



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno Pigott
Commissioner

9/10/2018

[REDACTED]
[REDACTED] St
Franklin, IN 46131

Dear [REDACTED]

RE: Air Sampling Results

As you know, the Indiana Department of Environmental Management (IDEM) collected air samples at your home from August 14 to 15, 2018. An independent contract laboratory was hired by IDEM to test the samples for volatile organic compounds (VOCs) including the chemicals previously found by others, tetrachloroethylene (PCE) and trichloroethylene (TCE). We received the results of the tests and are pleased to report that neither PCE nor TCE were found in your indoor air, crawl space air, or outdoor ambient air above the laboratory detection limits. All other parameters analyzed were reported below a level of concern.

Please find the attached laboratory results for your samples. If you have questions regarding the results, or any questions regarding IDEM's work in Franklin, please feel free to contact Kevin Davis, the IDEM Franklin Project Coordinator at 317/234-4814 or by email at kdavis2@idem.in.gov.

Sincerely,

Bruce Oertel, Chief
Remediation Services Branch
Office of Land Quality

BO:kd
Attachment

cc: Johnson County Health Department



August 24, 2018

Indiana Department of Environmental Management
OLQ, 100 N. Senate Ave., Room N1101
Indianapolis, IN 46204-2251

Work Order No.: 18H1244

Re: LA296 - LA303

Dear David Harrison:

Microbac Laboratories, Inc. - Chicagoland Division received 8 sample(s) on 8/16/2018 6:07:00PM for the analyses presented in the following report as Work Order 18H1244.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Ron Misiunas, Division Manager, at ron.misiunas@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

A handwritten signature in black ink that reads "Kristen Gehlbach". The signature is written in a cursive, flowing style.

Kristen Gehlbach
Senior Project Manager

[Microbac Laboratories, Inc.](http://www.microbac.com)

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WORK ORDER SAMPLE SUMMARY

Date: *Friday, August 24, 2018*

Client: Indiana Department of Environmental Management
Project: LA296 - LA303
Lab Order: 18H1244

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
18H1244-01	LA 296	Summa ID 00386	08/15/2018 11:05	8/16/2018 6:07:00PM
18H1244-02	LA 297	Summa ID 00459	08/15/2018 11:10	8/16/2018 6:07:00PM
18H1244-03	LA 298	Summa ID 00458	08/15/2018 11:13	8/16/2018 6:07:00PM
18H1244-04	LA 299	Summa ID 00456	08/15/2018 11:20	8/16/2018 6:07:00PM
18H1244-05	LA 300	Summa ID 00455	08/15/2018 12:05	8/16/2018 6:07:00PM
18H1244-06	LA 301	Summa ID 00390	08/15/2018 12:10	8/16/2018 6:07:00PM
18H1244-07	LA 302	Summa ID 00442	08/15/2018 12:10	8/16/2018 6:07:00PM
18H1244-08	LA 303	Summa ID 00382	08/15/2018 12:10	8/16/2018 6:07:00PM

CASE NARRATIVE

Summa canister and flow controller information for the TO15 analysis are as follows:

Canister ID	Canister Volume (L)	Pressure at Departure from Laboratory (inHg)	Pressure at Laboratory Receipt (inHg)	Flow Controller ID	Flow Rate (mL/minute)
382	1.4	-28.6	-4.2	462	0.80
442	1.4	-28.6	-3.2	465	0.80
459	1.4	-28.6	-4.3	464	0.81
386	1.4	-28.6	-4.5	467	0.77
456	1.4	-28.6	-5.0	473	0.78
445	1.4	-28.6	-2.0	469	0.77
458	1.4	-28.6	-4.8	463	0.76
390	1.4	-28.6	-3.5	466	0.76



Analytical Results

Date: Friday, August 24, 2018

Client: Indiana Department of Environmental Management
 Client Project: LA296 - LA303
 Client Sample ID: LA 296
 Sample Description: Summa ID 00386
 Matrix: Air

Work Order/ID: 18H1244-01
 Sampled: 08/15/2018 11:05
 Received: 08/16/2018 18:07

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed		
				Method: EPA TO-15			Analyst: RPL				
Toxic Organics in Air by GC/MS										Prep Date/Time: 08/17/2018 15:21	
1,1,1-Trichloroethane	b	A	ND	0.38	14		µg/m3	5	08/18/2018 10:16		
1,1,2,2-Tetrachloroethane	b	A	ND	0.93	17		µg/m3	5	08/18/2018 10:16		
1,1,2-Trichloro-1,2,2-trifluoroethane	b	A	ND	0.61	19		µg/m3	5	08/18/2018 10:16		
1,1-Dichloroethane	b	A	ND	0.28	10		µg/m3	5	08/18/2018 10:16		
1,1-Dichloroethene	b	A	ND	0.46	9.9		µg/m3	5	08/18/2018 10:16		
1,2,4-Trichlorobenzene	b	A	ND	1.0	74		µg/m3	5	08/18/2018 10:16		
1,2,4-Trimethylbenzene	b	A	ND	0.76	12		µg/m3	5	08/18/2018 10:16		
1,2-Dichlorobenzene	b	A	ND	0.48	15		µg/m3	5	08/18/2018 10:16		
1,2-Dichlorotetrafluoroethane	b	A	ND	0.49	17		µg/m3	5	08/18/2018 10:16		
1,3,5-Trimethylbenzene	b	A	ND	0.47	12		µg/m3	5	08/18/2018 10:16		
1,3-Butadiene	b	A	ND	0.31	5.5		µg/m3	5	08/18/2018 10:16		
1,3-Dichlorobenzene	b	A	ND	0.69	15		µg/m3	5	08/18/2018 10:16		
1,4-Dichlorobenzene	b	A	12	0.81	15	J	µg/m3	5	08/18/2018 10:16		
1,4-Dioxane	b	A	ND	0.99	36		µg/m3	5	08/18/2018 10:16		
2-Butanone	b	A	2.2	0.24	29	J	µg/m3	5	08/18/2018 10:16		
2-Hexanone	b	A	ND	0.45	41		µg/m3	5	08/18/2018 10:16		
2-Propanol	b	A	ND	0.17	25		µg/m3	5	08/18/2018 10:16		
4-Ethyltoluene	b	A	ND	0.52	12		µg/m3	5	08/18/2018 10:16		
4-Methyl-2-pentanone	b	A	ND	0.33	100		µg/m3	5	08/18/2018 10:16		
Acetone	b	A	ND	0.17	24		µg/m3	5	08/18/2018 10:16		
Acrolein	b	A	ND	0.45	5.7		µg/m3	5	08/18/2018 10:16		
Benzene	b	A	ND	0.35	8.0		µg/m3	5	08/18/2018 10:16		
Benzyl chloride	b	A	ND	0.93	13		µg/m3	5	08/18/2018 10:16		
Bromoform	b	A	ND	1.6	26		µg/m3	5	08/18/2018 10:16		
Bromomethane	b	A	ND	4.3	9.7		µg/m3	5	08/18/2018 10:16		
Carbon disulfide	b	A	ND	0.22	16		µg/m3	5	08/18/2018 10:16		
Chlorobenzene	b	A	ND	0.32	12		µg/m3	5	08/18/2018 10:16		
Chloroethane	b	A	ND	0.49	6.6		µg/m3	5	08/18/2018 10:16		
Chloromethane	b	A	ND	0.31	21		µg/m3	5	08/18/2018 10:16		
cis-1,2-Dichloroethene	b	A	ND	0.56	9.9		µg/m3	5	08/18/2018 10:16		
cis-1,3-Dichloropropene	b	A	ND	0.64	11		µg/m3	5	08/18/2018 10:16		
Cyclohexane	b	A	ND	0.38	8.6		µg/m3	5	08/18/2018 10:16		
Dibromochloromethane	b	A	10	0.81	21	J	µg/m3	5	08/18/2018 10:16		
Dichlorodifluoromethane	b	A	ND	0.47	12		µg/m3	5	08/18/2018 10:16		
Ethyl acetate	b	A	ND	0.58	9.0		µg/m3	5	08/18/2018 10:16		
Heptane	b	A	ND	0.43	10		µg/m3	5	08/18/2018 10:16		
Hexachlorobutadiene	b	A	ND	1.5	110		µg/m3	5	08/18/2018 10:16		
Hexane	b	A	40	1.2	8.8		µg/m3	5	08/18/2018 10:16		
m,p-Xylene	b	A	ND	0.65	22		µg/m3	5	08/18/2018 10:16		
Methyl Methacrylate	b	A	ND	0.33	20		µg/m3	5	08/18/2018 10:16		
Methylene chloride	b	A	15	1.1	35	J	µg/m3	5	08/18/2018 10:16		

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Analytical Results

Date: Friday, August 24, 2018

Client:	Indiana Department of Environmental Management	Work Order/ID:	18H1244-01
Client Project:	LA296 - LA303	Sampled:	08/15/2018 11:05
Client Sample ID:	LA 296	Received:	08/16/2018 18:07
Sample Description:	Summa ID 00386		
Matrix:	Air		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: EPA TO-15			Analyst: RPL		
Toxic Organics in Air by GC/MS				Prep Date/Time: 08/17/2018 15:21					
Methyl-t-butyl ether	b	A	ND	0.29	9.0		µg/m3	5	08/18/2018 10:16
o-Xylene	b	A	ND	0.67	11		µg/m3	5	08/18/2018 10:16
Propylene	b	A	ND	0.28	8.6		µg/m3	5	08/18/2018 10:16
Styrene	b	A	ND	0.45	11		µg/m3	5	08/18/2018 10:16
Tetrachloroethene	b	A	43	0.64	17		µg/m3	5	08/18/2018 10:16
Tetrahydrofuran	b	A	ND	1.3	7.4		µg/m3	5	08/18/2018 10:16
Toluene	b	A	ND	0.47	9.4		µg/m3	5	08/18/2018 10:16
trans-1,2-Dichloroethene	b	A	ND	0.32	9.9		µg/m3	5	08/18/2018 10:16
trans-1,3-Dichloropropene	b	A	ND	0.48	11		µg/m3	5	08/18/2018 10:16
Trichloroethene	b	A	5.9	0.38	13	J	µg/m3	5	08/18/2018 10:16
Trichlorofluoromethane	b	A	ND	0.53	14		µg/m3	5	08/18/2018 10:16
Vinyl acetate	b	A	ND	0.28	35		µg/m3	5	08/18/2018 10:16
Vinyl chloride	b	A	ND	0.35	6.4		µg/m3	5	08/18/2018 10:16
Surr: 4-Bromofluorobenzene	b	S	99.2		77.7-127		%REC	5	08/18/2018 10:16

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Analytical Results

Date: Friday, August 24, 2018

Client: Indiana Department of Environmental Management
 Client Project: LA296 - LA303
 Client Sample ID: LA 297
 Sample Description: Summa ID 00459
 Matrix: Air

Work Order/ID: 18H1244-02
 Sampled: 08/15/2018 11:10
 Received: 08/16/2018 18:07

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA TO-15									
Analyst: RPL									
Prep Date/Time: 08/22/2018 11:38									
Toxic Organics in Air by GC/MS									
1,1,1-Trichloroethane	b	A	ND	0.076	2.7		µg/m3	1	08/22/2018 18:36
1,1,2,2-Tetrachloroethane	b	A	ND	0.19	3.4		µg/m3	1	08/22/2018 18:36
1,1,2-Trichloro-1,2,2-trifluoroethane	b	A	ND	0.12	3.8		µg/m3	1	08/22/2018 18:36
1,1-Dichloroethane	b	A	ND	0.057	2.0		µg/m3	1	08/22/2018 18:36
1,1-Dichloroethene	b	A	ND	0.091	2.0		µg/m3	1	08/22/2018 18:36
1,2,4-Trichlorobenzene	b	A	ND	0.20	15		µg/m3	1	08/22/2018 18:36
1,2,4-Trimethylbenzene	b	A	ND	0.15	2.5		µg/m3	1	08/22/2018 18:36
1,2-Dichlorobenzene	b	A	ND	0.096	3.0		µg/m3	1	08/22/2018 18:36
1,2-Dichlorotetrafluoroethane	b	A	ND	0.098	3.5		µg/m3	1	08/22/2018 18:36
1,3,5-Trimethylbenzene	b	A	ND	0.093	2.5		µg/m3	1	08/22/2018 18:36
1,3-Butadiene	b	A	ND	0.062	1.1		µg/m3	1	08/22/2018 18:36
1,3-Dichlorobenzene	b	A	ND	0.14	3.0		µg/m3	1	08/22/2018 18:36
1,4-Dichlorobenzene	b	A	ND	0.16	3.0		µg/m3	1	08/22/2018 18:36
1,4-Dioxane	b	A	ND	0.20	7.2		µg/m3	1	08/22/2018 18:36
2-Butanone	b	A	1.4	0.047	5.9	J	µg/m3	1	08/22/2018 18:36
2-Hexanone	b	A	ND	0.090	8.2		µg/m3	1	08/22/2018 18:36
2-Propanol	b	A	1.1	0.034	4.9	J	µg/m3	1	08/22/2018 18:36
4-Ethyltoluene	b	A	ND	0.10	2.5		µg/m3	1	08/22/2018 18:36
4-Methyl-2-pentanone	b	A	ND	0.066	20		µg/m3	1	08/22/2018 18:36
Acetone	b	A	15	0.033	4.8		µg/m3	1	08/22/2018 18:36
Acrolein	b	A	0.71	0.089	1.1	J	µg/m3	1	08/22/2018 18:36
Benzene	b	A	0.70	0.070	1.6	J	µg/m3	1	08/22/2018 18:36
Benzyl chloride	b	A	ND	0.19	2.6		µg/m3	1	08/22/2018 18:36
Bromoform	b	A	ND	0.31	5.2		µg/m3	1	08/22/2018 18:36
Bromomethane	b	A	ND	0.85	1.9		µg/m3	1	08/22/2018 18:36
Carbon disulfide	b	A	0.72	0.044	3.1	J	µg/m3	1	08/22/2018 18:36
Chlorobenzene	b	A	ND	0.064	2.3		µg/m3	1	08/22/2018 18:36
Chloroethane	b	A	ND	0.098	1.3		µg/m3	1	08/22/2018 18:36
Chloromethane	b	A	0.70	0.062	4.1	J	µg/m3	1	08/22/2018 18:36
cis-1,2-Dichloroethene	b	A	ND	0.11	2.0		µg/m3	1	08/22/2018 18:36
cis-1,3-Dichloropropene	b	A	ND	0.13	2.3		µg/m3	1	08/22/2018 18:36
Cyclohexane	b	A	ND	0.076	1.7		µg/m3	1	08/22/2018 18:36
Dibromochloromethane	b	A	ND	0.16	4.3		µg/m3	1	08/22/2018 18:36
Dichlorodifluoromethane	b	A	2.6	0.094	2.5		µg/m3	1	08/22/2018 18:36
Ethyl acetate	b	A	ND	0.12	1.8		µg/m3	1	08/22/2018 18:36
Heptane	b	A	ND	0.086	2.0		µg/m3	1	08/22/2018 18:36
Hexachlorobutadiene	b	A	ND	0.30	21		µg/m3	1	08/22/2018 18:36
Hexane	b	A	58	0.48	18		µg/m3	2	08/18/2018 11:00
m,p-Xylene	b	A	1.7	0.13	4.3	J	µg/m3	1	08/22/2018 18:36
Methyl Methacrylate	b	A	ND	0.066	4.1		µg/m3	1	08/22/2018 18:36
Methylene chloride	b	A	14	0.44	17	J	µg/m3	2	08/18/2018 11:00

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Analytical Results

Date: Friday, August 24, 2018

Client: Indiana Department of Environmental Management
 Client Project: LA296 - LA303
 Client Sample ID: LA 297
 Sample Description: Summa ID 00459
 Matrix: Air

Work Order/ID: 18H1244-02
 Sampled: 08/15/2018 11:10
 Received: 08/16/2018 18:07

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA TO-15					Analyst: RPL				
Toxic Organics in Air by GC/MS					Prep Date/Time: 08/22/2018 11:38				
Methyl-t-butyl ether	b	A	ND	0.058	1.8		µg/m3	1	08/22/2018 18:36
o-Xylene	b	A	ND	0.13	2.2		µg/m3	1	08/22/2018 18:36
Propylene	b	A	ND	0.055	1.7		µg/m3	1	08/22/2018 18:36
Styrene	b	A	ND	0.089	2.1		µg/m3	1	08/22/2018 18:36
Tetrachloroethene	b	A	1.7	0.13	3.4	J	µg/m3	1	08/22/2018 18:36
Tetrahydrofuran	b	A	ND	0.27	1.5		µg/m3	1	08/22/2018 18:36
Toluene	b	A	1.2	0.094	1.9	J	µg/m3	1	08/22/2018 18:36
trans-1,2-Dichloroethene	b	A	ND	0.063	2.0		µg/m3	1	08/22/2018 18:36
trans-1,3-Dichloropropene	b	A	ND	0.095	2.3		µg/m3	1	08/22/2018 18:36
Trichloroethene	b	A	ND	0.075	2.7		µg/m3	1	08/22/2018 18:36
Trichlorofluoromethane	b	A	1.7	0.11	2.8	J	µg/m3	1	08/22/2018 18:36
Vinyl acetate	b	A	1.9	0.056	7.0	J	µg/m3	1	08/22/2018 18:36
Vinyl chloride	b	A	ND	0.069	1.3		µg/m3	1	08/22/2018 18:36
Surr: 4-Bromofluorobenzene	b	S	92.5		77.7-127		%REC	1	08/22/2018 18:36

Microbac Laboratories, Inc.

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Analytical Results

Date: Friday, August 24, 2018

Client: Indiana Department of Environmental Management
 Client Project: LA296 - LA303
 Client Sample ID: LA 298
 Sample Description: Summa ID 00458
 Matrix: Air

Work Order/ID: 18H1244-03
 Sampled: 08/15/2018 11:13
 Received: 08/16/2018 18:07

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA TO-15									
Analyst: RPL									
Prep Date/Time: 08/22/2018 11:38									
Toxic Organics in Air by GC/MS									
1,1,1-Trichloroethane	b	A	ND	0.38	14		µg/m3	5	08/22/2018 19:19
1,1,2,2-Tetrachloroethane	b	A	ND	0.93	17		µg/m3	5	08/22/2018 19:19
1,1,2-Trichloro-1,2,2-trifluoroethane	b	A	ND	0.61	19		µg/m3	5	08/22/2018 19:19
1,1-Dichloroethane	b	A	ND	0.28	10		µg/m3	5	08/22/2018 19:19
1,1-Dichloroethene	b	A	ND	0.46	9.9		µg/m3	5	08/22/2018 19:19
1,2,4-Trichlorobenzene	b	A	ND	1.0	74		µg/m3	5	08/22/2018 19:19
1,2,4-Trimethylbenzene	b	A	ND	0.76	12		µg/m3	5	08/22/2018 19:19
1,2-Dichlorobenzene	b	A	ND	0.48	15		µg/m3	5	08/22/2018 19:19
1,2-Dichlorotetrafluoroethane	b	A	ND	0.49	17		µg/m3	5	08/22/2018 19:19
1,3,5-Trimethylbenzene	b	A	ND	0.47	12		µg/m3	5	08/22/2018 19:19
1,3-Butadiene	b	A	ND	0.31	5.5		µg/m3	5	08/22/2018 19:19
1,3-Dichlorobenzene	b	A	ND	0.69	15		µg/m3	5	08/22/2018 19:19
1,4-Dichlorobenzene	b	A	18	0.81	15		µg/m3	5	08/22/2018 19:19
1,4-Dioxane	b	A	ND	0.99	36		µg/m3	5	08/22/2018 19:19
2-Butanone	b	A	2.8	0.24	29	J	µg/m3	5	08/22/2018 19:19
2-Hexanone	b	A	ND	0.45	41		µg/m3	5	08/22/2018 19:19
2-Propanol	b	A	2.7	0.17	25	J	µg/m3	5	08/22/2018 19:19
4-Ethyltoluene	b	A	ND	0.52	12		µg/m3	5	08/22/2018 19:19
4-Methyl-2-pentanone	b	A	ND	0.33	100		µg/m3	5	08/22/2018 19:19
Acetone	b	A	ND	0.17	24		µg/m3	5	08/22/2018 19:19
Acrolein	b	A	ND	0.45	5.7		µg/m3	5	08/22/2018 19:19
Benzene	b	A	ND	0.35	8.0		µg/m3	5	08/22/2018 19:19
Benzyl chloride	b	A	ND	0.93	13		µg/m3	5	08/22/2018 19:19
Bromoform	b	A	ND	1.6	26		µg/m3	5	08/22/2018 19:19
Bromomethane	b	A	ND	4.3	9.7		µg/m3	5	08/22/2018 19:19
Carbon disulfide	b	A	ND	0.22	16		µg/m3	5	08/22/2018 19:19
Chlorobenzene	b	A	5.5	0.32	12	J	µg/m3	5	08/22/2018 19:19
Chloroethane	b	A	9.0	0.49	6.6		µg/m3	5	08/22/2018 19:19
Chloromethane	b	A	8.6	0.31	21	J	µg/m3	5	08/22/2018 19:19
cis-1,2-Dichloroethene	b	A	4.2	0.56	9.9	J	µg/m3	5	08/22/2018 19:19
cis-1,3-Dichloropropene	b	A	ND	0.64	11		µg/m3	5	08/22/2018 19:19
Cyclohexane	b	A	ND	0.38	8.6		µg/m3	5	08/22/2018 19:19
Dibromochloromethane	b	A	26	0.81	21		µg/m3	5	08/22/2018 19:19
Dichlorodifluoromethane	b	A	4.7	0.47	12	J	µg/m3	5	08/22/2018 19:19
Ethyl acetate	b	A	ND	0.58	9.0		µg/m3	5	08/22/2018 19:19
Heptane	b	A	ND	0.43	10		µg/m3	5	08/22/2018 19:19
Hexachlorobutadiene	b	A	ND	1.5	110		µg/m3	5	08/22/2018 19:19
Hexane	b	A	42	6.0	44	J	µg/m3	25	08/17/2018 23:42
m,p-Xylene	b	A	4.8	0.65	22	J	µg/m3	5	08/22/2018 19:19
Methyl Methacrylate	b	A	ND	0.33	20		µg/m3	5	08/22/2018 19:19
Methylene chloride	b	A	37	5.5	170	J	µg/m3	25	08/17/2018 23:42

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Analytical Results

Date: Friday, August 24, 2018

Client:	Indiana Department of Environmental Management	Work Order/ID:	18H1244-03
Client Project:	LA296 - LA303	Sampled:	08/15/2018 11:13
Client Sample ID:	LA 298	Received:	08/16/2018 18:07
Sample Description:	Summa ID 00458		
Matrix:	Air		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: EPA TO-15			Analyst: RPL			
						Prep Date/Time: 08/22/2018 11:38			
Toxic Organics in Air by GC/MS									
Methyl-t-butyl ether	b	A	ND	0.29	9.0		µg/m3	5	08/22/2018 19:19
o-Xylene	b	A	ND	0.67	11		µg/m3	5	08/22/2018 19:19
Propylene	b	A	ND	0.28	8.6		µg/m3	5	08/22/2018 19:19
Styrene	b	A	ND	0.45	11		µg/m3	5	08/22/2018 19:19
Tetrachloroethene	b	A	74	0.64	17		µg/m3	5	08/22/2018 19:19
Tetrahydrofuran	b	A	ND	1.3	7.4		µg/m3	5	08/22/2018 19:19
Toluene	b	A	7.5	0.47	9.4	J	µg/m3	5	08/22/2018 19:19
trans-1,2-Dichloroethene	b	A	ND	0.32	9.9		µg/m3	5	08/22/2018 19:19
trans-1,3-Dichloropropene	b	A	ND	0.48	11		µg/m3	5	08/22/2018 19:19
Trichloroethene	b	A	10	0.38	13	J	µg/m3	5	08/22/2018 19:19
Trichlorofluoromethane	b	A	ND	0.53	14		µg/m3	5	08/22/2018 19:19
Vinyl acetate	b	A	ND	0.28	35		µg/m3	5	08/22/2018 19:19
Vinyl chloride	b	A	ND	0.35	6.4		µg/m3	5	08/22/2018 19:19
Surr: 4-Bromofluorobenzene	b	S	92.9		77.7-127		%REC	5	08/22/2018 19:19



Analytical Results

Date: Friday, August 24, 2018

Client:	Indiana Department of Environmental Management	Work Order/ID:	18H1244-04
Client Project:	LA296 - LA303	Sampled:	08/15/2018 11:20
Client Sample ID:	LA 299	Received:	08/16/2018 18:07
Sample Description:	Summa ID 00456		
Matrix:	Air		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA TO-15									
Analyst: RPL									
Prep Date/Time: 08/22/2018 11:38									
Toxic Organics in Air by GC/MS									
1,1,1-Trichloroethane	b	A	ND	0.38	14		µg/m3	5	08/22/2018 20:03
1,1,2,2-Tetrachloroethane	b	A	ND	0.93	17		µg/m3	5	08/22/2018 20:03
1,1,2-Trichloro-1,2,2-trifluoroethane	b	A	ND	0.61	19		µg/m3	5	08/22/2018 20:03
1,1-Dichloroethane	b	A	ND	0.28	10		µg/m3	5	08/22/2018 20:03
1,1-Dichloroethene	b	A	ND	0.46	9.9		µg/m3	5	08/22/2018 20:03
1,2,4-Trichlorobenzene	b	A	ND	1.0	74		µg/m3	5	08/22/2018 20:03
1,2,4-Trimethylbenzene	b	A	ND	0.76	12		µg/m3	5	08/22/2018 20:03
1,2-Dichlorobenzene	b	A	ND	0.48	15		µg/m3	5	08/22/2018 20:03
1,2-Dichlorotetrafluoroethane	b	A	ND	0.49	17		µg/m3	5	08/22/2018 20:03
1,3,5-Trimethylbenzene	b	A	ND	0.47	12		µg/m3	5	08/22/2018 20:03
1,3-Butadiene	b	A	ND	0.31	5.5		µg/m3	5	08/22/2018 20:03
1,3-Dichlorobenzene	b	A	ND	0.69	15		µg/m3	5	08/22/2018 20:03
1,4-Dichlorobenzene	b	A	ND	0.81	15		µg/m3	5	08/22/2018 20:03
1,4-Dioxane	b	A	ND	0.99	36		µg/m3	5	08/22/2018 20:03
2-Butanone	b	A	8.4	0.24	29	J	µg/m3	5	08/22/2018 20:03
2-Hexanone	b	A	ND	0.45	41		µg/m3	5	08/22/2018 20:03
2-Propanol	b	A	3.1	0.17	25	J	µg/m3	5	08/22/2018 20:03
4-Ethyltoluene	b	A	ND	0.52	12		µg/m3	5	08/22/2018 20:03
4-Methyl-2-pentanone	b	A	ND	0.33	100		µg/m3	5	08/22/2018 20:03
Acetone	b	A	35	0.17	24		µg/m3	5	08/22/2018 20:03
Acrolein	b	A	3.0	0.45	5.7	J	µg/m3	5	08/22/2018 20:03
Benzene	b	A	ND	0.35	8.0		µg/m3	5	08/22/2018 20:03
Benzyl chloride	b	A	ND	0.93	13		µg/m3	5	08/22/2018 20:03
Bromoform	b	A	ND	1.6	26		µg/m3	5	08/22/2018 20:03
Bromomethane	b	A	ND	4.3	9.7		µg/m3	5	08/22/2018 20:03
Carbon disulfide	b	A	ND	0.22	16		µg/m3	5	08/22/2018 20:03
Chlorobenzene	b	A	ND	0.32	12		µg/m3	5	08/22/2018 20:03
Chloroethane	b	A	ND	0.49	6.6		µg/m3	5	08/22/2018 20:03
Chloromethane	b	A	3.1	0.31	21	J	µg/m3	5	08/22/2018 20:03
cis-1,2-Dichloroethene	b	A	ND	0.56	9.9		µg/m3	5	08/22/2018 20:03
cis-1,3-Dichloropropene	b	A	ND	0.64	11		µg/m3	5	08/22/2018 20:03
Cyclohexane	b	A	ND	0.38	8.6		µg/m3	5	08/22/2018 20:03
Dibromochloromethane	b	A	14	0.81	21	J	µg/m3	5	08/22/2018 20:03
Dichlorodifluoromethane	b	A	4.5	0.47	12	J	µg/m3	5	08/22/2018 20:03
Ethyl acetate	b	A	ND	0.58	9.0		µg/m3	5	08/22/2018 20:03
Heptane	b	A	ND	0.43	10		µg/m3	5	08/22/2018 20:03
Hexachlorobutadiene	b	A	ND	1.5	110		µg/m3	5	08/22/2018 20:03
Hexane	b	A	41	6.0	44	J	µg/m3	25	08/18/2018 0:27
m,p-Xylene	b	A	4.8	0.65	22	J	µg/m3	5	08/22/2018 20:03
Methyl Methacrylate	b	A	ND	0.33	20		µg/m3	5	08/22/2018 20:03
Methylene chloride	b	A	33	5.5	170	J	µg/m3	25	08/18/2018 0:27

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Analytical Results

Date: Friday, August 24, 2018

Client:	Indiana Department of Environmental Management	Work Order/ID:	18H1244-04
Client Project:	LA296 - LA303	Sampled:	08/15/2018 11:20
Client Sample ID:	LA 299	Received:	08/16/2018 18:07
Sample Description:	Summa ID 00456		
Matrix:	Air		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA TO-15									
Analyst: RPL									
Prep Date/Time: 08/22/2018 11:38									
Toxic Organics in Air by GC/MS									
Methyl-t-butyl ether	b	A	ND	0.29	9.0		µg/m3	5	08/22/2018 20:03
o-Xylene	b	A	ND	0.67	11		µg/m3	5	08/22/2018 20:03
Propylene	b	A	ND	0.28	8.6		µg/m3	5	08/22/2018 20:03
Styrene	b	A	ND	0.45	11		µg/m3	5	08/22/2018 20:03
Tetrachloroethene	b	A	11	0.64	17	J	µg/m3	5	08/22/2018 20:03
Tetrahydrofuran	b	A	8.8	1.3	7.4		µg/m3	5	08/22/2018 20:03
Toluene	b	A	4.0	0.47	9.4	J	µg/m3	5	08/22/2018 20:03
trans-1,2-Dichloroethene	b	A	ND	0.32	9.9		µg/m3	5	08/22/2018 20:03
trans-1,3-Dichloropropene	b	A	ND	0.48	11		µg/m3	5	08/22/2018 20:03
Trichloroethene	b	A	ND	0.38	13		µg/m3	5	08/22/2018 20:03
Trichlorofluoromethane	b	A	ND	0.53	14		µg/m3	5	08/22/2018 20:03
Vinyl acetate	b	A	6.0	0.28	35	J	µg/m3	5	08/22/2018 20:03
Vinyl chloride	b	A	ND	0.35	6.4		µg/m3	5	08/22/2018 20:03
Surr: 4-Bromofluorobenzene	b	S	92.2		77.7-127		%REC	5	08/22/2018 20:03



Analytical Results

Date: Friday, August 24, 2018

Client: Indiana Department of Environmental Management
 Client Project: LA296 - LA303
 Client Sample ID: LA 300
 Sample Description: Summa ID 00455
 Matrix: Air

Work Order/ID: 18H1244-05
 Sampled: 08/15/2018 12:05
 Received: 08/16/2018 18:07

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed		
				Method: EPA TO-15			Analyst: RPL				
Toxic Organics in Air by GC/MS										Prep Date/Time: 08/22/2018 11:38	
1,1,1-Trichloroethane	b	A	ND	0.15	5.5		µg/m3	2	08/22/2018 20:47		
1,1,2,2-Tetrachloroethane	b	A	ND	0.37	6.9		µg/m3	2	08/22/2018 20:47		
1,1,2-Trichloro-1,2,2-trifluoroethane	b	A	ND	0.25	7.7		µg/m3	2	08/22/2018 20:47		
1,1-Dichloroethane	b	A	ND	0.11	4.0		µg/m3	2	08/22/2018 20:47		
1,1-Dichloroethene	b	A	ND	0.18	4.0		µg/m3	2	08/22/2018 20:47		
1,2,4-Trichlorobenzene	b	A	ND	0.40	30		µg/m3	2	08/22/2018 20:47		
1,2,4-Trimethylbenzene	b	A	ND	0.30	4.9		µg/m3	2	08/22/2018 20:47		
1,2-Dichlorobenzene	b	A	ND	0.19	6.0		µg/m3	2	08/22/2018 20:47		
1,2-Dichlorotetrafluoroethane	b	A	ND	0.20	7.0		µg/m3	2	08/22/2018 20:47		
1,3,5-Trimethylbenzene	b	A	ND	0.19	4.9		µg/m3	2	08/22/2018 20:47		
1,3-Butadiene	b	A	ND	0.12	2.2		µg/m3	2	08/22/2018 20:47		
1,3-Dichlorobenzene	b	A	ND	0.28	6.0		µg/m3	2	08/22/2018 20:47		
1,4-Dichlorobenzene	b	A	ND	0.32	6.0		µg/m3	2	08/22/2018 20:47		
1,4-Dioxane	b	A	ND	0.40	14		µg/m3	2	08/22/2018 20:47		
2-Butanone	b	A	3.2	0.094	12	J	µg/m3	2	08/22/2018 20:47		
2-Hexanone	b	A	ND	0.18	16		µg/m3	2	08/22/2018 20:47		
2-Propanol	b	A	16	0.069	9.8		µg/m3	2	08/22/2018 20:47		
4-Ethyltoluene	b	A	ND	0.21	4.9		µg/m3	2	08/22/2018 20:47		
4-Methyl-2-pentanone	b	A	ND	0.13	41		µg/m3	2	08/22/2018 20:47		
Acetone	b	A	32	0.067	9.5		µg/m3	2	08/22/2018 20:47		
Acrolein	b	A	1.2	0.18	2.3	J	µg/m3	2	08/22/2018 20:47		
Benzene	b	A	ND	0.14	3.2		µg/m3	2	08/22/2018 20:47		
Benzyl chloride	b	A	ND	0.37	5.2		µg/m3	2	08/22/2018 20:47		
Bromoform	b	A	ND	0.62	10		µg/m3	2	08/22/2018 20:47		
Bromomethane	b	A	ND	1.7	3.9		µg/m3	2	08/22/2018 20:47		
Carbon disulfide	b	A	1.2	0.087	6.2	J	µg/m3	2	08/22/2018 20:47		
Chlorobenzene	b	A	ND	0.13	4.6		µg/m3	2	08/22/2018 20:47		
Chloroethane	b	A	ND	0.20	2.6		µg/m3	2	08/22/2018 20:47		
Chloromethane	b	A	0.87	0.12	8.3	J	µg/m3	2	08/22/2018 20:47		
cis-1,2-Dichloroethene	b	A	ND	0.22	4.0		µg/m3	2	08/22/2018 20:47		
cis-1,3-Dichloropropene	b	A	ND	0.25	4.5		µg/m3	2	08/22/2018 20:47		
Cyclohexane	b	A	ND	0.15	3.4		µg/m3	2	08/22/2018 20:47		
Dibromochloromethane	b	A	ND	0.32	8.5		µg/m3	2	08/22/2018 20:47		
Dichlorodifluoromethane	b	A	3.3	0.19	4.9	J	µg/m3	2	08/22/2018 20:47		
Ethyl acetate	b	A	ND	0.23	3.6		µg/m3	2	08/22/2018 20:47		
Heptane	b	A	ND	0.17	4.1		µg/m3	2	08/22/2018 20:47		
Hexachlorobutadiene	b	A	ND	0.60	43		µg/m3	2	08/22/2018 20:47		
Hexane	b	A	35	6.0	44	J	µg/m3	25	08/18/2018 1:11		
m,p-Xylene	b	A	2.3	0.26	8.7	J	µg/m3	2	08/22/2018 20:47		
Methyl Methacrylate	b	A	ND	0.13	8.2		µg/m3	2	08/22/2018 20:47		
Methylene chloride	b	A	26	5.5	170	J	µg/m3	25	08/18/2018 1:11		

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Analytical Results

Date: Friday, August 24, 2018

Client:	Indiana Department of Environmental Management	Work Order/ID:	18H1244-05
Client Project:	LA296 - LA303	Sampled:	08/15/2018 12:05
Client Sample ID:	LA 300	Received:	08/16/2018 18:07
Sample Description:	Summa ID 00455		
Matrix:	Air		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: EPA TO-15			Analyst: RPL			
						Prep Date/Time: 08/22/2018 11:38			
Toxic Organics in Air by GC/MS									
Methyl-t-butyl ether	b	A	ND	0.12	3.6		µg/m3	2	08/22/2018 20:47
o-Xylene	b	A	ND	0.27	4.3		µg/m3	2	08/22/2018 20:47
Propylene	b	A	ND	0.11	3.4		µg/m3	2	08/22/2018 20:47
Styrene	b	A	ND	0.18	4.3		µg/m3	2	08/22/2018 20:47
Tetrachloroethene	b	A	ND	0.26	6.8		µg/m3	2	08/22/2018 20:47
Tetrahydrofuran	b	A	0.83	0.54	2.9	J	µg/m3	2	08/22/2018 20:47
Toluene	b	A	3.5	0.19	3.8	J	µg/m3	2	08/22/2018 20:47
trans-1,2-Dichloroethene	b	A	ND	0.13	4.0		µg/m3	2	08/22/2018 20:47
trans-1,3-Dichloropropene	b	A	ND	0.19	4.5		µg/m3	2	08/22/2018 20:47
Trichloroethene	b	A	ND	0.15	5.4		µg/m3	2	08/22/2018 20:47
Trichlorofluoromethane	b	A	2.2	0.21	5.6	J	µg/m3	2	08/22/2018 20:47
Vinyl acetate	b	A	2.6	0.11	14	J	µg/m3	2	08/22/2018 20:47
Vinyl chloride	b	A	ND	0.14	2.6		µg/m3	2	08/22/2018 20:47
Surr: 4-Bromofluorobenzene	b	S	92.0		77.7-127		%REC	2	08/22/2018 20:47



Analytical Results

Date: Friday, August 24, 2018

Client: Indiana Department of Environmental Management
 Client Project: LA296 - LA303
 Client Sample ID: LA 301
 Sample Description: Summa ID 00390
 Matrix: Air

Work Order/ID: 18H1244-06
 Sampled: 08/15/2018 12:10
 Received: 08/16/2018 18:07

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA TO-15									
Analyst: RPL									
Prep Date/Time: 08/22/2018 11:38									
Toxic Organics in Air by GC/MS									
1,1,1-Trichloroethane	b	A	ND	0.38	14		µg/m3	5	08/22/2018 21:30
1,1,2,2-Tetrachloroethane	b	A	ND	0.93	17		µg/m3	5	08/22/2018 21:30
1,1,2-Trichloro-1,2,2-trifluoroethane	b	A	ND	0.61	19		µg/m3	5	08/22/2018 21:30
1,1-Dichloroethane	b	A	ND	0.28	10		µg/m3	5	08/22/2018 21:30
1,1-Dichloroethene	b	A	ND	0.46	9.9		µg/m3	5	08/22/2018 21:30
1,2,4-Trichlorobenzene	b	A	ND	1.0	74		µg/m3	5	08/22/2018 21:30
1,2,4-Trimethylbenzene	b	A	ND	0.76	12		µg/m3	5	08/22/2018 21:30
1,2-Dichlorobenzene	b	A	ND	0.48	15		µg/m3	5	08/22/2018 21:30
1,2-Dichlorotetrafluoroethane	b	A	ND	0.49	17		µg/m3	5	08/22/2018 21:30
1,3,5-Trimethylbenzene	b	A	ND	0.47	12		µg/m3	5	08/22/2018 21:30
1,3-Butadiene	b	A	ND	0.31	5.5		µg/m3	5	08/22/2018 21:30
1,3-Dichlorobenzene	b	A	ND	0.69	15		µg/m3	5	08/22/2018 21:30
1,4-Dichlorobenzene	b	A	ND	0.81	15		µg/m3	5	08/22/2018 21:30
1,4-Dioxane	b	A	ND	0.99	36		µg/m3	5	08/22/2018 21:30
2-Butanone	b	A	4.1	0.24	29	J	µg/m3	5	08/22/2018 21:30
2-Hexanone	b	A	ND	0.45	41		µg/m3	5	08/22/2018 21:30
2-Propanol	b	A	390	0.86	120		µg/m3	25	08/18/2018 1:55
4-Ethyltoluene	b	A	ND	0.52	12		µg/m3	5	08/22/2018 21:30
4-Methyl-2-pentanone	b	A	ND	0.33	100		µg/m3	5	08/22/2018 21:30
Acetone	b	A	79	0.17	24		µg/m3	5	08/22/2018 21:30
Acrolein	b	A	4.5	0.45	5.7	J	µg/m3	5	08/22/2018 21:30
Benzene	b	A	ND	0.35	8.0		µg/m3	5	08/22/2018 21:30
Benzyl chloride	b	A	ND	0.93	13		µg/m3	5	08/22/2018 21:30
Bromoform	b	A	ND	1.6	26		µg/m3	5	08/22/2018 21:30
Bromomethane	b	A	ND	4.3	9.7		µg/m3	5	08/22/2018 21:30
Carbon disulfide	b	A	ND	0.22	16		µg/m3	5	08/22/2018 21:30
Chlorobenzene	b	A	ND	0.32	12		µg/m3	5	08/22/2018 21:30
Chloroethane	b	A	ND	0.49	6.6		µg/m3	5	08/22/2018 21:30
Chloromethane	b	A	ND	0.31	21		µg/m3	5	08/22/2018 21:30
cis-1,2-Dichloroethene	b	A	ND	0.56	9.9		µg/m3	5	08/22/2018 21:30
cis-1,3-Dichloropropene	b	A	ND	0.64	11		µg/m3	5	08/22/2018 21:30
Cyclohexane	b	A	ND	0.38	8.6		µg/m3	5	08/22/2018 21:30
Dibromochloromethane	b	A	ND	0.81	21		µg/m3	5	08/22/2018 21:30
Dichlorodifluoromethane	b	A	4.5	0.47	12	J	µg/m3	5	08/22/2018 21:30
Ethyl acetate	b	A	ND	0.58	9.0		µg/m3	5	08/22/2018 21:30
Heptane	b	A	2.9	0.43	10	J	µg/m3	5	08/22/2018 21:30
Hexachlorobutadiene	b	A	ND	1.5	110		µg/m3	5	08/22/2018 21:30
Hexane	b	A	98	6.0	44		µg/m3	25	08/18/2018 1:55
m,p-Xylene	b	A	5.2	0.65	22	J	µg/m3	5	08/22/2018 21:30
Methyl Methacrylate	b	A	ND	0.33	20		µg/m3	5	08/22/2018 21:30
Methylene chloride	b	A	33	5.5	170	J	µg/m3	25	08/18/2018 1:55

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Analytical Results

Date: Friday, August 24, 2018

Client:	Indiana Department of Environmental Management	Work Order/ID:	18H1244-06
Client Project:	LA296 - LA303	Sampled:	08/15/2018 12:10
Client Sample ID:	LA 301	Received:	08/16/2018 18:07
Sample Description:	Summa ID 00390		
Matrix:	Air		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA TO-15									
Analyst: RPL									
Prep Date/Time: 08/22/2018 11:38									
Toxic Organics in Air by GC/MS									
Methyl-t-butyl ether	b	A	ND	0.29	9.0		µg/m3	5	08/22/2018 21:30
o-Xylene	b	A	ND	0.67	11		µg/m3	5	08/22/2018 21:30
Propylene	b	A	ND	0.28	8.6		µg/m3	5	08/22/2018 21:30
Styrene	b	A	ND	0.45	11		µg/m3	5	08/22/2018 21:30
Tetrachloroethene	b	A	ND	0.64	17		µg/m3	5	08/22/2018 21:30
Tetrahydrofuran	b	A	ND	1.3	7.4		µg/m3	5	08/22/2018 21:30
Toluene	b	A	6.6	0.47	9.4	J	µg/m3	5	08/22/2018 21:30
trans-1,2-Dichloroethene	b	A	ND	0.32	9.9		µg/m3	5	08/22/2018 21:30
trans-1,3-Dichloropropene	b	A	ND	0.48	11		µg/m3	5	08/22/2018 21:30
Trichloroethene	b	A	ND	0.38	13		µg/m3	5	08/22/2018 21:30
Trichlorofluoromethane	b	A	ND	0.53	14		µg/m3	5	08/22/2018 21:30
Vinyl acetate	b	A	5.6	0.28	35	J	µg/m3	5	08/22/2018 21:30
Vinyl chloride	b	A	ND	0.35	6.4		µg/m3	5	08/22/2018 21:30
Surr: 4-Bromofluorobenzene	b	S	92.7		77.7-127		%REC	5	08/22/2018 21:30

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Analytical Results

Date: Friday, August 24, 2018

Client: Indiana Department of Environmental Management
 Client Project: LA296 - LA303
 Client Sample ID: LA 302
 Sample Description: Summa ID 00442
 Matrix: Air

Work Order/ID: 18H1244-07
 Sampled: 08/15/2018 12:10
 Received: 08/16/2018 18:07

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA TO-15									
Analyst: RPL									
Prep Date/Time: 08/22/2018 11:38									
Toxic Organics in Air by GC/MS									
1,1,1-Trichloroethane	b	A	ND	0.38	14		µg/m3	5	08/22/2018 22:14
1,1,2,2-Tetrachloroethane	b	A	ND	0.93	17		µg/m3	5	08/22/2018 22:14
1,1,2-Trichloro-1,2,2-trifluoroethane	b	A	ND	0.61	19		µg/m3	5	08/22/2018 22:14
1,1-Dichloroethane	b	A	ND	0.28	10		µg/m3	5	08/22/2018 22:14
1,1-Dichloroethene	b	A	ND	0.46	9.9		µg/m3	5	08/22/2018 22:14
1,2,4-Trichlorobenzene	b	A	ND	1.0	74		µg/m3	5	08/22/2018 22:14
1,2,4-Trimethylbenzene	b	A	ND	0.76	12		µg/m3	5	08/22/2018 22:14
1,2-Dichlorobenzene	b	A	ND	0.48	15		µg/m3	5	08/22/2018 22:14
1,2-Dichlorotetrafluoroethane	b	A	ND	0.49	17		µg/m3	5	08/22/2018 22:14
1,3,5-Trimethylbenzene	b	A	ND	0.47	12		µg/m3	5	08/22/2018 22:14
1,3-Butadiene	b	A	ND	0.31	5.5		µg/m3	5	08/22/2018 22:14
1,3-Dichlorobenzene	b	A	ND	0.69	15		µg/m3	5	08/22/2018 22:14
1,4-Dichlorobenzene	b	A	ND	0.81	15		µg/m3	5	08/22/2018 22:14
1,4-Dioxane	b	A	ND	0.99	36		µg/m3	5	08/22/2018 22:14
2-Butanone	b	A	4.9	0.24	29	J	µg/m3	5	08/22/2018 22:14
2-Hexanone	b	A	ND	0.45	41		µg/m3	5	08/22/2018 22:14
2-Propanol	b	A	390	0.86	120		µg/m3	25	08/18/2018 2:39
4-Ethyltoluene	b	A	ND	0.52	12		µg/m3	5	08/22/2018 22:14
4-Methyl-2-pentanone	b	A	ND	0.33	100		µg/m3	5	08/22/2018 22:14
Acetone	b	A	84	0.17	24		µg/m3	5	08/22/2018 22:14
Acrolein	b	A	4.9	0.45	5.7	J	µg/m3	5	08/22/2018 22:14
Benzene	b	A	ND	0.35	8.0		µg/m3	5	08/22/2018 22:14
Benzyl chloride	b	A	ND	0.93	13		µg/m3	5	08/22/2018 22:14
Bromoform	b	A	ND	1.6	26		µg/m3	5	08/22/2018 22:14
Bromomethane	b	A	ND	4.3	9.7		µg/m3	5	08/22/2018 22:14
Carbon disulfide	b	A	ND	0.22	16		µg/m3	5	08/22/2018 22:14
Chlorobenzene	b	A	ND	0.32	12		µg/m3	5	08/22/2018 22:14
Chloroethane	b	A	ND	0.49	6.6		µg/m3	5	08/22/2018 22:14
Chloromethane	b	A	2.3	0.31	21	J	µg/m3	5	08/22/2018 22:14
cis-1,2-Dichloroethene	b	A	ND	0.56	9.9		µg/m3	5	08/22/2018 22:14
cis-1,3-Dichloropropene	b	A	ND	0.64	11		µg/m3	5	08/22/2018 22:14
Cyclohexane	b	A	ND	0.38	8.6		µg/m3	5	08/22/2018 22:14
Dibromochloromethane	b	A	ND	0.81	21		µg/m3	5	08/22/2018 22:14
Dichlorodifluoromethane	b	A	4.7	0.47	12	J	µg/m3	5	08/22/2018 22:14
Ethyl acetate	b	A	ND	0.58	9.0		µg/m3	5	08/22/2018 22:14
Heptane	b	A	2.9	0.43	10	J	µg/m3	5	08/22/2018 22:14
Hexachlorobutadiene	b	A	ND	1.5	110		µg/m3	5	08/22/2018 22:14
Hexane	b	A	43	6.0	44	J	µg/m3	25	08/18/2018 2:39
m,p-Xylene	b	A	4.8	0.65	22	J	µg/m3	5	08/22/2018 22:14
Methyl Methacrylate	b	A	ND	0.33	20		µg/m3	5	08/22/2018 22:14
Methylene chloride	b	A	29	5.5	170	J	µg/m3	25	08/18/2018 2:39

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Analytical Results

Date: Friday, August 24, 2018

Client:	Indiana Department of Environmental Management	Work Order/ID:	18H1244-07
Client Project:	LA296 - LA303	Sampled:	08/15/2018 12:10
Client Sample ID:	LA 302	Received:	08/16/2018 18:07
Sample Description:	Summa ID 00442		
Matrix:	Air		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA TO-15 Analyst: RPL									
Toxic Organics in Air by GC/MS Prep Date/Time: 08/22/2018 11:38									
Methyl-t-butyl ether	b	A	ND	0.29	9.0		µg/m3	5	08/22/2018 22:14
o-Xylene	b	A	ND	0.67	11		µg/m3	5	08/22/2018 22:14
Propylene	b	A	ND	0.28	8.6		µg/m3	5	08/22/2018 22:14
Styrene	b	A	ND	0.45	11		µg/m3	5	08/22/2018 22:14
Tetrachloroethene	b	A	ND	0.64	17		µg/m3	5	08/22/2018 22:14
Tetrahydrofuran	b	A	ND	1.3	7.4		µg/m3	5	08/22/2018 22:14
Toluene	b	A	6.8	0.47	9.4	J	µg/m3	5	08/22/2018 22:14
trans-1,2-Dichloroethene	b	A	ND	0.32	9.9		µg/m3	5	08/22/2018 22:14
trans-1,3-Dichloropropene	b	A	ND	0.48	11		µg/m3	5	08/22/2018 22:14
Trichloroethene	b	A	ND	0.38	13		µg/m3	5	08/22/2018 22:14
Trichlorofluoromethane	b	A	ND	0.53	14		µg/m3	5	08/22/2018 22:14
Vinyl acetate	b	A	5.6	0.28	35	J	µg/m3	5	08/22/2018 22:14
Vinyl chloride	b	A	ND	0.35	6.4		µg/m3	5	08/22/2018 22:14
Surr: 4-Bromofluorobenzene	b	S	91.8		77.7-127		%REC	5	08/22/2018 22:14

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Analytical Results

Date: Friday, August 24, 2018

Client: Indiana Department of Environmental Management
 Client Project: LA296 - LA303
 Client Sample ID: LA 303
 Sample Description: Summa ID 00382
 Matrix: Air

Work Order/ID: 18H1244-08
 Sampled: 08/15/2018 12:10
 Received: 08/16/2018 18:07

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA TO-15									
Analyst: RPL									
Prep Date/Time: 08/22/2018 11:38									
Toxic Organics in Air by GC/MS									
1,1,1-Trichloroethane	b	A	ND	0.15	5.5		µg/m3	2	08/22/2018 22:58
1,1,2,2-Tetrachloroethane	b	A	ND	0.37	6.9		µg/m3	2	08/22/2018 22:58
1,1,2-Trichloro-1,2,2-trifluoroethane	b	A	ND	0.25	7.7		µg/m3	2	08/22/2018 22:58
1,1-Dichloroethane	b	A	ND	0.11	4.0		µg/m3	2	08/22/2018 22:58
1,1-Dichloroethene	b	A	ND	0.18	4.0		µg/m3	2	08/22/2018 22:58
1,2,4-Trichlorobenzene	b	A	ND	0.40	30		µg/m3	2	08/22/2018 22:58
1,2,4-Trimethylbenzene	b	A	ND	0.30	4.9		µg/m3	2	08/22/2018 22:58
1,2-Dichlorobenzene	b	A	ND	0.19	6.0		µg/m3	2	08/22/2018 22:58
1,2-Dichlorotetrafluoroethane	b	A	ND	0.20	7.0		µg/m3	2	08/22/2018 22:58
1,3,5-Trimethylbenzene	b	A	ND	0.19	4.9		µg/m3	2	08/22/2018 22:58
1,3-Butadiene	b	A	ND	0.12	2.2		µg/m3	2	08/22/2018 22:58
1,3-Dichlorobenzene	b	A	ND	0.28	6.0		µg/m3	2	08/22/2018 22:58
1,4-Dichlorobenzene	b	A	ND	0.32	6.0		µg/m3	2	08/22/2018 22:58
1,4-Dioxane	b	A	ND	0.40	14		µg/m3	2	08/22/2018 22:58
2-Butanone	b	A	2.4	0.094	12	J	µg/m3	2	08/22/2018 22:58
2-Hexanone	b	A	ND	0.18	16		µg/m3	2	08/22/2018 22:58
2-Propanol	b	A	1.7	0.069	9.8	J	µg/m3	2	08/22/2018 22:58
4-Ethyltoluene	b	A	ND	0.21	4.9		µg/m3	2	08/22/2018 22:58
4-Methyl-2-pentanone	b	A	ND	0.13	41		µg/m3	2	08/22/2018 22:58
Acetone	b	A	22	0.067	9.5		µg/m3	2	08/22/2018 22:58
Acrolein	b	A	1.1	0.18	2.3	J	µg/m3	2	08/22/2018 22:58
Benzene	b	A	1.1	0.14	3.2	J	µg/m3	2	08/22/2018 22:58
Benzyl chloride	b	A	ND	0.37	5.2		µg/m3	2	08/22/2018 22:58
Bromoform	b	A	ND	0.62	10		µg/m3	2	08/22/2018 22:58
Bromomethane	b	A	ND	1.7	3.9		µg/m3	2	08/22/2018 22:58
Carbon disulfide	b	A	ND	0.087	6.2		µg/m3	2	08/22/2018 22:58
Chlorobenzene	b	A	ND	0.13	4.6		µg/m3	2	08/22/2018 22:58
Chloroethane	b	A	ND	0.20	2.6		µg/m3	2	08/22/2018 22:58
Chloromethane	b	A	1.4	0.12	8.3	J	µg/m3	2	08/22/2018 22:58
cis-1,2-Dichloroethene	b	A	ND	0.22	4.0		µg/m3	2	08/22/2018 22:58
cis-1,3-Dichloropropene	b	A	ND	0.25	4.5		µg/m3	2	08/22/2018 22:58
Cyclohexane	b	A	ND	0.15	3.4		µg/m3	2	08/22/2018 22:58
Dibromochloromethane	b	A	ND	0.32	8.5		µg/m3	2	08/22/2018 22:58
Dichlorodifluoromethane	b	A	3.2	0.19	4.9	J	µg/m3	2	08/22/2018 22:58
Ethyl acetate	b	A	ND	0.23	3.6		µg/m3	2	08/22/2018 22:58
Heptane	b	A	1.1	0.17	4.1	J	µg/m3	2	08/22/2018 22:58
Hexachlorobutadiene	b	A	ND	0.60	43		µg/m3	2	08/22/2018 22:58
Hexane	b	A	42	6.0	44	J	µg/m3	25	08/18/2018 3:24
m,p-Xylene	b	A	3.6	0.26	8.7	J	µg/m3	2	08/22/2018 22:58
Methyl Methacrylate	b	A	ND	0.13	8.2		µg/m3	2	08/22/2018 22:58
Methylene chloride	b	A	43	5.5	170	J	µg/m3	25	08/18/2018 3:24

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Analytical Results

Date: Friday, August 24, 2018

Client:	Indiana Department of Environmental Management	Work Order/ID:	18H1244-08
Client Project:	LA296 - LA303	Sampled:	08/15/2018 12:10
Client Sample ID:	LA 303	Received:	08/16/2018 18:07
Sample Description:	Summa ID 00382		
Matrix:	Air		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: EPA TO-15									
Analyst: RPL									
Prep Date/Time: 08/22/2018 11:38									
Toxic Organics in Air by GC/MS									
Methyl-t-butyl ether	b	A	ND	0.12	3.6		µg/m3	2	08/22/2018 22:58
o-Xylene	b	A	ND	0.27	4.3		µg/m3	2	08/22/2018 22:58
Propylene	b	A	ND	0.11	3.4		µg/m3	2	08/22/2018 22:58
Styrene	b	A	ND	0.18	4.3		µg/m3	2	08/22/2018 22:58
Tetrachloroethene	b	A	ND	0.26	6.8		µg/m3	2	08/22/2018 22:58
Tetrahydrofuran	b	A	ND	0.54	2.9		µg/m3	2	08/22/2018 22:58
Toluene	b	A	2.6	0.19	3.8	J	µg/m3	2	08/22/2018 22:58
trans-1,2-Dichloroethene	b	A	ND	0.13	4.0		µg/m3	2	08/22/2018 22:58
trans-1,3-Dichloropropene	b	A	ND	0.19	4.5		µg/m3	2	08/22/2018 22:58
Trichloroethene	b	A	ND	0.15	5.4		µg/m3	2	08/22/2018 22:58
Trichlorofluoromethane	b	A	2.1	0.21	5.6	J	µg/m3	2	08/22/2018 22:58
Vinyl acetate	b	A	3.1	0.11	14	J	µg/m3	2	08/22/2018 22:58
Vinyl chloride	b	A	ND	0.14	2.6		µg/m3	2	08/22/2018 22:58
Surr: 4-Bromofluorobenzene	b	S	93.1		77.7-127		%REC	2	08/22/2018 22:58

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FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

B = Detected in the associated method Blank at a concentration above the routine RL
b- = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL
b* = Detected in the associated method Blank at a concentration greater than half the RL
CFU = Colony forming units
D = Dilution performed on sample
DF = Dilution Factor
g = Gram
E = Value above quantitation range
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference
J = Analyte concentration detected between RL and MDL (Metals / Organics)
LOD = Limit of Detection
LOQ = Limit of Quantitation
m3 = Meters cubed
MDL = Method Detection Limit
mg/Kg = Milligrams per Kilogram (ppm)
mg/L = Milligrams per Liter (ppm)
NA = Not Analyzed
ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
NR = Not Recovered
R = RPD outside accepted recovery limits
RL = Reporting Limit
S = Spike recovery outside recovery limits
Surr = Surrogate
U = Undetected
> = Greater than
< = Less than
% = Percent
* = Result exceeds project specific limits

ANALYTE TYPES: (AT)

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte
S = Surrogate
T = Tentatively Identified Compound (TIC, concentration estimated)

QC SAMPLE IDENTIFICATIONS

BLK = Method Blank	ICSA = Interference Check Standard "A"
DUP = Method Duplicate	ICSAB = Interference Check Standard "AB"
BS = Method Blank Spike	BSD = Method Blank Spike Duplicate
MS = Matrix Spike	MSD = Matrix Spike Duplicate
ICB = Initial Calibration Blank	ICV = Initial Calibration Verification
CCB = Continuing Calibration Blank	CCV = Continuing Calibration Verification
CRL = Client Required Reporting Limit	OPR = Ongoing Precision and Recovery Standard
PDS = Post Digestion Spike	SD = Serial Dilution
QCS = Quality Control Standard	

CERTIFICATIONS (Certs)

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

- ^b A2LA ISO/IEC 17025 Env. DoD Testing (#3045.02)
- ^m New York State Department of Health (#12006)

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COOLER INSPECTION

Client Name: Indiana Department of Environmental Management

Date: Friday, August 24, 2018
Date/Time Received: 08/16/2018 18:07

Work Order Number: 18H1244

Received by: Nicole Rainwater

Checklist completed by: 8/16/2018 6:07:00PM | Nicole Rainwater

Reviewed by: 8/17/2018 | KG

Carrier Name: Microbac

Cooler ID: Default Cooler

Container/Temp Blank Temperature: ° C

After-Hour Arrival?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Shipping container/cooler in good condition?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample containers?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
COC present?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included sufficient client identification?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included sufficient sample collector information?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included a sample description?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC agrees with sample labels?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC identified the appropriate matrix?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included date of collection?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC included time of collection?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC identified the appropriate number of containers?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Samples in proper container/bottle?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Sample containers intact?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
All samples received within holding time?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
If the samples are preserved, are the preservatives identified?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	

If No, adjusted by? _____

COC included the requested analyses?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
COC signed when relinquished and received?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Samples received on ice?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
Samples properly preserved?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
Voa vials for aqueous samples have zero headspace?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>

Cooler Comments: _____

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

Sample ID	Client Sample ID	Comments
18H1244-01	LA 296	
18H1244-02	LA 297	
18H1244-03	LA 298	
18H1244-04	LA 299	
18H1244-05	LA 300	
18H1244-06	LA 301	
18H1244-07	LA 302	
18H1244-08	LA 303	

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Chain of Custody Record
Use this COC for Air Analysis only
Number A-3437

5713 West 85th Street
Indianapolis, IN 46278
Tel: 317-872-1375
Fax: 317-872-1379

250 West 84th Drive
Merrillville, IN 46410
Tel: 219-769-8378
Fax: 219-769-1664

Samples Submitted to:

Instructions on back

Client Name STATE OF INDIANA, IDEM Report Type
 Address 100 NORTH SENATE AVE [] Results Only [] Level II
 City, State, Zip INDIANAPOLIS, IN 46260 [] Level III [] Level III CLP-like
 Contact DAVID HARRISON [] Level IV [] Level IV CLP-like
 Telephone # 317-232-8877 [] EDD
 Compliance Monitoring? [] Yes(1) [] No
 (1) Agency/Program _____

Turnaround Time
 [] Routine (7 working days)
 [] RUSH* (notify lab) _____
 (needed by) _____
 Sampler Signature Kenneth C. McDaniel Sampler Phone # 317-691-6370
 Send Report via [] Mail [] Telephone [] Fax (fax #) [] e-mail (address) _____

* Matrix Types: (A) - Air
 Reservative Types: NA

Client Sample ID	Matrix*	Grab	Composite	Date Collected	Start Time	End Time	Summa ID	Vacuum (initial)	Vacuum (final)	For Lab Use Only
LA296	A	X	X	14-15 AUG 2018 11:50AM	11:50AM	11:05AM	00386	-28.5	-5.0	1841244
LA297	A	X	X	14-15 AUG 2018 12:10PM	12:10PM	11:10AM	00459	-28.0	-3.9	01
LA298	A	X	X	14-15 AUG 2018 12:23PM	12:23PM	11:13AM	00458	-27.5	-4.0	02
LA299	A	X	X	14-15 AUG 2018 12:40PM	12:40PM	11:20AM	00456	-27.0	-5.0	03
LA300	A	X	X	14-15 AUG 2018 1:00PM	12:05PM	12:05PM	00445	-28.3	-1.5	04
LA301	A	X	X	14-15 AUG 2018 1:10PM	12:10PM	12:10PM	00390	-28.5	-4.0	05
LA302	A	X	X	14-15 AUG 2018 1:10PM	12:10PM	12:10PM	00442	-28.3	-4.0	06
LA303	A	X	X	14-15 AUG 2018 12:17PM	12:17PM	12:10PM	00382	-27.0	-4.5	07
										08

Possible Hazard Identification [] Hazardous [] Non-Hazardous [] Radioactive [] Dispose as appropriate [] Return [] Archive

Relinquished By (signature) Kenneth C. McDaniel Date/Time 15 AUGUST 2018 EDT Received By (signature) William Date/Time 8-15-18 14:41
 Relinquished By (signature) William Date/Time 8-15-18 11:44 Received By (signature) _____ Date/Time _____
 Relinquished By (signature) _____ Date/Time _____ Received for Lab By (signature) William Date/Time 8-16-18

Comments: SEVEN DAY TURNAROUND TIME.

Sample temperature upon receipt in degrees C = NI