indoor Air Analytical Results Summary  
Figure 1 - Vapor Investigation Map  
Attachment A - Laboratory Reports  
Attachment B - WDNR Publication RR-977

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## Tables

- 1 Sub-Slab Vapor Analytical Result Summary
- 2 Indoor Air Analytical Results Summary

**Table 1. Sub-Slab Vapor Analytical Results Summary**  
**Findley Adhesives, Milwaukee, Wisconsin / SCS Engineers Project #25222269.06**  
 (Results are in  $\mu\text{g}/\text{m}^3$ )

Sample	Location	Sample Start Date	Sample End Date	Lab Notes	Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
10C_SSV_01_20240122	2737 N. 29th St.	1/10/2024	1/22/2024	--	<1.41	<1.76	<1.09	<1.32	<0.72
10C_SSV_02_20240122	2737 N. 29th St.	1/10/2024	1/22/2024	--	<b>1.82</b>	<1.76	<1.09	<1.32	<0.72
Vapor Risk Screening Level (Residential Building)					1,400	70	1,400	1,400	56
Vapor Risk Screening Level (Small Commercial Building)					5,800	290	5,800	5,800	930
Vapor Risk Screening Level (Large Commercial/Industrial Building)					18,000	880	18,000	18,000	2,800

Abbreviations:

$\mu\text{g}/\text{m}^3$  = micrograms per cubic meter  
 trans-1,2-DCE = trans-1,2-dichloroethene

cis-1,2-DCE = cis-1,2-dichloroethene  
 -- = Not Applicable

Notes:

1. Samples were collected using passive sorbent samplers and analyzed using the USEPA 8260C analytical method.
2. Vapor Risk Screening Levels are from Wisconsin Department of Natural Resources' WI Vapor Quick Look-Up Table, which is based on August 2023 U.S. EPA Regional Screening Level Tables.
3. **Bold+underlined** values meet or exceed Vapor Risk Screening Levels.

Lab Notes:

None

I:\25222269.00\25222269.06 Findley\Deliverables\Results Notification\2737 N 29th\[Table 1\_Sub-Slab Vapor Analytical Results Summary.xlsx]Sub-Slab Vapor

Created by: REL \_\_\_\_\_  
 Last revision by: REO \_\_\_\_\_  
 Checked by: AJR \_\_\_\_\_  
 Proj Mgr QA/QC: REL \_\_\_\_\_

Date: 2/13/2024 \_\_\_\_\_  
 Date: 2/14/2024 \_\_\_\_\_  
 Date: 2/14/2024 \_\_\_\_\_  
 Date: 2/16/2024 \_\_\_\_\_

**Table 2. Indoor Air Analytical Results Summary**  
**Findley Adhesives, Milwaukee, Wisconsin / SCS Engineers Project #25222269.06**  
 (Results are in  $\mu\text{g}/\text{m}^3$ )

Sample	Location	Sample Start Date	Sample End Date	Lab Notes	Tetrachloroethene (PCE)	Trichloroethene (TCE)	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
10C_IAB_01_20240122	2737 N. 29th St., Basement	1/10/2024	1/22/2024	(1)	<0.724	<0.899	<0.560	<0.675	<0.366
Indoor Air Vapor Action Level (Residential Building)					42	2.1	42	42	1.7
Indoor Air Vapor Action Level (Commercial/Industrial Building)					180	8.8	180	180	28

Abbreviations:

$\mu\text{g}/\text{m}^3$  = micrograms per cubic meter  
 trans-1,2-DCE = trans-1,2-dichloroethene

cis-1,2-DCE = cis-1,2-dichloroethene

-- = Not Applicable

Notes:

1. Samples were collected using passive sorbent samplers analyzed using EPA Method TO-17.
2. Indoor Air Vapor Action Levels are from Wisconsin Department of Natural Resources' WI Vapor Quick Look-Up Table, which is based on August 2023 U.S. EPA Regional Screening Level Tables.
3. **Bold+underlined** values meet or exceed Indoor Air Vapor Action Levels.

Lab Notes/Qualifiers:

J = Value reported below limit of quantitation (LOQ).

- (1) All non-detected analytes = Analyte was not detected and is reported as less than the limit of detection (LOD).  
 The LOD has been adjusted for any dilution or concentration of the sample.

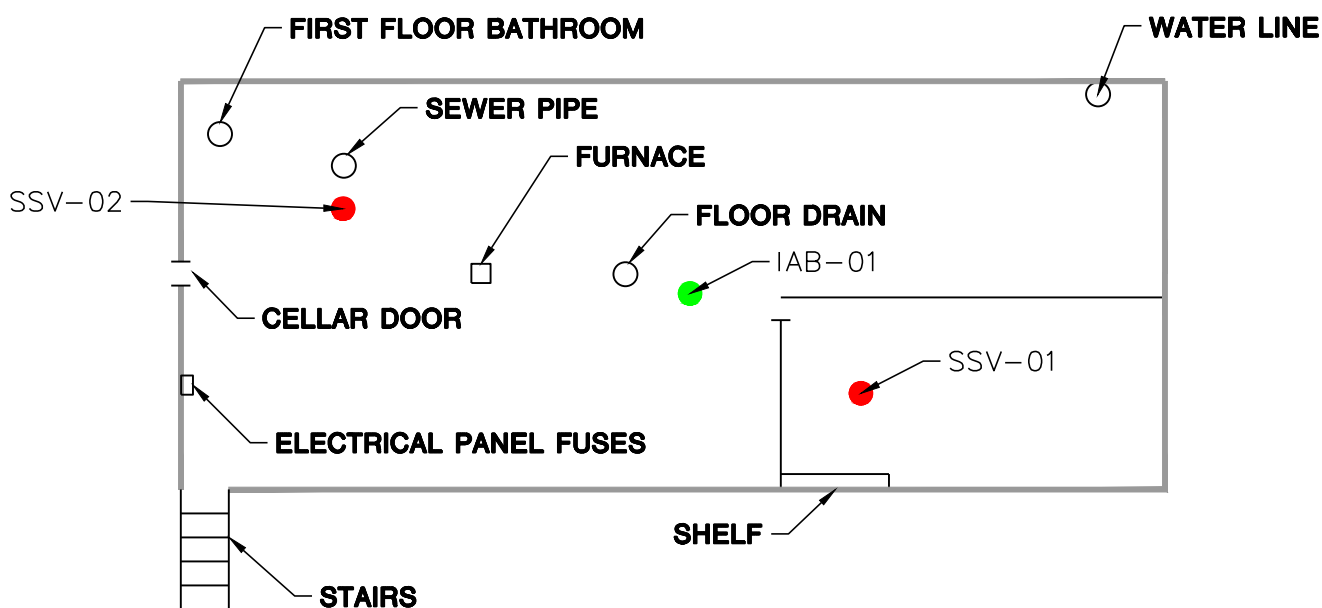
I:\25222269.00\25222269.06 Findley\\_Deliverables\Results Notification\2737 N 29th\[Table 2\_Indoor Air Analytical Results Summary.xlsx]Indoor Air

Created by: REL  
 Last revision by: REO  
 Checked by: LMH  
 Proj Mgr QA/QC: REL

Date: 2/13/2024  
 Date: 2/15/2024  
 Date: 2/16/2024  
 Date: 2/16/2024

Figure 1  
Vapor Investigation Map

2737 N. 29TH ST.  
**BASEMENT LEVEL**



SCALE: 1" = 8'

**NOTES:**

- BUILDING DETAILS AND SAMPLE LOCATIONS ARE APPROXIMATE.
- INDOOR AIR SAMPLE IA1-02 NOT COLLECTED AS HOME WAS UNDER RENOVATION.

**LEGEND**

- SUB-SLAB SAMPLE LOCATION
- BASEMENT INDOOR AIR SAMPLE LOCATION

CLIENT	WISCONSIN DEPARTMENT OF NATURAL RESOURCES		SITE	FINDLEY ADHESIVES, SITE ID #10 2737 N. 29TH STREET, MILWAUKEE PROPERTY SAMPLE IDENTIFIER C		VAPOR INVESTIGATION MAP	
	PROJECT NO.	25222269.06		DRAWN BY:	SB	ENGINEER	<b>SCS ENGINEERS</b> 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830
DRAWN:	01/08/2024	CHECKED BY:	REL	1			
REVISED:	02/23/2024	APPROVED BY:	REL (02/23/2024)				

Attachment A  
Laboratory Reports





Beacon Environmental

526 Underwood Lane  
Bel Air, MD 21014 USA  
1.410.838.8780

CERTIFICATE OF ANALYSIS

Beacon Proposal No.: 231222R02

Laboratory Work Order: 0007500

**Project Description:**

Findley Adhesives  
Milwaukee, WI

Client PO No.: 25222269.06-002

Prepared for:

Jacob Krause

**SCS Engineers**

2830 Dairy Drive

Madison, WI 53718-6751

---

Ryan W. Schneider  
Senior Project Manager

February 13, 2024

All data meet requirements as specified in the Beacon Environmental Quality Assurance Project Plan and the results relate only to the samples reported. The work performed was in accordance with ISO/IEC 17025:2017. This report shall not be reproduced, except in full, without written approval of the laboratory. Release of the data contained in this data package has been authorized by the Laboratory Director or his signee, as verified by the following signatures:

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Steven C. Thornley  
Laboratory Director

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Peter B. Kelly  
Quality Manager

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SCS Engineers  
 2830 Dairy Drive  
 Madison, WI 53718-6751

**Site Name:** Findley Adhesives  
**Site Location:** Milwaukee, WI  
**Project Manager:** Jacob Krause

**Beacon Proposal:** 231222R02  
**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

### Sample Summary

Lab Sample ID	Client Sample ID	Received	Analysis	Matrix
0007500-01 Sampler Type:	10C_SSV_01_20240122 Beacon Passive Sampler	01/31/2024	EPA 8260C	Soil Gas
0007500-02 Sampler Type:	10C_SSV_02_20240122 Beacon Passive Sampler	01/31/2024	EPA 8260C	Soil Gas

#### Project Completeness

**Samples Received:** 2  
**Samples Analyzed:** 2

SCS Engineers  
2830 Dairy Drive  
Madison, WI 53718-6751

Site Name: Findley Adhesives  
Site Location: Milwaukee, WI  
Project Manager: Jacob Krause

Beacon Proposal: 231222R02  
Lab Work Order: 0007500  
Reported: 02/13/2024

### *Case Narrative*

#### **U.S. EPA Method 8260C**

All samples were analyzed using thermal desorption-gas chromatography/mass spectrometry (TD-GC/MS) instrumentation following U.S. EPA Method 8260C, with laboratory results provided in nanograms (ng) and micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). Laboratory QA/QC procedures included internal standards, surrogates, and blanks based on EPA Method 8260C. Analyses and reporting were under BEACON's Quality Assurance Project Plan.

#### **Passive Soil-Gas Survey Notes**

If sample locations are covered with or near the edge of an impervious surface (*e.g.*, asphalt or concrete), the concentrations of compounds in soil gas are higher than if the surfacing was not present. Therefore, the sample location conditions should be considered when comparing results between locations.

Survey findings are exclusive to this project and when the spatial relationships are compared with results of other BEACON Surveys it is necessary to incorporate information from both investigations (*e.g.*, depth to sources, soil types, porosity, soil moisture, presence of impervious surfacing, sample collection times).

#### **Reporting Limits**

The RLs represent a baseline above which results meet laboratory-determined limits of precision and accuracy. All reported results are within the calibration range. The project method quantitation limit (MQL) is the limit of quantitation (LOQ) as noted in the data tables. Beacon determined uptake rates for a suite of compounds with the Beacon sampler for sampling in air. Beacon calculated the uptake rates for the remaining compounds using Graham's Law of Diffusion. The reported data includes LOQ limits.

#### **Project Details**

Samples were received in proper condition and laboratory control parameters were met unless otherwise noted below. The work performed was in accordance with ISO/IEC 17025:2017.

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

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**Beacon Proposal:** 231222R02  
**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

## *Analytical Results*

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

**Site Name:** Findley Adhesives  
**Site Location:** Milwaukee, WI  
**Project Manager:** Jacob Krause

**Beacon Proposal:** 231222R02  
**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

*Summary of Compound Detections- Mass*

Lab Sample ID: 0007500-02	<b>10C_SSV_02_20240122</b>	Method: EPA 8260C
Soil Gas		

Analyte	CAS#	Result (ng)	Q	RT	LOQ (ng)	File ID
<b>Tetrachloroethene</b>	127-18-4	<b>13</b>		8.075	10	Kc24021211.D

<b>SCS Engineers</b> 2830 Dairy Drive Madison, WI 53718-6751	<b>Site Name:</b> Findley Adhesives <b>Site Location:</b> Milwaukee, WI <b>Project Manager:</b> Jacob Krause	<b>Beacon Proposal:</b> 231222R02 <b>Lab Work Order:</b> 0007500 <b>Reported:</b> 02/13/2024
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*Summary of Compound Detections- Concentration*

Lab Sample ID: 0007500-02	<b>10C_SSV_02_20240122</b> Soil Gas	Method: EPA 8260C
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Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	File ID
<b>Tetrachloroethene</b>	127-18-4	<b>1.82</b>		8.075	1.41	Kc24021211.D

SCS Engineers  
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Madison, WI 53718-6751

Site Name: Findley Adhesives  
Site Location: Milwaukee, WI  
Project Manager: Jacob Krause

Beacon Proposal: 231222R02  
Lab Work Order: 0007500  
Reported: 02/13/2024

*Data Summary Table- Mass*

Compound	Frequency	LOQ (ng)	Max Value (ng)
Tetrachloroethene	1	10	13



<b>SCS Engineers</b> 2830 Dairy Drive Madison, WI 53718-6751	<b>Site Name:</b> Findley Adhesives <b>Site Location:</b> Milwaukee, WI <b>Project Manager:</b> Jacob Krause	<b>Beacon Proposal:</b> 231222R02 <b>Lab Work Order:</b> 0007500 <b>Reported:</b> 02/13/2024
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***Data Summary Table- Concentration***

<b>Compound</b>	<b>Frequency</b>	<b>LOQ (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Max Value (<math>\mu\text{g}/\text{m}^3</math>)</b>
Tetrachloroethene	1	1.41	1.82

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**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

*Detailed Analytical Results*

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

**Site Name:** Findley Adhesives  
**Site Location:** Milwaukee, WI  
**Project Manager:** Jacob Krause

**Beacon Proposal:** 231222R02  
**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

*Detailed Analytical Results- Mass*

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

**Site Name:** Findley Adhesives  
**Site Location:** Milwaukee, WI  
**Project Manager:** Jacob Krause

**Beacon Proposal:** 231222R02  
**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

Lab Sample ID: 0007500-01

**10C\_SSV\_01\_20240122**

Method: EPA 8260C

Soil Gas

Analyte	CAS#	Result (ng) Q	LOQ (ng)	Analyzed	File ID	
Vinyl Chloride	75-01-4	<10	10	02/13/2024 03:16	Kc24021210.D	
trans-1,2-Dichloroethene	156-60-5	<10	10	02/13/2024 03:16	Kc24021210.D	
cis-1,2-Dichloroethene	156-59-2	<10	10	02/13/2024 03:16	Kc24021210.D	
Trichloroethene	79-01-6	<10	10	02/13/2024 03:16	Kc24021210.D	
Tetrachloroethene	127-18-4	<10	10	02/13/2024 03:16	Kc24021210.D	
Analyte	CAS#	% Recovery	Recovery Limits	Q	Analyzed	File ID
Surrogate: 1,2-DCA-d4	17060-07-0	87.0%	70-130		02/13/2024 03:16	Kc24021210.D
Surrogate: Toluene-d8	2037-26-5	96.3%	70-130		02/13/2024 03:16	Kc24021210.D
Surrogate: Bromofluorobenzene	460-00-4	89.9%	70-130		02/13/2024 03:16	Kc24021210.D

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**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

Lab Sample ID: 0007500-02

**10C\_SSV\_02\_20240122**

Method: EPA 8260C

Soil Gas

Analyte	CAS#	Result (ng) Q	LOQ (ng)	Analyzed	File ID	
Vinyl Chloride	75-01-4	<10	10	02/13/2024 03:45	Kc24021211.D	
trans-1,2-Dichloroethene	156-60-5	<10	10	02/13/2024 03:45	Kc24021211.D	
cis-1,2-Dichloroethene	156-59-2	<10	10	02/13/2024 03:45	Kc24021211.D	
Trichloroethene	79-01-6	<10	10	02/13/2024 03:45	Kc24021211.D	
<b>Tetrachloroethene</b>	127-18-4	<b>13</b>	10	02/13/2024 03:45	Kc24021211.D	
Analyte	CAS#	% Recovery	Recovery Limits	Q	Analyzed	File ID
Surrogate: 1,2-DCA-d4	17060-07-0	97.1%	70-130		02/13/2024 03:45	Kc24021211.D
Surrogate: Toluene-d8	2037-26-5	95.7%	70-130		02/13/2024 03:45	Kc24021211.D
Surrogate: Bromofluorobenzene	460-00-4	89.5%	70-130		02/13/2024 03:45	Kc24021211.D

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**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

*Detailed Analytical Results- Concentration*

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

**Site Name:** Findley Adhesives  
**Site Location:** Milwaukee, WI  
**Project Manager:** Jacob Krause

**Beacon Proposal:** 231222R02  
**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

Lab Sample ID: 0007500-01

**10C\_SSV\_01\_20240122**

Method: EPA 8260C

Soil Gas

Analyte	CAS#	Result (µg/m <sup>3</sup> )	Q	LOQ (µg/m <sup>3</sup> )	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.72		0.72	02/13/2024 03:16	Kc24021210.D
trans-1,2-Dichloroethene	156-60-5	<1.32		1.32	02/13/2024 03:16	Kc24021210.D
cis-1,2-Dichloroethene	156-59-2	<1.09		1.09	02/13/2024 03:16	Kc24021210.D
Trichloroethene	79-01-6	<1.76		1.76	02/13/2024 03:16	Kc24021210.D
Tetrachloroethene	127-18-4	<1.41		1.41	02/13/2024 03:16	Kc24021210.D
Analyte	CAS#	% Recovery	Recovery Limits	Q	Analyzed	File ID
Surrogate: 1,2-DCA-d4	17060-07-0	87.0%	70-130		02/13/2024 03:16	Kc24021210.D
Surrogate: Toluene-d8	2037-26-5	96.3%	70-130		02/13/2024 03:16	Kc24021210.D
Surrogate: Bromofluorobenzene	460-00-4	89.9%	70-130		02/13/2024 03:16	Kc24021210.D

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**Beacon Proposal:** 231222R02  
**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

Lab Sample ID: 0007500-02

**10C\_SSV\_02\_20240122**

Method: EPA 8260C

Soil Gas

Analyte	CAS#	Result (µg/m <sup>3</sup> )	Q	LOQ (µg/m <sup>3</sup> )	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.72		0.72	02/13/2024 03:45	Kc24021211.D
trans-1,2-Dichloroethene	156-60-5	<1.32		1.32	02/13/2024 03:45	Kc24021211.D
cis-1,2-Dichloroethene	156-59-2	<1.09		1.09	02/13/2024 03:45	Kc24021211.D
Trichloroethene	79-01-6	<1.76		1.76	02/13/2024 03:45	Kc24021211.D
<b>Tetrachloroethene</b>	127-18-4	<b>1.82</b>		1.41	02/13/2024 03:45	Kc24021211.D
Analyte	CAS#	% Recovery	Recovery Limits	Q	Analyzed	File ID
Surrogate: 1,2-DCA-d4	17060-07-0	97.1%	70-130		02/13/2024 03:45	Kc24021211.D
Surrogate: Toluene-d8	2037-26-5	95.7%	70-130		02/13/2024 03:45	Kc24021211.D
Surrogate: Bromofluorobenzene	460-00-4	89.5%	70-130		02/13/2024 03:45	Kc24021211.D



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**Beacon Proposal:** 231222R02  
**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

## *QC Information/Summary*

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

**Site Name:** Findley Adhesives  
**Site Location:** Milwaukee, WI  
**Project Manager:** Jacob Krause

**Beacon Proposal:** 231222R02  
**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

*Soil-Gas Sample Analysis by EPA Method 8260C - Quality Control Summary*
**Sequence: B24A120 - Instrument: K System - File ID: Kb24013016.D**
*B24A120-ICV1 (LCSD/Second Source Verification/CALV)*

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	53.7	10	ng	50.0		107	70-130			
trans-1,2-Dichloroethene	52.6	10	ng	50.0		105	70-130			
cis-1,2-Dichloroethene	50.6	10	ng	50.0		101	70-130			
Trichloroethene	49.6	10	ng	50.0		99.2	70-130			
Tetrachloroethene	46.3	10	ng	50.0		92.5	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>51.5</i>		<i>ng</i>	<i>50.0</i>		<i>103</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>50.1</i>		<i>ng</i>	<i>50.0</i>		<i>100</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>45.9</i>		<i>ng</i>	<i>50.0</i>		<i>91.9</i>	<i>70-130</i>			

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**Beacon Proposal:** 231222R02  
**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

*Soil-Gas Sample Analysis by EPA Method 8260C - Quality Control Summary*
**Sequence: B24A120 - Instrument: K System - File ID: Kb24013020.D**
***B24A120-ICB1 (Lab Blank/Initial Calibration Blank)***

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	ng							U
trans-1,2-Dichloroethene	<5	10	ng							U
cis-1,2-Dichloroethene	<5	10	ng							U
Trichloroethene	<5	10	ng							U
Tetrachloroethene	<5	10	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>104</i>		<i>ng</i>	<i>100</i>		<i>104</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>101</i>		<i>ng</i>	<i>100</i>		<i>101</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>91.4</i>		<i>ng</i>	<i>100</i>		<i>91.4</i>	<i>70-130</i>			

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

**Site Name:** Findley Adhesives  
**Site Location:** Milwaukee, WI  
**Project Manager:** Jacob Krause

**Beacon Proposal:** 231222R02  
**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

*Soil-Gas Sample Analysis by EPA Method 8260C - Quality Control Summary*
**Sequence: B24B025 - Batch: 24B0019 - Instrument: K System - File ID: Kc24021202.D**
**24B0019-BS1 (LCS, Calibration Source Verification)**

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	55.1	10	ng	50.0		110	80-120			
trans-1,2-Dichloroethene	53.6	10	ng	50.0		107	80-120			
cis-1,2-Dichloroethene	49.2	10	ng	50.0		98.4	80-120			
Trichloroethene	47.1	10	ng	50.0		94.2	80-120			
Tetrachloroethene	43.8	10	ng	50.0		87.6	80-120			
<i>Surrogate: 1,2-DCA-d4</i>	<i>55.2</i>		<i>ng</i>	<i>50.0</i>		<i>110</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>51.2</i>		<i>ng</i>	<i>50.0</i>		<i>102</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>45.4</i>		<i>ng</i>	<i>50.0</i>		<i>90.8</i>	<i>70-130</i>			

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**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

*Soil-Gas Analysis by EPA 8260 - Data in Concentration - Quality Control Summary*
**Sequence: B24B025 - Batch: 24B0019 - Instrument: K System - File ID: Kc24021203.D**
**24B0019-BLK1 (Lab Blank)**

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<0.715	0.715	µg/m <sup>3</sup>							U
trans-1,2-Dichloroethene	<1.32	1.32	µg/m <sup>3</sup>							U
cis-1,2-Dichloroethene	<1.09	1.09	µg/m <sup>3</sup>							U
Trichloroethene	<1.76	1.76	µg/m <sup>3</sup>							U
Tetrachloroethene	<1.41	1.41	µg/m <sup>3</sup>							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>108</i>		<i>ng</i>	<i>100</i>		<i>108</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>102</i>		<i>ng</i>	<i>100</i>		<i>102</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>86.5</i>		<i>ng</i>	<i>100</i>		<i>86.5</i>	<i>70-130</i>			

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**Reported:** 02/13/2024

*Soil-Gas Sample Analysis by EPA Method 8260C - Quality Control Summary*
**Sequence: B24B025 - Batch: 24B0019 - Instrument: K System - File ID: Kc24021203.D**
**24B0019-BLK1 (Lab Blank)**

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	ng							U
trans-1,2-Dichloroethene	<5	10	ng							U
cis-1,2-Dichloroethene	<5	10	ng							U
Trichloroethene	<5	10	ng							U
Tetrachloroethene	<5	10	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>108</i>		<i>ng</i>	<i>100</i>		<i>108</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>102</i>		<i>ng</i>	<i>100</i>		<i>102</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>86.5</i>		<i>ng</i>	<i>100</i>		<i>86.5</i>	<i>70-130</i>			

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**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

*Soil-Gas Sample Analysis by EPA Method 8260C - Quality Control Summary*
**Sequence: B24B025 - Instrument: K System - File ID: Kc24021204.D**
***B24B025-ICV1 (LCSD/Second Source Verification/CALV)***

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	55.6	10	ng	50.0		111	70-130			
trans-1,2-Dichloroethene	53.3	10	ng	50.0		107	70-130			
cis-1,2-Dichloroethene	50.7	10	ng	50.0		101	70-130			
Trichloroethene	49.1	10	ng	50.0		98.1	70-130			
Tetrachloroethene	45.2	10	ng	50.0		90.4	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>54.1</i>		<i>ng</i>	<i>50.0</i>		<i>108</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>51.8</i>		<i>ng</i>	<i>50.0</i>		<i>104</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>43.3</i>		<i>ng</i>	<i>50.0</i>		<i>86.6</i>	<i>70-130</i>			

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**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

*Soil-Gas Sample Analysis by EPA Method 8260C - Quality Control Summary*
**Sequence: B24B025 - Instrument: K System - File ID: Kc24021212.D**
***B24B025-CCV1 (LCS, Closing Calibration Verification)***

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	53.8	10	ng	50.0		108	50-150			
trans-1,2-Dichloroethene	51.4	10	ng	50.0		103	50-150			
cis-1,2-Dichloroethene	49.5	10	ng	50.0		99.0	50-150			
Trichloroethene	47.1	10	ng	50.0		94.2	50-150			
Tetrachloroethene	42.5	10	ng	50.0		85.0	50-150			
<i>Surrogate: 1,2-DCA-d4</i>	<i>53.4</i>		<i>ng</i>	<i>50.0</i>		<i>107</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>51.3</i>		<i>ng</i>	<i>50.0</i>		<i>103</i>	<i>50-150</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>43.5</i>		<i>ng</i>	<i>50.0</i>		<i>87.1</i>	<i>50-150</i>			



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**Beacon Proposal:** 231222R02  
**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

*Soil-Gas Analysis by EPA 8260 - Data in Concentration - Quality Control Summary*
**Sequence: B24B025 - Instrument: K System - File ID: Kc24021213.D**
***B24B025-CCB1 (Lab Blank)***

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	ng							U
trans-1,2-Dichloroethene	<5	10	ng							U
cis-1,2-Dichloroethene	<5	10	ng							U
Trichloroethene	<5	10	ng							U
Tetrachloroethene	<5	10	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>107</i>		<i>ng</i>	<i>100</i>		<i>107</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>101</i>		<i>ng</i>	<i>100</i>		<i>101</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>87.4</i>		<i>ng</i>	<i>100</i>		<i>87.4</i>	<i>70-130</i>			

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**Beacon Proposal:** 231222R02  
**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

*Soil-Gas Analysis by EPA 8260 - Data in Concentration - Quality Control Summary*
**Sequence: B24B025 - Instrument: K System - File ID: Kc24021220.D**
***B24B025-CCB2 (Lab Blank)***

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	ng							U
trans-1,2-Dichloroethene	<5	10	ng							U
cis-1,2-Dichloroethene	<5	10	ng							U
Trichloroethene	<5	10	ng							U
Tetrachloroethene	<5	10	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>108</i>		<i>ng</i>	<i>100</i>		<i>108</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>103</i>		<i>ng</i>	<i>100</i>		<i>103</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>86.7</i>		<i>ng</i>	<i>100</i>		<i>86.7</i>	<i>70-130</i>			

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**Beacon Proposal:** 231222R02  
**Lab Work Order:** 0007500  
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*Additional QC Information*

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

**Site Name:** Findley Adhesives  
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**Beacon Proposal:** 231222R02  
**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

**Sample Result Calculation Summary (Concentration)**
**EPA 8260C**

Analyte	t Sampling Time minutes	DF Dilution Factor	U Uptake Rate	M Initial Result ng	C Calculated Result µg/m <sup>3</sup>	File ID
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**Lab ID:** 0007500-01      **Sample Name:** 10C\_SSV\_01\_20240122

Vinyl Chloride	17,265	1.00	0.810	U	U	Kc24021210.D
trans-1,2-Dichloroethene	17,265	1.00	0.440	U	U	Kc24021210.D
cis-1,2-Dichloroethene	17,265	1.00	0.530	U	U	Kc24021210.D
Trichloroethene	17,265	1.00	0.330	U	U	Kc24021210.D
Tetrachloroethene	17,265	1.00	0.410	U	U	Kc24021210.D

**Lab ID:** 0007500-02      **Sample Name:** 10C\_SSV\_02\_20240122

Vinyl Chloride	17,261	1.00	0.810	U	U	Kc24021211.D
trans-1,2-Dichloroethene	17,261	1.00	0.440	U	U	Kc24021211.D
cis-1,2-Dichloroethene	17,261	1.00	0.530	U	U	Kc24021211.D
Trichloroethene	17,261	1.00	0.330	U	U	Kc24021211.D
Tetrachloroethene	17,261	1.00	0.410	12.85	1.82	Kc24021211.D

Calculations:

$$C = \frac{1000 \times M \times DF}{U \times t}$$

where: C = concentration (µg/m<sup>3</sup>)  
 M = mass (ng)  
 DF = dilution factor  
 t = sampling time (minutes)  
 U = compound specific uptake rate

*Reference: Federal Register/Vol. 79, No. 125/June 30, 2014*

SCS Engineers  
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 Site Location: Milwaukee, WI  
 Project Manager: Jacob Krause

Beacon Proposal: 231222R02  
 Lab Work Order: 0007500  
 Reported: 02/13/2024

### Method Detection and Reporting Limit Calculations (Concentration)

#### EPA 8260C

Analyte	t Sampling Time minutes	DF Dilution Factor	U Uptake Rate	M Initial LOQ ng	C Calculated LOQ µg/m <sup>3</sup>
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Lab ID: 0007500-01      Sample Name: 10C\_SSV\_01\_20240122

Vinyl Chloride	17,265	1.00	0.810	10.0	0.72
trans-1,2-Dichloroethene	17,265	1.00	0.440	10.0	1.32
cis-1,2-Dichloroethene	17,265	1.00	0.530	10.0	1.09
Trichloroethene	17,265	1.00	0.330	10.0	1.76
Tetrachloroethene	17,265	1.00	0.410	10.0	1.41

Lab ID: 0007500-02      Sample Name: 10C\_SSV\_02\_20240122

Vinyl Chloride	17,261	1.00	0.810	10.0	0.72
trans-1,2-Dichloroethene	17,261	1.00	0.440	10.0	1.32
cis-1,2-Dichloroethene	17,261	1.00	0.530	10.0	1.09
Trichloroethene	17,261	1.00	0.330	10.0	1.76
Tetrachloroethene	17,261	1.00	0.410	10.0	1.41

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**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

### *Laboratory Certification List*

Certification ID	Certification No.	Description	Expires	Project Required
Alaska CS-LAP	19-002	Alaska Department of Environmental Conservation	12/30/2024	
DoD-ELAP	72690/L22-563	United States Department of Defense Environmental Laboratory Accreditation	11/30/2024	
ISO/IEC 17025:2017	72690/L22-563	General Requirements for the Competence of Testing and Calibration Laboratories	11/30/2024	
NEFAP	72690/L22-564	TNI National Environmental Field Activities Program (NEFAP)	11/30/2024	
NY-NELAC	12097	New York Department of Health	04/01/2024	
Utah-NELAC	MD010912023-14	Utah Department of Health	12/31/2024	

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Beacon Proposal: 231222R02  
Lab Work Order: 0007500  
Reported: 02/13/2024

### Qualifiers/Notes and Definitions

**General Definitions:**

DF	Dilution Factor
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
NA	Not Applicable
Q	Qualifier
RPD	Relative Percent Difference
RT	Retention Times in Minutes
RRT	Evaluation of Relative Retention Times in RRT Units (qualified if outside $\pm 0.06$ control limits)
$3\sigma$	Uncertainty
∉	Compound not on scope of accreditation
+	values are outside method/contract required QC limits
∅	Compound not on scope of accreditation and analyzed with a one-point calibration

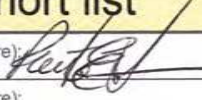
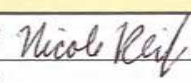
**SCS Engineers**  
2830 Dairy Drive  
Madison, WI 53718-6751

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**Beacon Proposal:** 231222R02  
**Lab Work Order:** 0007500  
**Reported:** 02/13/2024

*Sample Management Records*



Project Information				Client Information			
Site Name: <b>Findley Adhesives</b>				Company Name: <b>SCS Engineers</b>		Project Manager: <b>Robert Langdon</b>	
Site Location: <b>2737 N. 29th St. ID:10C</b>				Office Location: <b>2830 Dairy Drive, Madison, WI</b>		Client PO: <b>25222269.06</b>	
				Submitted by: <b>Robert Langdon</b>		Turn around time (check one): <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush (specify) ____ days	
				Email: <b>rlangdon@scsengineers.com</b>			
Field Sample ID	Start Date	Start Time	Stop Date	Stop Time	Sampling Hole Depth <input type="checkbox"/> cm <input checked="" type="checkbox"/> inches	Surface Type (Soil, Asphalt, Concrete, Gravel)	Optional Information (Location Description, Sample Condition, PID / FID Readings, etc)
✓ 10C_SSV_01_20240110	01/10/24	1207	11/22/24	1158	4.75"	Concrete Slab	Sub-Slab 01
✓ 10C_SSV_02_20240110	01/10/24	1155	11/22/24	1136	6"	Concrete Slab	Slub-Slab 02
Special Instructions: <b>Short list</b>							
Relinquished by (signature): 		Date / Time: <b>1/30/24 18:00</b>		Received by (signature): 		Date / Time: <b>1/31/24 12:00</b>	
Relinquished by (signature):		Date / Time:		Received by (signature):		Date / Time:	
<b>For Lab Use Only</b>		Beacon Job No: <b>7500</b>		Beacon Proposal: <b>231222R01<sup>2</sup></b>		Analytical Method:	
Courier Name: <b>FedEx</b>		Shipment Condition: <b>Good</b>		Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> n/a		Custody Seal No: <b>n/a</b>	



Beacon Environmental

526 Underwood Lane  
Bel Air, MD 21014 USA  
1.410.838.8780

CERTIFICATE OF ANALYSIS

Beacon Proposal No.: 231222R04

Laboratory Work Order: 0007504

**Project Description:**

Findley Adhesives  
Milwaukee, WI

Client PO No.: 2522269.06-004

Prepared for:

Jacob Krause

**SCS Engineers**

2830 Dairy Drive

Madison, WI 53718-6751

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Ryan W. Schneider  
Senior Project Manager

February 14, 2024

All data meet requirements as specified in the Beacon Environmental Quality Assurance Project Plan and the results relate only to the samples reported. The work performed was in accordance with ISO/IEC 17025:2017. This report shall not be reproduced, except in full, without written approval of the laboratory. Release of the data contained in this data package has been authorized by the Laboratory Director or his signee, as verified by the following signatures:

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Steven C. Thornley  
Laboratory Director

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Peter B. Kelly  
Quality Manager

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<b>SCS Engineers</b> 2830 Dairy Drive Madison, WI 53718-6751	<b>Site Name:</b> Findley Adhesives <b>Site Location:</b> Milwaukee, WI <b>Project Manager:</b> Jacob Krause	<b>Beacon Proposal:</b> 231222R04 <b>Lab Work Order:</b> 0007504 <b>Reported:</b> 02/14/2024
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**Sample Summary**

Lab Sample ID	Client Sample ID	Received	Analysis	Matrix
0007504-01	10C_IAB_01_20240122	01/31/2024	TO-17 (Passive)	Indoor Air
Sampler Type: Beacon Passive Sampler				

**Project Completeness**

**Samples Received:** 1  
**Samples Analyzed:** 1

SCS Engineers  
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Madison, WI 53718-6751

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**Project Manager:** Jacob Krause

**Beacon Proposal:** 231222R04  
**Lab Work Order:** 0007504  
**Reported:** 02/14/2024

### *Case Narrative*

Beacon Environmental provided thermally conditioned Beacon Samplers for sampling, with analyses following U.S. EPA Method TO-17, with analytical results reported in  $\mu\text{g}/\text{m}^3$ . Beacon calculated concentration results using the exposure period, target analyte mass, and the following procedures detailed in ISO 16017-2, *Indoor, ambient and workplace air-Sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography-Part 2: Diffusive sampling*.

Beacon reports results and reporting limits to three significant digits.

#### **Reporting Limits (RLs) for EPA Method TO-17**

The RLs represent a baseline above which results meet laboratory-determined limits of precision and accuracy. Beacon performed dilution analysis when results exceeded the upper calibration limit, bringing all reported results within the calibration range. The project method quantitation limit (MQL) is the limit of detection (LOD) as noted in the data tables.

#### **Calibration Verification**

All continuing calibration verification (CCV) values are within  $\pm 30\%$  of the true values as defined by the initial calibration and met the requirements specified in BEACON's Quality Manual.

#### **Internal Standards and Surrogates**

Internal standards and surrogates are spiked on all blanks (ICB, BLK), field samples and laboratory control samples (ICV/CALV, BS, ICV and CCV). Acceptance criteria for internal standards are 60 to 140 percent and surrogate recoveries are 70 to 130 percent; all internal standards and surrogates are within the acceptance criteria unless noted in the **Case Narrative**.

#### **Blank Contamination**

No targeted compounds above the limit of detection (LOD) for each compound were observed in the Laboratory Method Blanks unless noted in the **Case Narrative**.

#### **Laboratory Control Samples**

Acceptance criteria for surrogate and analytes recoveries are 70 to 130 percent; all recoveries are within the acceptance criteria unless noted in the **Case Narrative**.

#### **Discussion**

Samples were received in proper condition and laboratory control parameters were met unless otherwise noted below. The work performed was in accordance with ISO/IEC 17025:2017.

End of Case Narrative

**SCS Engineers**  
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**Lab Work Order:** 0007504  
**Reported:** 02/14/2024

## *Analytical Results*

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

**Site Name:** Findley Adhesives  
**Site Location:** Milwaukee, WI  
**Project Manager:** Jacob Krause

**Beacon Proposal:** 231222R04  
**Lab Work Order:** 0007504  
**Reported:** 02/14/2024

*Detailed Analytical Results*

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

**Site Name:** Findley Adhesives  
**Site Location:** Milwaukee, WI  
**Project Manager:** Jacob Krause

**Beacon Proposal:** 231222R04  
**Lab Work Order:** 0007504  
**Reported:** 02/14/2024

Lab Sample ID: 0007504-01

**10C\_IAB\_01\_20240122**

Method: TO-17 (Passive)

Indoor Air

Analyte	CAS#	Result (µg/m <sup>3</sup> )	Q	LOD (µg/m <sup>3</sup> )	LOQ (µg/m <sup>3</sup> )	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.366	U	0.366	0.733	02/12/2024 19:31	Kb24021210.D
trans-1,2-Dichloroethene	156-60-5	<0.675	U	0.675	1.35	02/12/2024 19:31	Kb24021210.D
cis-1,2-Dichloroethene	156-59-2	<0.560	U	0.560	1.12	02/12/2024 19:31	Kb24021210.D
Trichloroethene	79-01-6	<0.899	U	0.899	1.80	02/12/2024 19:31	Kb24021210.D
Tetrachloroethene	127-18-4	<0.724	U	0.724	1.45	02/12/2024 19:31	Kb24021210.D
Analyte	CAS#	% Recovery	Recovery Limits	Q		Analyzed	File ID
Surrogate: 1,2-DCA-d4	17060-07-0	100%	70-130			02/12/2024 19:31	Kb24021210.D
Surrogate: Toluene-d8	2037-26-5	94.9%	70-130			02/12/2024 19:31	Kb24021210.D
Surrogate: Bromofluorobenzene	460-00-4	91.1%	70-130			02/12/2024 19:31	Kb24021210.D



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**Reported:** 02/14/2024

## *QC Information/Summary*

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

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**Reported:** 02/14/2024

*Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary*

**Sequence: B24A120 - Instrument: K System - File ID: Kb24013016.D**
***B24A120-ICV1 (LCSD/Second Source Verification/CALV)***

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	53.7	10	5	ng	50.0		107	70-130			
trans-1,2-Dichloroethene	52.6	10	5	ng	50.0		105	70-130			
cis-1,2-Dichloroethene	50.6	10	5	ng	50.0		101	70-130			
Trichloroethene	49.6	10	5	ng	50.0		99.2	70-130			
Tetrachloroethene	46.3	10	5	ng	50.0		92.5	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>51.5</i>			<i>ng</i>	<i>50.0</i>		<i>103</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>50.1</i>			<i>ng</i>	<i>50.0</i>		<i>100</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>45.9</i>			<i>ng</i>	<i>50.0</i>		<i>91.9</i>	<i>70-130</i>			

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**Lab Work Order:** 0007504  
**Reported:** 02/14/2024

*Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary*

**Sequence: B24A120 - Instrument: K System - File ID: Kb24013020.D**
***B24A120-ICB1 (Lab Blank/Initial Calibration Blank)***

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	5	ng							U
trans-1,2-Dichloroethene	<5	10	5	ng							U
cis-1,2-Dichloroethene	<5	10	5	ng							U
Trichloroethene	<5	10	5	ng							U
Tetrachloroethene	<5	10	5	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>104</i>			<i>ng</i>	<i>100</i>		<i>104</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>101</i>			<i>ng</i>	<i>100</i>		<i>101</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>91.4</i>			<i>ng</i>	<i>100</i>		<i>91.4</i>	<i>70-130</i>			

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**Beacon Proposal:** 231222R04  
**Lab Work Order:** 0007504  
**Reported:** 02/14/2024

*Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary*

**Sequence: B24B024 - Batch: 24B0018 - Instrument: K System - File ID: Kb24021203.D**
**24B0018-BLK1 (Lab Blank)**

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<0.366	0.733	0.366	µg/m³							U
trans-1,2-Dichloroethene	<0.675	1.35	0.675	µg/m³							U
cis-1,2-Dichloroethene	<0.560	1.12	0.560	µg/m³							U
Trichloroethene	<0.899	1.80	0.899	µg/m³							U
Tetrachloroethene	<0.724	1.45	0.724	µg/m³							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>105</i>			<i>ng</i>	<i>100</i>		<i>105</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>102</i>			<i>ng</i>	<i>100</i>		<i>102</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>89.9</i>			<i>ng</i>	<i>100</i>		<i>89.9</i>	<i>70-130</i>			

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**Beacon Proposal:** 231222R04  
**Lab Work Order:** 0007504  
**Reported:** 02/14/2024

*Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary*

**Sequence: B24B024 - Instrument: K System - File ID: Kb24021204.D**
***B24B024-ICV1 (LCSD/Second Source Verification/CALV)***

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	45.6	10	5	ng	50.0		91.2	70-130			
trans-1,2-Dichloroethene	53.8	10	5	ng	50.0		108	70-130			
cis-1,2-Dichloroethene	50.3	10	5	ng	50.0		101	70-130			
Trichloroethene	48.7	10	5	ng	50.0		97.4	70-130			
Tetrachloroethene	46.4	10	5	ng	50.0		92.7	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>53.2</i>			<i>ng</i>	<i>50.0</i>		<i>106</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>52.4</i>			<i>ng</i>	<i>50.0</i>		<i>105</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>44.0</i>			<i>ng</i>	<i>50.0</i>		<i>87.9</i>	<i>70-130</i>			

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**Beacon Proposal:** 231222R04  
**Lab Work Order:** 0007504  
**Reported:** 02/14/2024

*Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary*

**Sequence: B24B024 - Batch: 24B0018 - Instrument: K System - File ID: Kb24021205.D**
**24B0018-BS1 (LCS, Calibration Source Verification)**

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	51.7	10	5	ng	50.0		103	70-130			
trans-1,2-Dichloroethene	50.8	10	5	ng	50.0		102	70-130			
cis-1,2-Dichloroethene	48.6	10	5	ng	50.0		97.1	70-130			
Trichloroethene	47.1	10	5	ng	50.0		94.2	70-130			
Tetrachloroethene	43.8	10	5	ng	50.0		87.7	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>51.9</i>			<i>ng</i>	<i>50.0</i>		<i>104</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>52.5</i>			<i>ng</i>	<i>50.0</i>		<i>105</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>44.0</i>			<i>ng</i>	<i>50.0</i>		<i>88.0</i>	<i>70-130</i>			

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**Lab Work Order:** 0007504  
**Reported:** 02/14/2024

*Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary*

**Sequence: B24B024 - Instrument: K System - File ID: Kb24021216.D**
***B24B024-CCV1 (LCS, Closing Calibration Verification)***

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	52.4	10	5	ng	50.0		105	70-130			
trans-1,2-Dichloroethene	51.2	10	5	ng	50.0		102	70-130			
cis-1,2-Dichloroethene	48.4	10	5	ng	50.0		96.8	70-130			
Trichloroethene	47.2	10	5	ng	50.0		94.4	70-130			
Tetrachloroethene	43.0	10	5	ng	50.0		86.0	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>53.5</i>			<i>ng</i>	<i>50.0</i>		<i>107</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>52.2</i>			<i>ng</i>	<i>50.0</i>		<i>104</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>44.2</i>			<i>ng</i>	<i>50.0</i>		<i>88.3</i>	<i>70-130</i>			

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**Site Name:** Findley Adhesives  
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**Beacon Proposal:** 231222R04  
**Lab Work Order:** 0007504  
**Reported:** 02/14/2024

*Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary*

**Sequence: B24B024 - Instrument: K System - File ID: Kb24021217.D**
***B24B024-CCB1 (Lab Blank)***

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	5	ng							U
trans-1,2-Dichloroethene	<5	10	5	ng							U
cis-1,2-Dichloroethene	<5	10	5	ng							U
Trichloroethene	<5	10	5	ng							U
Tetrachloroethene	<5	10	5	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>108</i>			<i>ng</i>	<i>100</i>		<i>108</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>102</i>			<i>ng</i>	<i>100</i>		<i>102</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>87.9</i>			<i>ng</i>	<i>100</i>		<i>87.9</i>	<i>70-130</i>			



<b>SCS Engineers</b> 2830 Dairy Drive Madison, WI 53718-6751	<b>Site Name:</b> Findley Adhesives <b>Site Location:</b> Milwaukee, WI <b>Project Manager:</b> Jacob Krause	<b>Beacon Proposal:</b> 231222R04 <b>Lab Work Order:</b> 0007504 <b>Reported:</b> 02/14/2024
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*TO-17 (Passive) - LCS/LCSD RPD Quality Control Summary*

**LCS: 24B0018-BS1 File ID: Kb24021205.D**

Analyzed: 2/12/24 11:08

**LCSD: B24B024-ICV1 File ID: Kb24021204.D**

Analyzed: 2/12/24 16:53

Analyte	CAS#	LCS Result (ng)	%REC Q	Spike Level (ng)	LCSD Result (ng)	%REC	%REC Limits	RPD	RPD Limit	Q
Vinyl Chloride	75-01-4	51.68	103.36	50	45.62	91.20	70-130	12.46	30	
trans-1,2-Dichloroethene	156-60-5	50.78	101.56	50	53.79	108.00	70-130	5.76	30	
cis-1,2-Dichloroethene	156-59-2	48.56	97.12	50	50.32	101.00	70-130	3.56	30	
Trichloroethene	79-01-6	47.08	94.16	50	48.71	97.40	70-130	3.40	30	
Tetrachloroethene	127-18-4	43.84	87.68	50	46.35	92.70	70-130	5.57	30	

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**Lab Work Order:** 0007504  
**Reported:** 02/14/2024

*Additional QC Information*

<b>SCS Engineers</b> 2830 Dairy Drive Madison, WI 53718-6751	<b>Site Name:</b> Findley Adhesives <b>Site Location:</b> Milwaukee, WI <b>Project Manager:</b> Jacob Krause	<b>Beacon Proposal:</b> 231222R04 <b>Lab Work Order:</b> 0007504 <b>Reported:</b> 02/14/2024
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**Sample Result Calculation Summary (Concentration)**  
**TO-17 (Passive)**

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial Result ng	C Calculated Result µg/m³	File ID
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<b>Lab ID:</b> 0007504-01	<b>Sample Name:</b> 10C_IAB_01_20240122	<b>̄ Temp (°C):</b> 3.33
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Vinyl Chloride	17,247	1.00	0.791	U	U	Kb24021210.D
trans-1,2-Dichloroethene	17,247	1.00	0.430	U	U	Kb24021210.D
cis-1,2-Dichloroethene	17,247	1.00	0.518	U	U	Kb24021210.D
Trichloroethene	17,247	1.00	0.322	U	U	Kb24021210.D
Tetrachloroethene	17,247	1.00	0.400	U	U	Kb24021210.D

Calculations:

$$C = \frac{1000 \times M \times DF}{U_c \times t}$$

$$U_c = U * \left( \frac{T_s + 273.15}{T_u + 273.15} \right)^{1/2}$$

- where:
- C = concentration (µg/m³)
  - M = mass (ng)
  - DF = dilution factor
  - Uc = uptake rate (ml/min), corrected
  - t = sampling time (minutes)
  - U = compound specific uptake rate
  - Tu = uptake rate study temperature
  - Ts = sample average temperature

**Note:** Tu is 16.65°C

*Reference: Federal Register/Vol. 79, No. 125/June 30, 2014*

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**Method Detection and Reporting Limit Calculations (Concentration)**  
**TO-17 (Passive)**

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial (ng)		C Calculated (µg/m³)	
				LOQ	LOD	LOQ	LOD

<b>Lab ID:</b> 0007504-01	<b>Sample Name:</b> 10C_IAB_01_20240122	<b>̄ Temp (°C):</b> 3.33
---------------------------	---	--------------------------

Vinyl Chloride	17,247	1.00	0.791	10.00	5.00	0.733	0.366
trans-1,2-Dichloroethene	17,247	1.00	0.430	10.00	5.00	1.35	0.675
cis-1,2-Dichloroethene	17,247	1.00	0.518	10.00	5.00	1.12	0.560
Trichloroethene	17,247	1.00	0.322	10.00	5.00	1.80	0.899
Tetrachloroethene	17,247	1.00	0.400	10.00	5.00	1.45	0.724

<b>SCS Engineers</b> 2830 Dairy Drive Madison, WI 53718-6751	<b>Site Name:</b> Findley Adhesives <b>Site Location:</b> Milwaukee, WI <b>Project Manager:</b> Jacob Krause	<b>Beacon Proposal:</b> 231222R04 <b>Lab Work Order:</b> 0007504 <b>Reported:</b> 02/14/2024
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*Laboratory Certification List*

Certification ID	Certification No.	Description	Expires	Project Required
Alaska CS-LAP	19-002	Alaska Department of Environmental Conservation	12/30/2024	
DoD-ELAP	72690/L22-563	United States Department of Defense Environmental Laboratory Accreditation	11/30/2024	
ISO/IEC 17025:2017	72690/L22-563	General Requirements for the Competence of Testing and Calibration Laboratories	11/30/2024	
NEFAP	72690/L22-564	TNI National Environmental Field Activities Program (NEFAP)	11/30/2024	
NY-NELAC	12097	New York Department of Health	04/01/2024	
Utah-NELAC	MD010912023-14	Utah Department of Health	12/31/2024	

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Lab Work Order: 0007504  
Reported: 02/14/2024

### Qualifiers/Notes and Definitions

**General Definitions:**

DF	Dilution Factor
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
NA	Not Applicable
Q	Qualifier
RPD	Relative Percent Difference
RT	Retention Times in Minutes
RRT	Evaluation of Relative Retention Times in RRT Units (qualified if outside $\pm 0.06$ control limits)
$3\sigma$	Uncertainty
∉	Compound not on scope of accreditation
+	values are outside method/contract required QC limits
∅	Compound not on scope of accreditation and analyzed with a one-point calibration

**Sample/Sample Receipt Qualifiers and Notes:**

U Analyte was not detected and is reported as less than the limit of detection (LOD). The LOD has been adjusted for any dilution or concentration of the sample.

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Lab Work Order: 0007504  
Reported: 02/14/2024

## *Sample Management Records*

<b>Client Information</b>		Project Manager: Robert Langdon	Client PO: 25222269.06	INDOOR AIR AMBIENT AIR CRAWL SPACE SEWER GAS						
Company: SCS Engineers	Project Name: Findley Adhesives	Turn around time (check one): <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush (specify) ___ days								
Address: 2830 Dairy Drive	Location: 2737 N. 29th St. ID: 10C	Analysis: <input checked="" type="checkbox"/> Method TO-17 <input type="checkbox"/> Method 8260C								
City / State / Zip: Madison, WI 53718	Submitted by: Robert Langdon									
Phone: 608-224-2830	Email: rlangdon@scsengineers.com									
Location ID	Start Date	Start Time	Stop Date	Stop Time	Aver Temp (C)	Notes				
✓ 10C_IAB_01_20240110 <sup>22</sup>	01/10/24	12:18	1/22/24	11:45	~38°F	Indoor air, basement	X			
<del>10C_IA1_02_20240110</del>	---	---	---	---	---	Indoor air, first floor (Not Taken)*	X			
<del>10C_OA_01_20240110</del>	---	---	---	---	---	Outdoor air		X		
Special Notes / Instructions: Short list. *1st floor indoor air not collected due to building renovation/construction.										
Relinquished by (signature): <i>[Signature]</i>	Date / Time: 1/30/24 12:00	Received by (signature): <i>Nicol Ray</i>	Date / Time: 1/31/24 12:00							
Relinquished by (signature):	Date / Time:	Received by (signature):	Date / Time:							
<b>For Lab Use Only</b>	Beacon Job No: 7504	Beacon Proposal: 231222R034								
Courier Name: FedEx	Shipment Condition: Good	Custody Seal Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> n/a	Custody Seal No: n/a							



Attachment B

WDNR Publication RR-977



# Understanding Chemical Vapor Intrusion Testing Results

RR-977

October 2014

## From the Lab to You

Chemical vapor samples were taken from underneath your house or building and possibly indoors as well. These samples have been tested by a certified laboratory and a report was issued. The Wisconsin Department of Natural Resources (DNR) uses these test results to determine if people in the building are being exposed to chemical vapors coming from nearby contaminated soil or groundwater, and to decide what, if any, action is needed to prevent this exposure.

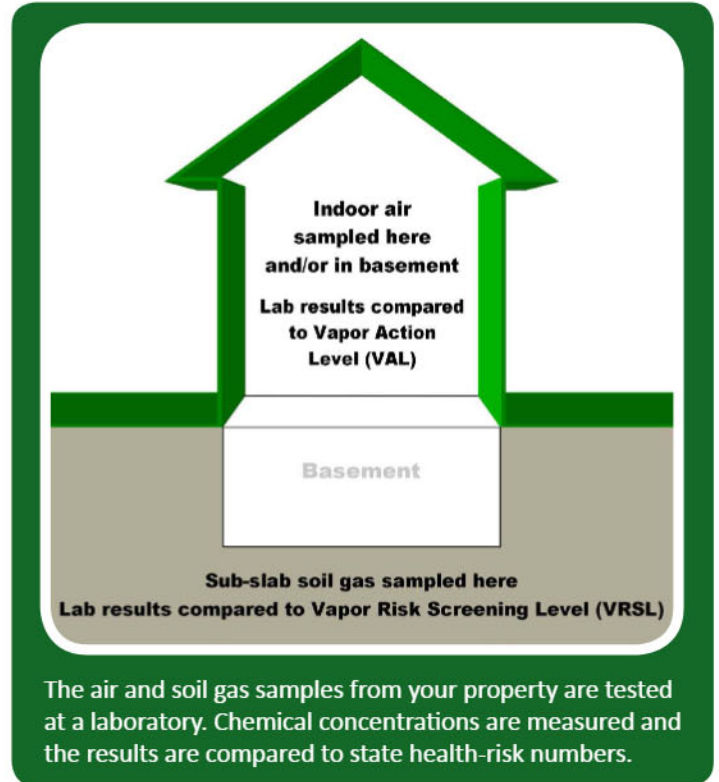
## Indoor Air Testing Results

If indoor air samples were collected in your house or building, test results from the lab will be compared to the state Vapor Action Level (VAL) for chemicals of concern. The VAL is a chemical compound's numerical value that represents a health hazard risk to no more than 1 in 100,000 people during a lifetime of exposure. If test results show chemical concentrations in your air below the VAL then adverse health effects are extremely rare, even if you were to breathe the chemical at this concentration for your entire life.

Test results showing chemical concentrations in the air at or above the VAL prompt DNR to recommend that exposure to these chemical vapors be reduced. If test results show concentrations significantly above the VAL, or more than one type of chemical vapor is identified in your indoor air, the risk from exposure increases. If the concentration of any indoor chemical vapor greatly exceeds the VAL, DNR is concerned about even short-term exposure and will typically require immediate action to address the problem.

The VAL for each chemical is set by scientific research. It is protective of all people, including those who are most susceptible to adverse health effects.

If test results identify chemicals in your air that are not present in nearby soil or groundwater contamination, it is likely that these vapors are coming from some product or activity in or near your house or building. Many everyday consumer products (e.g., cleaners, solvents, polish, adhesives, lubricants, aerosols, insect repellants, etc.); combustion processes (e.g., smoking, home heating); fuels in attached garages; dry cleaned clothing or draperies; and occupant activities (e.g., craft hobbies), also release chemical vapors into the air.



## Sub-slab Soil Gas Testing Results

Soil gas samples were collected from the ground beneath the concrete slab of your building foundation or basement. The lab measured the concentrations of various chemicals in these samples. DNR compares these measurements to the state Vapor Risk Screening Level (VRSL), which identifies the concentration of a chemical in soil gas that scientific research suggests can be a health risk if vapor enters a building. If soil gas measurements exceed the VRSL for a chemical of concern, action to reduce exposure is strongly recommended.

The VRSL is a higher number (higher chemical concentration) than the VAL because it is presumed that concrete building foundations and basement walls will prevent most soil gas from entering a building. Further, any soil gas that does enter a building through cracks, holes, sump pumps, drains, etc., will be diluted to some extent by the indoor air. So, people inside will not be breathing air that includes the full concentration of chemical vapors that exist in the ground.



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DNR generally relies on the test results of the sub-slab soil gas samples when determining what, if any, action should be taken related to chemical vapors coming from nearby soil or groundwater contamination. Indoor air quality is highly variable, and it is difficult to make a definitive decision about vapor intrusion based on indoor air sampling alone.

### Follow-Up Actions

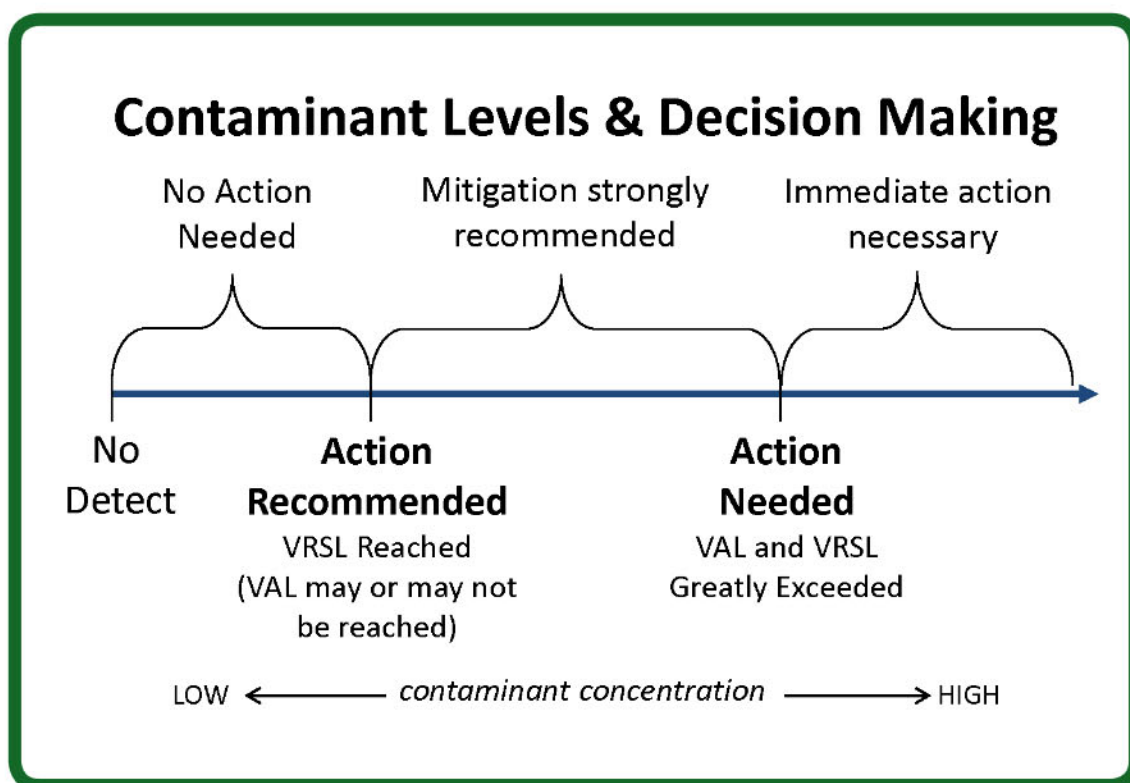
If your test results are less than a VAL for indoor air, or a VRSL for sub-slab soil gas, then the air in the house or building should not present a health concern. Follow-up sampling and testing may be necessary to confirm the results, but no other action is typically suggested.

When test results show soil gas chemical concentrations above a VRSL, both DNR and the Wisconsin Department of

Health Services recommend that owners take action to reduce potential exposure. This typically involves installing a vapor mitigation system that vents chemical vapors from beneath your home or building to the outdoors, similar to a radon mitigation system.

If indoor air concentrations exceed a VAL, but sub-slab concentrations are less than a VRSL, then the chemical vapors are most likely coming from indoor sources. Steps should be taken by the house or building owner to identify the products and practices causing the problem and implement appropriate remedies.

If soil gas mitigation is recommended, a representative of the party who is responsible for the soil or groundwater contamination will contact you to discuss your options.



**A Note about Measurement Units:** The lab report may include some unfamiliar technical language. The most important point to note is whether or not the test result for a specific chemical exceeds a VAL or VRSL, which are also sometimes referred to, generically, as "screening levels."

The concentration of gaseous pollutants in air is typically described in two different ways: 1) as units of mass per volume, where  $\mu\text{g}/\text{m}^3$  represents micrograms of gaseous pollutant per cubic meter of ambient air; and 2) as parts per billion by volume (ppbv), where the volume of a gaseous pollutant is compared to a set volume of ambient air. These are the numbers that are compared to the VAL and VRSL.

For more information, visit [dnr.wi.gov/topic/Brownfields/Vapor.html](https://dnr.wi.gov/topic/Brownfields/Vapor.html)