



RECEIVED
MAY 08 2015

May 5, 2015

BY:

Stephanie Espinoza
5233 40th Ave
Kenosha, WI 53142

Subject: Environmental Investigation Sampling Results
BRRTS#: 02-30-552186

Dear Ms. Espinoza:

In accordance with the executed Agreement to Provide Access for Sampling Activities, and in accordance with Wisconsin Department of Natural Resources (WDNR) regulation NR 716.14, Environmental Forensic Investigations, Inc. (EnviroForensics) is providing the results of environmental samples collected from your property located at 5233 40th Avenue in Kenosha, Wisconsin. The sample was collected on April 10, 2015. The sampling activities are part of an environmental investigation being performed for the Martino's Master Drycleaner facility located at 3917 52nd Street in Kenosha, Wisconsin at the direction of the WDNR pursuant to the authority granted to it under State and Federal law. The chemicals of concern for the investigation are the dry cleaning solvent tetrachloroethene (PCE) and its associated breakdown products.

The Responsible Party is:

Martino's Master Drycleaners
3917 52nd Street
Kenosha, WI
262-694-7545

Sampling Results

One (1) effluent air sample designated 6190-5233-STACK was collected from the exhaust stack of the sub-slab depressurization system (SSDS) installed in your basement. The sample location is shown on the attached figure. The laboratory report associated with the effluent air sample is also attached. EnviroForensics also tested sub-slab pressure at three (3) locations in the basement to confirm that the existing SSDS is adequately protecting your home from vapor intrusion. The pressure testing locations are shown on the attached figure.

As listed in the laboratory report, sample 6190-5233-STACK contained PCE and chloroform at concentrations of 4.68 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and 3.22 $\mu\text{g}/\text{m}^3$, respectively. The concentrations of these compounds are below the Residential Vapor Risk Screening Levels of 420 $\mu\text{g}/\text{m}^3$ and 12 $\mu\text{g}/\text{m}^3$, respectively. No other chemicals of concern were detected in the

Document: 6190-0579
Environmental Forensic Investigations, Inc.
N16 W23390 Stone Ridge Drive, Suite G, Waukesha, WI 53188
Phone: 262-290-4001 • Fax 317-972-7875



effluent air sample. The sub-slab pressure measurements of -0.054 to -0.129 in H₂O indicate that the SSDS fan is creating a negative pressure under the entire basement floor.

The SSDS installed in your home is operating as intended, and there does not appear to be a risk of PCE vapor entering your home from beneath the foundation. At this time we do not anticipate any further sampling in your home. If you have any questions or concerns, please contact us at 262-290-4001 or by email at bkappen@enviroforensics.com. The WDNR project manager, Doug Cieslak, can be reached at 262-884-2344. We greatly appreciate your help and patience with this matter.

Sincerely,
Environmental Forensic Investigations, Inc.

A handwritten signature in blue ink, appearing to read "Brian Kappen".

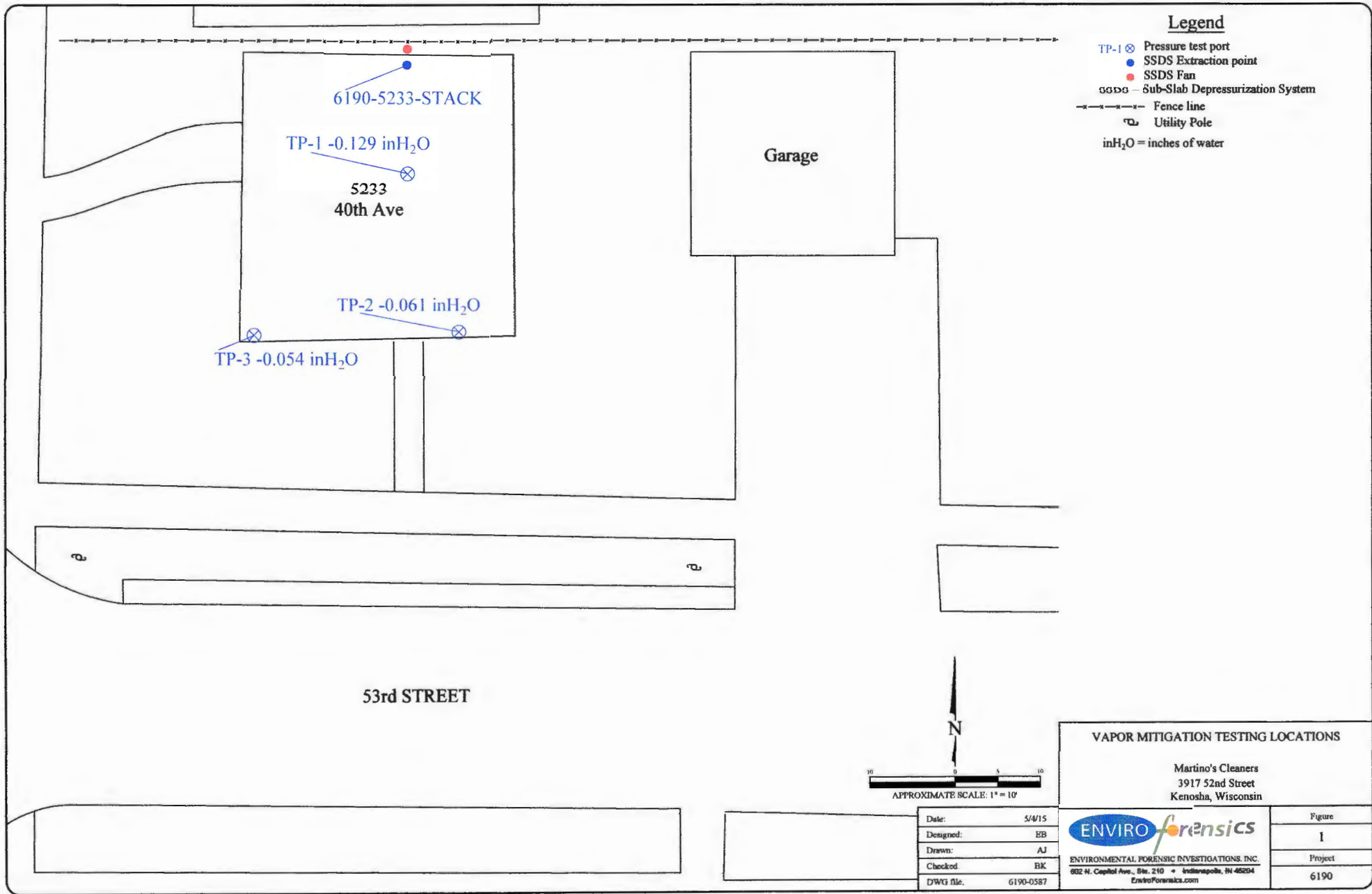
Brian Kappen, PG
Project Manager

A handwritten signature in blue ink, appearing to read "Wayne Fassbender".

Wayne Fassbender, PG, PMP
Senior Project Manager

Copy: Doug Cieslak, Wisconsin Department of Natural Resources

Attachments: Sample Location Map
Laboratory Analytical Report



Legend

- TP-1 ⊗ Pressure test port
- SSDS Extraction point
- SSDS Fan
- SSDS - Sub-Slab Depressurization System
- - - - - Fence line
- ⊠ Utility Pole
- inH₂O = inches of water

6190-5233-STACK

TP-1 -0.129 inH₂O

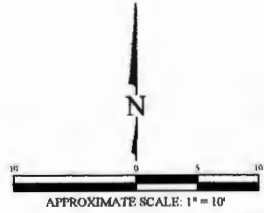
5233 40th Ave

TP-2 -0.061 inH₂O

TP-3 -0.054 inH₂O

Garage

53rd STREET



VAPOR MITIGATION TESTING LOCATIONS	
Martino's Cleaners 3917 52nd Street Kenosha, Wisconsin	
	Figure 1
ENVIRONMENTAL FORENSIC INVESTIGATIONS, INC. 802 N. Capitol Ave., Ste. 210 • Indianapolis, IN 46204 EnviroForensics.com	Project 6190

Date:	5/4/15
Designed:	EB
Drawn:	AJ
Checked:	BK
DWG file:	6190-0587



EnvisionAir
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Mr. Brian Kappen
Enviroforensics
N16 W. 23390 Stone Ridge Dr
Suite G
Waukesha, WI 53188

April 24, 2015

ENVision Project Number: 2015-271
Client Project Name: 6190 – Martino's 52nd

Dear Mr. Kappen,

Please find the attached analytical report for the samples received April 14, 2015. All test methods performed were fully compliant with local, state, and federal EPA methods unless otherwise noted. The project was analyzed as requested on the enclosed chain of custody record. Please review the comments section for additional information about your results or Quality Control data.

Feel free to contact me if you have any questions or comments regarding your analytical report or service.

Thank you for your business. EnvisionAir looks forward to working with you on your next project.

Yours Sincerely,

A handwritten signature in cursive script that reads "David Norris".

David Norris

Client Services Manager
EnvisionAir



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Client Name: ENVIROFORENSICS
Project ID: 6190 MARTINO'S 52ND
Client Project Manager: B. KAPPEN/K. HEIMSTEAD
EnvisionAir Project Number: 2015-271

Sample Summary

		<i>Canister Pressure / Vacuum</i>									
<u>Laboratory Sample Number:</u>	<u>Sample Description:</u>	<u>START</u> <u>Date</u>	<u>START</u> <u>Time</u>	<u>End Date</u>	<u>End Time</u>	<u>Date</u>	<u>Time</u>	<u>Initial</u> <u>Field (in.</u>	<u>Final Field</u>	<u>Lab</u>	
		<u>Collected:</u>	<u>Collected:</u>	<u>Collected:</u>	<u>Collected:</u>	<u>Received:</u>	<u>Received:</u>	<u>Hq)</u>	<u>(in. Hq)</u>	<u>(in. Hq)</u>	
15-1047	6190-5233-STACK	A	4/10/15	9:24	4/10/15	9:52	4/14/15	15:02	-28	-2	-2



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Client Name: ENVIROFORENSICS
Project ID: 6190 MARTINO'S 52ND
Client Project Manager: B. KAPPEN/K. HEIMSTEAD
EnvisionAir Project Number: 2015-271

Analytical Method: TO-15
Analytical Batch: 042015AIR

Client Sample ID: 6190-5233-STACK
Envision Sample Number: 15-1047
Sample Matrix: AIR

Sample Collection START Date/Time: 4/10/15 9:24
Sample Collection END Date/Time: 4/10/15 9:52
Sample Received Date/Time: 4/14/15 15:02

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,1,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	



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<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
Chloroform	3.22	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 1800	1800	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	4.68	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichlorethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	89%		
Analysis Date/Time:	4-20-15/11:36		
Analyst Initials	tjg		



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Analytical Report

TO-15 Quality Control Data

EnvisionAir Batch Number: 042015AIR

<u>Method Blank (MB):</u>	<u>MB Results (ppbv)</u>	<u>Reporting Limit (ppbv)</u>	<u>Flags</u>
4-Ethyltoluene	< 100	100	
4-Methyl-2-pentanone (MIBK)	< 500	500	
1,1,1-Trichloroethane	< 100	100	
1,1,2,2-Tetrachloroethane	< 0.049	0.049	1
1,1,2-Trichloroethane	< 0.038	0.038	1
1,1-Dichloroethane	< 1	1	
1,1-Dichloroethene	< 50	50	
1,2,4-Trichlorobenzene	< 0.1	0.1	
1,2,4-Trimethylbenzene	< 1	1	
1,2-dibromoethane (EDB)	< 0.0041	0.0041	1
1,2-Dichlorobenzene	< 10	10	
1,2-Dichloroethane	< 0.1	0.1	
1,2-Dichloropropane	< 0.1	0.1	
1,3,5-Trimethylbenzene	< 1	1	
1,3-Butadiene	< 0.1	0.1	
1,3-Dichlorobenzene	< 10	10	
1,4-Dichlorobenzene	< 0.1	0.1	
1,4-Dioxane	< 0.5	0.5	
2-Butanone (MEK)	< 1000	1000	
2-Hexanone	< 5	5	
Acetone	< 1000	1000	
Benzene	< 0.5	0.5	
Benzyl Chloride	< 0.08	0.08	1
Bromodichloromethane	< 0.08	0.08	1
Bromoform	< 1	1	
Bromomethane	< 1	1	
Carbon Disulfide	< 100	100	
Carbon Tetrachloride	< 0.1	0.1	
Chlorobenzene	< 5	5	
Chloroethane	< 5	5	
Chloroform	< 0.17	0.17	
Chloromethane	< 10	10	
cis-1,2-Dichloroethene	< 5	5	
cis-1,3-Dichloropropene	< 1	1	
Cyclohexane	< 1600	1600	
Dibromochloromethane	< 0.1	0.1	
Dichlorodifluoromethane	< 10	10	
Ethyl Acetate	< 500	500	
Ethylbenzene	< 2	2	
Hexachloro-1,3-butadiene	< 0.1	0.1	
Isooctane	< 100	100	
m,p-Xylene	< 10	10	
Methylene Chloride	< 12	12	
Methyl-tert-butyl ether	< 10	10	
N-Heptane	< 100	100	
N-Hexane	< 50	50	
o-Xylene	< 10	10	
Propylene	< 100	100	
Styrene	< 100	100	
Tetrachloroethene	< 0.47	0.47	
Tetrahydrofuran	< 100	100	



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Analytical Report

<u>Method Blank (MB):</u>	<u>MB Results (ppbv)</u>	<u>Reporting Limit (ppbv)</u>	<u>Flags</u>			
Toluene	< 1000	1000				
trans-1,2-Dichloroethene	< 10	10				
trans-1,3-Dichloropropene	< 1	1				
Trichlorethene	< 0.2	0.2				
Trichlorofluoromethane	< 100	100				
Vinyl Acetate	< 50	50				
Vinyl Bromide	< 0.1	0.1				
Vinyl Chloride	< 0.5	0.5				
4-bromofluorobenzene (surrogate)	85%					
Analysis Date/Time:	4-20-15/09:06					
Analyst Initials	tjg					

<u>LCS/LCSD</u>	<u>LCS Results (ppbv)</u>	<u>LCSD Results (ppbv)</u>	<u>LCS/D Conc(ppbv)</u>	<u>LCS Rec.</u>	<u>LCSD Rec.</u>	<u>RPD</u>	<u>Flag</u>
Propylene	9.73	9.18	10	97%	92%	5.8%	
Dichlorodifluoromethane	9.1	8.34	10	91%	83%	8.7%	
Chloromethane	10.7	10.5	10	107%	105%	1.9%	
Vinyl Chloride	9.21	8.83	10	92%	88%	4.2%	
1,3-Butadiene	10.5	10.3	10	105%	103%	1.9%	
Bromomethane	8.77	8.46	10	88%	85%	3.6%	
Chloroethane	9.58	9.23	10	96%	92%	3.7%	
Vinyl Bromide	9.41	9.09	10	94%	91%	3.5%	
Trichlorofluoromethane	8.54	8.21	10	85%	82%	3.9%	
Acetone	9.16	8.84	10	92%	88%	3.6%	
1,1-Dichloroethene	8.86	8.78	10	89%	88%	0.9%	
Methylene Chloride	8.44	8.52	10	84%	85%	0.9%	
Carbon Disulfide	9.12	8.98	10	91%	90%	1.5%	
trans-1,2-Dichloroethene	10.6	10.8	10	106%	108%	1.9%	
Methyl-tert-butyl ether	10.8	11.4	10	108%	114%	5.4%	
1,1-Dichloroethane	9.37	9.26	10	94%	93%	1.2%	
Vinyl Acetate	10.9	10.6	10	109%	106%	2.8%	
N-Hexane	10.7	10.5	10	107%	105%	1.9%	
2-Butanone (MEK)	11.9	11.8	10	119%	118%	0.8%	
cis-1,2-Dichloroethene	10.5	10.7	10	105%	107%	1.9%	
Ethyl Acetate	10.8	10.7	10	108%	107%	0.9%	
Chloroform	8.92	8.55	10	89%	86%	4.2%	
Tetrahydrofuran	10.4	10.9	10	104%	109%	4.7%	
1,2-Dichloroethane	9.48	9.65	10	95%	97%	1.8%	
1,1,1-Trichloroethane	8.91	9.15	10	89%	92%	2.7%	
Carbon Tetrachloride	8.84	8.91	10	88%	89%	0.8%	
Benzene	11.1	11.2	10	111%	112%	0.9%	
Cyclohexane	11.4	11.5	10	114%	115%	0.9%	
1,2-Dichloropropane	9.85	9.7	10	99%	97%	1.5%	
Trichlorethene	10.4	10.4	10	104%	104%	0.0%	
Bromodichloromethane	9.38	9.26	10	94%	93%	1.3%	
1,4-Dioxane	10.2	10.1	10	102%	101%	1.0%	
Isooctane	10.7	10.5	10	107%	105%	1.9%	
N-Heptane	10.7	10.8	10	107%	108%	0.9%	
cis-1,3-Dichloropropene	11.1	11.1	10	111%	111%	0.0%	
4-Methyl-2-pentanone (MIBK)	10.5	10.3	10	105%	103%	1.9%	
trans-1,3-Dichloropropene	11.3	11.2	10	113%	112%	0.9%	
1,1,2-Trichloroethane	9.72	9.69	10	97%	97%	0.3%	
Toluene	11.5	10.8	10	115%	108%	6.3%	
2-Hexanone	11.1	11.2	10	111%	112%	0.9%	
Dibromochloromethane	9.82	9.48	10	98%	95%	3.5%	
1,2-dibromoethane (EDB)	10.4	9.78	10	104%	98%	6.1%	
Tetrachloroethene	11.1	11	10	111%	110%	0.9%	
Chlorobenzene	9.29	9.04	10	93%	90%	2.7%	
Ethylbenzene	11.8	10.9	10	118%	109%	7.9%	
m,p-Xylene	23.4	22.1	20	117%	111%	5.7%	
Bromoform	9.81	9.49	10	98%	95%	3.3%	



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Analytical Report

<u>LCS/LCSD</u>	<u>LCS Results (ppbv)</u>	<u>LCSD Results (ppbv)</u>	<u>LCS/D</u> <u>Conc(ppbv)</u>	<u>LCS</u> <u>Rec.</u>	<u>LCSD</u> <u>Rec.</u>	<u>RPD</u>	<u>Flag</u>
Styrene	10.7	9.27	10	107%	93%	14.3%	
1,1,2,2-Tetrachloroethane	8.92	8.62	10	89%	86%	3.4%	
o-Xylene	11.6	10.7	10	116%	107%	8.1%	
4-Ethyltoluene	11.1	11.9	10	111%	119%	7.0%	
1,3,5-Trimethylbenzene	11.7	10.9	10	117%	109%	7.1%	
1,2,4-Trimethylbenzene	10.6	10.2	10	106%	102%	3.8%	
1,3-Dichlorobenzene	8.41	8.15	10	84%	82%	3.1%	
Benzyl Chloride	9.26	8.87	10	93%	89%	4.3%	
1,4-Dichlorobenzene	8.87	8.06	10	89%	81%	9.6%	
1,2-Dichlorobenzene	8.41	8.03	10	84%	80%	4.6%	
1,2,4-Trichlorobenzene	8.55	8.19	10	86%	82%	4.3%	
Hexachloro-1,3-butadiene	9.83	11.2	10	98%	112%	13.0%	
4-bromofluorobenzene (surrogate)	92%	88%					
Analysis Date/Time:	4-20-15/07:56	4-20-15/08:32					
Analyst Initials	tjg	tjg					



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Flag Number

1

Comments

Reporting limit is supported by MDL. TJG

CHAIN OF CUSTODY RECORD

EnvisionAir | 1441 Sadlier Circle West Drive | Indianapolis, IN 46239 | Phone: (317) 351-0885 | Fax: (317) 351-0882

Client: <u>Environ Forensics</u>	P.O. Number: <u>2015 274</u>
Report <u>at</u> <u>Wesbic Sewer Ridge Pt.</u> Address: <u>Winklesha WI 53183</u>	Project Name or Number: <u>6190</u> <u>Martino's 52nd</u>
Report To: <u>B. Koppa / K. Heinsstead</u>	Sampled by: <u>K. Heinsstead</u>
Phone: <u>317-972-7870</u>	QA/QC Required: (circle if applicable) <u>Level III</u> <u>Level IV</u> <u>Both</u>
Invoice Address:	Reporting Units needed: (circle) <u>ug/m³</u> <u>mg/m³</u> <u>PPBV</u> <u>PPMV</u>
Desired TAT: (Please Circle One) <u>1 day</u> <u>2 days</u> <u>3 days</u> <u>Std. (5 bus. days)</u>	Media type: 1LC = 1 Liter Canister 6LC = 6 Liter Canister TB = Tedlar Bag TD = Thermal Desorption Tube

REQUESTED PARAMETERS

TO-15 Full List

TO-15 Short List



Sampling Type:
 Soil-Gas:
 Sub-Slab:
 Indoor-Air:

www.envision-air.com

Canister Pressure / Vacuum

Air Sample ID	Media Type <small>(see code above)</small>	Coll. Date <small>(Grab/Comp Start)</small>	Coll. Time <small>(Grab/Comp Start)</small>	Coll. Date <small>(Comp. End)</small>	Coll. Time <small>(Comp. End)</small>					Canister Serial #	Flow Controller Serial #	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)	EnvisionAir Sample Number
6190-5233-STACK	6LC	4-10-15	924	4-10-15	952	X				10349	-	-28	-2	-2	15-1047

Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	4/13/15	15:02	<u>[Signature]</u>	4/14/15	15:02