

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



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

May 18, 2018

Prepared for: EnPro Industries, Inc.
1020 Highland Colony Parkway, Suite 1400
Ridgeland, MS 39157

Prepared by: First Environment, Inc.
91 Fulton Street
Boonton, New Jersey 07005



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.

11041

05/18/2018

Mississippi Professional
Engineer No.

Date

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



TABLE OF CONTENTS

1.0	Introduction.....	1
2.0	Indoor Air Monitoring – May 3-4, 2018	1
2.1	Instrumentation	1
2.2	Methodology	1
2.3	Results.....	2
3.0	PCE Detection in ATS Room and Maintenance Room.....	5
4.0	Summary of Indoor Air Sampling	5

TABLES

Table 1 – Indoor Air Sampling Results – May 4, 2018

Table 2 – Indoor Air Sampling Results Comparison – January 2017 through May 2018

FIGURES

Figure 1 – Indoor Air Sampling Results

APPENDICES

Appendix A – Analytical Report

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, February 23, March 8, March 22, April 16, April 23, and May 7, 2018.

On May 3-4, 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.

2.0 Indoor Air Monitoring – May 3-4, 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 May 3-4, 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 were 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.

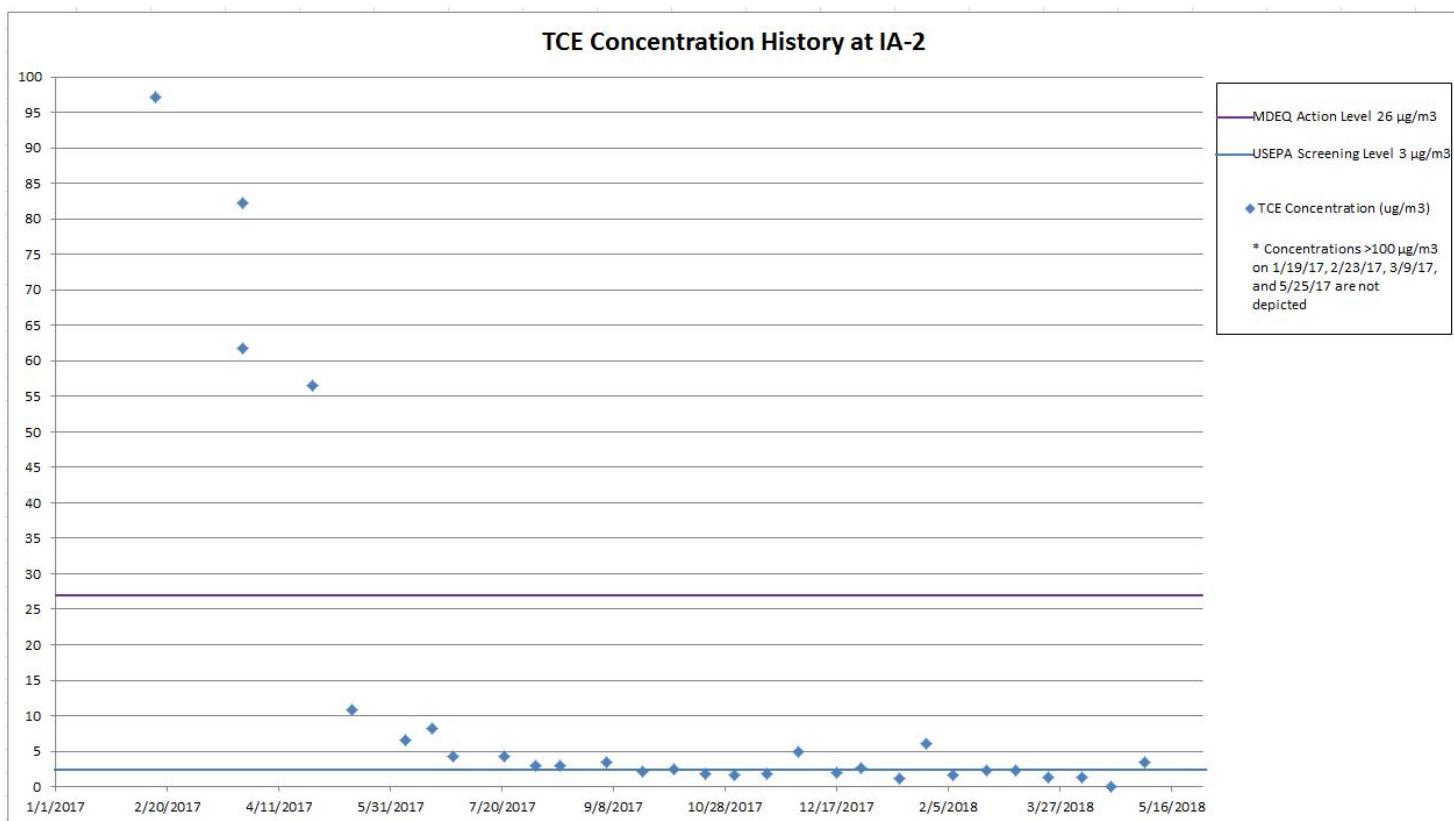
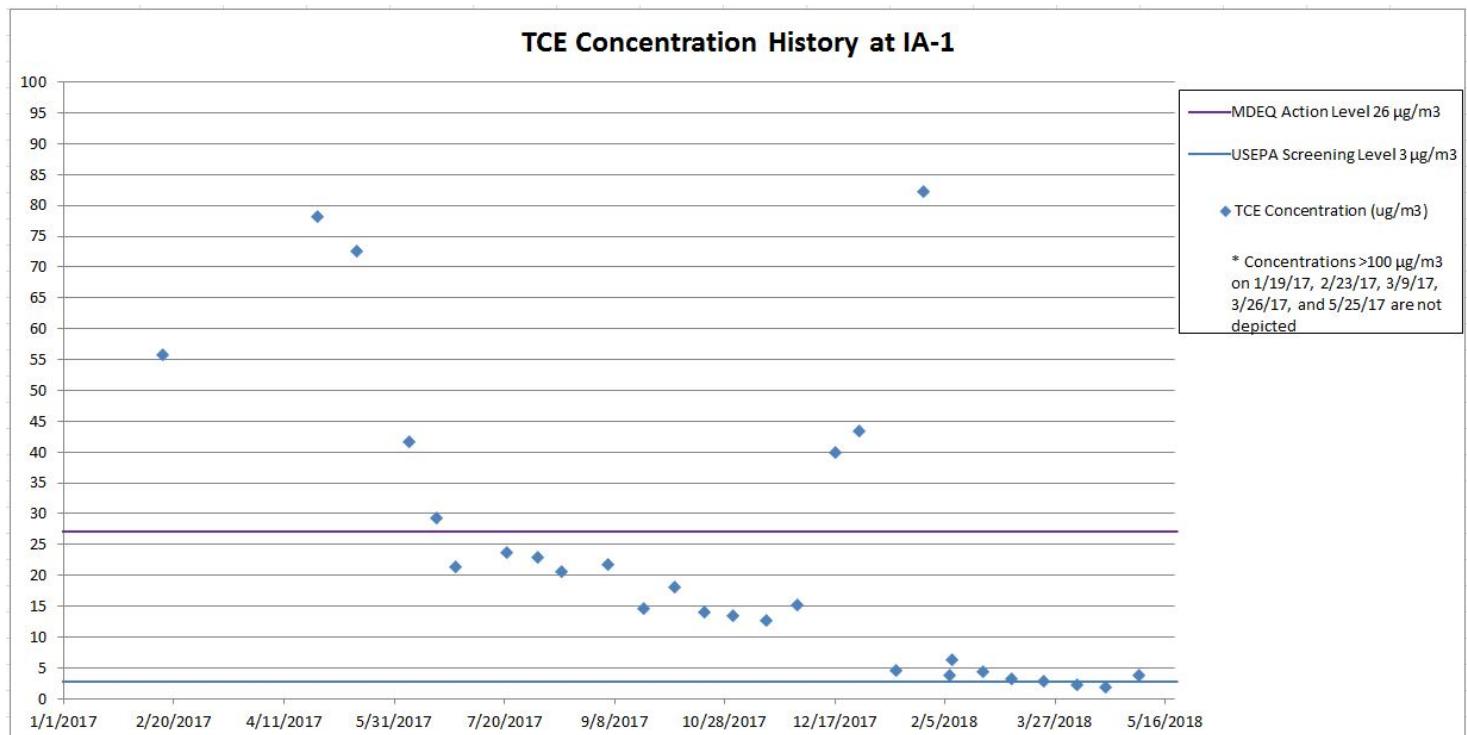
As reported in the January 8, 2018 SSDS Progress Report, First Environment sealed the void spaces in the block wall between the sump and the Maintenance Room on December 29, 2017. On January 15, 2018, the sump adjacent to the Maintenance Room was decommissioned. On January 18, 2018, First Environment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

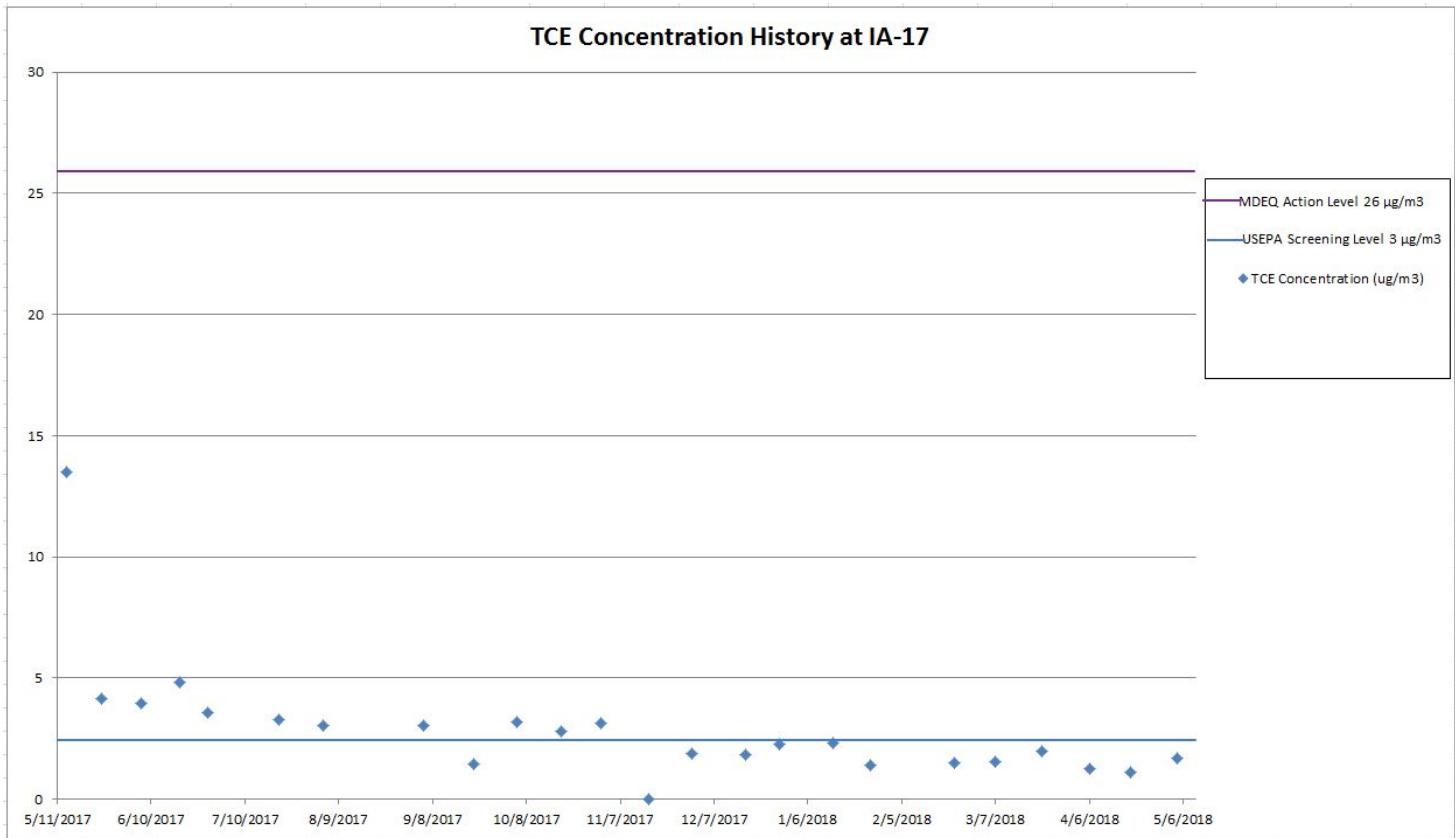
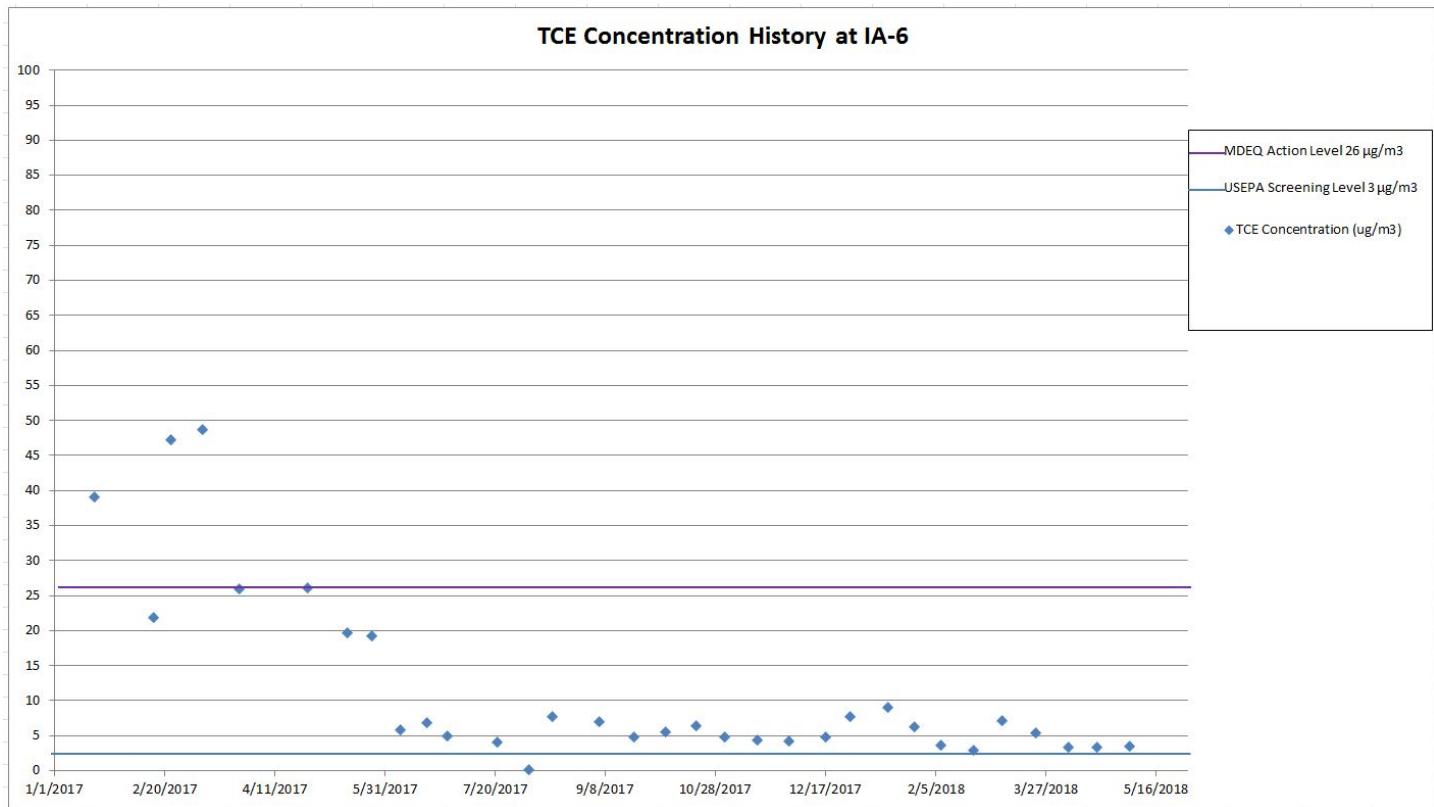
2.3 Results

Table 1 presents the ambient and indoor air sampling results for all TO-15 analytes for the May 3-4, 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. As discussed in more detail below, all indoor air sampling results for TCE were below the MDEQ action level of 26 µg/m³.

The sample results in the Cafeteria were below USEPA’s Vapor Intrusion Screening Level (“VISL”) for TCE of 3 µg/m³. The sample results in the ATS Room (3.47 µg/m³), Maintenance Room (3.76 µg/m³), and Training Room (3.4 µg/m³) were slightly above USEPA’s VISL but well below the MDEQ action level of 26 µg/m³.

The following figures show the TCE concentration history in the interior rooms.





3.0 PCE Detection in ATS Room and Maintenance Room

Tetrachloroethene (PCE) was detected in the ATS Room (IA-2) at 1.47 µg/m³ and the Maintenance Room (IA-1) at 1.68 µg/m³ (Table 1). PCE has not been detected in the groundwater or the soil underneath the Plant building. EnPro is not aware of any evidence that PCE was used in the former Holley Automotive/Coltec Industries facility's operations. The source of the PCE is unknown.

4.0 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/m³ for TCE. Since February 2018, sample results for the Maintenance Room have also been below the MDEQ action level of 26 µg/m³.

TABLES

TABLE 1
INDOOR AIR SAMPLING RESULTS
MAY 4, 2018
FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY
WATER VALLEY, MS

SAMPLE LOCATION: SAMPING DATE: LABORATORY ID:	IA-1 05/04/2018 L991502-01	IA-2 05/04/2018 L991502-02	IA-6 05/04/2018 L991502-03	IA-17 05/04/2018 L991502-04	AA-2 05/04/2018 L991502-05
Analyte	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
ACETONE	183	219	435	302	8.2
ALLYL CHLORIDE	<0.626	<0.626	<0.626	<0.626	<0.626
BENZENE	1.06	1.05	0.865	0.846	<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	<0.776	<0.776	<0.776	<0.776
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	0.992	1.19	1	1.19	1.27
2-CHLOROTOLUENE	<1.03	<1.03	<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

TABLE 1
INDOOR AIR SAMPLING RESULTS
MAY 4, 2018
FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY
WATER VALLEY, MS

SAMPLE LOCATION: SAMPING DATE: LABORATORY ID:	IA-1 05/04/2018 L991502-01	IA-2 05/04/2018 L991502-02	IA-6 05/04/2018 L991502-03	IA-17 05/04/2018 L991502-04	AA-2 05/04/2018 L991502-05
Analyte	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
1,1-DICHLOROETHENE	<0.793	<0.793	<0.793	<0.793	<0.793
CIS-1,2-DICHLOROETHENE	<0.793	<0.793	<0.793	<0.793	<0.793
TRANS-1,2-DICHLOROETHENE	4.42	1.58	1.35	1.11	<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	1.4	1.27	<0.721	0.734	<0.721
ETHANOL	4,310 (E)	5,250 (E)	6,480 (E)	6,740 (E)	7.43
ETHYLBENZENE	2.76	0	1.77	1.8	<0.867
4-ETHYLtolUENE	3.03	3.15	2.16	2.28	<0.982
TRICHLOROFLUOROMETHANE	1.59	1.63	1.56	1.55	1.34
DICHLORODIFLUOROMETHANE	2.19	2.06	1.96	1.99	1.84
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	47	46.2	39.7	38.1	<0.818
HEXAChLORO-1,3-BUTADIENE	<6.73	<6.73	<6.73	<6.73	<6.73
N-HEXANE	5.95	5.91	4.05	4.85	<0.705
ISOPROPYLBENZENE	<0.983	<0.983	<0.983	<0.983	<0.983
METHYLENE CHLORIDE	0.946	<0.694	<0.694	5.04	<0.694
METHYL BUTYL KETONE	<5.11	<5.11	<5.11	<5.11	<5.11
2-BUTANONE (MEK)	436	546	665	772	<3.69
4-METHYL-2-PENTANONE (MIBK)	<5.12	<5.12	<5.12	<5.12	<5.12
METHYL METHACRYLATE	<0.819	<0.819	<0.819	<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	2420	3,260 (E)	3,140 (E)	3,330 (E)	<3.07

TABLE 1
INDOOR AIR SAMPLING RESULTS
MAY 4, 2018
FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY
WATER VALLEY, MS

SAMPLE LOCATION: SAMPING DATE: LABORATORY ID:	IA-1 05/04/2018 L991502-01	IA-2 05/04/2018 L991502-02	IA-6 05/04/2018 L991502-03	IA-17 05/04/2018 L991502-04	AA-2 05/04/2018 L991502-05
Analyte	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
PROPENE	<0.689	<0.689	<0.689	<0.689	<0.689
STYRENE	<0.851	1.24	0.878	0.956	<0.851
1,1,2,2-TETRACHLOROETHANE	<1.37	<1.37	<1.37	<1.37	<1.37
TETRACHLOROETHENE	1.68	1.47	<1.36	<1.36	<1.36
TETRAHYDROFURAN	<0.59	<0.59	<0.59	<0.59	<0.59
TOLUENE	21.3	21.4	21.9	15.4	<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	3.76	3.47	3.4	1.68	<1.07
1,2,4-TRIMETHYLBENZENE	5.08	5.24	3.76	4	<0.982
1,3,5-TRIMETHYLBENZENE	1.65	1.68	1.26	1.26	<0.982
2,2,4-TRIMETHYL PENTANE	<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	10.1	10.5	6.57	6.7	<1.73
O-XYLENE	3.19	3.26	2.09	2.12	<0.867
1,4-BROMOFLUOROBENZENE	126 97.1	124 97.6	115 97.9	98.2 112	101

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 MAY 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	<0.51
	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
(Door Open) (Door Closed)	25-Jan-18	L966088-01	82.3	<0.793	<0.511
	7-Feb-18	L969021-01	3.89	<0.793	<0.511
	8-Feb-18	L969370-01	6.39	1.26	<0.511
	22-Feb-18	L972729-01	4.47	1.35	<0.511
	7-Mar-18	L976176-01	3.23	<0.793	<0.511
	23-Mar-18	L980227-01	2.93	<0.793	<0.511
	6-Apr-18	L984164-01	2.34	<0.793	<0.511
	19-Apr-18	L987699-01	1.95	<0.793	<0.511
	4-May-18	L991502-01	3.76	<0.793	<0.511
IA-2	19-Jan-17	L1702183-02	187	43.2	<0.51
	15-Feb-17	L890396-02	97.1	<0.793	2.27
	23-Feb-17	L892423-02	157	79.4	1.57
IA-2 (2ND CANISTER)	9-Mar-17	L895061-02	426	86.7	1.18
	9-Mar-17	L895061-04	438	88.7	1.68
IA-2 (DUPLICATE)	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
	7-Mar-18	L976176-02	2.35	<0.793	<0.511
	23-Mar-18	L980227-02	1.39	<0.793	<0.511
	6-Apr-18	L984164-02	1.38	<0.793	<0.511
	19-Apr-18	L987699-02	<1.07	<0.793	<0.511
	4-May-18	L991502-02	3.47	<0.793	<0.511

TABLE 2
INDOOR AIR SAMPLING RESULTS COMPARISON
JANUARY 2017 THROUGH MAY 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-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
	7-Mar-18	L976176-03	6.95	2.74	<0.511
	23-Mar-18	L980227-03	5.26	2.02	<0.511
	6-Apr-18	L984164-03	3.28	1.89	<0.511
	19-Apr-18	L987699-03	3.28	2.2	<0.511
	4-May-18	L991502-03	3.4	<0.793	<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
	7-Mar-18	L976176-04	1.57	<0.793	<0.511
	23-Mar-18	L980227-04	1.98	1.7	<0.511
	6-Apr-18	L984164-04	1.26	1.24	<0.511
	19-Apr-18	L987699-04	1.09	1.2	<0.511
	4-May-18	L991502-04	1.68	<0.793	<0.511

TABLE 2
INDOOR AIR SAMPLING RESULTS COMPARISON
JANUARY 2017 THROUGH MAY 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-B12	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	L905292-04 L912423-05 L914832-07 L917924-09 L920054-08 L924410-05 L927407-05 L930026-05 L934535-05	6.54 3.08 1.64 1.66 <1.07 1.08 <1.07 <1.07 <1.07	1.77 <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-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 7-Mar-18	L905292-05 L912423-06 L914832-08 L917924-07 L920054-07 L924410-06 L927407-06 L930026-06 L934535-06 L954578-05 L976176-06	6.48 3.88 1.55 2 1.22 1.08 1.25 <1.07 <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 <0.793	<0.511 <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 7-Mar-18	L912423-11 L914832-02 L917924-02 L920054-02 L924410-09 L927407-11 L930026-11 L934535-11 L954578-07 L976176-08	<1.07 3.31 1.35 <1.07 <1.07 <1.07 <1.07 1.17 <1.07 <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
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 7-Mar-18	L905292-07 L912423-04 L914832-05 L917924-05 L920054-05 L924410-12 L927407-08 L930026-08 L934535-08 L954578-06 L976176-07	6.53 5.28 1.59 2.2 1.33 1.34 <1.07 <1.07 1.67 <1.07 <1.07	<0.793 <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 <0.511

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

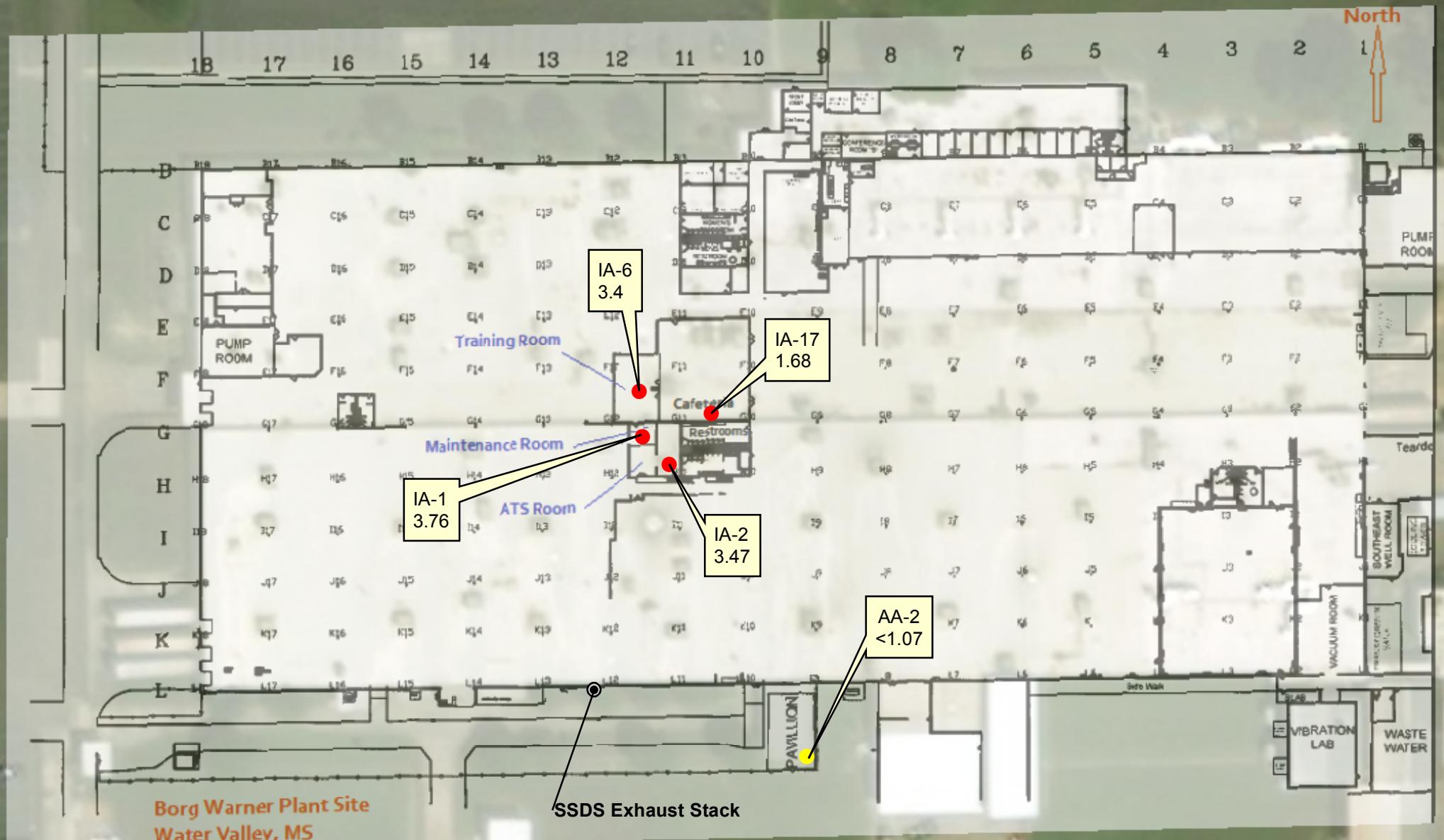
D: Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte

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

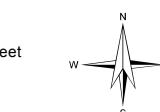
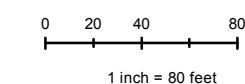
- IA-1: Indoor Air Concentrations in ug/m³
- AA-1: Ambient Air Concentrations in ug/m³
- SSDS Exhaust Stack

USEPA Screening Level for TCE: 3 ug/m³

MDEQ Action Level for TCE: 26 ug/m³

 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
MAY 4, 2018

91 Fulton Street Boonton, New Jersey 07005	Revised LS	Drawn NMT	Checked NMT	Approved NMT	Date 5/16/2018
---	---------------	--------------	----------------	-----------------	-------------------

APPENDIX A

May 10, 2018

First Environment, Inc.

Sample Delivery Group: L991502
Samples Received: 05/05/2018
Project Number: ENPRO002D-VM
Description: EnPro: Bi-Weekly 24-hr Indoor 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.



Cp: Cover Page	1	 ¹ Cp
Tc: Table of Contents	2	 ² Tc
Ss: Sample Summary	3	 ³ Ss
Cn: Case Narrative	4	 ⁴ Cn
Sr: Sample Results	5	 ⁵ Sr
IA-1 L991502-01	5	 ⁶ Qc
IA-2 L991502-02	7	 ⁷ Gl
IA-6 L991502-03	9	
IA-17 L991502-04	11	
AA-2 L991502-05	13	
Qc: Quality Control Summary	15	
Volatile Organic Compounds (MS) by Method TO-15	15	
Gl: Glossary of Terms	20	
Al: Accreditations & Locations	21	
Sc: Sample Chain of Custody	22	 ⁸ Al
		 ⁹ Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



		Collected by Michael T. Slack	Collected date/time 05/04/18 12:40	Received date/time 05/05/18 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1107355	1	05/05/18 22:34	05/05/18 22:34	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1107847	25	05/07/18 17:20	05/07/18 17:20	AMC
IA-2 L991502-02 Air		Collected by Michael T. Slack	Collected date/time 05/04/18 12:39	Received date/time 05/05/18 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1107355	1	05/05/18 23:25	05/05/18 23:25	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1107847	25	05/07/18 18:03	05/07/18 18:03	AMC
IA-6 L991502-03 Air		Collected by Michael T. Slack	Collected date/time 05/04/18 12:28	Received date/time 05/05/18 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1107355	1	05/06/18 00:11	05/06/18 00:11	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1107847	25	05/07/18 18:45	05/07/18 18:45	AMC
IA-17 L991502-04 Air		Collected by Michael T. Slack	Collected date/time 05/04/18 12:30	Received date/time 05/05/18 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1107355	1	05/06/18 00:57	05/06/18 00:57	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1107847	25	05/07/18 19:28	05/07/18 19:28	AMC
AA-2 L991502-05 Air		Collected by Michael T. Slack	Collected date/time 05/04/18 12:42	Received date/time 05/05/18 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1107355	1	05/06/18 01:45	05/06/18 01:45	MBF





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

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- 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
Acetone	67-64-1	58.10	31.2	74.1	76.8	183		25	WG1107847
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1107355
Benzene	71-43-2	78.10	0.200	0.639	0.332	1.06		1	WG1107355
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1107355
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1107355
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1107355
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1107355
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1107355
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1107355
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1107355
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1107355
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1107355
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1107355
Chloromethane	74-87-3	50.50	0.200	0.413	0.480	0.992		1	WG1107355
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1107355
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1107355
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1107355
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1107355
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1107355
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1107355
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1107355
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1107355
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1107355
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1107355
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1107355
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	1.12	4.42		1	WG1107355
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1107355
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1107355
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1107355
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.388	1.40		1	WG1107355
Ethanol	64-17-5	46.10	15.8	29.8	2290	4310	E	25	WG1107847
Ethylbenzene	100-41-4	106	0.200	0.867	0.636	2.76		1	WG1107355
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.618	3.03		1	WG1107355
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.283	1.59		1	WG1107355
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.443	2.19		1	WG1107355
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1107355
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1107355
Heptane	142-82-5	100	0.200	0.818	11.5	47.0		1	WG1107355
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1107355
n-Hexane	110-54-3	86.20	0.200	0.705	1.69	5.95		1	WG1107355
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1107355
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.273	0.946		1	WG1107355
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1107355
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	148	436		25	WG1107847
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1107355
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1107355
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1107355
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1107355
2-Propanol	67-63-0	60.10	31.2	76.7	983	2420		25	WG1107847
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1107355
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1107355
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1107355
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.247	1.68		1	WG1107355
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1107355
Toluene	108-88-3	92.10	0.200	0.753	5.65	21.3		1	WG1107355
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1107355

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	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1107355
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1107355
Trichloroethylene	79-01-6	131	0.200	1.07	0.701	3.76		1	WG1107355
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.04	5.08		1	WG1107355
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.337	1.65		1	WG1107355
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1107355
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1107355
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1107355
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1107355
m&p-Xylene	1330-20-7	106	0.400	1.73	2.33	10.1		1	WG1107355
o-Xylene	95-47-6	106	0.200	0.867	0.735	3.19		1	WG1107355
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		126				WG1107355
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.1				WG1107847

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ 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	31.2	74.1	92.0	219		25	WG1107847
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1107355
Benzene	71-43-2	78.10	0.200	0.639	0.329	1.05		1	WG1107355
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1107355
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1107355
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1107355
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1107355
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1107355
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1107355
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1107355
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1107355
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1107355
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1107355
Chloromethane	74-87-3	50.50	0.200	0.413	0.577	1.19		1	WG1107355
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1107355
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1107355
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1107355
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1107355
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1107355
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1107355
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1107355
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1107355
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1107355
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1107355
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1107355
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.399	1.58		1	WG1107355
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1107355
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1107355
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1107355
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.353	1.27		1	WG1107355
Ethanol	64-17-5	46.10	15.8	29.8	2790	5250	E	25	WG1107847
Ethylbenzene	100-41-4	106	0.200	0.867	0.679	2.94		1	WG1107355
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.642	3.15		1	WG1107355
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.289	1.63		1	WG1107355
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.416	2.06		1	WG1107355
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1107355
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1107355
Heptane	142-82-5	100	0.200	0.818	11.3	46.2		1	WG1107355
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1107355
n-Hexane	110-54-3	86.20	0.200	0.705	1.68	5.91		1	WG1107355
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1107355
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1107355
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1107355
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	185	546		25	WG1107847
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1107355
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1107355
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1107355
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1107355
2-Propanol	67-63-0	60.10	31.2	76.7	1330	3260	E	25	WG1107847
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1107355
Styrene	100-42-5	104	0.200	0.851	0.292	1.24		1	WG1107355
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1107355
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.217	1.47		1	WG1107355
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1107355
Toluene	108-88-3	92.10	0.200	0.753	5.67	21.4		1	WG1107355
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1107355

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	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1107355
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1107355
Trichloroethylene	79-01-6	131	0.200	1.07	0.647	3.47		1	WG1107355
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.07	5.24		1	WG1107355
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.343	1.68		1	WG1107355
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1107355
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1107355
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1107355
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1107355
m&p-Xylene	1330-20-7	106	0.400	1.73	2.43	10.5		1	WG1107355
o-Xylene	95-47-6	106	0.200	0.867	0.753	3.26		1	WG1107355
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		124				WG1107355
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.6				WG1107847

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ 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	31.2	74.1	183	435		25	WG1107847
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1107355
Benzene	71-43-2	78.10	0.200	0.639	0.271	0.865		1	WG1107355
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1107355
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1107355
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1107355
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1107355
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1107355
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1107355
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1107355
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1107355
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1107355
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1107355
Chloromethane	74-87-3	50.50	0.200	0.413	0.486	1.00		1	WG1107355
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1107355
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1107355
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1107355
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1107355
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1107355
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1107355
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1107355
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1107355
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1107355
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1107355
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1107355
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.341	1.35		1	WG1107355
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1107355
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1107355
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1107355
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1107355
Ethanol	64-17-5	46.10	15.8	29.8	3440	6480	E	25	WG1107847
Ethylbenzene	100-41-4	106	0.200	0.867	0.408	1.77		1	WG1107355
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.441	2.16		1	WG1107355
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.278	1.56		1	WG1107355
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.396	1.96		1	WG1107355
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1107355
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1107355
Heptane	142-82-5	100	0.200	0.818	9.69	39.7		1	WG1107355
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1107355
n-Hexane	110-54-3	86.20	0.200	0.705	1.15	4.05		1	WG1107355
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1107355
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1107355
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1107355
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	225	665		25	WG1107847
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1107355
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1107355
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1107355
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1107355
2-Propanol	67-63-0	60.10	31.2	76.7	1280	3140	E	25	WG1107847
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1107355
Styrene	100-42-5	104	0.200	0.851	0.207	0.878		1	WG1107355
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1107355
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1107355
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1107355
Toluene	108-88-3	92.10	0.200	0.753	5.81	21.9		1	WG1107355
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1107355

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	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1107355
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1107355
Trichloroethylene	79-01-6	131	0.200	1.07	0.634	3.40		1	WG1107355
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.767	3.76		1	WG1107355
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.257	1.26		1	WG1107355
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1107355
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1107355
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1107355
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1107355
m&p-Xylene	1330-20-7	106	0.400	1.73	1.52	6.57		1	WG1107355
o-Xylene	95-47-6	106	0.200	0.867	0.482	2.09		1	WG1107355
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		115				WG1107355
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.9				WG1107847

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ 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	31.2	74.1	127	302		25	WG1107847
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1107355
Benzene	71-43-2	78.10	0.200	0.639	0.265	0.846		1	WG1107355
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1107355
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1107355
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1107355
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1107355
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1107355
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1107355
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1107355
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1107355
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1107355
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1107355
Chloromethane	74-87-3	50.50	0.200	0.413	0.575	1.19		1	WG1107355
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1107355
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1107355
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1107355
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1107355
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1107355
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1107355
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1107355
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1107355
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1107355
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1107355
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1107355
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.279	1.11		1	WG1107355
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1107355
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1107355
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1107355
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.204	0.734		1	WG1107355
Ethanol	64-17-5	46.10	15.8	29.8	3580	6740	E	25	WG1107847
Ethylbenzene	100-41-4	106	0.200	0.867	0.416	1.80		1	WG1107355
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.465	2.28		1	WG1107355
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.276	1.55		1	WG1107355
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.403	1.99		1	WG1107355
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1107355
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1107355
Heptane	142-82-5	100	0.200	0.818	9.31	38.1		1	WG1107355
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1107355
n-Hexane	110-54-3	86.20	0.200	0.705	1.38	4.85		1	WG1107355
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1107355
Methylene Chloride	75-09-2	84.90	0.200	0.694	1.45	5.04		1	WG1107355
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1107355
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	262	772		25	WG1107847
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1107355
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1107355
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1107355
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1107355
2-Propanol	67-63-0	60.10	31.2	76.7	1360	3330	E	25	WG1107847
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1107355
Styrene	100-42-5	104	0.200	0.851	0.225	0.956		1	WG1107355
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1107355
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1107355
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1107355
Toluene	108-88-3	92.10	0.200	0.753	4.08	15.4		1	WG1107355
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1107355

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	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1107355
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1107355
Trichloroethylene	79-01-6	131	0.200	1.07	0.314	1.68		1	WG1107355
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.815	4.00		1	WG1107355
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.256	1.26		1	WG1107355
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1107355
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1107355
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1107355
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1107355
m&p-Xylene	1330-20-7	106	0.400	1.73	1.54	6.70		1	WG1107355
o-Xylene	95-47-6	106	0.200	0.867	0.489	2.12		1	WG1107355
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		112				WG1107355
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.2				WG1107847

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ 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	1.25	2.97	3.45	8.20	1	WG1107355	1 Cp
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND	1	WG1107355	2 Tc
Benzene	71-43-2	78.10	0.200	0.639	ND	ND	1	WG1107355	3 Ss
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND	1	WG1107355	4 Cn
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND	1	WG1107355	5 Sr
Bromoform	75-25-2	253	0.600	6.21	ND	ND	1	WG1107355	6 Qc
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND	1	WG1107355	7 GI
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND	1	WG1107355	8 Al
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND	1	WG1107355	9 Sc
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND	1	WG1107355	
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND	1	WG1107355	
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND	1	WG1107355	
Chloroform	67-66-3	119	0.200	0.973	ND	ND	1	WG1107355	
Chloromethane	74-87-3	50.50	0.200	0.413	0.615	1.27	1	WG1107355	
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND	1	WG1107355	
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND	1	WG1107355	
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND	1	WG1107355	
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND	1	WG1107355	
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND	1	WG1107355	
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND	1	WG1107355	
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND	1	WG1107355	
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND	1	WG1107355	
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND	1	WG1107355	
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND	1	WG1107355	
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND	1	WG1107355	
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND	1	WG1107355	
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND	1	WG1107355	
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND	1	WG1107355	
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND	1	WG1107355	
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND	1	WG1107355	
Ethanol	64-17-5	46.10	0.630	1.19	3.94	7.43	1	WG1107355	
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND	1	WG1107355	
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND	1	WG1107355	
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.239	1.34	1	WG1107355	
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.371	1.84	1	WG1107355	
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND	1	WG1107355	
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND	1	WG1107355	
Heptane	142-82-5	100	0.200	0.818	ND	ND	1	WG1107355	
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND	1	WG1107355	
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND	1	WG1107355	
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND	1	WG1107355	
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND	1	WG1107355	
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND	1	WG1107355	
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND	1	WG1107355	
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND	1	WG1107355	
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND	1	WG1107355	
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND	1	WG1107355	
Naphthalene	91-20-3	128	0.630	3.30	ND	ND	1	WG1107355	
2-Propanol	67-63-0	60.10	1.25	3.07	ND	ND	1	WG1107355	
Propene	115-07-1	42.10	0.400	0.689	ND	ND	1	WG1107355	
Styrene	100-42-5	104	0.200	0.851	ND	ND	1	WG1107355	
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND	1	WG1107355	
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND	1	WG1107355	
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND	1	WG1107355	
Toluene	108-88-3	92.10	0.200	0.753	ND	ND	1	WG1107355	
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND	1	WG1107355	



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	<u>Batch</u>
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1107355
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1107355
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1107355
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1107355
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1107355
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1107355
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1107355
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1107355
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1107355
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1107355
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1107355
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		101				WG1107355

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc

L991502-01,02,03,04,05

Method Blank (MB)

(MB) R3307582-3 05/05/18 10:20

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

L991502-01,02,03,04,05

Method Blank (MB)

(MB) R3307582-3 05/05/18 10:20

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	98.4		60.0-140		

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

(LCS) R3307582-1 05/05/18 08:50 • (LCSD) R3307582-2 05/05/18 09:35

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	3.77	3.79	101	101	52.0-158			0.446	25
Propene	3.75	4.39	4.39	117	117	54.0-155			0.00257	25
Dichlorodifluoromethane	3.75	4.72	4.77	126	127	69.0-143			1.04	25
1,2-Dichlorotetrafluoroethane	3.75	4.43	4.42	118	118	70.0-130			0.0462	25
Chloromethane	3.75	4.41	4.42	118	118	70.0-130			0.407	25



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

(LCS) R3307582-1 05/05/18 08:50 • (LCSD) R3307582-2 05/05/18 09:35

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	4.38	4.37	117	117	70.0-130			0.0720	25
1,3-Butadiene	3.75	4.17	4.12	111	110	70.0-130			1.29	25
Bromomethane	3.75	4.03	3.93	107	105	70.0-130			2.51	25
Chloroethane	3.75	4.33	4.30	115	115	70.0-130			0.522	25
Trichlorofluoromethane	3.75	4.43	4.41	118	117	70.0-130			0.517	25
1,1,2-Trichlorotrifluoroethane	3.75	4.45	4.46	119	119	70.0-130			0.334	25
1,1-Dichloroethene	3.75	4.34	4.31	116	115	70.0-130			0.631	25
1,1-Dichloroethane	3.75	4.27	4.29	114	114	70.0-130			0.442	25
Acetone	3.75	4.24	4.23	113	113	70.0-130			0.261	25
2-Propanol	3.75	4.24	4.21	113	112	66.0-150			0.613	25
Carbon disulfide	3.75	4.30	4.29	115	114	70.0-130			0.232	25
Methylene Chloride	3.75	4.05	4.04	108	108	70.0-130			0.344	25
MTBE	3.75	4.27	4.24	114	113	70.0-130			0.787	25
trans-1,2-Dichloroethene	3.75	4.29	4.28	114	114	70.0-130			0.230	25
n-Hexane	3.75	4.23	4.19	113	112	70.0-130			0.741	25
Vinyl acetate	3.75	4.44	4.43	118	118	70.0-130			0.163	25
Methyl Ethyl Ketone	3.75	4.35	4.34	116	116	70.0-130			0.0852	25
cis-1,2-Dichloroethene	3.75	4.26	4.26	114	114	70.0-130			0.118	25
Chloroform	3.75	4.28	4.27	114	114	70.0-130			0.261	25
Cyclohexane	3.75	4.32	4.31	115	115	70.0-130			0.312	25
1,1,1-Trichloroethane	3.75	4.34	4.32	116	115	70.0-130			0.596	25
Carbon tetrachloride	3.75	4.35	4.36	116	116	70.0-130			0.141	25
Benzene	3.75	4.27	4.26	114	113	70.0-130			0.306	25
1,2-Dichloroethane	3.75	4.29	4.29	114	114	70.0-130			0.0176	25
Heptane	3.75	4.25	4.21	113	112	70.0-130			0.970	25
Trichloroethylene	3.75	4.32	4.29	115	114	70.0-130			0.642	25
1,2-Dichloropropane	3.75	4.29	4.26	114	114	70.0-130			0.622	25
1,4-Dioxane	3.75	4.41	4.40	118	117	70.0-152			0.317	25
Bromodichloromethane	3.75	4.34	4.34	116	116	70.0-130			0.0615	25
cis-1,3-Dichloropropene	3.75	4.41	4.38	118	117	70.0-130			0.576	25
4-Methyl-2-pentanone (MIBK)	3.75	4.33	4.29	115	114	70.0-142			0.916	25
Toluene	3.75	4.40	4.36	117	116	70.0-130			0.739	25
trans-1,3-Dichloropropene	3.75	4.51	4.42	120	118	70.0-130			1.93	25
1,1,2-Trichloroethane	3.75	4.31	4.29	115	114	70.0-130			0.493	25
Tetrachloroethylene	3.75	4.38	4.34	117	116	70.0-130			0.827	25
Methyl Butyl Ketone	3.75	4.61	4.61	123	123	70.0-150			0.0122	25
Dibromochloromethane	3.75	4.55	4.51	121	120	70.0-130			0.731	25
1,2-Dibromoethane	3.75	4.52	4.49	120	120	70.0-130			0.642	25
Chlorobenzene	3.75	4.49	4.47	120	119	70.0-130			0.495	25
Ethylbenzene	3.75	4.47	4.46	119	119	70.0-130			0.159	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) R3307582-1 05/05/18 08:50 • (LCSD) R3307582-2 05/05/18 09:35

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	8.95	8.93	119	119	70.0-130			0.254	25
o-Xylene	3.75	4.47	4.46	119	119	70.0-130			0.204	25
Styrene	3.75	4.67	4.65	125	124	70.0-130			0.347	25
Bromoform	3.75	4.65	4.64	124	124	70.0-130			0.370	25
1,1,2,2-Tetrachloroethane	3.75	4.43	4.43	118	118	70.0-130			0.116	25
4-Ethyltoluene	3.75	4.65	4.63	124	123	70.0-130			0.418	25
1,3,5-Trimethylbenzene	3.75	4.64	4.60	124	123	70.0-130			0.742	25
1,2,4-Trimethylbenzene	3.75	4.62	4.56	123	122	70.0-130			1.13	25
1,3-Dichlorobenzene	3.75	4.72	4.71	126	126	70.0-130			0.317	25
1,4-Dichlorobenzene	3.75	4.84	4.81	129	128	70.0-130			0.531	25
Benzyl Chloride	3.75	4.89	4.84	130	129	70.0-144			0.964	25
1,2-Dichlorobenzene	3.75	4.63	4.62	124	123	70.0-130			0.265	25
1,2,4-Trichlorobenzene	3.75	4.64	4.60	124	123	70.0-155			0.798	25
Hexachloro-1,3-butadiene	3.75	4.63	4.66	123	124	70.0-145			0.711	25
Naphthalene	3.75	4.61	4.54	123	121	70.0-155			1.49	25
Allyl Chloride	3.75	4.23	4.23	113	113	70.0-130			0.0928	25
2-Chlorotoluene	3.75	4.58	4.57	122	122	70.0-130			0.174	25
Methyl Methacrylate	3.75	4.30	4.28	115	114	70.0-130			0.659	25
Tetrahydrofuran	3.75	4.20	4.19	112	112	70.0-140			0.248	25
2,2,4-Trimethylpentane	3.75	4.25	4.25	113	113	70.0-130			0.0120	25
Vinyl Bromide	3.75	4.39	4.33	117	116	70.0-130			1.16	25
Isopropylbenzene	3.75	4.50	4.50	120	120	70.0-130			0.0832	25
(S) 1,4-Bromofluorobenzene			102	101	60.0-140					

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L991502-01,02,03,04

Method Blank (MB)

(MB) R3307737-3 05/07/18 09:55

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.0569	1.25
2-Butanone (MEK)	U		0.0493	1.25
2-Propanol	0.105	J	0.0882	1.25
Ethanol	U		0.0832	0.630
(S) 1,4-Bromofluorobenzene	98.7			60.0-140

¹Cp²Tc³Ss⁴Cn⁵Sr

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

(LCS) R3307737-1 05/07/18 08:26 • (LCSD) R3307737-2 05/07/18 09:10

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	3.70	3.71	98.7	99.0	52.0-158			0.373	25
Acetone	3.75	4.10	4.10	109	109	70.0-130			0.104	25
2-Propanol	3.75	4.19	4.21	112	112	66.0-150			0.445	25
Methyl Ethyl Ketone	3.75	4.42	4.41	118	118	70.0-130			0.110	25
(S) 1,4-Bromofluorobenzene			103	102		60.0-140				

⁶Qc⁷Gl⁸Al⁹Sc



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.	¹ Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	² Tc
RDL	Reported Detection Limit.	³ Ss
Rec.	Recovery.	⁴ Cn
RPD	Relative Percent Difference.	⁵ Sr
SDG	Sample Delivery Group.	⁶ 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.	⁷ GI
U	Not detected at the Reporting Limit (or MDL where applicable).	⁸ AI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁹ SC
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, 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).
J	The identification of the analyte is acceptable; the reported value is an estimate.



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.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky ¹⁶	90010
Kentucky ²	16
Louisiana	AI30792
Louisiana ¹	LA180010
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 ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee ¹⁴	2006
Texas	T 104704245-17-14
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

A2LA – ISO 17025	1461.01
A2LA – ISO 17025 ⁵	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater 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.



- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc

4361693312001196

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

Relinquished by : (Signature) <i>MJT</i>	Date: 5/4/2018	Time: 16:15	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: (lab use only) <i>OK</i>
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: <i>AMBIENT</i> 5	COC Seal Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) <i>CMW</i>	Date: 5/5/18 Time: 845	pH Checked: <input type="checkbox"/> NCF: <input type="checkbox"/>

Indoor Air Monitoring (Bi-Weekly Sampling)

Borg Warner Facility

Water Valley, Yalobusha Co., MS

May 3-4, 2018

Indoor Air (IA) and Ambient Air (AA) - Sampling Event

L991502

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	7772	5381	6	5/3/2018 12:37	30	5/4/2018 12:40	9	M. Slack
IA-2	ATS Room	7B31	5078	6	5/3/2018 12:36	29	5/4/2018 12:39	6	M. Slack
IA-6	Training Room	6510	7300	6	5/3/2018 12:28	30	5/4/2018 12:28	2	M. Slack
IA-17	Cafeteria	7719	8543	6	5/3/2018 12:30	27	5/4/2018 12:30	2	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	7774	8899	6	5/3/2018 12:39	30	5/4/2018 12:42	3	M. Slack

Weather Conditions (@ time of canister placement):

SUNNY; WINDY - 6-10 mph S-SE; MID-80°F.

Michael T. Slack (First Environment)

Weather Conditions during 24-hr sampling period:

PARTLY CLOUDY - SW WINDS - 5 TO 10 mph

MID-70°F - 80°F

NS - Not Sampled

Invo: FIRENBNJ-OXFORD Date : 23Apr18
 Customer : P649516 Weight : 10 LBS
 Phone : (615)758-5858 COD :
 SAT Del : Y DV : 0.00 Total : 0.00

Svc: PRIORITY OVERNIGHT
 TRCK: 4361 6933 1200

Invo: FIRENBNJ-OXFORD Date : 23Apr18
 Customer : P649516 Weight : 10 LBS
 Phone : (615)758-5858 COD :
 SAT Del : Y DV : 0.00 Total : 0.00

Shipping : 0.00
 Special : 0.00
 Handling : 0.00
 Total : 0.00

Svc: PRIORITY OVERNIGHT
 TRCK: 4361 6933 1196

ESC LAB SCIENCES
Cooler Receipt Form

Client:	FZRGNBNZ	SDG#	L991502
Cooler Received/Opened On:	5/5/18	Temperature:	Amb
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?			