

September 11, 2017

Mr. William McKercher  
Mississippi Department of Environmental Quality  
515 E. Amite Street  
Jackson, MS 39201

Mr. Ben Lightsey  
Mississippi Department of Environmental Quality  
515 E. Amite Street  
Jackson, MS 39201

Re: Air Permit Evaluation – Sub-Slab Depressurization System  
Former Holley Automotive/Coltec Industries Facility, Water Valley, MS

Dear Messrs. McKercher and Lightsey:

On behalf of EnPro Industries, Inc., First Environment, Inc. (“First Environment”) has evaluated the discharge of trichloroethene (“TCE”) vapors to the atmosphere from the sub-slab depressurization system (“SSDS”) emission stack at the former Holley Automotive/Coltec Industries Facility (the “Plant”).

As reported in First Environment’s June 19, 2017 Vapor Intrusion Investigation and Mitigation Report, based on the June 13, 2017 measurements, the discharge of TCE vapors to the atmosphere were estimated to be approximately 36.4 pounds/year, which is equivalent to approximately 0.02 tons/year.

New Jersey

California

Georgia

Illinois

Mississippi

New York

Puerto Rico

Canada

On July 17, 2017, at the request of MDEQ, First Environment resampled the influent and effluent of the SSDS. Prior to sampling, First Environment closed the intake control valve on the roof of the Plant so that no outside ambient air would influence the sampling results. As discussed with MDEQ, First Environment left open the ambient air extraction system intake valve located in the ATS room, which is part of the SSDS’ treatment system. As of July 17, 2017, the discharge flow rate measured at the stack of the SSDS was about 220 cubic feet per minute (“cfm”). The effluent TCE concentration measured at the stack was 285 µg/m<sup>3</sup>. Based on these measurements, the discharge of TCE vapors to the atmosphere is estimated to be about 2.35 x 10<sup>-4</sup> pounds/hour, which is equivalent to approximately 0.001 tons/year. As compared to the June 19, 2017 sampling event, the July 17, 2017 sampling results indicate that the TCE emissions have decreased by an order of magnitude. The laboratory report is attached as Appendix A. Photographs of the locations of the influent and effluent sampling are attached as Appendix B.

Based on the July 2017 effluent sampling results and the continued decrease in the emissions of TCE concentrations, an air permit is not needed.

Should you have any questions, please do not hesitate to contact me.



Very truly yours,

FIRST ENVIRONMENT, INC.

A handwritten signature in black ink, appearing to read "Bernard T. Delaney". The signature is written in a cursive style with a large, looping initial "B".

Bernard T. Delaney, Ph.D., P.E., BCEE  
President

cc: Trudy Fisher, Esq.  
Benne Hutson, Esq.  
Amanda Tollison, Esq.

## **APPENDIX A**

July 24, 2017

## First Environment, Inc.

Sample Delivery Group: L923015  
Samples Received: 07/18/2017  
Project Number: ENPRO002D  
Description: Butler Snow LLP  
Site: OXFORD, MS  
Report To: Michael T. Slack  
91 Fulton Street  
Boonton, NJ 07005

Entire Report Reviewed By:



John Hawkins

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



<b>Cp: Cover Page</b>	<b>1</b>	<b>1</b> Cp
<b>Tc: Table of Contents</b>	<b>2</b>	<b>2</b> Tc
<b>Ss: Sample Summary</b>	<b>3</b>	<b>3</b> Ss
<b>Cn: Case Narrative</b>	<b>4</b>	<b>4</b> Cn
<b>Sr: Sample Results</b>	<b>5</b>	<b>5</b> Sr
SSD-EFFLU(2) L923015-01	<b>5</b>	<b>6</b> Qc
SSD-INFLU-UV(2) L923015-02	<b>7</b>	<b>7</b> Gl
<b>Qc: Quality Control Summary</b>	<b>9</b>	<b>8</b> Al
Volatile Organic Compounds (MS) by Method TO-15	<b>9</b>	<b>9</b> Sc
<b>Gl: Glossary of Terms</b>	<b>13</b>	
<b>Al: Accreditations &amp; Locations</b>	<b>14</b>	
<b>Sc: Chain of Custody</b>	<b>15</b>	

# SAMPLE SUMMARY



## SSD-EFFLU(2) L923015-01 Air

Collected by  
Micheal T. Slack      Collected date/time  
07/17/17 14:28      Received date/time  
07/18/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1001345	2	07/21/17 17:06	07/21/17 17:06	MBF

<sup>1</sup>  
Cp

<sup>2</sup>  
Tc

<sup>3</sup>  
Ss

## SSD-INFLU-UV(2) L923015-02 Air

Collected by  
Micheal T. Slack      Collected date/time  
07/17/17 14:44      Received date/time  
07/18/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1001345	2	07/21/17 17:52	07/21/17 17:52	MBF

<sup>4</sup>  
Cn

<sup>5</sup>  
Sr

<sup>6</sup>  
Qc

<sup>7</sup>  
Gl

<sup>8</sup>  
Al

<sup>9</sup>  
Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John Hawkins  
Technical Service Representative

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	136	323	E	2	WG1001345
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG1001345
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG1001345
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG1001345
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG1001345
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG1001345
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG1001345
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG1001345
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG1001345
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG1001345
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG1001345
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG1001345
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG1001345
Chloromethane	74-87-3	50.50	0.400	0.826	0.744	1.54		2	WG1001345
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG1001345
Cyclohexane	110-82-7	84.20	0.400	1.38	ND	ND		2	WG1001345
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG1001345
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG1001345
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG1001345
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG1001345
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG1001345
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG1001345
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG1001345
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG1001345
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	75.7	300		2	WG1001345
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	2.34	9.26		2	WG1001345
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG1001345
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG1001345
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG1001345
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG1001345
Ethanol	64-17-5	46.10	1.26	2.38	1190	2240	E	2	WG1001345
Ethylbenzene	100-41-4	106	0.400	1.73	5.45	23.6		2	WG1001345
4-Ethyltoluene	622-96-8	120	0.400	1.96	0.940	4.61		2	WG1001345
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND	J4	2	WG1001345
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.449	2.22		2	WG1001345
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	0.515	3.95		2	WG1001345
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG1001345
Heptane	142-82-5	100	0.400	1.64	0.865	3.54		2	WG1001345
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG1001345
n-Hexane	110-54-3	86.20	0.400	1.41	ND	ND		2	WG1001345
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG1001345
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.566	1.96		2	WG1001345
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG1001345
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	96.6	285		2	WG1001345
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG1001345
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG1001345
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG1001345
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG1001345
2-Propanol	67-63-0	60.10	2.50	6.15	548	1350	E	2	WG1001345
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG1001345
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG1001345
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG1001345
Tetrachloroethylene	127-18-4	166	0.400	2.72	ND	ND		2	WG1001345
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	1.86	5.49		2	WG1001345
Toluene	108-88-3	92.10	0.400	1.51	2.19	8.24		2	WG1001345
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG1001345

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc





Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	<a href="#">WG1001345</a>
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	<a href="#">WG1001345</a>
Trichloroethylene	79-01-6	131	0.400	2.14	53.1	285		2	<a href="#">WG1001345</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	1.47	7.21		2	<a href="#">WG1001345</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	0.471	2.31		2	<a href="#">WG1001345</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	2.95	13.8		2	<a href="#">WG1001345</a>
Vinyl chloride	75-01-4	62.50	0.400	1.02	4.16	10.6		2	<a href="#">WG1001345</a>
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND	J4	2	<a href="#">WG1001345</a>
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	<a href="#">WG1001345</a>
m&p-Xylene	1330-20-7	106	0.800	3.47	31.9	138		2	<a href="#">WG1001345</a>
o-Xylene	95-47-6	106	0.400	1.73	12.1	52.7		2	<a href="#">WG1001345</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		108				<a href="#">WG1001345</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
Acetone	67-64-1	58.10	2.50	5.94	131	312	E	2	WG1001345
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG1001345
Benzene	71-43-2	78.10	0.400	1.28	0.420	1.34		2	WG1001345
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG1001345
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG1001345
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG1001345
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG1001345
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG1001345
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG1001345
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG1001345
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG1001345
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG1001345
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG1001345
Chloromethane	74-87-3	50.50	0.400	0.826	0.692	1.43		2	WG1001345
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG1001345
Cyclohexane	110-82-7	84.20	0.400	1.38	0.436	1.50		2	WG1001345
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG1001345
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG1001345
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG1001345
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG1001345
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG1001345
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG1001345
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG1001345
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG1001345
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	74.8	296		2	WG1001345
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	2.56	10.1		2	WG1001345
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG1001345
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG1001345
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG1001345
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG1001345
Ethanol	64-17-5	46.10	1.26	2.38	1380	2610	E	2	WG1001345
Ethylbenzene	100-41-4	106	0.400	1.73	5.10	22.1		2	WG1001345
4-Ethyltoluene	622-96-8	120	0.400	1.96	1.03	5.07		2	WG1001345
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND	J4	2	WG1001345
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.423	2.09		2	WG1001345
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	0.495	3.79		2	WG1001345
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG1001345
Heptane	142-82-5	100	0.400	1.64	0.981	4.01		2	WG1001345
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG1001345
n-Hexane	110-54-3	86.20	0.400	1.41	0.552	1.95		2	WG1001345
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG1001345
Methylene Chloride	75-09-2	84.90	0.400	1.39	1.11	3.84		2	WG1001345
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG1001345
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	94.3	278		2	WG1001345
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG1001345
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG1001345
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG1001345
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG1001345
2-Propanol	67-63-0	60.10	2.50	6.15	597	1470	E	2	WG1001345
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG1001345
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG1001345
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG1001345
Tetrachloroethylene	127-18-4	166	0.400	2.72	0.406	2.76		2	WG1001345
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	1.71	5.03		2	WG1001345
Toluene	108-88-3	92.10	0.400	1.51	4.84	18.2		2	WG1001345
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG1001345

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	<a href="#">WG1001345</a>
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	<a href="#">WG1001345</a>
Trichloroethylene	79-01-6	131	0.400	2.14	51.4	275		2	<a href="#">WG1001345</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	1.68	8.25		2	<a href="#">WG1001345</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	0.556	2.73		2	<a href="#">WG1001345</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	3.04	14.2		2	<a href="#">WG1001345</a>
Vinyl chloride	75-01-4	62.50	0.400	1.02	4.19	10.7		2	<a href="#">WG1001345</a>
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND	J4	2	<a href="#">WG1001345</a>
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	<a href="#">WG1001345</a>
m&p-Xylene	1330-20-7	106	0.800	3.47	30.2	131		2	<a href="#">WG1001345</a>
o-Xylene	95-47-6	106	0.400	1.73	11.3	49.0		2	<a href="#">WG1001345</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		110				<a href="#">WG1001345</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3235379-3 07/21/17 09:54

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.0569	1.25
Allyl Chloride	U		0.0546	0.200
Benzene	U		0.0460	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0436	0.200
Bromoform	U		0.0786	0.600
Bromomethane	U		0.0609	0.200
1,3-Butadiene	U		0.0563	2.00
Carbon disulfide	U		0.0544	0.200
Carbon tetrachloride	U		0.0585	0.200
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.200
Chloroform	U		0.0574	0.200
Chloromethane	U		0.0544	0.200
2-Chlorotoluene	U		0.0605	0.200
Cyclohexane	U		0.0534	0.200
Dibromochloromethane	U		0.0494	0.200
1,2-Dibromoethane	U		0.0185	0.200
1,2-Dichlorobenzene	U		0.0603	0.200
1,3-Dichlorobenzene	U		0.0597	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0616	0.200
1,1-Dichloroethane	U		0.0514	0.200
1,1-Dichloroethene	U		0.0490	0.200
cis-1,2-Dichloroethene	U		0.0389	0.200
trans-1,2-Dichloroethene	U		0.0464	0.200
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.200
trans-1,3-Dichloropropene	U		0.0435	0.200
1,4-Dioxane	U		0.0554	0.200
Ethylbenzene	U		0.0506	0.200
4-Ethyltoluene	U		0.0666	0.200
Trichlorofluoromethane	U		0.0673	0.200
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.200
1,2-Dichlorotetrafluoroethane	U		0.0458	0.200
Heptane	U		0.0626	0.200
Hexachloro-1,3-butadiene	U		0.0656	0.630
n-Hexane	U		0.0457	0.200
Isopropylbenzene	U		0.0563	0.200

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc



Method Blank (MB)

(MB) R3235379-3 07/21/17 09:54

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Methylene Chloride	U		0.0465	0.200
Methyl Butyl Ketone	U		0.0682	1.25
2-Butanone (MEK)	U		0.0493	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25
Methyl Methacrylate	U		0.0773	0.200
MTBE	U		0.0505	0.200
Naphthalene	U		0.154	0.630
2-Propanol	U		0.0882	1.25
Propene	U		0.0932	0.400
Styrene	U		0.0465	0.200
1,1,2,2-Tetrachloroethane	U		0.0576	0.200
Tetrachloroethylene	U		0.0497	0.200
Tetrahydrofuran	U		0.0508	0.200
Toluene	U		0.0499	0.200
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0665	0.200
1,1,2-Trichloroethane	U		0.0287	0.200
Trichloroethylene	U		0.0545	0.200
1,2,4-Trimethylbenzene	U		0.0483	0.200
1,3,5-Trimethylbenzene	U		0.0631	0.200
2,2,4-Trimethylpentane	U		0.0456	0.200
Vinyl chloride	U		0.0457	0.200
Vinyl Bromide	U		0.0727	0.200
Vinyl acetate	U		0.0639	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
Ethanol	U		0.0832	0.630
(S) 1,4-Bromofluorobenzene	97.0			60.0-140

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3235379-1 07/21/17 08:20 • (LCSD) R3235379-2 07/21/17 09:05

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Ethanol	3.75	3.64	3.63	97.0	96.9	52.0-158			0.160	25
Propene	3.75	4.12	4.03	110	108	54.0-155			2.04	25
Dichlorodifluoromethane	3.75	4.41	4.46	118	119	69.0-143			1.12	25
1,2-Dichlorotetrafluoroethane	3.75	4.22	4.07	113	109	70.0-130			3.56	25
Chloromethane	3.75	4.16	4.12	111	110	70.0-130			0.860	25



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3235379-1 07/21/17 08:20 • (LCSD) R3235379-2 07/21/17 09:05

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	3.75	4.23	4.38	113	117	70.0-130			3.63	25
1,3-Butadiene	3.75	4.00	4.21	107	112	70.0-130			5.13	25
Bromomethane	3.75	3.81	3.85	102	103	70.0-130			1.07	25
Chloroethane	3.75	2.62	2.71	70.0	72.4	70.0-130			3.40	25
Trichlorofluoromethane	3.75	5.12	5.09	136	136	70.0-130	J4	J4	0.550	25
1,1,2-Trichlorotrifluoroethane	3.75	4.29	4.28	114	114	70.0-130			0.260	25
1,1-Dichloroethene	3.75	4.14	4.12	110	110	70.0-130			0.390	25
1,1-Dichloroethane	3.75	4.11	4.11	110	109	70.0-130			0.0400	25
Acetone	3.75	3.99	4.00	106	107	70.0-130			0.280	25
2-Propanol	3.75	3.92	3.93	104	105	66.0-150			0.230	25
Carbon disulfide	3.75	4.07	4.04	109	108	70.0-130			0.730	25
Methylene Chloride	3.75	3.97	3.98	106	106	70.0-130			0.180	25
MTBE	3.75	4.07	4.07	109	108	70.0-130			0.170	25
trans-1,2-Dichloroethene	3.75	4.06	4.06	108	108	70.0-130			0.170	25
n-Hexane	3.75	4.03	3.99	107	107	70.0-130			0.770	25
Vinyl acetate	3.75	4.18	4.17	111	111	70.0-130			0.310	25
Methyl Ethyl Ketone	3.75	4.04	4.01	108	107	70.0-130			0.730	25
cis-1,2-Dichloroethene	3.75	4.04	4.05	108	108	70.0-130			0.220	25
Chloroform	3.75	4.10	4.07	109	109	70.0-130			0.630	25
Cyclohexane	3.75	4.21	4.20	112	112	70.0-130			0.140	25
1,1,1-Trichloroethane	3.75	4.14	4.14	110	110	70.0-130			0.0400	25
Carbon tetrachloride	3.75	4.16	4.15	111	111	70.0-130			0.200	25
Benzene	3.75	4.04	4.05	108	108	70.0-130			0.370	25
1,2-Dichloroethane	3.75	4.08	4.09	109	109	70.0-130			0.0600	25
Heptane	3.75	4.11	4.11	110	110	70.0-130			0.0200	25
Trichloroethylene	3.75	4.07	4.06	109	108	70.0-130			0.470	25
1,2-Dichloropropane	3.75	4.02	4.03	107	107	70.0-130			0.260	25
1,4-Dioxane	3.75	3.88	3.90	103	104	70.0-152			0.480	25
Bromodichloromethane	3.75	4.06	4.08	108	109	70.0-130			0.440	25
cis-1,3-Dichloropropene	3.75	4.14	4.16	110	111	70.0-130			0.380	25
4-Methyl-2-pentanone (MIBK)	3.75	4.15	4.19	111	112	70.0-142			0.860	25
Toluene	3.75	4.18	4.18	111	111	70.0-130			0.0300	25
trans-1,3-Dichloropropene	3.75	4.17	4.18	111	112	70.0-130			0.200	25
1,1,2-Trichloroethane	3.75	4.08	4.09	109	109	70.0-130			0.420	25
Tetrachloroethylene	3.75	4.20	4.20	112	112	70.0-130			0.0700	25
Methyl Butyl Ketone	3.75	4.25	4.26	113	114	70.0-150			0.340	25
Dibromochloromethane	3.75	4.22	4.23	112	113	70.0-130			0.230	25
1,2-Dibromoethane	3.75	4.20	4.22	112	113	70.0-130			0.490	25
Chlorobenzene	3.75	4.14	4.16	110	111	70.0-130			0.510	25
Ethylbenzene	3.75	4.34	4.34	116	116	70.0-130			0.0700	25

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3235379-1 07/21/17 08:20 • (LCSD) R3235379-2 07/21/17 09:05

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
m&p-Xylene	7.50	8.76	8.79	117	117	70.0-130			0.300	25
o-Xylene	3.75	4.40	4.42	117	118	70.0-130			0.520	25
Styrene	3.75	4.59	4.64	122	124	70.0-130			0.920	25
Bromoform	3.75	4.43	4.44	118	118	70.0-130			0.120	25
1,1,2,2-Tetrachloroethane	3.75	4.22	4.24	113	113	70.0-130			0.380	25
4-Ethyltoluene	3.75	4.51	4.53	120	121	70.0-130			0.490	25
1,3,5-Trimethylbenzene	3.75	4.47	4.50	119	120	70.0-130			0.850	25
1,2,4-Trimethylbenzene	3.75	4.45	4.48	119	120	70.0-130			0.680	25
1,3-Dichlorobenzene	3.75	4.56	4.58	122	122	70.0-130			0.510	25
1,4-Dichlorobenzene	3.75	4.66	4.77	124	127	70.0-130			2.33	25
Benzyl Chloride	3.75	4.62	4.65	123	124	70.0-144			0.700	25
1,2-Dichlorobenzene	3.75	4.50	4.53	120	121	70.0-130			0.680	25
1,2,4-Trichlorobenzene	3.75	4.26	4.30	113	115	70.0-155			1.00	25
Hexachloro-1,3-butadiene	3.75	4.51	4.53	120	121	70.0-145			0.480	25
Naphthalene	3.75	4.48	4.49	120	120	70.0-155			0.300	25
Allyl Chloride	3.75	4.02	4.07	107	109	70.0-130			1.33	25
2-Chlorotoluene	3.75	4.47	4.50	119	120	70.0-130			0.680	25
Methyl Methacrylate	3.75	4.08	4.10	109	109	70.0-130			0.380	25
Tetrahydrofuran	3.75	3.91	3.94	104	105	70.0-140			0.660	25
2,2,4-Trimethylpentane	3.75	4.15	4.13	111	110	70.0-130			0.420	25
Vinyl Bromide	3.75	5.05	5.03	135	134	70.0-130	<u>J4</u>	<u>J4</u>	0.520	25
Isopropylbenzene	3.75	4.40	4.41	117	118	70.0-130			0.310	25
<i>(S) 1,4-Bromofluorobenzene</i>				101	102	60.0-140				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J4	The associated batch QC was outside the established quality control range for accuracy.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc





ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.  
 \* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

## State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina <sup>1</sup>	DW21704
Florida	E87487	North Carolina <sup>2</sup>	41
Georgia	NELAP	North Dakota	R-140
Georgia <sup>1</sup>	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky <sup>1</sup>	90010	South Dakota	n/a
Kentucky <sup>2</sup>	16	Tennessee <sup>14</sup>	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

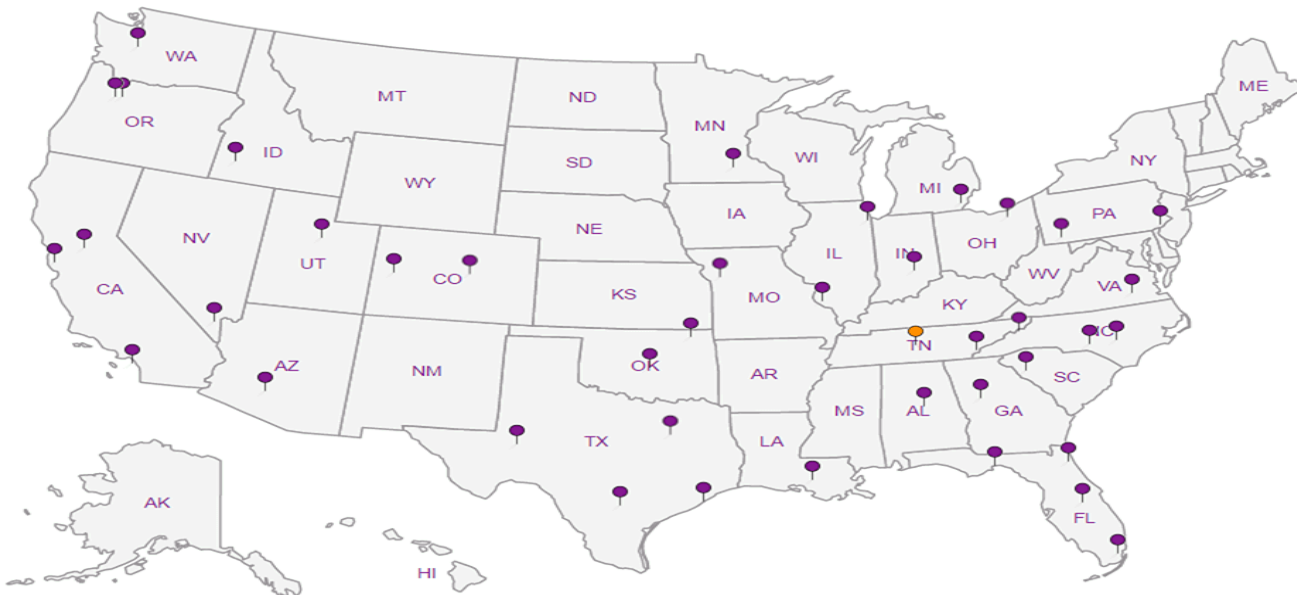
## Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>n/a</sup> Accreditation not applicable

## Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

First Environment, Inc.

91 Fulton Street  
Boonton, NJ 07005

Billing Information:  
Project: EnPro 081  $\phi\phi 2D$   
91 Fulton Street  
Boonton, NJ 07005  
ATTN: JUSTIN PICCOLI  
JPICCOLI@FIRSTENVIRONMENT.COM  
Email To: mslack@firstenvironment.com

Pres  
Cntk

Analysis / Container / Preservative

Chain of Custody Page \_\_\_ of \_\_\_  
**ESC**  
LAB SCIENTIFICS  
a subsidiary of *Bechtel*  
12065 Lebanon Rd  
Mount Juliet, TN 37122  
Phone: 615-758-5858  
Phone: 800-767-5859  
Fax: 615-758-5859  


L# 923015

M129

Acctnum: FIRENVBNJ

Template: T124530

Prelogin: P609357

TSR: 341 - John Hawkins

PB: LL 7/7

Shipped Via: FedEx Ground

Report to:  
Michael T. Slack

Project  
Description: Butler Snow LLP

Phone: 973-334-0003  
Fax: 973-334-0928

Collected by (print):  
MICHAEL T. SLACK

Collected by (signature):  
*Mt Slack*

Immediately  
Packed on Ice N  Y

Client Project #

ENPRO  $\phi\phi 2D$

Site/Facility ID #  
OXFORD, MS

Rush? (Lab MUST Be Notified)  
 Same Day  Five Day  
 Next Day  5 Day (Rad Only)  
 Two Day  10 Day (Rad Only)  
 Three Day

City/State WATER VALLEY, MS  
Collected: BORG WARNER PLANT

Lab Project #  
FIRENVBNJ-OXFORDMS

P.O. #

Quote #

Date Results Needed

No.  
o.  
Cnts

TO-15 Summa

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. o. Cnts
SSD-EFFLU(2)	GRAB	Air	---	7/17/17	14:22 START 14:38 END	1 X
SSD-INFLU-UV(2)	GRAB	Air	---	7/17/17	14:44 START 14:44 END	1 X

Remarks	Sample # (lab only)
STACK EFFLUENT	-01
PRIO TO CONTROL (UV)	-02

\* Matrix:  
SS - Soil AIR - Air F - Filter  
GW - Groundwater B - Bioassay  
WW - WasteWater  
DW - Drinking Water  
OT - Other

Remarks: 1 - LITER SUMMA - GRAB SAMPLES - EFFLUENT  
By INFLUENT (PRIO TO CONTROL - UV) - SSD SYSTEM  
(5-MIN-REGULATOR)  
pH \_\_\_\_\_ Temp \_\_\_\_\_  
Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 UPS  FedEx  Courier

Tracking # 7384 4204 1055

Sample Receipt Checklist

COC Seal Present/Intgot:	NP	Y	N
COC Signed/Accurate:		Y	N
Bottles arrive intact:		Y	N
Correct bottles used:		Y	N
Sufficient volume sent:		Y	N
VOA Zero Headspace:		Y	N
Preservation Correct/Checked:		Y	N

Relinquished by: (Signature)

*Mt Slack*

Date: 7/17/17  
Time: 1800

Relinquished by: (Signature)

Relinquished by: (Signature)

Date:  
Time:

Received by: (Signature)

Trip Blank Received: Yes / No  
HCL / MeOH  
TBR

Received by: (Signature)

Temp: AMB °C  
Bottles Received: 2

Received for lab by: (Signature)

Date: 7/18/17  
Time: 0845

Hold:

Condition:  
NCF 100

## **APPENDIX B**



This can has been tested and certified by Method TO-15 of the Environmental Protection Agency. ESC Environmental Science Company, Inc. 1200 Lakeside Blvd., Suite 200, San Diego, CA 92108. Phone: 619-444-2222. Fax: 619-444-2223. Email: info@esc.com. Website: www.esc.com. Date: 7/16/17. Time: 2:42 PM. Operator: [Signature]

**SANUX UV BIO-WALL**  
**QUATTRO**  
ULTRAVIOLET AIR PURIFICATION SYSTEM

CAUTION: DO NOT EXPOSE YOUR EYES TO THE ULTRAVIOLET RAYS  
ATTENTION: DO NOT TOUCH THE ULTRAVIOLET RAY FILTERS  
DO NOT REMOVE THE ULTRAVIOLET RAY FILTERS

BALLAST ENERGY  
UV LAMP ENERGY

CAUTION: Your Sanux UV Bio-Wall must be installed in a room with adequate ventilation. Do not use in a room with high humidity or high temperature.

CAUTION: Do not touch the UV lamps. They are extremely hot and can cause severe burns. Do not touch the UV lamps if they are glowing. Do not touch the UV lamps if they are hot. Do not touch the UV lamps if they are glowing. Do not touch the UV lamps if they are hot. Do not touch the UV lamps if they are glowing. Do not touch the UV lamps if they are hot.

07/16/2017 14:42



