

From: Braun, Gary <Gary.Braun@aecom.com>
Sent: Thursday, May 9, 2024 1:01 PM
To: Keller, Ethan J - DNR; info@kinsmanandcompany.com;
natelenz@gmail.com
Cc: Chad Erdmann (Chad.Erdmann@libertysteel.us);
'Howard.Law@gfgalliance.com'; Henderson, David; Lutzen, Chris
Subject: Former FV Steel & Wire Company Site at 111 N. Douglas St. Hortonville,
WI (WDNR BRRTS#: 02-45-560221)
Attachments: 2024-03_Former FVSW Indoor Air Monitoring Results.pdf
Follow Up Flag: Follow up
Flag Status: Flagged

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Good afternoon –

Attached are the March 2024 indoor air monitoring results for the above referenced site (Table 1). A sample location map is also included for reference (Figure 1).

The three indoor air samples were collected in Building E (IA-1), Building D-West (IA-2), and Building D-East (IA-3) in accordance with the October 16, 2023 Work Plan Addendum. A single target analyte constituent (Tetrachloroethene) was detected at monitoring point IA-1 in Building E at a concentration 1.6 ug/m^3 , which was slightly above the reporting limit of 0.89 ug/m^3 but was significantly less than its Vapor Action Level (VAL) for indoor air of 180 ug/m^3 as listed in DNR Publication RR-0136. No immediate actions appear to be required to address indoor air quality. The indoor air passive sampling will continue as outlined in the current Work Plan, which includes an additional indoor air sample collection event in and June 2024. The June 2024 monitoring event will also consist of sub-slab vapor sampling.

Please do not hesitate to contact me with any questions.

Regards,
Gary

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Table 1

**Indoor Air Concentrations of Target Analyte Constituents
(Mar. 2024)**

Former FV Steel and Wire Co
Hortonville, Wisconsin

Target Analyte List	Residential VAL	Small Commercial VAL	Large Commercial VAL	Indoor Air Samples		
				IA-1 (Building E)	IA-2 (Building D West)	IA-3 (Building D East)
(Units: ug/m ³)	(included for comparison)			21-Mar-24	21-Mar-24	21-Mar-24
1,1-Dichloroethane	18	77	77	< 2.2	< 2.2	< 2.2
1,1-Dichloroethene	210	880	880	< 9.9	< 9.9	< 9.9
1,2-Dichloroethane	1.1	4.7	4.7	< 1.6	< 1.6	< 1.6
cis-1,2-Dichloroethene	---	---	---	< 1.8	< 1.8	< 1.8
Tetrachloroethene	42	180	180	1.6	< 0.89	< 0.89
Trichloroethene	2.1	8.8	8.8	< 1.3	< 1.3	< 1.3
Vinyl chloride	1.7	28	28	< 12	< 12	< 12

Notes:

VAL = Vapor Action Level (Indoor Air)

(VALs based on Nov. 2022 USEPA Regional Screening Levels)

ug/m³ = micrograms per cubic meter

Samples collected in March 2024 were analyzed by Eurofins Air Toxins LLC Folsom, CA

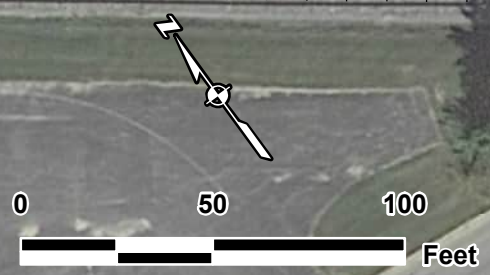
< = Not Detected at Reporting Limit



**VAPOR INTRUSION (INDOOR AIR)
MONITORING LOCATIONS**
Former FV Steel & Wire Company Site
111 N. Douglas Street, Hortonville, WI

Legend

- ◆ Indoor Air Sample
- +— Railroad
- ▭ Project Area



Drawn: AAA	5/7/2024
Approved: CL	5/7/2024
Scale:	AS SHOWN
PROJECT NUMBER	60428891
FIGURE NUMBER	1

Indoor Air Monitoring Results
Mar. 2024

4/4/2024

Mr. Gary Braun

AECOM

1555 North RiverCenter Drive

Suite 214

Milwaukee WI 53212

Project Name: FV Steel & Wire

Project #: 60428891

Workorder #: 2403643

Dear Mr. Gary Braun

The following report includes the data for the above referenced project for sample(s) received on 3/25/2024 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by Passive S.E. WMS are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jade White at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jade White

Project Manager

WORK ORDER #: 2403643

Work Order Summary

CLIENT: Mr. Gary Braun
AECOM
1555 North RiverCenter Drive
Suite 214
Milwaukee, WI 53212

BILL TO: Accounts Payable Austin (non-Federal)
AECOM
PO Box 203970
Austin, TX 78720

PHONE: (414)-831-4100

P.O. # 60428891

FAX: (414)-831-4101

PROJECT # 60428891 FV Steel & Wire

DATE RECEIVED: 03/25/2024

CONTACT: Jade White

DATE COMPLETED: 04/04/2024

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	IA-3	Passive S.E. WMS
02A	Trip Blank	Passive S.E. WMS
03A	IA-2	Passive S.E. WMS
04A	IA-1	Passive S.E. WMS
05A	Lab Blank	Passive S.E. WMS
06A	CCV	Passive S.E. WMS
06B	CCV	Passive S.E. WMS
07A	LCS	Passive S.E. WMS
07AA	LCSD	Passive S.E. WMS

CERTIFIED BY:



Technical Director

DATE: 04/04/24

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP – 209222, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP – T104704434-22-18, UT NELAP – CA009332022-14, VA NELAP - 12240, WA ELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program) CA300005-017

Eurofins Environment Testing Northern California, LLC certifies that the test results contained in this report meet all requirements of the 2016 TNI Standard.

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000

LABORATORY NARRATIVE
WMS Passive SE by Mod EPA TO-17
AECOM
Workorder# 2403643

Four WMS-SE samples were received on March 26, 2024. The laboratory analyzed the charcoal sorbent bed of the passive sampler following modified method EPA TO-17. The VOCs were chemically extracted using carbon disulfide and an aliquot of the extract was injected into a GC/MS for identification and quantification of volatile organic compounds (VOCs).

The mass of each target compound adsorbed by the sampler was converted to units of concentration using the sample deployment time and the sampling rate for each VOC. If sampling rates were calculated by the lab or the manufacturer, the concentration result has been flagged as an estimated value. Results are not corrected for desorption efficiency.

Please note that 1,1,2,2-Tetrachloroethane (1,1,2,2-PCA) can degrade into Trichloroethene (TCE) during storage on the charcoal-based sorbent used in the WMS device. Samples containing 1,1,2,2-PCA may yield reduced concentrations of 1,1,2,2-PCA and elevated concentrations of TCE.

The reference method used for this procedure is EPA TO-17, which describes the collection of VOCs in ambient air using sorbents and analysis by GC/MS. Because TO-17 describes active sample collection using a pump and thermal desorption as the preparation step, several modifications are required. Modifications to TO-17 are listed in the table below:

<i>Requirement</i>	<i>TO-17</i>	<i>ATL Modifications</i>
Sample Collection	Pump pulls measured air volume through sorbent tube	VOCs in air adsorbed onto sorbent bed passively through diffusion
Sample Preparation	Thermal extraction	Solvent extraction
Sorbent tube conditioning	Condition newly packed tubes prior to use	Charcoal-based sorbent is a single use media and conditioning is conducted by vendor.
Instrumentation	Thermal desorption introduction system	Liquid injection introduction system
Internal Standard	Gas-phase internal standard introduced on the tube or focusing trap during analysis	Liquid-phase internal standard introduced on the tube at the time of extraction
Media and sample storage	<4 deg C, 30 days	Media shelf life is determined by vendor; sample hold-time is 6 months for the RAD130 and WMS. Sample preservation requirements are storage in a cool, solvent-free refrigerator and optional use of ice during shipping.
Internal Standard Recovery	+/-40% of daily CCV area	-50% to +100% of daily CCV area

Receiving Notes

The Chain of Custody (COC) was not relinquished properly. A time was not provided by the field

sampler.

The Chain of Custody was missing method information. The laboratory proceeded with the analysis as per the original contract.

Per client request via email on 3/28/2024, the identification of samples IA-1, IA-2, IA-3 and Trip Blank was revised to IA-3, Trip Blank, IA-2, IA-1. As a result, the sample identifications no longer matches the information on the Chain of Custody.

Analytical Notes

To calculate ug/m³ concentrations in the Lab Blank, a sampling duration of 14410 minutes was applied.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

C - Estimated concentration due to calculated sampling rate

CN - See case narrative explanation.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
VOC BY PASSIVE SAMPLER - GC/MS**

Client Sample ID: IA-3

Lab ID#: 2403643-01A

No Detections Were Found.

Client Sample ID: Trip Blank

Lab ID#: 2403643-02A

No Detections Were Found.

Client Sample ID: IA-2

Lab ID#: 2403643-03A

No Detections Were Found.

Client Sample ID: IA-1

Lab ID#: 2403643-04A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Tetrachloroethene	0.050	0.89	0.091	1.6



Air Toxics

Client Sample ID: IA-3

Lab ID#: 2403643-01A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	18032817sim	Date of Collection:	3/21/24 10:30:00 AM
Dil. Factor:	1.00	Date of Analysis:	3/28/24 02:15 PM
		Date of Extraction:	3/27/24

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Vinyl Chloride	0.20	12	Not Detected	Not Detected
1,1-Dichloroethene	0.20	9.9	Not Detected	Not Detected
1,1-Dichloroethane	0.050	2.2	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.050	1.8	Not Detected	Not Detected
1,2-Dichloroethane	0.050	1.6	Not Detected	Not Detected
Trichloroethene	0.050	1.3	Not Detected	Not Detected
Tetrachloroethene	0.050	0.89	Not Detected	Not Detected

Temperature = 77.0F , duration time = 14410 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130



Air Toxics

Client Sample ID: Trip Blank

Lab ID#: 2403643-02A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	18032818sim	Date of Collection:	3/21/24 9:45:00 AM
Dil. Factor:	1.00	Date of Analysis:	3/28/24 02:44 PM
		Date of Extraction:	3/27/24

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Vinyl Chloride	0.20	12	Not Detected	Not Detected
1,1-Dichloroethene	0.20	9.9	Not Detected	Not Detected
1,1-Dichloroethane	0.050	2.2	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.050	1.8	Not Detected	Not Detected
1,2-Dichloroethane	0.050	1.6	Not Detected	Not Detected
Trichloroethene	0.050	1.3	Not Detected	Not Detected
Tetrachloroethene	0.050	0.89	Not Detected	Not Detected

Temperature = 77.0F , duration time = 14405 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130



Air Toxics

Client Sample ID: IA-2

Lab ID#: 2403643-03A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	18032816sim	Date of Collection:	3/21/24 10:10:00 AM
Dil. Factor:	1.00	Date of Analysis:	3/28/24 01:47 PM
		Date of Extraction:	3/27/24

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Vinyl Chloride	0.20	12	Not Detected	Not Detected
1,1-Dichloroethene	0.20	9.9	Not Detected	Not Detected
1,1-Dichloroethane	0.050	2.2	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.050	1.8	Not Detected	Not Detected
1,2-Dichloroethane	0.050	1.6	Not Detected	Not Detected
Trichloroethene	0.050	1.3	Not Detected	Not Detected
Tetrachloroethene	0.050	0.89	Not Detected	Not Detected

Temperature = 77.0F , duration time = 14410 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130



Air Toxics

Client Sample ID: IA-1

Lab ID#: 2403643-04A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	18032815sim	Date of Collection:	3/21/24 9:55:00 AM
Dil. Factor:	1.00	Date of Analysis:	3/28/24 01:19 PM
		Date of Extraction:	3/27/24

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Vinyl Chloride	0.20	12	Not Detected	Not Detected
1,1-Dichloroethene	0.20	9.9	Not Detected	Not Detected
1,1-Dichloroethane	0.050	2.2	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.050	1.8	Not Detected	Not Detected
1,2-Dichloroethane	0.050	1.6	Not Detected	Not Detected
Trichloroethene	0.050	1.3	Not Detected	Not Detected
Tetrachloroethene	0.050	0.89	0.091	1.6

Temperature = 77.0F , duration time = 14410 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2403643-05A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	18032710sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/27/24 11:52 AM
		Date of Extraction:	3/27/24

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Vinyl Chloride	0.20	12	Not Detected	Not Detected
1,1-Dichloroethene	0.20	9.9	Not Detected	Not Detected
1,1-Dichloroethane	0.050	2.2	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.050	1.8	Not Detected	Not Detected
1,2-Dichloroethane	0.050	1.6	Not Detected	Not Detected
Trichloroethene	0.050	1.3	Not Detected	Not Detected
Tetrachloroethene	0.050	0.89	Not Detected	Not Detected

Temperature = 77.0F , duration time = 14410 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 2403643-06A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	18032707sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/27/24 10:30 AM
		Date of Extraction:	NA

Compound	%Recovery
Vinyl Chloride	81
1,1-Dichloroethene	97
1,1-Dichloroethane	96
cis-1,2-Dichloroethene	96
1,2-Dichloroethane	90
Trichloroethene	89
Tetrachloroethene	89

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	76	70-130

Client Sample ID: CCV

Lab ID#: 2403643-06B

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	18032807sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/28/24 09:34 AM
		Date of Extraction: NA

Compound	%Recovery
Vinyl Chloride	62
1,1-Dichloroethene	80
1,1-Dichloroethane	92
cis-1,2-Dichloroethene	84
1,2-Dichloroethane	93
Trichloroethene	87
Tetrachloroethene	87

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	83	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 2403643-07A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	18032708sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/27/24 10:57 AM
		Date of Extraction:	3/27/24

Compound	%Recovery	Method Limits
Vinyl Chloride	103	50-140
1,1-Dichloroethene	120	70-130
1,1-Dichloroethane	120	70-130
cis-1,2-Dichloroethene	108	70-130
1,2-Dichloroethane	110	70-130
Trichloroethene	97	70-130
Tetrachloroethene	87	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 2403643-07AA

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	18032709sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/27/24 11:25 AM
		Date of Extraction:	3/27/24

Compound	%Recovery	Method Limits
Vinyl Chloride	110	50-140
1,1-Dichloroethene	117	70-130
1,1-Dichloroethane	129	70-130
cis-1,2-Dichloroethene	112	70-130
1,2-Dichloroethane	124	70-130
Trichloroethene	106	70-130
Tetrachloroethene	97	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130