

# **Sub-Slab Depressurization System Progress Report for the Former Holley Automotive/ Coltec Industries Facility Water Valley, Mississippi**



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**March 8, 2018**

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## CERTIFICATION STATEMENT

I, Bernard T. Delaney, Ph.D., P.E., BCEE, certify that I am currently a registered professional engineer in the State of Mississippi and had primary direct responsibility for the implementation of the subject interim remedial measure activities. I certify that this Sub-Slab Depressurization System Progress Report was completed in conformance with the laws and regulations of the State of Mississippi. I certify that all information and statements in this certification form are true.

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03/08/2018

Mississippi Professional  
Engineer No.

Date

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B. Tod Delaney, Ph.D., P.E., BCEE



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## **1.0 Introduction**

This Sub-Slab Depressurization System (“SSDS”) Progress Report has been prepared by First Environment, Inc. (“First Environment”) on behalf of EnPro Industries, Inc. (“EnPro”) with respect to the former Holley Automotive/Coltec Industries Facility (hereinafter referred to as the “Plant”). The Plant is located at 600 State Highway 32 in Water Valley, Yalobusha County, Mississippi.

On June 19, 2017, First Environment submitted a VI Investigation and Mitigation Report (the “Initial SSDS Report”), which included a description of the SSDS and indoor air sampling data through June 7, 2017. On July 3, 2017, First Environment submitted an SSDS Progress Report on the June 19-20, 2017 ambient and indoor air sampling results and the installation of extraction point (“EP”) No. 3. First Environment submitted SSDS Progress Reports on subsequent rounds of ambient and indoor air sampling on July 17, August 7, August 21, September 11, October 2, October 9, October 17, November 1, November 15, November 29, and December 13, 2017, and January 8, January 12, January 30, February 14, and February 23, 2018.

On February 22-23, 2018, First Environment collected a round of ambient and indoor air samples from the four interior rooms at the Plant—the Training Room, ATS Room, Maintenance Room, and Cafeteria. As discussed in more detail below, all indoor air sampling results for TCE were below the MDEQ action level of 26 µg/m<sup>3</sup>.

## **2.0 Indoor Air Monitoring – February 22-23, 2018**

### **2.1 Instrumentation**

First Environment collected ambient and indoor air samples by placing laboratory provided 6-liter capacity 24-hour Summa® canisters equipped with flow regulators calibrated to 24 hours.

### **2.2 Methodology**

On February 22-23, 2018, First Environment collected four indoor air samples at the four interior rooms of the Plant and one ambient air sample outside the Plant. Standard chain-of-custody procedures were implemented for the sampling, including signing the sample lot in and out from the facility to the laboratory on a chain-of-custody sheet and dating the start and end dates/times of sample collection. First Environment also followed standard indoor air sampling techniques to collect the indoor air samples at the locations depicted in Figure 1. Wherever

possible, First Environment mounted the Summa® canisters on columns or secured them in an area above the floor at or near the “breathing space.” The vacuum measurements in Summa® canisters were noted before and after sampling to ensure that the flow regulator at each canister was working properly.

The sampling required the Summa® canisters to be left in place for 24 hours and they are monitored by Plant security for that period of time. First Environment personnel, Borg Warner representatives, and Plant employees had access to the Summa® canisters during the 24-hour sampling period.

First Environment submitted the samples to ESC Lab Sciences for USEPA TO-15 SIM analysis. The laboratory was responsible for the decontamination of the Summa® canisters and for setting the internal vacuum and calibrating the regulators prior to sample collection.

As reported in the January 8, 2018 SSDS Progress Report, First Environment sealed the void spaces in the block wall between the sump and the Maintenance Room on December 29, 2017. On January 15, 2018, the sump adjacent to the Maintenance Room was decommissioned. On January 18, 2018, First Environment installed two SSDS extraction points in the block wall between the sump and the Maintenance Room and one SSDS extraction point in the block wall between the sump and the Training Room.

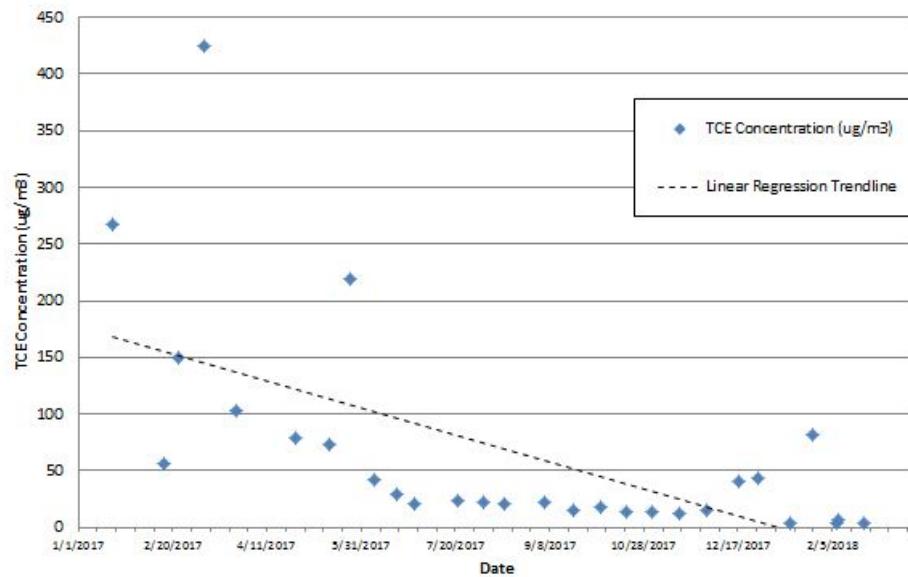
## 2.3 Results

Table 1 presents the ambient and indoor air sampling results for all TO-15 analytes for the February 22-23, 2018 sampling event. Table 2 presents the results of TCE, cis-DCE, and VC in comparison to all previous rounds of sampling. A copy of the laboratory reports, including the chain-of-custody forms, is attached in Appendix A.

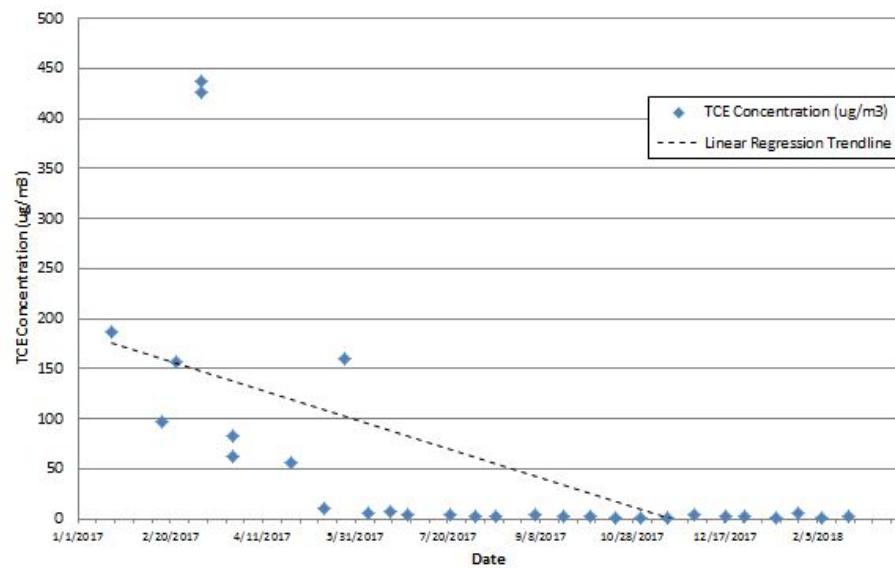
The sample results in the Training Room, ATS Room, and Cafeteria were below USEPA’s Vapor Intrusion Screening Level (“VISL”) for TCE of 3  $\mu\text{g}/\text{m}^3$ . The sample results in the Maintenance Room (4.47  $\mu\text{g}/\text{m}^3$ ) were above USEPA’s VISL but below the MDEQ action level of 26  $\mu\text{g}/\text{m}^3$ .

The following figures show the linear regression trendline for the interior rooms.

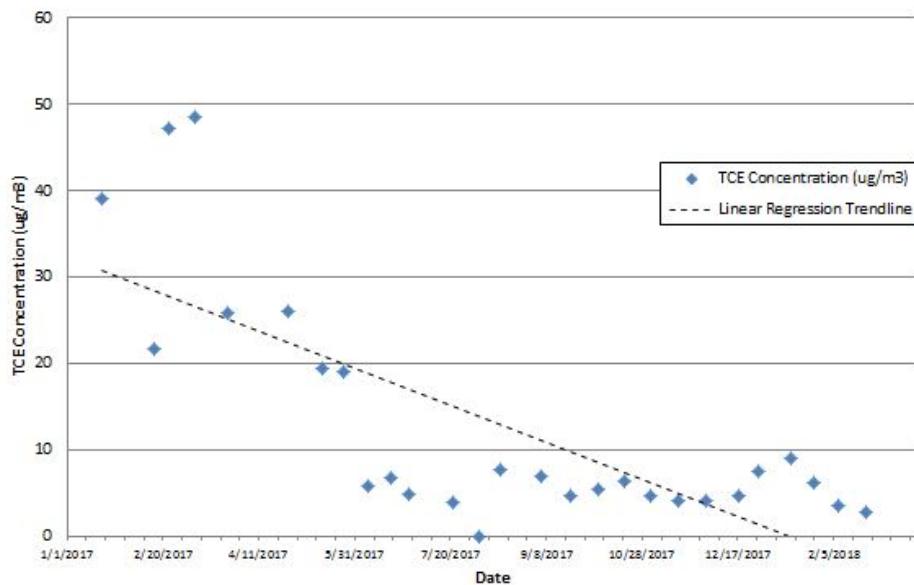
### TCE Concentration History at IA-1 (Maintenance Room)



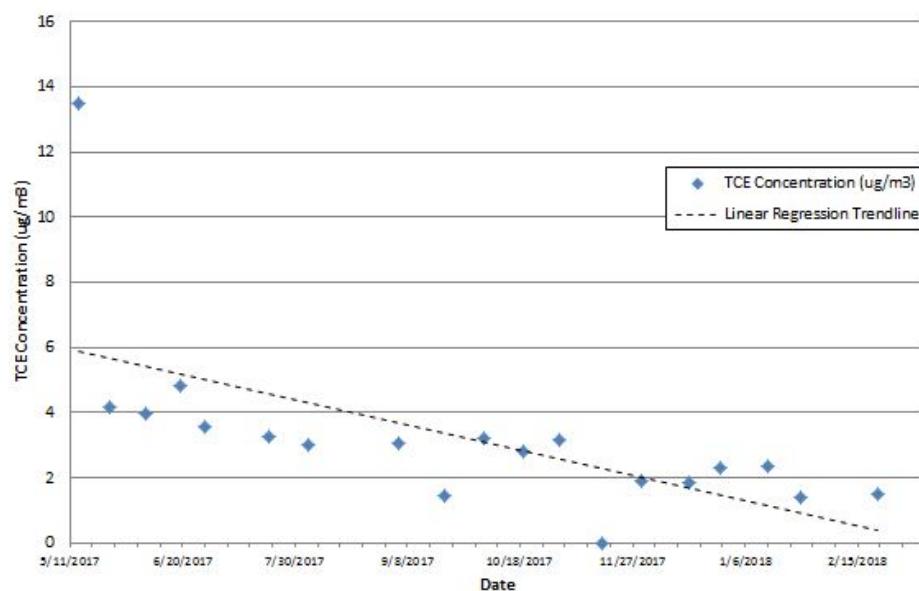
### TCE Concentration History at IA-2 (ATS Room)



### TCE Concentration History at IA-6 (Training Room)



### TCE Concentration History at IA-17 (Cafeteria)



### **3.0 Summary of Indoor Air Sampling**

Since June 2017, the sample results in the ATS Room (IA-2), Training Room (IA-6), and Cafeteria (IA-17) have been below the MDEQ action level of 26 µg/m<sup>3</sup>. As discussed in the February 22, 2018 SSDS Progress Report, the elevated concentration of TCE in the Maintenance Room (IA-1) detected on January 25-26, 2018 after First Environment performed additional work in the sump area was reduced to below the MDEQ action level of 26 µg/m<sup>3</sup> within approximately one week. The February 22-23, 2018 sample results for the Maintenance Room were also below the MDEQ action level of 26 µg/m<sup>3</sup>.

## TABLES

**TABLE 1**  
**INDOOR AIR SAMPLING RESULTS**  
**FEBRUARY 22, 2018**  
**FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY**  
**WATER VALLEY, MS**

SAMPLE LOCATION: SAMPING DATE: LABORATORY ID:	IA-1 02/22/2018 L972729-01	IA-2 02/22/2018 L972729-02	IA-6 02/22/2018 L972729-03	IA-17 02/22/2018 L972729-04	AA-2 02/22/2018 L972729-05
Analyte	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
ACETONE	202	202	207	169	8.23
ALLYL CHLORIDE	<0.626	<0.626	<0.626	<0.626	<0.626
BENZENE	1.03	1.01	1.05	0.86	<0.639
BENZYL CHLORIDE	<1.04	<1.04	<1.04	<1.04	<1.04
BROMODICHLOROMETHANE	<1.34	<1.34	<1.34	<1.34	<1.34
BROMOFORM	<6.21	<6.21	<6.21	<6.21	<6.21
BROMOMETHANE	<0.776 (J3)	<0.776 (J3)	<0.776 (J3)	<0.776 (J3)	<0.776 (J3)
1,3-BUTADIENE	<4.43	<4.43	<4.43	<4.43	<4.43
CARBON DISULFIDE	<0.622	<0.622	<0.622	<0.622	<0.622
CARBON TETRACHLORIDE	<1.26	<1.26	<1.26	<1.26	<1.26
CHLOROBENZENE	<0.924	<0.924	<0.924	<0.924	<0.924
CHLOROETHANE	<0.528	<0.528	<0.528	<0.528	<0.528
CHLOROFORM	<0.973	<0.973	<0.973	<0.973	<0.973
CHLOROMETHANE	0.981	0.913	0.901	0.922	1.39
2-CHLOROTOLUENE	3.52	3.56	<1.03	<1.03	<1.03
CYCLOHEXANE	<0.689	<0.689	<0.689	<0.689	<0.689
CHLORODIBROMOMETHANE	<1.7	<1.7	<1.7	<1.7	<1.7
1,2-DIBROMOETHANE	<1.54	<1.54	<1.54	<1.54	<1.54
1,2-DICHLOROBENZENE	<1.2	<1.2	<1.2	<1.2	<1.2
1,3-DICHLOROBENZENE	<1.2	<1.2	<1.2	<1.2	<1.2
1,4-DICHLOROBENZENE	<1.2	<1.2	<1.2	<1.2	<1.2
1,2-DICHLOROETHANE	<0.81	<0.81	<0.81	<0.81	<0.81
1,1-DICHLOROETHANE	<0.802	<0.802	<0.802	<0.802	<0.802
1,1-DICHLOROETHENE	<0.793	<0.793	<0.793	<0.793	<0.793
<b>CIS-1,2-DICHLOROETHENE</b>	1.35	<0.793	1.69	1.68	<0.793
TRANS-1,2-DICHLOROETHENE	<0.793	<0.793	<0.793	<0.793	<0.793
1,2-DICHLOROPROPANE	<0.924	<0.924	<0.924	<0.924	<0.924
CIS-1,3-DICHLOROPROPENE	<0.908	<0.908	<0.908	<0.908	<0.908
TRANS-1,3-DICHLOROPROPENE	<0.908	<0.908	<0.908	<0.908	<0.908
1,4-DIOXANE	<0.721	<0.721	1.17	<0.721	<0.721
ETHANOL	5,860 (E)	6,050 (E)	5,350 (E)	5,010 (E)	5.83
ETHYLBENZENE	1.88	1.96	1.53	1.29	<0.867
4-ETHYLtolUENE	<0.982	<0.982	<0.982	<0.982	<0.982
TRICHLOROFLUOROMETHANE	1.17	1.16	1.19	1.16	1.12

**TABLE 1**  
**INDOOR AIR SAMPLING RESULTS**  
**FEBRUARY 22, 2018**  
**FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY**  
**WATER VALLEY, MS**

SAMPLE LOCATION: SAMPING DATE: LABORATORY ID:	IA-1 02/22/2018 L972729-01	IA-2 02/22/2018 L972729-02	IA-6 02/22/2018 L972729-03	IA-17 02/22/2018 L972729-04	AA-2 02/22/2018 L972729-05
Analyte	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
DICHLORODIFLUOROMETHANE	1.51	1.34	1.4	1.43	1.49
1,1,2-TRICHLOROTRIFLUOROETHANE	<1.53	<1.53	<1.53	<1.53	<1.53
1,2-DICHLOROTETRAFLUOROETHANE	<1.4	<1.4	<1.4	<1.4	<1.4
HEPTANE	19	18.5	12.4	12.5	<0.818
HEXACHLORO-1,3-BUTADIENE	<6.73	<6.73	<6.73	<6.73	<6.73
N-HEXANE	1.54	1.47	1.57	1.49	<0.705
ISOPROPYLBENZENE	<0.983	<0.983	<0.983	<0.983	<0.983
METHYLENE CHLORIDE	<0.694	<0.694	<0.694	1.18	<0.694
METHYL BUTYL KETONE	<5.11	<5.11	<5.11	<5.11	<5.11
2-BUTANONE (MEK)	642	650	616	551	<3.69
4-METHYL-2-PENTANONE (MIBK)	<5.12	<5.12	<5.12	<5.12	<5.12
METHYL METHACRYLATE	<0.819	<0.819	1.47	<0.819	<0.819
METHYL TERT-BUTYL ETHER	<0.721	<0.721	<0.721	<0.721	<0.721
NAPHTHALENE	<3.3	<3.3	<3.3	<3.3	<3.3
2-PROPANOL	5,010 (E)	5,090 (E)	5,060 (E)	3780	6.47
PROPENE	<0.689	<0.689	<0.689	<0.689	<0.689
STYRENE	<0.851	<0.851	<0.851	<0.851	<0.851
1,1,2,2-TETRACHLOROETHANE	<1.37	<1.37	<1.37	<1.37	<1.37
TETRACHLOROETHENE	<1.36	<1.36	<1.36	<1.36	<1.36
TETRAHYDROFURAN	22	<0.59	<0.59	<0.59	<0.59
TOLUENE	9.58	7.96	6.8	5.67	<0.753
1,2,4-TRICHLOROBENZENE	<4.66	<4.66	<4.66	<4.66	<4.66
1,1,1-TRICHLOROETHANE	<1.09	<1.09	<1.09	<1.09	<1.09
1,1,2-TRICHLOROETHANE	<1.09	<1.09	<1.09	<1.09	<1.09
TRICHLOROETHENE	4.47	2.31	2.76	1.5	<1.07
1,2,4-TRIMETHYLBENZENE	3.96	3.89	3.25	2.71	<0.982
1,3,5-TRIMETHYLBENZENE	1.17	1.19	<0.982	<0.982	<0.982
2,2,4-TRIMETHYLPENTANE	<0.934	<0.934	<0.934	<0.934	<0.934
VINYL CHLORIDE	<0.511	<0.511	<0.511	<0.511	<0.511
VINYL BROMIDE	<0.875	<0.875	<0.875	<0.875	<0.875
VINYL ACETATE	<0.704	<0.704	<0.704	<0.704	<0.704
M&P-XYLENE	6.85	6.8	5.42	4.5	<1.73
O-XYLENE	2.41	2.39	1.88	1.57	<0.867
1,4-BROMOFLUOROBENZENE	95.2 124	126 94.6	124 94.7	95.9 115	101

B: The same analyte is found in the associated blank.

E: The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

**TABLE 2**  
**INDOOR AIR SAMPLING RESULTS COMPARISON**  
**JANUARY 2017 THROUGH FEBRUARY 2018**  
**FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY**  
**WATER VALLEY, MS**

SAMPLE ID	SAMPLING DATE	LABORATORY ID	CoC Concentrations ( $\mu\text{g}/\text{m}^3$ )		
			Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride
		USEPA Vapor Intrusion Screening Level (VISL):	3	NA	2.8
IA-1	19-Jan-17	L1702183-01	268(D)	63.8	<0.051
	15-Feb-17	L890396-01	55.8	<0.793	2.51
	23-Feb-17	L892423-01	150	82.1	1.68
	9-Mar-17	L895061-01	425	97.9	2.47
	26-Mar-17	L898762-01	103	11.4	0.604
	26-Apr-17	L905292-01	78.3	<0.793	0.712
	14-May-17	L909544-01	72.7	14	<0.511
	25-May-17	L912423-03	219	<0.793	0.526
	7-Jun-17	L914832-13	41.7	<0.793	<0.511
	19-Jun-17	L917924-13	29.4	3.68	<0.511
	28-Jun-17	L920054-12	21.4	<0.793	<0.511
	21-Jul-17	L924410-01	23.8	<0.793	<0.511
	4-Aug-17	L927407-01	22.9	2.85	<0.511
	15-Aug-17	L930026-01	20.6	<0.793	<0.511
	5-Sep-17	L934535-01	21.8	3.17	<0.511
	21-Sep-17	L938896-01	14.7	<0.793	<0.511
	5-Oct-17	L942068-01	18.2	<0.793	<0.511
	19-Oct-17	L945503-01	14.1	<0.793	<0.511
	1-Nov-17	L948263-01	13.5	1.83	<0.511
	16-Nov-17	L952200-01	12.7	<0.793	<0.511
	30-Nov-17	L954578-01	15.3	<0.793	<0.511
	17-Dec-17	L958416-01	40	<0.793	<0.511
	28-Dec-17	L960558-01	43.4	4.77	<0.511
	14-Jan-18	L963421-01	4.5	<0.793	<0.511
	25-Jan-18	L966088-01	82.3	<0.793	<0.511
(Door Open)	7-Feb-18	L969021-01	3.89	<0.793	<0.511
(Door Closed)	8-Feb-18	L969370-01	6.39	1.26	<0.511
	22-Feb-18	L972729-01	4.47	1.35	<0.511
IA-2	19-Jan-17	L1702183-02	187	43.2	<0.051
	15-Feb-17	L890396-02	97.1	<0.793	2.27
	23-Feb-17	L892423-02	157	79.4	1.57
	9-Mar-17	L895061-02	426	86.7	1.18
	9-Mar-17	L895061-04	438	88.7	1.68
	26-Mar-17	L898762-02	61.8	<0.793	<0.511
	26-Mar-17	L898762-04	82.3	<0.793	<0.511
	26-Apr-17	L905292-02	56.6	10.8	<0.511
	14-May-17	L909544-02	10.8	<0.793	<0.511
	25-May-17	L912423-08	160	<0.793	<0.511
	7-Jun-17	L914832-12	6.58	<0.793	<0.511
	19-Jun-17	L917924-12	8.16	1.88	<0.511
	28-Jun-17	L920054-13	4.21	<0.793	<0.511
	21-Jul-17	L924410-02	4.3	<0.793	<0.511
	4-Aug-17	L927407-02	2.94	<0.793	<0.511
	15-Aug-17	L930026-02	2.91	<0.793	<0.511
	5-Sep-17	L934535-02	3.52	0.967	<0.511
	21-Sep-17	L938896-02	2.22	<0.793	<0.511
	5-Oct-17	L942068-02	2.46	<0.793	<0.511
	19-Oct-17	L945503-02	1.87	<0.793	<0.511
	1-Nov-17	L948263-02	1.7	<0.793	<0.511
	16-Nov-17	L952200-02	1.82	<0.793	<0.511
	30-Nov-17	L954578-02	5.01	<0.793	<0.511
	17-Dec-17	L958416-02	1.98	<0.793	<0.511
	28-Dec-17	L960558-02	2.58	0.823	<0.511
	14-Jan-18	L963421-02	1.21	<0.793	<0.511
	25-Jan-18	L966088-02	6.09	<0.793	<0.511
	7-Feb-18	L969030-01	1.6	<0.793	<0.511
	22-Feb-18	L972729-02	2.31	<0.793	<0.511

**TABLE 2**  
**INDOOR AIR SAMPLING RESULTS COMPARISON**  
**JANUARY 2017 THROUGH FEBRUARY 2018**  
**FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY**  
**WATER VALLEY, MS**

SAMPLE ID	SAMPLING DATE	LABORATORY ID	CoC Concentrations ( $\mu\text{g}/\text{m}^3$ )		
			Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride
<b>USEPA Vapor Intrusion Screening Level (VISL):</b>					
IA-6	19-Jan-17	L1702183-06	39	12.8	0.585
	15-Feb-17	L890396-03	21.7	<0.793	0.57
	23-Feb-17	L892423-03	47.1	14.2	<0.511
	9-Mar-17	L895061-03	48.6	12.3	0.511
	26-Mar-17	L898762-03	25.8	<0.793	<0.511
	26-Apr-17	L905292-03	26	9.12	<0.511
	14-May-17	L909544-03	19.5	<0.793	<0.511
	25-May-17	L912423-01	19.1	<0.793	<0.511
	7-Jun-17	L914832-11	5.75	<0.793	<0.511
	19-Jun-17	L917924-11	6.67	4.14	<0.511
	28-Jun-17	L920054-11	4.84	<0.793	<0.511
	21-Jul-17	L924410-03	4	<0.793	<0.511
	4-Aug-17	L927407-03	<1.07	<0.793	<0.511
	15-Aug-17	L930026-03	7.61	<0.793	<0.511
	5-Sep-17	L934535-03	6.85	5.17	<0.511
	21-Sep-17	L938896-03	4.65	<0.793	<0.511
	5-Oct-17	L942068-03	5.37	<0.793	<0.511
	19-Oct-17	L945503-03	6.31	<0.793	<0.511
	1-Nov-17	L948263-03	4.67	2.89	<0.511
	16-Nov-17	L952200-03	4.19	<0.793	<0.511
	30-Nov-17	L954578-03	4.06	3	<0.511
	17-Dec-17	L958416-03	4.69	<0.793	<0.511
	28-Dec-17	L960558-03	7.53	4.41	<0.511
	14-Jan-18	L963421-03	8.95	<0.793	<0.511
	25-Jan-18	L966088-03	6.12	<0.793	<0.511
	7-Feb-18	L969030-02	3.45	2.18	<0.511
	22-Feb-18	L972729-03	2.76	1.69	<0.511
IA-14	19-Jan-17	L1702183-14	3.07	0.928	<0.051
	23-Feb-17	L892423-04	3.32	<0.793	<0.511
IA-17	14-May-17	L909544-05	13.5	<0.793	<0.511
	25-May-17	L912423-02	4.15	<0.793	<0.511
	7-Jun-17	L914832-10	3.96	<0.793	<0.511
	19-Jun-17	L917924-10	4.82	4.48	<0.511
	28-Jun-17	L920054-10	3.56	<0.793	<0.511
	21-Jul-17	L924410-04	3.27	<0.793	<0.511
	4-Aug-17	L927407-04	3.02	<0.793	<0.511
	15-Aug-17	L930026-04	<5.36	<3.96	<2.56
	5-Sep-17	L934535-04	3.04	5.6	<0.511
	21-Sep-17	L938896-04	1.46	<0.793	<0.511
	5-Oct-17	L942068-04	3.2	<0.793	<0.511
	19-Oct-17	L945503-04	2.79	<0.793	<0.511
	1-Nov-17	L948263-04	3.15	2.33	<0.511
	16-Nov-17	L952200-04	<1.07	<0.793	<0.511
	30-Nov-17	L954578-04	1.89	<0.793	<0.511
	17-Dec-17	L958416-04	1.86	<0.793	<0.511
	28-Dec-17	L960558-04	2.28	2.57	<0.511
	14-Jan-18	L963421-04	2.34	<0.793	<0.511
	25-Jan-18	L966088-04	1.42	<0.793	<0.511
	7-Feb-18	L969030-03	<4.29	<3.17	<2.04
	22-Feb-18	L972729-04	1.5	1.68	<0.511
IA-B12	26-Apr-17	L905292-04	6.54	1.77	<0.511
	25-May-17	L912423-05	3.08	<0.793	<0.511
	7-Jun-17	L914832-07	1.64	<0.793	<0.511
	19-Jun-17	L917924-09	1.66	<0.793	<0.511
	28-Jun-17	L920054-08	<1.07	<0.793	<0.511
	21-Jul-17	L924410-05	1.08	<0.793	<0.511
	4-Aug-17	L927407-05	<1.07	<0.793	<0.511
	15-Aug-17	L930026-05	<1.07	<0.793	<0.511
	5-Sep-17	L934535-05	<1.07	<0.793	<0.511

**TABLE 2**  
**INDOOR AIR SAMPLING RESULTS COMPARISON**  
**JANUARY 2017 THROUGH FEBRUARY 2018**  
**FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY**  
**WATER VALLEY, MS**

SAMPLE ID	SAMPLING DATE	LABORATORY ID	CoC Concentrations ( $\mu\text{g}/\text{m}^3$ )		
			Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride
USEPA Vapor Intrusion Screening Level (VISL):					
			3	NA	2.8
IA-C16	26-Apr-17 25-May-17 7-Jun-17 19-Jun-17 28-Jun-17 21-Jul-17 4-Aug-17 15-Aug-17 5-Sep-17 30-Nov-17	L905292-05 L912423-06 L914832-08 L917924-07 L920054-07 L924410-06 L927407-06 L930026-06 L934535-06 L954578-05	6.48 3.88 1.55 2 1.22 1.08 1.25 <1.07 <1.07 <1.07	1.82 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793	<0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511
IA-D5	25-May-17 7-Jun-17 19-Jun-17 28-Jun-17 21-Jul-17 4-Aug-17 15-Aug-17 5-Sep-17	L912423-12 L914832-03 L917924-03 L920054-03 L924410-08 L927407-10 L930026-10 L934535-10	<1.07 1.47 1.66 <1.07 <1.07 <1.07 <1.07 1.3	<0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793	<0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511
IA-G4	25-May-17 7-Jun-17 19-Jun-17 28-Jun-17 21-Jul-17 4-Aug-17 15-Aug-17 5-Sep-17 30-Nov-17	L912423-11 L914832-02 L917924-02 L920054-02 L924410-09 L927407-11 L930026-11 L934535-11 L954578-07	<1.07 3.31 1.35 <1.07 <1.07 <1.07 <1.07 1.17 <1.07	<0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793	<0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511
IA-G13	26-Apr-17 14-May-17 25-May-17 7-Jun-17 19-Jun-17 28-Jun-17 21-Jul-17 4-Aug-17 15-Aug-17 5-Sep-17	L905292-06 L909544-04 L912423-06 L914832-06 L917924-06 L920054-06 L924410-07 L927407-07 L930026-07 L934535-07	8.98 4.65 3.88 2.54 2.46 1.41 1.6 1.76 1.25 1.78	<0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793	<0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511
IA-K8	25-May-17 7-Jun-17 19-Jun-17 28-Jun-17 21-Jul-17 4-Aug-17 15-Aug-17 5-Sep-17	L912423-10 L914832-01 L917924-01 L920054-01 L924410-10 L927407-12 L930026-12 L934535-12	1.47 7.86 1.31 <1.07 <1.07 <1.07 <1.07 <1.07	<0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793	<0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511
IA-K13	26-Apr-17 25-May-17 7-Jun-17 19-Jun-17 28-Jun-17 21-Jul-17 4-Aug-17 15-Aug-17 5-Sep-17 30-Nov-17	L905292-07 L912423-04 L914832-05 L917924-05 L920054-05 L924410-12 L927407-08 L930026-08 L934535-08 L954578-06	6.53 5.28 1.59 2.2 1.33 1.34 <1.07 <1.07 1.67 <1.07	<0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793	<0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511

**TABLE 2**  
**INDOOR AIR SAMPLING RESULTS COMPARISON**  
**JANUARY 2017 THROUGH FEBRUARY 2018**  
**FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY**  
**WATER VALLEY, MS**

SAMPLE ID	SAMPLING DATE	LABORATORY ID	CoC Concentrations ( $\mu\text{g}/\text{m}^3$ )		
			Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride
<b>USEPA Vapor Intrusion Screening Level (VISL):</b>			<b>3</b>	<b>NA</b>	<b>2.8</b>
IA-L16	26-Apr-17	L905292-08	5.77	1.75	<0.511
	7-Jun-17	L914832-04	2.09	<0.793	<0.511
	25-May-17	L912423-09	1.36	<0.793	<0.511
	19-Jun-17	L917924-04	2.81	<0.793	<0.511
	28-Jun-17	L920054-04	1.32	<0.793	<0.511
	21-Jul-17	L924410-11	1.18	<0.793	<0.511
	4-Aug-17	L927407-09	<1.07	<0.793	<0.511
	15-Aug-17	L930026-09	1.13	<0.793	<0.511
	5-Sep-17	L934535-09	1.14	<0.793	<0.511
EP-1	14-May-17	L909544-06	1420000	361000	46300
EP-2	14-May-17	L909544-07	2820000	560000	13200
IA-SUMP-DUP	25-May-17	L912423-15	83.1	<0.793	<0.511
IA-SUMP	19-Jun-17	L917924-14	5.33	1.19	<0.511
	28-Jun-17	L920054-14	3.75	<0.793	<0.511
AA-1	19-Jan-17	L1702183-17	<0.107	<0.079	<0.051
AA-2	19-Jan-17	L1702183-18	0.129	<0.079	<0.051
	26-Apr-17	L905292-09	<0.107	<0.793	<0.051
	25-May-17	L912423-13	<1.07	<0.793	<0.511
	7-Jun-17	L914832-09	<1.07	<0.793	<0.511
	19-Jun-17	L917924-08	<1.07	<0.793	<0.511
	28-Jun-17	L920054-09	16.7	<0.793	<0.511
	21-Jul-17	L924410-13	<1.07	<0.793	<0.511
	4-Aug-17	L927407-13	<1.07	<0.793	<0.511
	15-Aug-17	L930026-13	<1.07	<0.793	<0.511
	5-Sep-17	L934535-13	<1.07	<0.793	<0.511
	21-Sep-17	L938896-05	<1.07	<0.793	<0.511
	5-Oct-17	L942068-05	<1.07	<0.793	<0.511
	19-Oct-17	L945503-05	<1.07	<0.793	<0.511
	1-Nov-17	L948263-05	<1.07	<0.793	<0.511
	16-Nov-17	L952200-05	<1.07	<0.793	<0.511
	30-Nov-17	L954578-10	2.46	<0.793	<0.511
	17-Dec-17	L958416-05	<1.07	<0.793	<0.511
	28-Dec-17	L960558-05	<1.07	<0.793	<0.511
	14-Jan-18	L963421-05	<1.07	<0.793	<0.511
	25-Jan-18	L966088-05	<1.07	<0.793	<0.511
	7-Feb-18	L969030-04	<1.07	<0.793	<0.511
	22-Feb-18	L972729-05	<1.07	<0.793	<0.511
IA-ATS-2ND F	15-Aug-17	L930026-14	1.86	<0.793	<0.511
IA-OFFICE 2ND F	15-Aug-17	L930026-15	<1.07	<0.793	<0.511

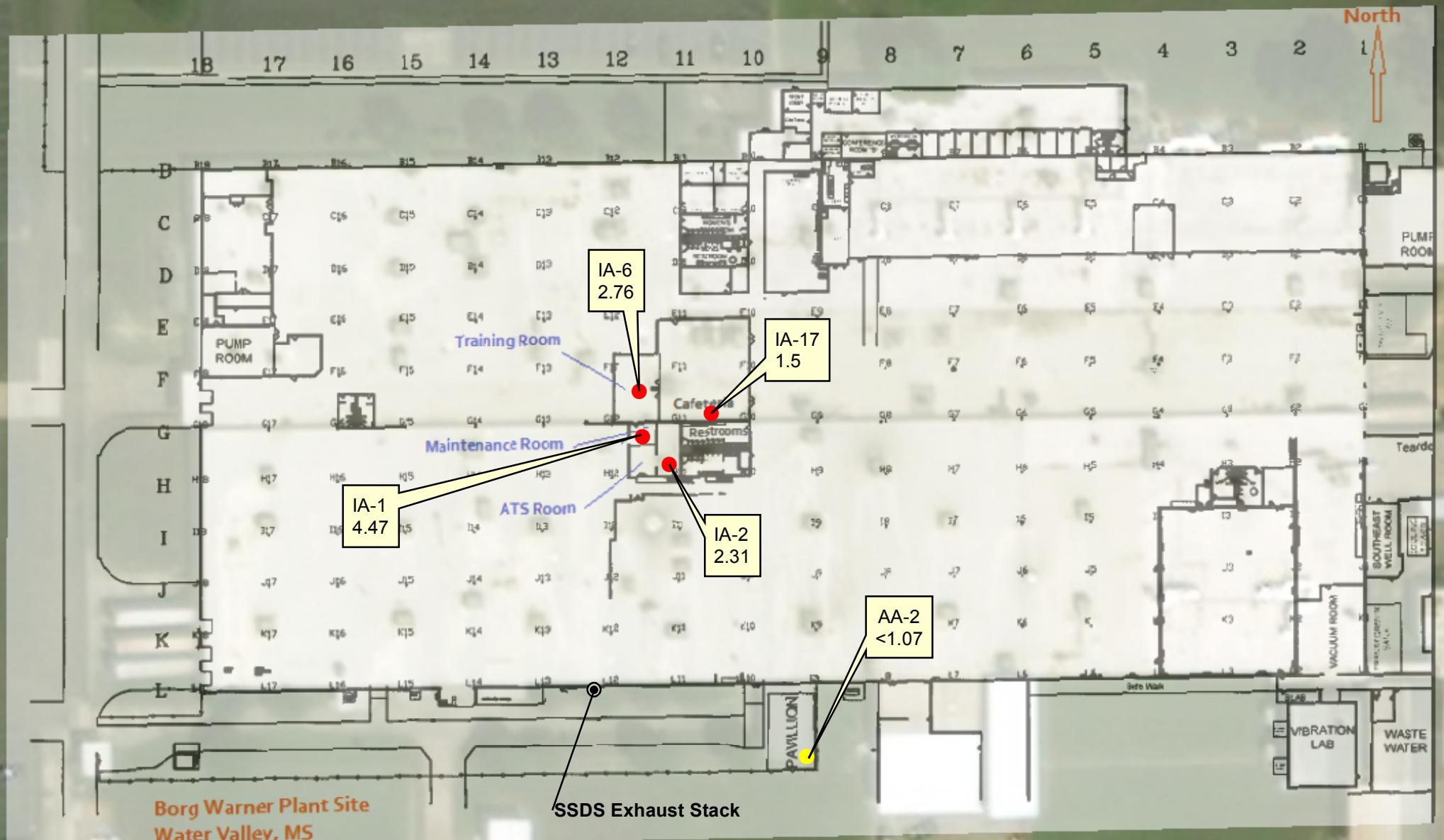
D: Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

VISL: Calculated based on USEPA's OSWER Vapor Intrusion Assessment VISL Calculator Version 3.4, November 2015 RSLs for Target Indoor Air Concentration @ TCR=1E-6 or THQ=1

TCR: Target Carcinogen Risk

THQ: Target Hazard Quotient for Non-Carcinogens

## **FIGURE**



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

#### Legend

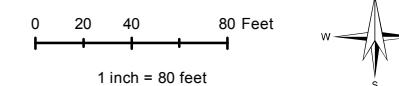
- IA-1: Indoor Air Concentrations in ug/m<sup>3</sup>
- AA-1: Ambient Air Concentrations in ug/m<sup>3</sup>
- SSDS Exhaust Stack

USEPA Screening Level for TCE: 3 ug/m<sup>3</sup>

MDEQ Action Level for TCE: 26 ug/m<sup>3</sup>

TCE Level Exceeding the MDEQ Action Level

ND Concentration not detected above laboratory reported limits



**FIRST  
ENVIRONMENT**

BORG WARNER FACILITY  
600 Highway 32E, Water Valley, MS  
FIGURE 1  
INDOOR AIR SAMPLING RESULTS  
FEBRUARY 22 2018

91 Fulton Street Boonton, New Jersey 07005	Revised LS	Drawn NMT	Checked NMT	Approved NMT	Date 3/2/2018
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## **APPENDIX A**

February 26, 2018

## First Environment, Inc.

Sample Delivery Group: L972729  
Samples Received: 02/24/2018  
Project Number: ENPRO002D-VM  
Description: EnPro: Bi Weekly 24-Hr Inddor Air Sampling  
Site: BORG WARNER PLANT SITE  
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.

# TABLE OF CONTENTS

ONE LAB. NATIONWIDE.



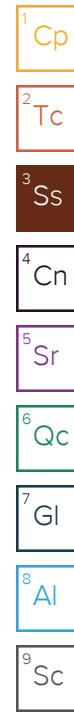
<b>Cp: Cover Page</b>	<b>1</b>	
<b>Tc: Table of Contents</b>	<b>2</b>	
<b>Ss: Sample Summary</b>	<b>3</b>	
<b>Cn: Case Narrative</b>	<b>4</b>	
<b>Sr: Sample Results</b>	<b>5</b>	
IA-1 L972729-01	5	
IA-2 L972729-02	7	
IA-6 L972729-03	9	
IA-17 L972729-04	11	
AA-2 L972729-05	13	
<b>Qc: Quality Control Summary</b>	<b>15</b>	
Volatile Organic Compounds (MS) by Method TO-15	15	
<b>Gl: Glossary of Terms</b>	<b>19</b>	
<b>Al: Accreditations &amp; Locations</b>	<b>20</b>	
<b>Sc: Sample Chain of Custody</b>	<b>21</b>	

## SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



			Collected by Micheal T. Slack	Collected date/time 02/22/18 12:06	Received date/time 02/24/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1077383	1	02/24/18 13:23	02/24/18 13:23	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1077383	40	02/24/18 20:51	02/24/18 20:51	AMC
IA-2 L972729-02 Air			Collected by Micheal T. Slack	Collected date/time 02/22/18 12:07	Received date/time 02/24/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1077383	1	02/24/18 14:12	02/24/18 14:12	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1077383	40	02/24/18 21:35	02/24/18 21:35	AMC
IA-6 L972729-03 Air			Collected by Micheal T. Slack	Collected date/time 02/22/18 13:30	Received date/time 02/24/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1077383	1	02/24/18 15:00	02/24/18 15:00	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1077383	40	02/24/18 22:19	02/24/18 22:19	AMC
IA-17 L972729-04 Air			Collected by Micheal T. Slack	Collected date/time 02/22/18 13:34	Received date/time 02/24/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1077383	1	02/24/18 15:56	02/24/18 15:56	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1077383	40	02/24/18 23:03	02/24/18 23:03	AMC
AA-2 L972729-05 Air			Collected by Micheal T. Slack	Collected date/time 02/22/18 12:15	Received date/time 02/24/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1077383	1	02/24/18 16:56	02/24/18 16:56	AMC





All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. 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> GI
- <sup>8</sup> AI
- <sup>9</sup> SC



Collected date/time: 02/22/18 12:06

L972729

## 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	50.0	119	85.1	202		40	WG1077383	<sup>1</sup> Cp
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1077383	<sup>2</sup> Tc
Benzene	71-43-2	78.10	0.200	0.639	0.324	1.03		1	WG1077383	<sup>3</sup> Ss
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1077383	<sup>4</sup> Cn
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1077383	
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1077383	
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND	J3	1	WG1077383	
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1077383	
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1077383	
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1077383	
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1077383	
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1077383	
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1077383	
Chloromethane	74-87-3	50.50	0.200	0.413	0.475	0.981		1	WG1077383	
2-Chlorotoluene	95-49-8	126	0.200	1.03	0.683	3.52		1	WG1077383	
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1077383	
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1077383	
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1077383	
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1077383	
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1077383	
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1077383	
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1077383	
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1077383	
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1077383	
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	0.340	1.35		1	WG1077383	
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1077383	
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1077383	
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1077383	
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1077383	
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1077383	
Ethanol	64-17-5	46.10	25.2	47.5	3110	5860	E	40	WG1077383	
Ethylbenzene	100-41-4	106	0.200	0.867	0.434	1.88		1	WG1077383	
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1077383	
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.208	1.17		1	WG1077383	
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.305	1.51		1	WG1077383	
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1077383	
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1077383	
Heptane	142-82-5	100	0.200	0.818	4.65	19.0		1	WG1077383	
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1077383	
n-Hexane	110-54-3	86.20	0.200	0.705	0.438	1.54		1	WG1077383	
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1077383	
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1077383	
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1077383	
2-Butanone (MEK)	78-93-3	72.10	50.0	147	218	642		40	WG1077383	
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1077383	
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1077383	
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1077383	
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1077383	
2-Propanol	67-63-0	60.10	50.0	123	2040	5010	E	40	WG1077383	
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1077383	
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1077383	
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1077383	
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1077383	
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	7.47	22.0		1	WG1077383	
Toluene	108-88-3	92.10	0.200	0.753	2.54	9.58		1	WG1077383	
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1077383	



## 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				
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	<a href="#">WG1077383</a>	<sup>1</sup> Cp
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	<a href="#">WG1077383</a>	<sup>2</sup> Tc
Trichloroethylene	79-01-6	131	0.200	1.07	0.833	4.47		1	<a href="#">WG1077383</a>	<sup>3</sup> Ss
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.808	3.96		1	<a href="#">WG1077383</a>	<sup>4</sup> Cn
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.239	1.17		1	<a href="#">WG1077383</a>	<sup>5</sup> Sr
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	<a href="#">WG1077383</a>	<sup>6</sup> Qc
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	<a href="#">WG1077383</a>	<sup>7</sup> Gl
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	<a href="#">WG1077383</a>	<sup>8</sup> Al
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	<a href="#">WG1077383</a>	<sup>9</sup> Sc
m&p-Xylene	1330-20-7	106	0.400	1.73	1.58	6.85		1	<a href="#">WG1077383</a>	
o-Xylene	95-47-6	106	0.200	0.867	0.556	2.41		1	<a href="#">WG1077383</a>	
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.2				<a href="#">WG1077383</a>	
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		124				<a href="#">WG1077383</a>	



## 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	50.0	119	85.1	202		40	<a href="#">WG1077383</a>
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	<a href="#">WG1077383</a>
Benzene	71-43-2	78.10	0.200	0.639	0.316	1.01		1	<a href="#">WG1077383</a>
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	<a href="#">WG1077383</a>
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	<a href="#">WG1077383</a>
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	<a href="#">WG1077383</a>
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND	J3	1	<a href="#">WG1077383</a>
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	<a href="#">WG1077383</a>
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	<a href="#">WG1077383</a>
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	<a href="#">WG1077383</a>
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	<a href="#">WG1077383</a>
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	<a href="#">WG1077383</a>
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	<a href="#">WG1077383</a>
Chloromethane	74-87-3	50.50	0.200	0.413	0.442	0.913		1	<a href="#">WG1077383</a>
2-Chlorotoluene	95-49-8	126	0.200	1.03	0.691	3.56		1	<a href="#">WG1077383</a>
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	<a href="#">WG1077383</a>
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	<a href="#">WG1077383</a>
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	<a href="#">WG1077383</a>
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	<a href="#">WG1077383</a>
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	<a href="#">WG1077383</a>
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1077383</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1077383</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	<a href="#">WG1077383</a>
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	<a href="#">WG1077383</a>
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	<a href="#">WG1077383</a>
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	<a href="#">WG1077383</a>
Ethanol	64-17-5	46.10	25.2	47.5	3210	6050	E	40	<a href="#">WG1077383</a>
Ethylbenzene	100-41-4	106	0.200	0.867	0.451	1.96		1	<a href="#">WG1077383</a>
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1077383</a>
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.206	1.16		1	<a href="#">WG1077383</a>
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.271	1.34		1	<a href="#">WG1077383</a>
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	<a href="#">WG1077383</a>
Heptane	142-82-5	100	0.200	0.818	4.53	18.5		1	<a href="#">WG1077383</a>
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	<a href="#">WG1077383</a>
n-Hexane	110-54-3	86.20	0.200	0.705	0.418	1.47		1	<a href="#">WG1077383</a>
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	<a href="#">WG1077383</a>
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	<a href="#">WG1077383</a>
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	<a href="#">WG1077383</a>
2-Butanone (MEK)	78-93-3	72.10	50.0	147	220	650		40	<a href="#">WG1077383</a>
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	<a href="#">WG1077383</a>
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	<a href="#">WG1077383</a>
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	<a href="#">WG1077383</a>
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	<a href="#">WG1077383</a>
2-Propanol	67-63-0	60.10	50.0	123	2070	5090	E	40	<a href="#">WG1077383</a>
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	<a href="#">WG1077383</a>
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	<a href="#">WG1077383</a>
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	<a href="#">WG1077383</a>
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	<a href="#">WG1077383</a>
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	<a href="#">WG1077383</a>
Toluene	108-88-3	92.10	0.200	0.753	2.11	7.96		1	<a href="#">WG1077383</a>
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	<a href="#">WG1077383</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	<u>Qualifier</u>	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	<a href="#">WG1077383</a>
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	<a href="#">WG1077383</a>
Trichloroethylene	79-01-6	131	0.200	1.07	0.431	2.31		1	<a href="#">WG1077383</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.792	3.89		1	<a href="#">WG1077383</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.242	1.19		1	<a href="#">WG1077383</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	<a href="#">WG1077383</a>
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	<a href="#">WG1077383</a>
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	<a href="#">WG1077383</a>
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	<a href="#">WG1077383</a>
m&p-Xylene	1330-20-7	106	0.400	1.73	1.57	6.80		1	<a href="#">WG1077383</a>
o-Xylene	95-47-6	106	0.200	0.867	0.552	2.39		1	<a href="#">WG1077383</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		94.6				<a href="#">WG1077383</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		126				<a href="#">WG1077383</a>

<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> GI<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	50.0	119	87.3	207		40	<a href="#">WG1077383</a>
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	<a href="#">WG1077383</a>
Benzene	71-43-2	78.10	0.200	0.639	0.328	1.05		1	<a href="#">WG1077383</a>
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	<a href="#">WG1077383</a>
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	<a href="#">WG1077383</a>
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	<a href="#">WG1077383</a>
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND	J3	1	<a href="#">WG1077383</a>
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	<a href="#">WG1077383</a>
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	<a href="#">WG1077383</a>
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	<a href="#">WG1077383</a>
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	<a href="#">WG1077383</a>
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	<a href="#">WG1077383</a>
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	<a href="#">WG1077383</a>
Chloromethane	74-87-3	50.50	0.200	0.413	0.436	0.901		1	<a href="#">WG1077383</a>
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	<a href="#">WG1077383</a>
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	<a href="#">WG1077383</a>
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	<a href="#">WG1077383</a>
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	<a href="#">WG1077383</a>
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	<a href="#">WG1077383</a>
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	<a href="#">WG1077383</a>
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1077383</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	0.426	1.69		1	<a href="#">WG1077383</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	<a href="#">WG1077383</a>
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	<a href="#">WG1077383</a>
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	<a href="#">WG1077383</a>
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.324	1.17		1	<a href="#">WG1077383</a>
Ethanol	64-17-5	46.10	25.2	47.5	2830	5350	E	40	<a href="#">WG1077383</a>
Ethylbenzene	100-41-4	106	0.200	0.867	0.352	1.53		1	<a href="#">WG1077383</a>
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1077383</a>
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.212	1.19		1	<a href="#">WG1077383</a>
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.283	1.40		1	<a href="#">WG1077383</a>
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	<a href="#">WG1077383</a>
Heptane	142-82-5	100	0.200	0.818	3.03	12.4		1	<a href="#">WG1077383</a>
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	<a href="#">WG1077383</a>
n-Hexane	110-54-3	86.20	0.200	0.705	0.445	1.57		1	<a href="#">WG1077383</a>
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	<a href="#">WG1077383</a>
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	<a href="#">WG1077383</a>
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	<a href="#">WG1077383</a>
2-Butanone (MEK)	78-93-3	72.10	50.0	147	209	616		40	<a href="#">WG1077383</a>
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	<a href="#">WG1077383</a>
Methyl methacrylate	80-62-6	100.12	0.200	0.819	0.359	1.47		1	<a href="#">WG1077383</a>
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	<a href="#">WG1077383</a>
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	<a href="#">WG1077383</a>
2-Propanol	67-63-0	60.10	50.0	123	2060	5060	E	40	<a href="#">WG1077383</a>
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	<a href="#">WG1077383</a>
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	<a href="#">WG1077383</a>
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	<a href="#">WG1077383</a>
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	<a href="#">WG1077383</a>
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	<a href="#">WG1077383</a>
Toluene	108-88-3	92.10	0.200	0.753	1.80	6.80		1	<a href="#">WG1077383</a>
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	<a href="#">WG1077383</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			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	<a href="#">WG1077383</a>
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	<a href="#">WG1077383</a>
Trichloroethylene	79-01-6	131	0.200	1.07	0.515	2.76		1	<a href="#">WG1077383</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.662	3.25		1	<a href="#">WG1077383</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1077383</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	<a href="#">WG1077383</a>
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	<a href="#">WG1077383</a>
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	<a href="#">WG1077383</a>
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	<a href="#">WG1077383</a>
m&p-Xylene	1330-20-7	106	0.400	1.73	1.25	5.42		1	<a href="#">WG1077383</a>
o-Xylene	95-47-6	106	0.200	0.867	0.434	1.88		1	<a href="#">WG1077383</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		94.7				<a href="#">WG1077383</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		124				<a href="#">WG1077383</a>

<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> GI<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	50.0	119	71.2	169		40	<a href="#">WG1077383</a>
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	<a href="#">WG1077383</a>
Benzene	71-43-2	78.10	0.200	0.639	0.269	0.860		1	<a href="#">WG1077383</a>
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	<a href="#">WG1077383</a>
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	<a href="#">WG1077383</a>
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	<a href="#">WG1077383</a>
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND	J3	1	<a href="#">WG1077383</a>
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	<a href="#">WG1077383</a>
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	<a href="#">WG1077383</a>
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	<a href="#">WG1077383</a>
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	<a href="#">WG1077383</a>
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	<a href="#">WG1077383</a>
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	<a href="#">WG1077383</a>
Chloromethane	74-87-3	50.50	0.200	0.413	0.446	0.922		1	<a href="#">WG1077383</a>
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	<a href="#">WG1077383</a>
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	<a href="#">WG1077383</a>
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	<a href="#">WG1077383</a>
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	<a href="#">WG1077383</a>
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	<a href="#">WG1077383</a>
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	<a href="#">WG1077383</a>
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1077383</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	0.424	1.68		1	<a href="#">WG1077383</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	<a href="#">WG1077383</a>
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	<a href="#">WG1077383</a>
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	<a href="#">WG1077383</a>
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	<a href="#">WG1077383</a>
Ethanol	64-17-5	46.10	25.2	47.5	2660	5010	E	40	<a href="#">WG1077383</a>
Ethylbenzene	100-41-4	106	0.200	0.867	0.299	1.29		1	<a href="#">WG1077383</a>
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1077383</a>
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.207	1.16		1	<a href="#">WG1077383</a>
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.290	1.43		1	<a href="#">WG1077383</a>
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	<a href="#">WG1077383</a>
Heptane	142-82-5	100	0.200	0.818	3.05	12.5		1	<a href="#">WG1077383</a>
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	<a href="#">WG1077383</a>
n-Hexane	110-54-3	86.20	0.200	0.705	0.422	1.49		1	<a href="#">WG1077383</a>
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	<a href="#">WG1077383</a>
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.341	1.18		1	<a href="#">WG1077383</a>
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	<a href="#">WG1077383</a>
2-Butanone (MEK)	78-93-3	72.10	50.0	147	187	551		40	<a href="#">WG1077383</a>
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	<a href="#">WG1077383</a>
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	<a href="#">WG1077383</a>
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	<a href="#">WG1077383</a>
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	<a href="#">WG1077383</a>
2-Propanol	67-63-0	60.10	50.0	123	1540	3780		40	<a href="#">WG1077383</a>
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	<a href="#">WG1077383</a>
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	<a href="#">WG1077383</a>
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	<a href="#">WG1077383</a>
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	<a href="#">WG1077383</a>
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	<a href="#">WG1077383</a>
Toluene	108-88-3	92.10	0.200	0.753	1.51	5.67		1	<a href="#">WG1077383</a>
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	<a href="#">WG1077383</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				
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	<a href="#">WG1077383</a>	<sup>1</sup> Cp
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	<a href="#">WG1077383</a>	<sup>2</sup> Tc
Trichloroethylene	79-01-6	131	0.200	1.07	0.280	1.50		1	<a href="#">WG1077383</a>	<sup>3</sup> Ss
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.553	2.71		1	<a href="#">WG1077383</a>	<sup>4</sup> Cn
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1077383</a>	<sup>5</sup> Sr
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	<a href="#">WG1077383</a>	<sup>6</sup> Qc
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	<a href="#">WG1077383</a>	<sup>7</sup> Gl
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	<a href="#">WG1077383</a>	<sup>8</sup> Al
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	<a href="#">WG1077383</a>	
m&p-Xylene	1330-20-7	106	0.400	1.73	1.04	4.50		1	<a href="#">WG1077383</a>	
o-Xylene	95-47-6	106	0.200	0.867	0.362	1.57		1	<a href="#">WG1077383</a>	
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		115				<a href="#">WG1077383</a>	
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.9				<a href="#">WG1077383</a>	



## 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	1.25	2.97	3.46	8.23		1	<a href="#">WG1077383</a>
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	<a href="#">WG1077383</a>
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	<a href="#">WG1077383</a>
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	<a href="#">WG1077383</a>
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	<a href="#">WG1077383</a>
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	<a href="#">WG1077383</a>
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND	J3	1	<a href="#">WG1077383</a>
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	<a href="#">WG1077383</a>
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	<a href="#">WG1077383</a>
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	<a href="#">WG1077383</a>
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	<a href="#">WG1077383</a>
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	<a href="#">WG1077383</a>
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	<a href="#">WG1077383</a>
Chloromethane	74-87-3	50.50	0.200	0.413	0.675	1.39		1	<a href="#">WG1077383</a>
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	<a href="#">WG1077383</a>
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	<a href="#">WG1077383</a>
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	<a href="#">WG1077383</a>
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	<a href="#">WG1077383</a>
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	<a href="#">WG1077383</a>
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	<a href="#">WG1077383</a>
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1077383</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1077383</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	<a href="#">WG1077383</a>
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	<a href="#">WG1077383</a>
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	<a href="#">WG1077383</a>
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	<a href="#">WG1077383</a>
Ethanol	64-17-5	46.10	0.630	1.19	3.09	5.83		1	<a href="#">WG1077383</a>
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	<a href="#">WG1077383</a>
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1077383</a>
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	1.12		1	<a href="#">WG1077383</a>
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.301	1.49		1	<a href="#">WG1077383</a>
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	<a href="#">WG1077383</a>
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	<a href="#">WG1077383</a>
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	<a href="#">WG1077383</a>
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	<a href="#">WG1077383</a>
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	<a href="#">WG1077383</a>
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	<a href="#">WG1077383</a>
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	<a href="#">WG1077383</a>
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	<a href="#">WG1077383</a>
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	<a href="#">WG1077383</a>
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	<a href="#">WG1077383</a>
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	<a href="#">WG1077383</a>
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	<a href="#">WG1077383</a>
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	<a href="#">WG1077383</a>
2-Propanol	67-63-0	60.10	1.25	3.07	2.63	6.47		1	<a href="#">WG1077383</a>
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	<a href="#">WG1077383</a>
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	<a href="#">WG1077383</a>
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	<a href="#">WG1077383</a>
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	<a href="#">WG1077383</a>
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	<a href="#">WG1077383</a>
Toluene	108-88-3	92.10	0.200	0.753	ND	ND		1	<a href="#">WG1077383</a>
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	<a href="#">WG1077383</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			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	<a href="#">WG1077383</a>
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	<a href="#">WG1077383</a>
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	<a href="#">WG1077383</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	<a href="#">WG1077383</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1077383</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	<a href="#">WG1077383</a>
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	<a href="#">WG1077383</a>
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	<a href="#">WG1077383</a>
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	<a href="#">WG1077383</a>
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	<a href="#">WG1077383</a>
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	<a href="#">WG1077383</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		101				<a href="#">WG1077383</a>

<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> GI<sup>8</sup> Al<sup>9</sup> Sc



L972729-01,02,03,04,05

## Method Blank (MB)

(MB) R3288733-3 02/24/18 10:15

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	
Acetone	U		0.0569	1.25	<sup>1</sup> Cp
Allyl Chloride	U		0.0546	0.200	<sup>2</sup> Tc
Benzene	U		0.0460	0.200	<sup>3</sup> Ss
Benzyl Chloride	U		0.0598	0.200	<sup>4</sup> Cn
Bromodichloromethane	U		0.0436	0.200	<sup>5</sup> Sr
Bromoform	U		0.0786	0.600	<sup>6</sup> Qc
Bromomethane	U		0.0609	0.200	<sup>7</sup> Gl
1,3-Butadiene	U		0.0563	2.00	<sup>8</sup> Al
Carbon disulfide	U		0.0544	0.200	<sup>9</sup> Sc
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	



L972729-01,02,03,04,05

## Method Blank (MB)

(MB) R3288733-3 02/24/18 10:15

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv	1 Cp
Methylene Chloride	U		0.0465	0.200	2 Tc
Methyl Butyl Ketone	U		0.0682	1.25	3 Ss
2-Butanone (MEK)	U		0.0493	1.25	4 Cn
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25	5 Sr
Methyl Methacrylate	U		0.0773	0.200	6 Qc
MTBE	U		0.0505	0.200	7 Gl
Naphthalene	U		0.154	0.630	8 Al
2-Propanol	U		0.0882	1.25	9 Sc
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	97.3		60.0-140		

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

(LCS) R3288733-1 02/24/18 08:44 • (LCSD) R3288733-2 02/24/18 09:29

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Ethanol	3.75	3.42	3.43	91.3	91.5	52.0-158			0.214	25
Propene	3.75	3.73	3.63	99.4	96.7	54.0-155			2.79	25
Dichlorodifluoromethane	3.75	3.57	3.46	95.2	92.3	69.0-143			3.10	25
1,2-Dichlorotetrafluoroethane	3.75	3.77	3.70	101	98.6	70.0-130			2.04	25
Chloromethane	3.75	3.73	3.69	99.6	98.5	70.0-130			1.06	25



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

(LCS) R3288733-1 02/24/18 08:44 • (LCSD) R3288733-2 02/24/18 09:29

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Vinyl chloride	3.75	3.77	3.71	101	99.0	70.0-130			1.69	25
1,3-Butadiene	3.75	3.85	3.75	103	99.9	70.0-130			2.60	25
Bromomethane	3.75	4.15	3.17	111	84.4	70.0-130	J3		26.9	25
Chloroethane	3.75	3.73	3.64	99.6	97.1	70.0-130			2.54	25
Trichlorofluoromethane	3.75	3.75	3.67	100	98.0	70.0-130			2.15	25
1,1,2-Trichlorotrifluoroethane	3.75	3.77	3.67	100	97.8	70.0-130			2.73	25
1,1-Dichloroethene	3.75	3.76	3.67	100	97.8	70.0-130			2.61	25
1,1-Dichloroethane	3.75	3.79	3.72	101	99.2	70.0-130			1.81	25
Acetone	3.75	3.73	3.70	99.5	98.6	70.0-130			0.861	25
2-Propanol	3.75	3.85	3.77	103	100	66.0-150			2.16	25
Carbon disulfide	3.75	3.77	3.68	101	98.2	70.0-130			2.35	25
Methylene Chloride	3.75	3.68	3.58	98.0	95.4	70.0-130			2.69	25
MTBE	3.75	3.79	3.71	101	99.0	70.0-130			2.04	25
trans-1,2-Dichloroethene	3.75	3.77	3.70	101	98.7	70.0-130			1.90	25
n-Hexane	3.75	3.72	3.63	99.1	96.7	70.0-130			2.45	25
Vinyl acetate	3.75	3.99	4.03	106	107	70.0-130			1.01	25
Methyl Ethyl Ketone	3.75	3.93	3.85	105	103	70.0-130			1.86	25
cis-1,2-Dichloroethene	3.75	3.81	3.73	102	99.6	70.0-130			1.97	25
Chloroform	3.75	3.74	3.68	99.8	98.0	70.0-130			1.81	25
Cyclohexane	3.75	3.78	3.70	101	98.6	70.0-130			2.26	25
1,1,1-Trichloroethane	3.75	3.76	3.68	100	98.2	70.0-130			2.06	25
Carbon tetrachloride	3.75	3.75	3.67	100	98.0	70.0-130			2.14	25
Benzene	3.75	3.76	3.71	100	98.8	70.0-130			1.50	25
1,2-Dichloroethane	3.75	3.75	3.70	100	98.6	70.0-130			1.46	25
Heptane	3.75	3.84	3.76	102	100	70.0-130			2.02	25
Trichloroethylene	3.75	3.76	3.69	100	98.4	70.0-130			1.96	25
1,2-Dichloropropane	3.75	3.80	3.76	101	100	70.0-130			1.07	25
1,4-Dioxane	3.75	3.90	3.84	104	102	70.0-152			1.57	25
Bromodichloromethane	3.75	3.80	3.74	101	99.8	70.0-130			1.65	25
cis-1,3-Dichloropropene	3.75	3.87	3.83	103	102	70.0-130			0.987	25
4-Methyl-2-pentanone (MIBK)	3.75	3.94	3.88	105	103	70.0-142			1.48	25
Toluene	3.75	3.84	3.78	102	101	70.0-130			1.38	25
trans-1,3-Dichloropropene	3.75	3.92	3.84	105	102	70.0-130			2.13	25
1,1,2-Trichloroethane	3.75	3.75	3.71	100	99.0	70.0-130			1.01	25
Tetrachloroethylene	3.75	3.84	3.80	102	101	70.0-130			0.950	25
Methyl Butyl Ketone	3.75	4.09	4.06	109	108	70.0-150			0.837	25
Dibromochloromethane	3.75	3.90	3.86	104	103	70.0-130			1.14	25
1,2-Dibromoethane	3.75	3.87	3.85	103	103	70.0-130			0.630	25
Chlorobenzene	3.75	3.78	3.76	101	100	70.0-130			0.665	25
Ethylbenzene	3.75	3.90	3.84	104	103	70.0-130			1.57	25

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L972729-01,02,03,04,05

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

(LCS) R3288733-1 02/24/18 08:44 • (LCSD) R3288733-2 02/24/18 09:29

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
m&p-Xylene	7.50	7.68	7.59	102	101	70.0-130			1.22	25
o-Xylene	3.75	3.90	3.84	104	102	70.0-130			1.54	25
Styrene	3.75	4.05	3.98	108	106	70.0-130			1.77	25
Bromoform	3.75	4.06	4.01	108	107	70.0-130			1.15	25
1,1,2,2-Tetrachloroethane	3.75	3.90	3.83	104	102	70.0-130			1.70	25
4-Ethyltoluene	3.75	4.01	3.95	107	105	70.0-130			1.44	25
1,3,5-Trimethylbenzene	3.75	4.00	3.93	107	105	70.0-130			1.78	25
1,2,4-Trimethylbenzene	3.75	4.02	3.95	107	105	70.0-130			1.96	25
1,3-Dichlorobenzene	3.75	4.07	4.01	109	107	70.0-130			1.47	25
1,4-Dichlorobenzene	3.75	4.14	4.08	110	109	70.0-130			1.44	25
Benzyl Chloride	3.75	4.28	4.20	114	112	70.0-144			1.80	25
1,2-Dichlorobenzene	3.75	4.02	3.94	107	105	70.0-130			1.97	25
1,2,4-Trichlorobenzene	3.75	4.09	4.03	109	108	70.0-155			1.28	25
Hexachloro-1,3-butadiene	3.75	4.06	4.06	108	108	70.0-145			0.129	25
Naphthalene	3.75	4.12	4.05	110	108	70.0-155			1.76	25
Allyl Chloride	3.75	3.82	3.74	102	99.7	70.0-130			2.13	25
2-Chlorotoluene	3.75	3.94	3.88	105	104	70.0-130			1.58	25
Methyl Methacrylate	3.75	3.89	3.84	104	103	70.0-130			1.07	25
Tetrahydrofuran	3.75	3.84	3.75	102	100	70.0-140			2.32	25
2,2,4-Trimethylpentane	3.75	3.80	3.71	101	99.0	70.0-130			2.31	25
Vinyl Bromide	3.75	3.76	3.67	100	97.8	70.0-130			2.49	25
Isopropylbenzene	3.75	3.92	3.87	105	103	70.0-130			1.29	25
(S) 1,4-Bromofluorobenzene			100	99.4	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



## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

## Abbreviations and Definitions

MDL	Method Detection Limit.	<sup>1</sup> Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	<sup>2</sup> Tc
RDL	Reported Detection Limit.	<sup>3</sup> Ss
Rec.	Recovery.	<sup>4</sup> Cn
RPD	Relative Percent Difference.	<sup>5</sup> Sr
SDG	Sample Delivery Group.	<sup>6</sup> Qc
(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.	<sup>7</sup> GI
U	Not detected at the Reporting Limit (or MDL where applicable).	<sup>8</sup> AI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	<sup>9</sup> SC
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

## Qualifier      Description

E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J3	The associated batch QC was outside the established quality control range for precision.



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
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia <sup>1</sup>	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky <sup>1</sup>	90010
Kentucky <sup>2</sup>	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05

Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina <sup>1</sup>	DW21704
North Carolina <sup>2</sup>	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee <sup>1,4</sup>	2006
Texas	T 104704245-07-TX
Texas <sup>5</sup>	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

## Third Party Federal Accreditations

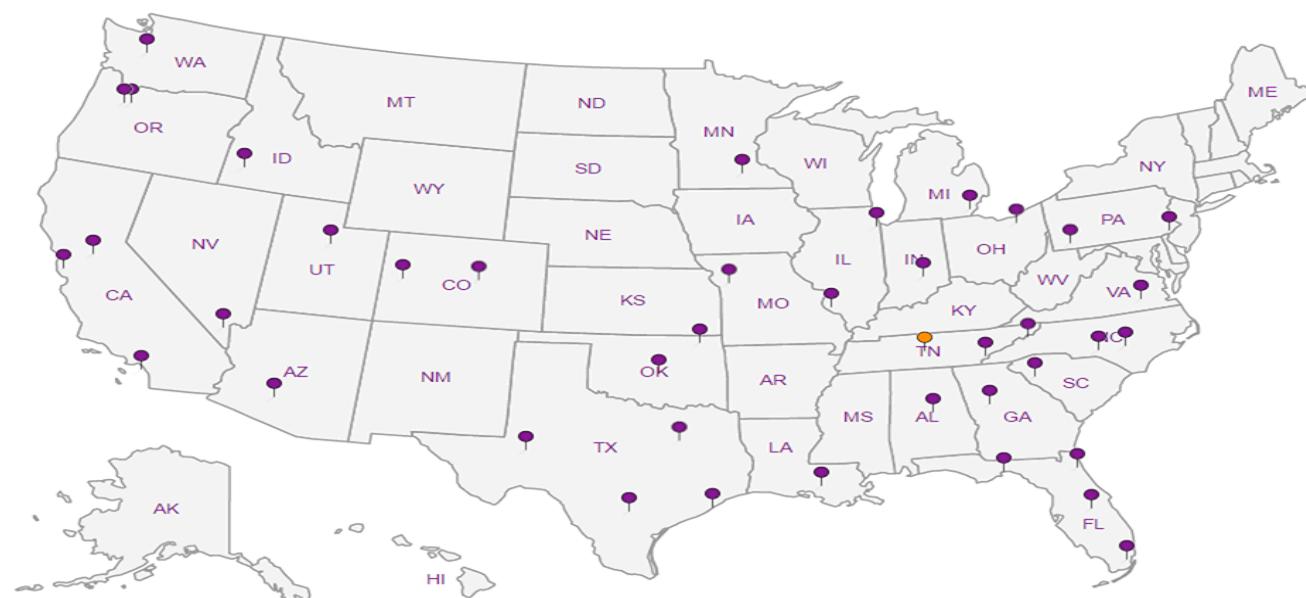
A2LA - ISO 17025	1461.01
A2LA - ISO 17025 <sup>5</sup>	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC	100789
DOD	1461.01
USDA	S-67674

<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 n/a 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

Company Name/Address: <b>First Environment, Inc.</b> 91 Fulton St. Boonton, NJ 07005		Billing Information: <b>First Environment, Inc.</b> 91 Fulton St. Boonton NJ 07005 Attn: Justin Picolo JPicolo@firstenvironment.com		Analysis		Chain of Custody Page ____ of ____	
Report to: <b>Michael T. Slack - First Environment</b>		Email To: <b>MSlack@firstenvironment.com</b>					
Project Description: <b>EnPro: Bi-Weekly 24-hr Indoor Air Sampling</b>		City/State Collected: <b>Water Valley, MS (Borg Warner Plant Site)</b>				12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859	
Phone: <b>973-334-0003</b> Fax: <b>973-334-0928</b>	Client Project # <b>EnPro002D-VM</b>	Lab Project # <b>FIREN VBNJ-OxfordMS</b>					L # <b>972729</b> M183
Collected by (print): <b>Michael T. Slack</b>	Site/Facility ID # <b>Borg Warner Plant Site</b>	P.O. # -----					Acctnum:
Collected by (signature): <i>M.T. Slack</i>	Rush? (Lab MUST Be Notified) Same Day ..... 200% Next Day ..... 100% Two Day ..... 50% Three Day ..... 25%	Date Results Needed Standard Turnaround Email? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes	Canister Pressure/Vacuum				Template:
Sample ID	Sample Description	Can #	Date	Time	Initial	Final	Prelogin:
IA-1	Maintenance Room	7345	2/22/18	12:06	29	5	TSR:
IA-2	ATS Room	8907	2/22/18	12:07	30	4	PB:
IA-6	Training Room	5523	2/22/18	13:30	30	2	Shipped Via:
IA-17	Cafeteria	6917	2/22/18	13:34	27	10	Rem./Contaminant
AA-2	Ambient Air - Pavilion	7617	2/22/18	12:15	25	7	Sample # (lab only)
							01
							02
							03
							04
							05
							06
							07
							08
<i>4276 0140 4474</i>							

Remarks: Additional Information is depicted in Sample Collection Table - Dates and Times are "start" times

Relinquished by : (Signature) <i>mt</i>	Date: <b>2/23/18</b> 17:15	Time:	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Hold #
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Condition: <b>2/26/18 AT TO UL</b>	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) <i>MMar 1800</i>	Temp: <b>AMBIENT</b> °C Bottles Received: <b>5</b>	pH Checked: <b>NCF:</b>
				COC Seal Intact: <b>/ Y N + NA</b>	

**Indoor Air Monitoring (Bi-Weekly Sampling)**  
**Borg Warner Facility**  
**Water Valley, Yalobusha Co., MS**  
**February 22-23, 2018**  
**Indoor Air (IA) and Ambient Air (AA) - Sampling Event**

Sample ID	Sample Location	Flow Controller ID	Canister ID	Canister Size (liters)	Initial Date/time	Vacuum ("Hg)	Final Date/time	Vacuum ("Hg)	Sampler
IA-1	Maintenance Room	5895	7345	6	2/22/18 12:06	29	2/23/18 12:06	5	M. Slack
IA-2	ATS Room	8686	8907	6	2/22/18 12:07	30	2/23/18 12:07	4	M. Slack
IA-6	Training Room	6047	5523	6	2/22/18 13:30	30	2/23/18 12:45	2	M. Slack
IA-17	Cafeteria	6364	6917	6	2/22/18 13:34	27	2/23/18 13:34	10	M. Slack
IA-C16	I-Beam C16	NS							M. Slack
IA-K13	I-Beam K13	NS							M. Slack
IA-G4	I-Beam G4	NS							M. Slack
AA-2	Pavilion	7720	7617	6	2/22/18 12:15	25	2/23/18 12:21	7	M. Slack

Weather Conditions (@ time of canister placement): RAIN - OVERCAST, 98% HUMIDITY - WINDS CALM - 55°F

Michael T. Slack (First Environment)

Weather Conditions during 24-hr sampling period: Low 70°F - Humid - winds - calm

*Michael T. Slack* 2/23/18

NS - Not Sampled

Invo: FIRENBNJ-0XFOR Date : 13Feb18  
Customer : P639391 Weight : 10 LBS Shipping : 0.00  
Phone : (615)758-5858 COD : Special : 0.00  
SAT Del : Y DV : 0.00 Total : 0.00

Svc: PRIORITY OVERNIGHT  
TRCK: 4276 0140 4463

Invo: FIRENBNJ-0XFOR Date : 13Feb18  
Customer : P639391 Weight : 10 LBS Shipping : 0.00  
Phone : (615)758-5858 COD : Special : 0.00  
SAT Del : Y DV : 0.00 Total : 0.00

Svc: PRIORITY OVERNIGHT  
TRCK: 4276 0140 4474

**ESC LAB SCIENCES**  
**Cooler Receipt Form**

Client:	Ficenv BNS	SDG#	972729
Cooler Received/Opened On	02/24/18	Temperature:	Amb <sup>0C</sup>
Received by :	Christian Kacar		
Signature:			
Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	/	/	/
COC Signed / Accurate?	/	/	/
Bottles arrive intact?	/	/	/
Correct bottles used?	/	/	/
Sufficient volume sent?	/	/	/
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

TD