

December 30, 2021



Mr. Joesph Martinez
Wisconsin Department of Natural Resources
2300 N. Dr. Martin Luther King Jr. Drive
Milwaukee, WI 53212-3128

RE: Results of Additional Environmental Services for the Former Saukville Fabricare Property Located at 144 South Foster Street in Saukville, Wisconsin — FEC Project No. 041101; DNR FID No. 246061640; BRRTS No. 02-46-448965

Dear Mr. Martinez:

As requested, ***Friess Environmental Consulting (FEC)*** has prepared this letter to document the results of additional environmental services, including additional indoor air sampling.

Project Background

As you are aware, site investigation activities have been conducted for a release of chlorinated volatile organic compounds (CVOCs) from the above referenced site. FEC submitted a supplemental sampling results letter to the DNR in May 2021 and groundwater sampling discussion in August 2021. The DNR reviewed the submittals and requested additional indoor air sampling in their letter dated September 17, 2021. The results of the additional actions are presented below.

Project Results

Indoor Air Sampling

The indoor air samples collected in 2011 indicated vapor TCE concentrations above indoor air vapor action limits (VALs) within the building. In order to determine current indoor air quality and further document the effectiveness of the vapor mitigation system (VMS), the DNR required the collection of additional indoor air samples. Indoor air samples were collected at the site in July 2020 and indicated no concentrations within the indoor air above the residential vapor action limits (VALs). A follow up round of indoor air samples was required and was collected at the site in December 2021.

Indoor air samples (IA-1 to IA-9) were collected from within the building, a background sample was collected from outside the building, and the locations are depicted on the attached diagram. Based on the commercial use of the property, the indoor air samples were collected over an 8-hour period during normal business hours utilizing laboratory supplied summa canisters and flow controllers.

The results of the indoor air sampling indicate no concentrations within the indoor air above the residential vapor action limits (VALs). In addition, the previously collected sub-slab vapor sampling results indicate that the sub-slab concentrations have decreased significantly since VMS install. The results would indicate that the VMS has effectively mitigated the vapor intrusion pathway for the on-site building. The results of the vapor sampling are presented on the attached table and laboratory report.

Conclusions and Recommendations

The indoor air sampling results indicate no concentrations above VALs and that the VMS has effectively mitigated the vapor intrusion pathway.

As such, we request approval to complete the updated closure for DNR review and re-evaluation of the site for closure.

Please call us at (414) 228-9815 if you have any questions.

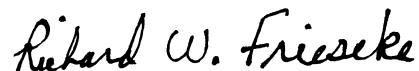
Respectfully,

FRIESS ENVIRONMENTAL CONSULTING, INC.

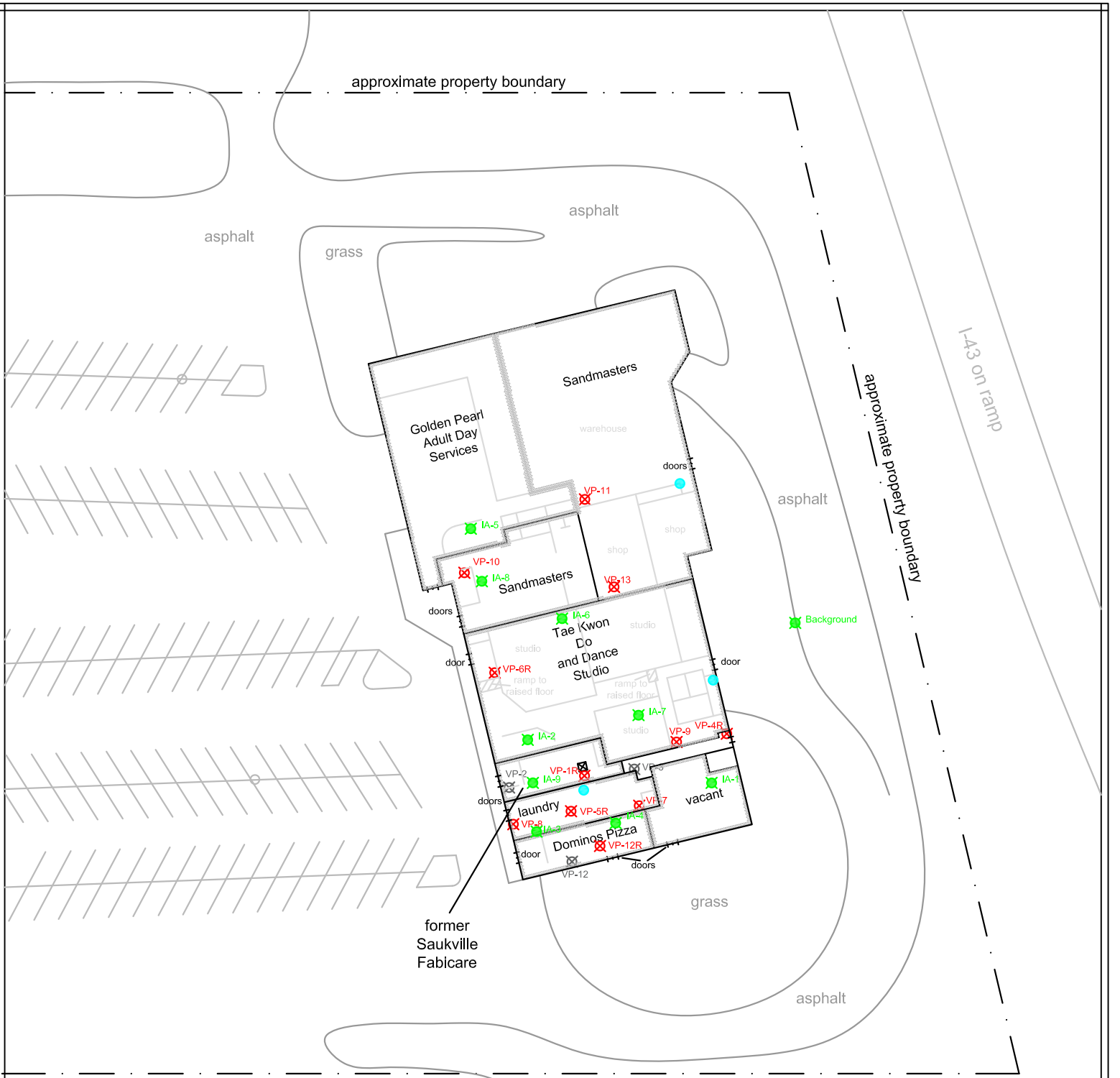


Trenton J. Ott
Project Manager

041101zl

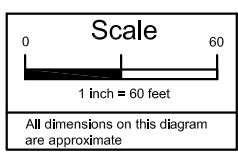
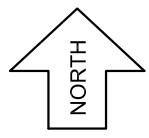


Richard W. Frieseke, P.E.
President



KEY

- = SI sub-slab vapor sampling point
- = SI indoor air sampling point
- = dry cleaning machine
- = VMS drop point



File No.: 041101a
DWG Date: 5-4-05
Rev Date: 4-21-09
Drawn By: JEB
Checked By (PM): TJO

B.4.a. Vapor Intrusion Map
Former Saukville Fabricare
144 S. Foster Street
Saukville, Wisconsin

Figure
B.4.a.

Table A.4.a. (Page 1 of 2)
Indoor Air Sample VOC Analytical Results ($\mu\text{g}/\text{m}^3$)
Former Saukville Fabricare Property
Saukville, Wisconsin

Sample Location	Sampling Date	cis-1,2-DCE ($\mu\text{g}/\text{m}^3$)	trans-1,2-DCE ($\mu\text{g}/\text{m}^3$)	PCE ($\mu\text{g}/\text{m}^3$)	TCE ($\mu\text{g}/\text{m}^3$)	Vinyl Chloride ($\mu\text{g}/\text{m}^3$)
Background	4/16/09	<2.77	<5.15	<4.75	<3.76	<1.74
	7/11/10	<5.94	<5.94	12.88	<8.06	<3.83
	4/20/11	<1.10	<1.10	<1.90	18.3	<0.70
	7/10/20	<0.197	<0.231	<0.278	<0.237	<0.148
	12/3/21	<0.197	<0.231	<0.278	<0.237	<0.148
IA-1 south vacant space	4/15/09	<2.77	<5.15	2,183	<3.76	<1.74
	1/31/10	<2.58	<4.76	<4.41	<3.49	<1.64
	3/15/10	<2.58	<4.76	<4.41	<3.49	<1.64
	7/11/10	<2.77	<2.77	<4.75	<3.76	<1.79
	4/20/11	<1.10	<1.10	<1.90	<1.50	<0.70
	7/10/20	<0.197	<0.231	<0.278	<0.237	<0.148
	12/3/21	<0.197	<0.231	0.41 J	<0.237	<0.148
IA-2 dance studio front desk	4/15/09	674	<5.15	3,593	17.73	<1.74
	1/31/10	<2.77	<5.15	<4.75	<3.76	<1.74
	3/15/10	<2.58	<4.76	<4.41	<3.49	<1.64
	7/11/10	<1.66	<1.66	<2.85	<2.26	<1.07
	4/20/11	<1.10	<1.10	<1.90	<1.50	<0.70
	7/10/20	<0.197	<0.231	<0.278	<0.237	<0.148
	12/3/21	<0.197	<0.231	0.34 J	<0.237	<0.148
IA-3 coin-op laundromat	4/15/09	<3.88	<7.53	26,712	<5.26	<2.45
	1/31/10	<2.77	<5.15	<4.75	<3.76	<1.74
	3/15/10	<2.77	<5.15	<4.75	<3.76	<1.74
	7/11/10	<1.66	<1.66	3.32J	<2.26	<1.07
	4/20/11	<1.10	<1.10	<1.90	9.70	<0.72
	7/10/20	<0.197	<0.231	<0.278	<0.237	<0.148
	12/3/21	<0.197	<0.231	<0.278	<0.237	<0.148
IA-4 restaurant	4/15/09	<2.77	<5.15	402	<3.76	<1.74
	1/31/10	<2.77	<5.15	<4.75	<3.76	<1.74
	3/15/10	26.55	<5.15	52.88	81.4	<1.74
	7/11/10	<1.66	<1.66	3.66J	<2.26	<1.07
	4/20/11	<1.20	<1.20	<2.00	12.4	<0.74
	7/10/20	<0.197	<0.231	1.09	<0.237	<0.148
	12/3/21	<0.197	<0.231	<0.278	<0.237	<0.148
DNR Residential Vapor Action Level ($\mu\text{g}/\text{m}^3$)		NS	NS	42	2.1	1.7
DNR Commercial Vapor Action Level ($\mu\text{g}/\text{m}^3$)		NS	NS	180	8.8	28

Notes:

1. DNR Vapor Action Levels are based, in part, on standard U.S. EPA risk calculation methods as defined in the DNR Vapor Intrusion Guidance (updated November 2017).
2. Concentrations that exceed their respective DNR residential vapor action levels are in **red**.
3. Concentrations that exceed their respective DNR commercial vapor action levels are in **red bold**.
4. "J" qualifier indicates an estimated concentration between the method detection limit and the reporting limit.
5. The VMS was operational from November 17, 2009, to February 28, 2017, and restarted on June 20, 2018.

Table A.4.a. (Page 2 of 2)
Indoor Air Sample VOC Analytical Results ($\mu\text{g}/\text{m}^3$)
Former Saukville Fabricare Property
Saukville, Wisconsin

Sample Location	Sampling Date	cis-1,2-DCE ($\mu\text{g}/\text{m}^3$)	trans-1,2-DCE ($\mu\text{g}/\text{m}^3$)	PCE ($\mu\text{g}/\text{m}^3$)	TCE ($\mu\text{g}/\text{m}^3$)	Vinyl Chloride ($\mu\text{g}/\text{m}^3$)
IA-5 flooring company aka Golden Pearl now vacant	1/31/10	<2.77	<5.15	<4.75	<3.76	<1.74
	3/15/10	<2.85	<5.55	4.95	<3.87	<1.79
	7/11/10	<2.77	<2.77	69.83	<3.76	<1.79
	4/20/11	<1.10	<1.10	<0.95	<0.76	<0.36
	7/10/20	<0.197	<0.231	0.68 J	<0.237	<0.148
	12/3/21	<0.197	<0.231	0.48 J	<0.237	<0.148
IA-6 dance studio A (north) now vacant	1/31/10	<2.77	<5.15	<4.75	<3.76	<1.74
	3/15/10	<2.85	<5.55	10.85	<3.87	<1.79
	7/11/10	<1.66	<1.66	35.93	<2.26	<1.07
	4/20/11	<1.10	<1.10	<1.90	<1.50	<0.72
	7/10/20	<0.197	<0.231	0.54 J	<0.237	<0.148
	12/3/21	<0.197	<0.231	0.34 J	<0.237	<0.148
IA-7 dance studio C (south) now vacant	1/31/10	<37.25	<71.73	<63.73	<50.49	<23.51
	3/15/10	<2.58	<4.76	<4.41	<3.49	<1.64
	7/11/10	<7.53	<7.53	<12.88	<10.21	<4.85
	4/20/11	<1.10	<1.10	<1.90	4.40	<0.72
	7/10/20	<0.197	<0.231	3.20	<0.237	<0.148
	12/3/21	<0.197	<0.231	0.41 J	<0.237	<0.148
IA-8 north vacant space aka flooring company	3/15/10	<2.77	<5.15	<4.75	<3.76	<1.74
	7/11/10	<1.66	<1.66	6.10	<2.26	<1.07
	4/20/11	<1.20	<1.20	<2.10	29.8	<0.77
	7/10/20	<0.197	<0.231	0.81 J	<0.237	<0.148
	12/3/21	<0.197	<0.231	0.68 J	<0.237	<0.148
IA-9 former dry cleaners	4/20/11	<1.10	<1.10	37.7	<1.50	<0.72
	7/10/20	<0.197	<0.231	<0.278	<0.237	<0.148
	12/3/21	<0.197	<0.231	0.41 J	<0.237	<0.148
Intake 1 restaurant	7/11/10	<3.45	<3.45	<5.90	<4.67	<2.22
	4/20/11	<1.20	<1.20	<2.00	<1.60	<0.74
Intake 2 dance studio	4/20/11	<1.10	<1.10	<1.90	<1.50	<0.72
Intake 3 flooring company	4/20/11	<1.10	<1.10	<1.90	1.50	<0.70
SSDS Main Drop "A" Exhaust	7/12/10	<3.45	<3.45	3,797	11.82	<2.22
SSDS Drop "C" Exhaust	4/20/11	<1.10	<1.10	7.00	2.40	<0.36
DNR Residential Vapor Action Level ($\mu\text{g}/\text{m}^3$)		NS	NS	42	2.1	1.7
DNR Commercial Vapor Action Level ($\mu\text{g}/\text{m}^3$)		NS	NS	180	8.8	28

Notes:

1. DNR Vapor Action Levels are based, in part, on standard U.S. EPA risk calculation methods as defined in the DNR Vapor Intrusion Guidance (updated November 2017).
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4. "J" qualifier indicates an estimated concentration between the method detection limit and the reporting limit.
5. The VMS was operational from November 17, 2009, to February 28, 2017, and restarted on June 20, 2018.

Synergy Environmental Lab, LLC.

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

TRENTON OTT
FEC, INC.
6635 N. SIDNEY PLACE
MILWAUKEE, WI 53209

Report Date 17-Dec-21

Project Name SAUKVILLE
Project # 041101
Lab Code 5040302A
Sample ID IA-1
Sample Matrix Air
Sample Date 12/3/2021

Invoice # E40302

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
cis-1,2-Dichloroethene	< 0.197	ug/m3	0.197	0.626	1	TO-15		12/15/2021	CJR	1
trans-1,2-Dichloroethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		12/15/2021	CJR	1
Tetrachloroethene	0.41 "J"	ug/m3	0.278	0.884	1	TO-15		12/15/2021	CJR	1
Trichloroethene (TCE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		12/15/2021	CJR	1
Vinyl Chloride	< 0.148	ug/m3	0.148	0.472	1	TO-15		12/15/2021	CJR	1

Lab Code 5040302B
Sample ID IA-2
Sample Matrix Air
Sample Date 12/3/2021

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
cis-1,2-Dichloroethene	< 0.197	ug/m3	0.197	0.626	1	TO-15		12/15/2021	CJR	1
trans-1,2-Dichloroethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		12/15/2021	CJR	1
Tetrachloroethene	0.34 "J"	ug/m3	0.278	0.884	1	TO-15		12/15/2021	CJR	1
Trichloroethene (TCE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		12/15/2021	CJR	1
Vinyl Chloride	< 0.148	ug/m3	0.148	0.472	1	TO-15		12/15/2021	CJR	1

Project Name SAUKVILLE
Project # 041101

Invoice # E40302

Lab Code 5040302C
Sample ID IA-3
Sample Matrix Air
Sample Date 12/3/2021

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
cis-1,2-Dichloroethene	< 0.197	ug/m3	0.197	0.626	1	TO-15		12/15/2021	CJR	1
trans-1,2-Dichloroethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		12/15/2021	CJR	1
Tetrachloroethene	< 0.278	ug/m3	0.278	0.884	1	TO-15		12/15/2021	CJR	1
Trichloroethene (TCE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		12/15/2021	CJR	1
Vinyl Chloride	< 0.148	ug/m3	0.148	0.472	1	TO-15		12/15/2021	CJR	1

Lab Code 5040302D
Sample ID IA-4
Sample Matrix Air
Sample Date 12/3/2021

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
cis-1,2-Dichloroethene	< 0.197	ug/m3	0.197	0.626	1	TO-15		12/15/2021	CJR	1
trans-1,2-Dichloroethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		12/15/2021	CJR	1
Tetrachloroethene	< 0.278	ug/m3	0.278	0.884	1	TO-15		12/15/2021	CJR	1
Trichloroethene (TCE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		12/15/2021	CJR	1
Vinyl Chloride	< 0.148	ug/m3	0.148	0.472	1	TO-15		12/15/2021	CJR	1

Lab Code 5040302E
Sample ID IA-5
Sample Matrix Air
Sample Date 12/3/2021

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
cis-1,2-Dichloroethene	< 0.197	ug/m3	0.197	0.626	1	TO-15		12/15/2021	CJR	1
trans-1,2-Dichloroethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		12/15/2021	CJR	1
Tetrachloroethene	0.48 "J"	ug/m3	0.278	0.884	1	TO-15		12/15/2021	CJR	1
Trichloroethene (TCE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		12/15/2021	CJR	1
Vinyl Chloride	< 0.148	ug/m3	0.148	0.472	1	TO-15		12/15/2021	CJR	1

Lab Code 5040302F
Sample ID IA-6
Sample Matrix Air
Sample Date 12/3/2021

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
cis-1,2-Dichloroethene	< 0.197	ug/m3	0.197	0.626	1	TO-15		12/15/2021	CJR	1
trans-1,2-Dichloroethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		12/15/2021	CJR	1
Tetrachloroethene	0.34 "J"	ug/m3	0.278	0.884	1	TO-15		12/15/2021	CJR	1
Trichloroethene (TCE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		12/15/2021	CJR	1
Vinyl Chloride	< 0.148	ug/m3	0.148	0.472	1	TO-15		12/15/2021	CJR	1

Project Name SAUKVILLE
Project # 041101

Invoice # E40302

Lab Code 5040302G
Sample ID IA-7
Sample Matrix Air
Sample Date 12/3/2021

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
cis-1,2-Dichloroethene	< 0.197	ug/m3	0.197	0.626	1	TO-15		12/15/2021	CJR	1
trans-1,2-Dichloroethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		12/15/2021	CJR	1
Tetrachloroethene	0.41 "J"	ug/m3	0.278	0.884	1	TO-15		12/15/2021	CJR	1
Trichloroethene (TCE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		12/15/2021	CJR	1
Vinyl Chloride	< 0.148	ug/m3	0.148	0.472	1	TO-15		12/15/2021	CJR	1

Lab Code 5040302H
Sample ID IA-8
Sample Matrix Air
Sample Date 12/3/2021

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
cis-1,2-Dichloroethene	< 0.197	ug/m3	0.197	0.626	1	TO-15		12/15/2021	CJR	1
trans-1,2-Dichloroethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		12/15/2021	CJR	1
Tetrachloroethene	0.68 "J"	ug/m3	0.278	0.884	1	TO-15		12/15/2021	CJR	1
Trichloroethene (TCE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		12/15/2021	CJR	1
Vinyl Chloride	< 0.148	ug/m3	0.148	0.472	1	TO-15		12/15/2021	CJR	1

Lab Code 5040302I
Sample ID IA-9
Sample Matrix Air
Sample Date 12/3/2021

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
cis-1,2-Dichloroethene	< 0.197	ug/m3	0.197	0.626	1	TO-15		12/15/2021	CJR	1
trans-1,2-Dichloroethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		12/15/2021	CJR	1
Tetrachloroethene	0.41 "J"	ug/m3	0.278	0.884	1	TO-15		12/15/2021	CJR	1
Trichloroethene (TCE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		12/15/2021	CJR	1
Vinyl Chloride	< 0.148	ug/m3	0.148	0.472	1	TO-15		12/15/2021	CJR	1

Lab Code 5040302J
Sample ID BACKGROUND
Sample Matrix Air
Sample Date 12/3/2021

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
cis-1,2-Dichloroethene	< 0.197	ug/m3	0.197	0.626	1	TO-15		12/15/2021	CJR	1
trans-1,2-Dichloroethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		12/15/2021	CJR	1
Tetrachloroethene	< 0.278	ug/m3	0.278	0.884	1	TO-15		12/15/2021	CJR	1
Trichloroethene (TCE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		12/15/2021	CJR	1
Vinyl Chloride	< 0.148	ug/m3	0.148	0.472	1	TO-15		12/15/2021	CJR	1

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

Code ***Comment***

1 Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature

A handwritten signature in blue ink, appearing to read "Michael J. ...", is written over a horizontal line.

Synergy Environmental Lab, Inc.

Chain # No 37311
Page 1 of 1

Sample Handling Request
 Rush Analysis Date Required: _____
 (Rushes accepted only with prior authorization)
 Normal Turn Around

www.synergy-lab.net
 1990 Prospect Ct. • Appleton, WI 54914
 920-830-2455 • mrsynergy@wi.twcabc.com

Lab I.D. # _____
 QUOTE #: 041101
 Project #: 041101
 Sampler: (signature) *Martin J. Ott*
 Project (Name / Location): *Trenton Ott*
 Reports To: *Trenton Ott*
 Company: *FEC, Inc.*
 Address: *6635 N. Sidney Place*
 City State Zip: *Milwaukee, WI 53209*
 Phone: *(414) 288-9815*
 Email: *toth@fecinc.us*

Invoice To: *Same*
 Company: _____
 Address: _____
 City State Zip: _____
 Phone: _____
 Email: _____

Lab I.D.	Sample I.D.	Collection Date	Time	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 524.2)	VOC (EPA 8260)	VOC AIR (TO - 15)	8-PCRA METALS	Other Analysis	PID/ FID
<i>S040302</i>	<i>IA-1</i>	<i>12/3/21</i>	<i>PM</i>	<i>N</i>	<i>1</i>	<i>Air</i>	<i>None</i>														<i>Short</i>			
	<i>IA-2</i>																							
	<i>IA-3</i>																							
	<i>IA-4</i>																							
	<i>IA-5</i>																							
	<i>IA-6</i>																							
	<i>IA-7</i>																							
	<i>IA-8</i>																							
	<i>IA-9</i>																							
	<i>Background</i>																							

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge, etc.)

* TD-15 Short - PCE, TCE, cis+trans 1,2-DCE, vinyl chloride

Sample Integrity - To be completed by receiving lab.
 Method of Shipment: *CS*
 Temp. of Temp. Blank: _____ °C On Ice: _____
 Cooler seal intact upon receipt: Yes No

Relinquished By: (sign) *Martin J. Ott* Date *12/6/21*
 Received By: (sign) _____ Date _____
 Time: *8:00* Date: *12/7/21*

Received in Laboratory By: *[Signature]*