

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



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June 15, 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.

11041

06/15/2018

Mississippi Professional
Engineer No.

Date

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, February 23, March 8, March 22, April 16, April 23, May 7, May 17, and June 4, 2018.

On May 30-31, 2018, First Environment collected the following ambient and indoor air samples:

- a round of four interior rooms at the Plant—the Training Room, ATS Room, Maintenance Room, and Cafeteria;
- the third round of quarterly indoor air samples from three locations at the west, center, and east areas of the Plant (IA-C16, IA-K13, and IA-G4); and
- an ambient air sample outside the Plant.

2.0 Indoor Air Monitoring – May 30-31, 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 30-31, 2018, First Environment collected four indoor air samples at the four interior rooms of the Plant, three quarterly indoor air samples from three respective locations in the west, center, and east areas 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.

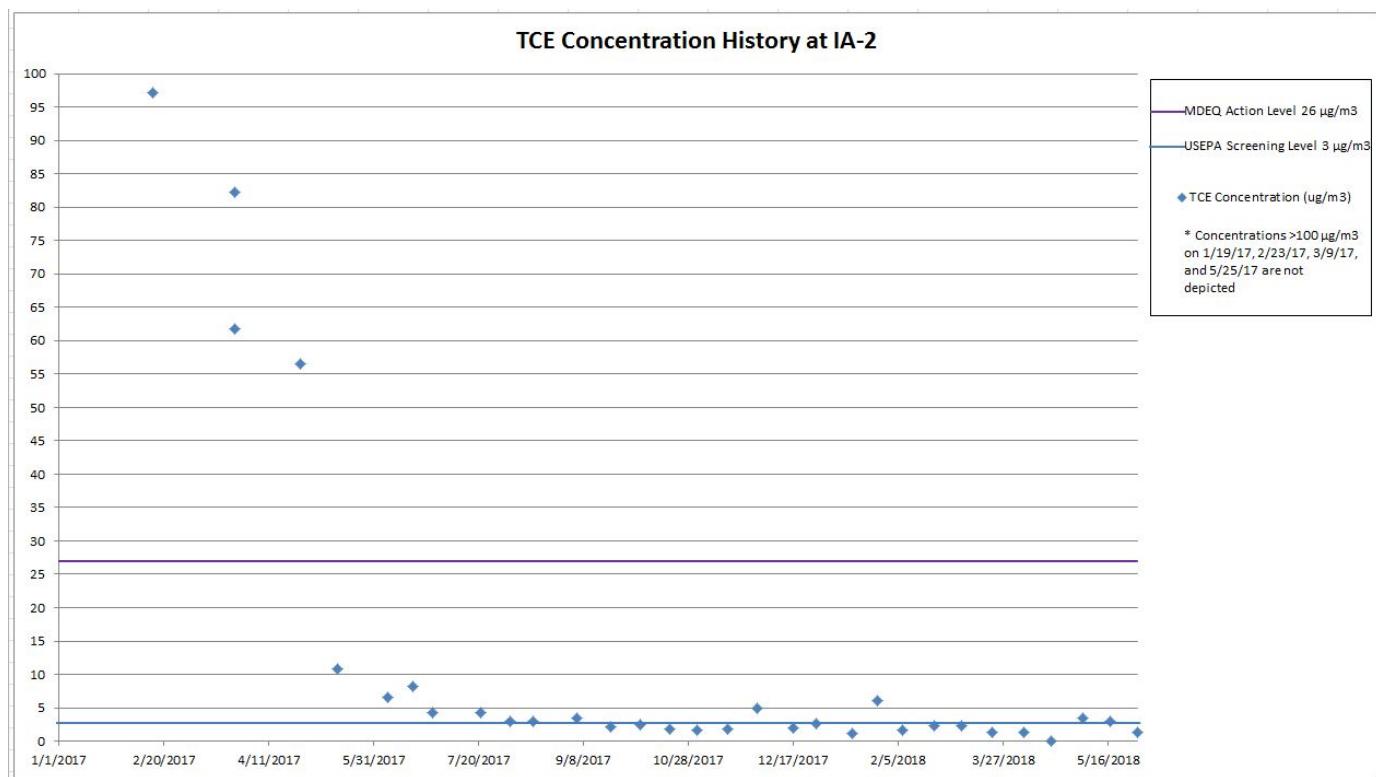
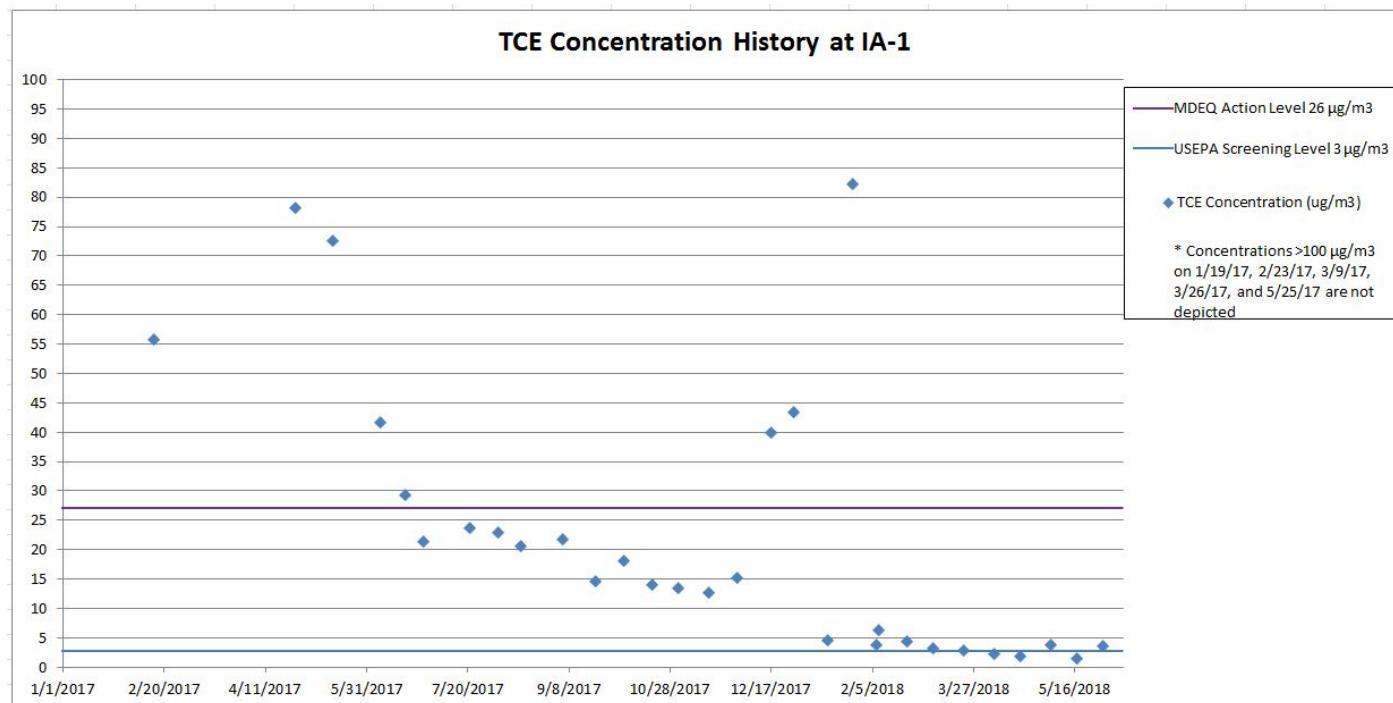
2.3 Results

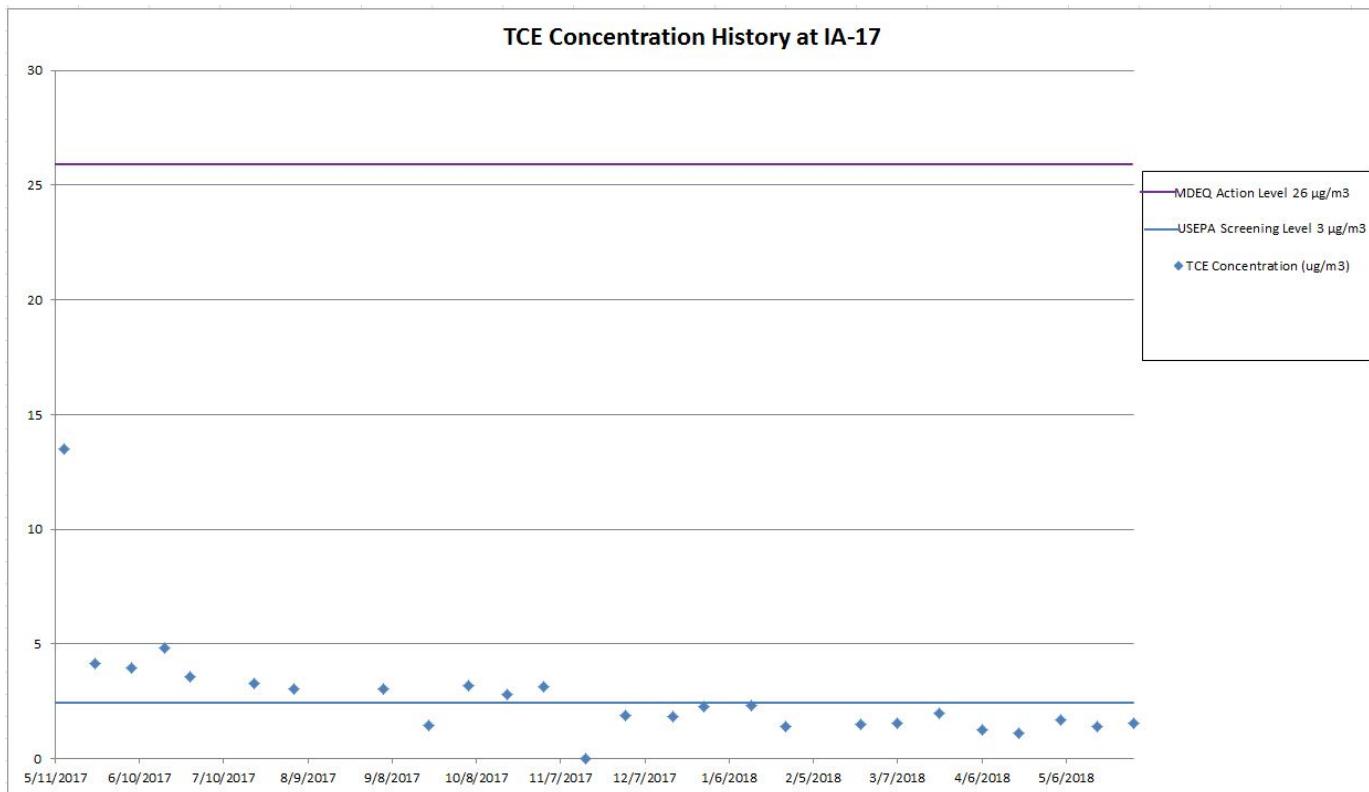
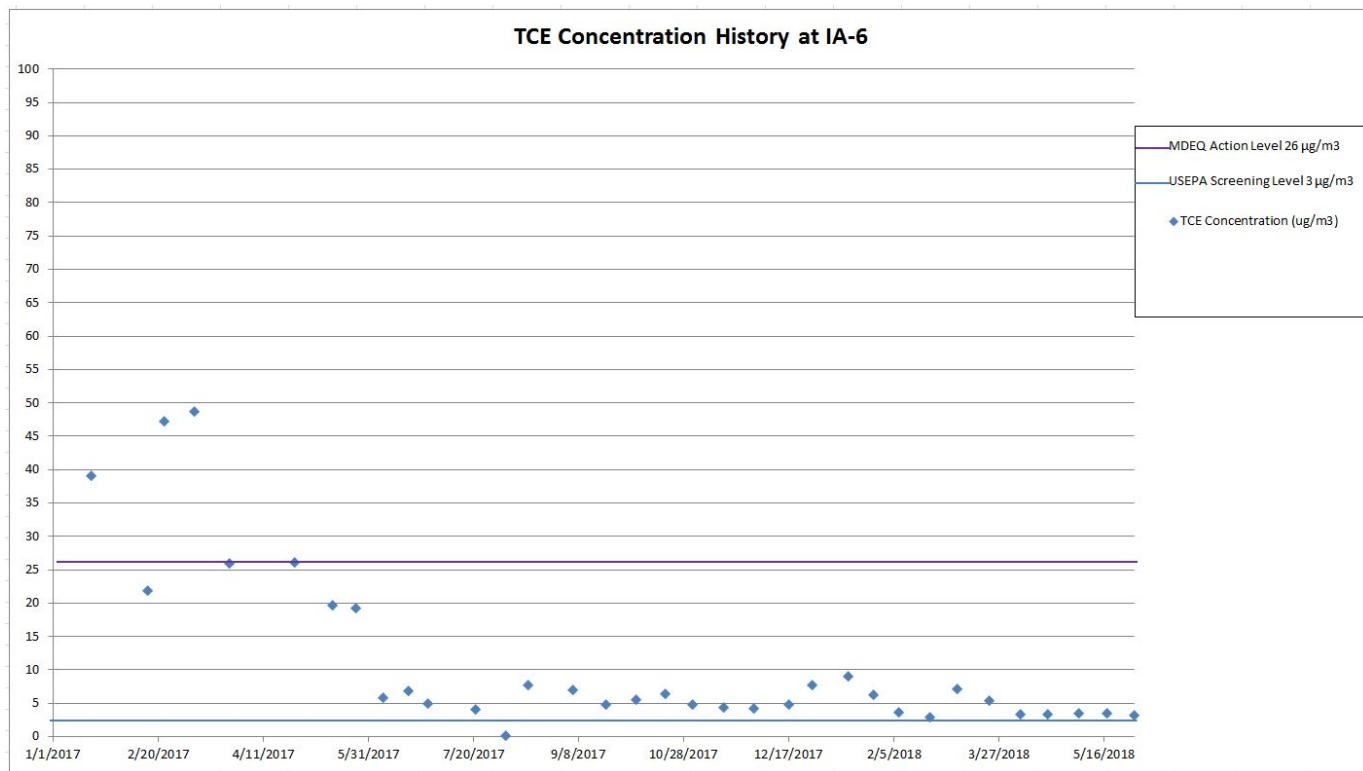
Table 1 presents the ambient and indoor air sampling results for all TO-15 analytes for the May 30-31, 2018 sampling event. Table 2 presents the results of TCE, cis-DCE, and VC in comparison to all previous rounds of sampling. A copy of the laboratory reports, including the chain-of-custody forms, is 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.

2.3.1 Interior Rooms

The sample results in the Cafeteria (1.56 µg/m³) and ATS Room (1.4 µg/m³) were below USEPA’s Vapor Intrusion Screening Level (“VISL”) for TCE of 3 µg/m³. The sample results in the Maintenance Room (3.61 µg/m³) and Training Room (3.06 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.





2.3.2 West, Center, and East areas of the Plant

The quarterly sample results in the west, center, and east areas of the Plant were non-detect for TCE.

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/m³ for TCE. Since February 2018, sample results for the Maintenance Room have also been below the MDEQ action level of 26 µg/m³. The quarterly sample results from the west, center, and east portions of the building were non-detect for TCE.

TABLES

TABLE 1
INDOOR AIR SAMPLING RESULTS
MAY30, 2018
FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY
WATER VALLEY, MS

SAMPLE LOCATION: SAMPING DATE: LABORATORY ID:	IA-1 05/30/2018 L998373-01	IA-2 05/30/2018 L998373-02	IA-6 05/30/2018 L998373-03	IA-17 05/30/2018 L998373-04	AA-2 05/30/2018 L998373-05	IA-C16 05/30/2018 L998373-06	IA-K13 05/30/2018 L998373-07	IA-G4 05/30/2018 L998373-08
Analyte	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
ACETONE	271	243	265	302	12.3	175	201	396
ALLYL CHLORIDE	<0.626	<0.626	<0.626	<0.626	<0.626	<0.626	<0.626	3.48
BENZENE	1.14	1.11	0.961	1.09	<0.639	1.05	3.01	1.54
BENZYL CHLORIDE	<1.04	<1.04	<1.04	<1.04	<1.04	<1.04	<1.04	<1.04
BROMODICHLOROMETHANE	<1.34	<1.34	<1.34	<1.34	<1.34	<1.34	<1.34	<1.34
BROMOFORM	<6.21	<6.21	<6.21	<6.21	<6.21	<6.21	<6.21	<6.21
BROMOMETHANE	<0.776	<0.776	<0.776	<0.776	<0.776	<0.776	<0.776	<0.776
1,3-BUTADIENE	<4.43	<4.43	<4.43	<4.43	<4.43	<4.43	<4.43	<4.43
CARBON DISULFIDE	0.653 (B)	0.682 (B)	<0.622	0.648 (B)	<0.622	<0.622	<0.622	0.916 (B)
CARBON TETRACHLORIDE	<1.26	<1.26	<1.26	<1.26	<1.26	<1.26	<1.26	<1.26
CHLOROBENZENE	<0.924	<0.924	<0.924	<0.924	<0.924	<0.924	<0.924	<0.924
CHLOROETHANE	<0.528	<0.528	<0.528	<0.528	<0.528	<0.528	<0.528	<0.528
CHLOROFORM	<0.973	<0.973	<0.973	<0.973	<0.973	<0.973	<0.973	<0.973
CHLOROMETHANE	1.36	1.29	1.36	1.36	1.2	1.28	1.24	1.32
2-CHLOROTOLUENE	<1.03	<1.03	<1.03	<1.03	<1.03	<1.03	1.22	<1.03
CYCLOHEXANE	37.8	24.8	33.1	33.5	<0.689	29.9	34.4	116
CHLORODIBROMOMETHANE	<1.70	<1.70	<1.70	<1.70	<1.70	<1.70	<1.70	<1.70
1,2-DIBROMOETHANE	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54
1,2-DICHLOROBENZENE	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20
1,3-DICHLOROBENZENE	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20
1,4-DICHLOROBENZENE	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20
1,2-DICHLOROETHANE	<0.810	<0.810	<0.810	<0.810	<0.810	<0.810	<0.810	<0.810
1,1-DICHLOROETHANE	<0.802	<0.802	<0.802	<0.802	<0.802	<0.802	<0.802	<0.802

TABLE 1
INDOOR AIR SAMPLING RESULTS
MAY30, 2018
FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY
WATER VALLEY, MS

SAMPLE LOCATION: SAMPING DATE: LABORATORY ID:	IA-1 05/30/2018 L998373-01	IA-2 05/30/2018 L998373-02	IA-6 05/30/2018 L998373-03	IA-17 05/30/2018 L998373-04	AA-2 05/30/2018 L998373-05	IA-C16 05/30/2018 L998373-06	IA-K13 05/30/2018 L998373-07	IA-G4 05/30/2018 L998373-08
Analyte	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
1,1-DICHLOROETHENE	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793
CIS-1,2-DICHLOROETHENE	<0.793	<0.793	2.25	<0.793	<0.793	<0.793	<0.793	<0.793
TRANS-1,2-DICHLOROETHENE	1.42	<0.793	6.24	2.8	<0.793	1.19	1.33	5.24
1,2-DICHLOROPROPANE	<0.924	<0.924	<0.924	<0.924	<0.924	<0.924	<0.924	<0.924
CIS-1,3-DICHLOROPROPENE	<0.908	<0.908	<0.908	<0.908	<0.908	<0.908	<0.908	<0.908
TRANS-1,3-DICHLOROPROPENE	<0.908	<0.908	<0.908	<0.908	<0.908	<0.908	<0.908	<0.908
1,4-DIOXANE	2.06	<0.721	<0.721	<0.721	<0.721	2.22	<0.721	<0.721
ETHANOL	3900	7,710 (E)	6,230 (E)	7,310 (E)	12.2	5,870 (E)	8,310 (E)	9,250 (E)
ETHYLBENZENE	2.52	2.27	1.79	1.92	<0.867	2.15	12.8	3.28
4-ETHYLtolUENE	1.62	1.59	1.17	<0.982	<0.982	<0.982	7.75	1.42
TRICHLOROFLUOROMETHANE	1.65	1.59	1.53	1.55	1.24	1.5	1.48	1.51
DICHLORODIFLUOROMETHANE	1.4	1.23	1.33	1.38	1.37	1.18	1.36	1.19
1,1,2-TRICHLOROTRIFLUOROETHANE	<1.53	<1.53	<1.53	<1.53	<1.53	<1.53	<1.53	<1.53
1,2-DICHLOROTETRAFLUOROETHANE	<1.40	<1.40	<1.40	<1.40	<1.40	<1.40	<1.40	8.09
HEPTANE	6.27	4.54	<0.818	<0.818	<0.818	4.75	5.93	12.9
HEXAChLORO-1,3-BUTADIENE	<6.73	<6.73	<6.73	<6.73	<6.73	<6.73	<6.73	<6.73
N-HEXANE	7.01	7.91	5.01	4.87	<0.705	4.6	6.34	8.47
ISOPROPYLBENZENE	<0.983	<0.983	<0.983	<0.983	<0.983	<0.983	<0.983	<0.983
METHYLENE CHLORIDE	<0.694	<0.694	<0.694	<0.694	<0.694	<0.694	<0.694	2.86
METHYL BUTYL KETONE	<5.11	<5.11	<5.11	<5.11	<5.11	<5.11	<5.11	<5.11
2-BUTANONE (MEK)	528	541	406	469	<3.69	329	416	697
4-METHYL-2-PENTANONE (MIBK)	<5.12	<5.12	<5.12	<5.12	<5.12	<5.12	<5.12	<5.12
METHYL METHACRYLATE	<0.819	<0.819	<0.819	<0.819	<0.819	<0.819	<0.819	<0.819
METHYL TERT-BUTYL ETHER	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721
NAPHTHALENE	<3.30	<3.30	<3.30	<3.30	<3.30	<3.30	<3.30	<3.30
2-PROPANOL	5,720 (E)	4,740 (E)	4,040 (E)	4,380 (E)	<3.07	3,660 (E)	4,940 (E)	6,540 (E)

TABLE 1
INDOOR AIR SAMPLING RESULTS
MAY30, 2018
FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY
WATER VALLEY, MS

SAMPLE LOCATION: SAMPING DATE: LABORATORY ID:	IA-1 05/30/2018 L998373-01	IA-2 05/30/2018 L998373-02	IA-6 05/30/2018 L998373-03	IA-17 05/30/2018 L998373-04	AA-2 05/30/2018 L998373-05	IA-C16 05/30/2018 L998373-06	IA-K13 05/30/2018 L998373-07	IA-G4 05/30/2018 L998373-08
Analyte	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
PROPENE	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689
STYRENE	<0.851	<0.851	1.01	0.985	<0.851	<0.851	<0.851	<0.851
1,1,2,2-TETRACHLOROETHANE	<1.37	<1.37	<1.37	<1.37	<1.37	<1.37	<1.37	<1.37
TETRACHLOROETHENE	<1.36	<1.36	<1.36	<1.36	<1.36	<1.36	<1.36	<1.36
TETRAHYDROFURAN	<0.590	<0.590	<0.590	<0.590	<0.590	<0.590	<0.590	<0.590
TOLUENE	3.69	2.64	2.6	2.44	<0.753	2.94	29.8	5.71
1,2,4-TRICHLOROBENZENE	<4.66	<4.66	<4.66	<4.66	<4.66	<4.66	<4.66	<4.66
1,1,1-TRICHLOROETHANE	<1.09	<1.09	<1.09	<1.09	<1.09	<1.09	<1.09	<1.09
1,1,2-TRICHLOROETHANE	<1.09	<1.09	<1.09	<1.09	<1.09	<1.09	<1.09	<1.09
TRICHLOROETHENE	3.61	1.4	3.06	1.56	<1.07	<1.07	<1.07	<1.07
1,2,4-TRIMETHYLBENZENE	1.45	4.24	3.29	3.78	<0.982	3.7	36.7	6.67
1,3,5-TRIMETHYLBENZENE	1.95	1.43	1.13	1.23	<0.982	1.27	8.5	2.21
2,2,4-TRIMETHYL PENTANE	<0.934	<0.934	<0.934	<0.934	<0.934	<0.934	<0.934	<0.934
VINYL CHLORIDE	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511
VINYL BROMIDE	<0.875	<0.875	<0.875	<0.875	<0.875	<0.875	<0.875	<0.875
VINYL ACETATE	<0.704	<0.704	<0.704	<0.704	<0.704	<0.704	<0.704	<0.704
M&P-XYLENE	10.8	8.35	6.44	6.82	<1.73	8.01	47.4	11.3
O-XYLENE	3.44	2.88	2.18	2.33	<0.867	2.73	22	4.23
1,4-BROMOFLUOROBENZENE	121 96.0 94.7	93.2 113	108 93.7	94.7 113	99.7	115 91.8	123 94.6	114 94.7

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

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

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	<0.051
	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
(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
	17-May-18	L995571-01	1.51	<0.793	<0.511
	30-May-18	L998373-01	3.61	<0.793	<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
IA-2 (2ND CANISTER)	9-Mar-17	L895061-04	438	88.7	1.68
	26-Mar-17	L898762-02	61.8	<0.793	<0.511
IA-2 (DUPLICATE)	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
	17-May-18	L995571-02	2.97	<0.793	<0.511
	30-May-18	L998373-02	1.4	<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
	17-May-18	L995571-03	3.3	<0.793	<0.511
	30-May-18	L998373-03	3.06	2.25	<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
	17-May-18	L995571-04	1.38	<0.793	<0.511
	30-May-18	L998373-04	1.56	<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 30-May-18	L905292-05 L912423-06 L914832-08 L917924-07 L920054-07 L924410-06 L927407-06 L930026-06 L934535-06 L954578-05 L976176-06 L998373-06	6.48 3.88 1.55 2 1.22 1.08 1.25 <1.07 <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 <0.793	<0.511 <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 30-May-18	L912423-11 L914832-02 L917924-02 L920054-02 L924410-09 L927407-11 L930026-11 L934535-11 L954578-07 L976176-08 L998373-08	<1.07 3.31 1.35 <1.07 <1.07 <1.07 <1.07 1.17 <1.07 <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
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 30-May-18	L905292-07 L912423-04 L914832-05 L917924-05 L920054-05 L924410-12 L927407-08 L930026-08 L934535-08 L954578-06 L976176-07 L998373-07	6.53 5.28 1.59 2.2 1.33 1.34 <1.07 <1.07 1.67 <1.07 <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 <0.793	<0.511 <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

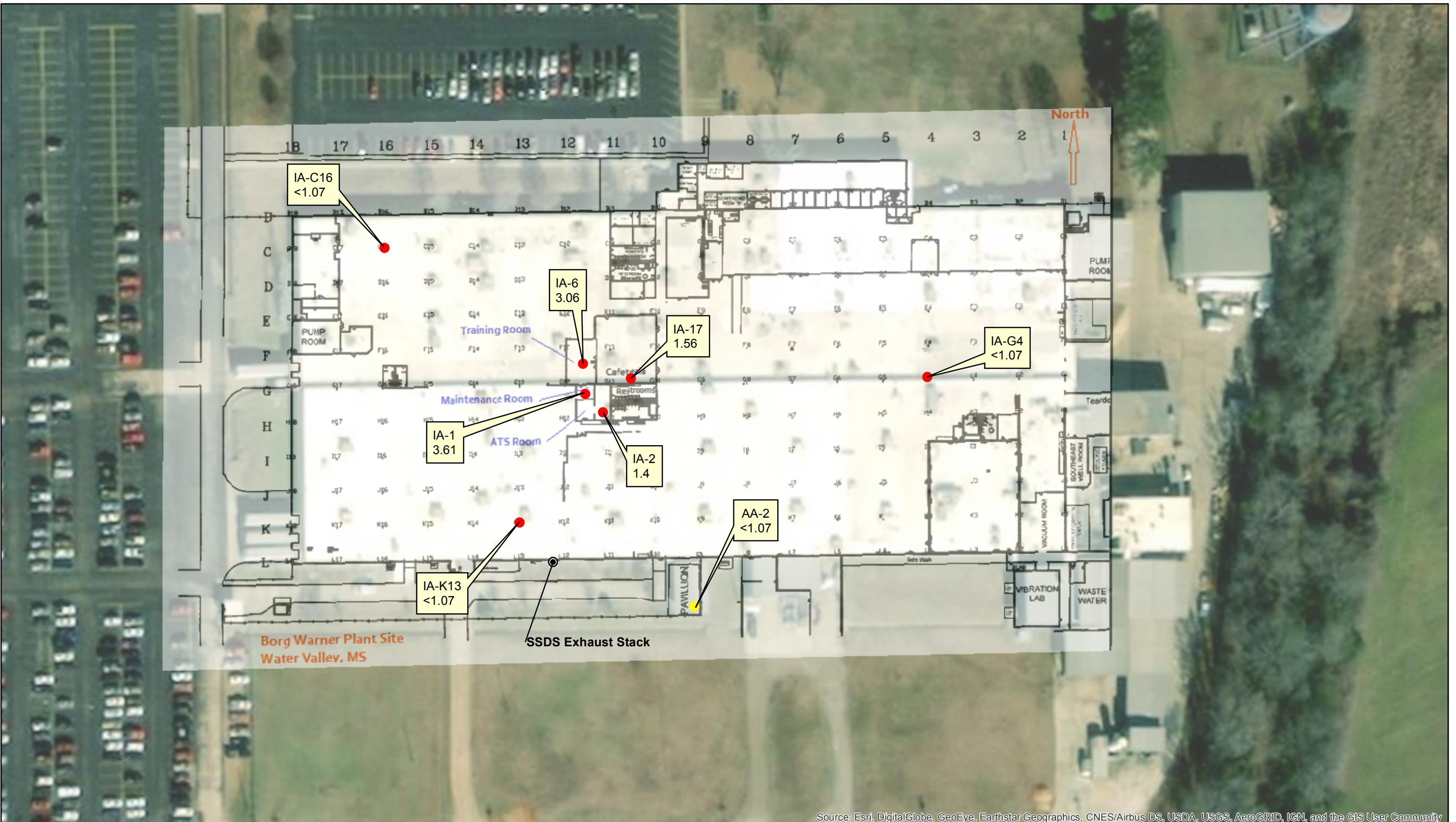
D: Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

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

FIGURES



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

Legend

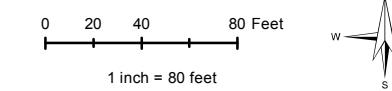
- IA-1: Indoor Air Concentrations in ug/m³
- AA-1: Ambient Air Concentrations in ug/m³
- SSDS Exhaust Stack

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 30, 2018

91 Fulton Street Boonton, New Jersey 07005	Revised LS	Drawn NMT	Checked NMT	Approved NMT	Date 6/13/2018
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APPENDIX A

June 08, 2018

First Environment, Inc.

Sample Delivery Group: L998373
Samples Received: 06/01/2018
Project Number: ENPRO002D-VM
Description: Butler Snow LLP
Site: BORG WARNER PLANT SITE
Report To: Michael T. Slack
91 Fulton Street
Boonton, NJ 07005

Entire Report Reviewed By:



Jason Romer
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.



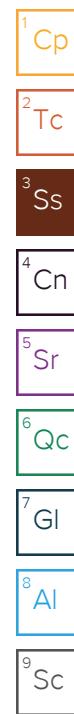
Cp: Cover Page	1	1 Cp
Tc: Table of Contents	2	2 Tc
Ss: Sample Summary	3	3 Ss
Cn: Case Narrative	5	4 Cn
Sr: Sample Results	6	5 Sr
IA-1 L998373-01	6	
IA-2 L998373-02	8	
IA-6 L998373-03	10	
IA-17 L998373-04	12	
AA-2 L998373-05	14	6 Qc
IA-C16 L998373-06	16	
IA-K13 L998373-07	18	7 GI
IA-G4 L998373-08	20	8 Al
Qc: Quality Control Summary	22	
Volatile Organic Compounds (MS) by Method TO-15	22	
Gl: Glossary of Terms	28	
Al: Accreditations & Locations	29	
Sc: Sample Chain of Custody	30	9 Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



			Collected by Micheal T. Slack	Collected date/time 05/30/18 13:20	Received date/time 06/01/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1119597	1	06/04/18 17:42	06/04/18 17:42	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1119946	25	06/05/18 17:59	06/05/18 17:59	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1120501	1000	06/06/18 13:58	06/06/18 13:58	AMC
IA-2 L998373-02 Air			Collected by Micheal T. Slack	Collected date/time 05/30/18 13:17	Received date/time 06/01/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1119597	1	06/04/18 18:27	06/04/18 18:27	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1119946	25	06/05/18 18:40	06/05/18 18:40	AMC
IA-6 L998373-03 Air			Collected by Micheal T. Slack	Collected date/time 05/30/18 13:15	Received date/time 06/01/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1119597	1	06/04/18 19:14	06/04/18 19:14	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1119946	25	06/05/18 19:21	06/05/18 19:21	AMC
IA-17 L998373-04 Air			Collected by Micheal T. Slack	Collected date/time 05/30/18 13:14	Received date/time 06/01/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1119597	1	06/04/18 19:59	06/04/18 19:59	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1119946	25	06/05/18 20:01	06/05/18 20:01	AMC
AA-2 L998373-05 Air			Collected by Micheal T. Slack	Collected date/time 05/30/18 13:09	Received date/time 06/01/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1119597	1	06/04/18 20:44	06/04/18 20:44	AMC
IA-C16 L998373-06 Air			Collected by Micheal T. Slack	Collected date/time 05/30/18 13:12	Received date/time 06/01/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1119597	1	06/04/18 21:30	06/04/18 21:30	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1119946	25	06/05/18 20:42	06/05/18 20:42	AMC
IA-K13 L998373-07 Air			Collected by Micheal T. Slack	Collected date/time 05/30/18 13:10	Received date/time 06/01/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1119597	1	06/04/18 22:16	06/04/18 22:16	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1119946	25	06/05/18 21:22	06/05/18 21:22	AMC



SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



IA-G4 L998373-08 Air

			Collected by Micheal T. Slack	Collected date/time 05/30/18 13:05	Received date/time 06/01/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1119597	1	06/04/18 23:03	06/04/18 23:03	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1119946	25	06/05/18 22:03	06/05/18 22:03	AMC

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



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.

Jason Romer
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	114	271		25	WG1119597
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1119597
Benzene	71-43-2	78.10	0.200	0.639	0.356	1.14		1	WG1119597
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1119597
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1119597
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1119597
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1119597
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1119597
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.210	0.653	B	1	WG1119597
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1119597
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1119597
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1119597
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1119597
Chloromethane	74-87-3	50.50	0.200	0.413	0.657	1.36		1	WG1119597
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1119597
Cyclohexane	110-82-7	84.20	0.200	0.689	11.0	37.8		1	WG1119597
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1119597
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1119597
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1119597
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1119597
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1119597
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1119597
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1119597
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1119597
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1119597
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.358	1.42		1	WG1119597
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1119597
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1119597
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1119597
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.572	2.06		1	WG1119597
Ethanol	64-17-5	46.10	630	1190	2070	3900		1000	WG1120501
Ethylbenzene	100-41-4	106	0.200	0.867	0.580	2.52		1	WG1119597
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.329	1.62		1	WG1119597
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.294	1.65		1	WG1119597
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.282	1.40		1	WG1119597
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1119597
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1119597
Heptane	142-82-5	100	0.200	0.818	1.53	6.27		1	WG1119597
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1119597
n-Hexane	110-54-3	86.20	0.200	0.705	1.99	7.01		1	WG1119597
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1119597
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1119597
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1119597
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	179	528		25	WG1119597
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1119597
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1119597
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1119597
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1119597
2-Propanol	67-63-0	60.10	31.2	76.7	2330	5720	E	25	WG1119597
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1119597
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1119597
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1119597
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1119597
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1119597
Toluene	108-88-3	92.10	0.200	0.753	0.980	3.69		1	WG1119597
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1119597



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	WG1119597
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1119597
Trichloroethylene	79-01-6	131	0.200	1.07	0.674	3.61		1	WG1119597
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.295	1.45		1	WG1119597
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.397	1.95		1	WG1119597
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1119597
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1119597
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1119597
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1119597
m&p-Xylene	1330-20-7	106	0.400	1.73	2.49	10.8		1	WG1119597
o-Xylene	95-47-6	106	0.200	0.867	0.794	3.44		1	WG1119597
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		121				WG1119597
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.0				WG1119946
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		94.7				WG1120501

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	102	243		25	WG1119597
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1119597
Benzene	71-43-2	78.10	0.200	0.639	0.346	1.11		1	WG1119597
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1119597
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1119597
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1119597
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1119597
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1119597
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.219	0.682	B	1	WG1119597
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1119597
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1119597
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1119597
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1119597
Chloromethane	74-87-3	50.50	0.200	0.413	0.622	1.29		1	WG1119597
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1119597
Cyclohexane	110-82-7	84.20	0.200	0.689	7.21	24.8		1	WG1119597
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1119597
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1119597
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1119597
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1119597
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1119597
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1119597
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1119597
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1119597
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1119597
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1119597
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1119597
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1119597
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1119597
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1119597
Ethanol	64-17-5	46.10	15.8	29.8	4090	7710	E	25	WG1119597
Ethylbenzene	100-41-4	106	0.200	0.867	0.523	2.27		1	WG1119597
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.324	1.59		1	WG1119597
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.283	1.59		1	WG1119597
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.249	1.23		1	WG1119597
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1119597
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1119597
Heptane	142-82-5	100	0.200	0.818	1.11	4.54		1	WG1119597
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1119597
n-Hexane	110-54-3	86.20	0.200	0.705	2.24	7.91		1	WG1119597
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1119597
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1119597
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1119597
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	183	541		25	WG1119597
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1119597
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1119597
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1119597
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1119597
2-Propanol	67-63-0	60.10	31.2	76.7	1930	4740	E	25	WG1119597
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1119597
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1119597
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1119597
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1119597
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1119597
Toluene	108-88-3	92.10	0.200	0.753	0.701	2.64		1	WG1119597
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1119597

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

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	WG1119597
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1119597
Trichloroethylene	79-01-6	131	0.200	1.07	0.262	1.40		1	WG1119597
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.864	4.24		1	WG1119597
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.292	1.43		1	WG1119597
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1119597
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1119597
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1119597
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1119597
m&p-Xylene	1330-20-7	106	0.400	1.73	1.93	8.35		1	WG1119597
o-Xylene	95-47-6	106	0.200	0.867	0.665	2.88		1	WG1119597
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		113				WG1119597
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		93.2				WG1119946

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	112	265		25	WG1119597
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1119597
Benzene	71-43-2	78.10	0.200	0.639	0.301	0.961		1	WG1119597
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1119597
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1119597
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1119597
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1119597
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1119597
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1119597
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1119597
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1119597
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1119597
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1119597
Chloromethane	74-87-3	50.50	0.200	0.413	0.657	1.36		1	WG1119597
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1119597
Cyclohexane	110-82-7	84.20	0.200	0.689	9.62	33.1		1	WG1119597
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1119597
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1119597
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1119597
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1119597
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1119597
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1119597
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1119597
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1119597
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	0.567	2.25		1	WG1119597
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	1.58	6.24		1	WG1119597
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1119597
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1119597
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1119597
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1119597
Ethanol	64-17-5	46.10	15.8	29.8	3310	6230	E	25	WG1119597
Ethylbenzene	100-41-4	106	0.200	0.867	0.414	1.79		1	WG1119597
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.238	1.17		1	WG1119597
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.273	1.53		1	WG1119597
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.268	1.33		1	WG1119597
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1119597
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1119597
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1119597
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1119597
n-Hexane	110-54-3	86.20	0.200	0.705	1.42	5.01		1	WG1119597
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1119597
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1119597
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1119597
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	138	406		25	WG1119597
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1119597
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1119597
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1119597
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1119597
2-Propanol	67-63-0	60.10	31.2	76.7	1640	4040	E	25	WG1119597
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1119597
Styrene	100-42-5	104	0.200	0.851	0.237	1.01		1	WG1119597
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1119597
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1119597
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1119597
Toluene	108-88-3	92.10	0.200	0.753	0.689	2.60		1	WG1119597
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1119597

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

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	WG1119597
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1119597
Trichloroethylene	79-01-6	131	0.200	1.07	0.571	3.06		1	WG1119597
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.671	3.29		1	WG1119597
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.229	1.13		1	WG1119597
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1119597
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1119597
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1119597
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1119597
m&p-Xylene	1330-20-7	106	0.400	1.73	1.49	6.44		1	WG1119597
o-Xylene	95-47-6	106	0.200	0.867	0.502	2.18		1	WG1119597
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		108				WG1119597
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		93.7				WG1119946

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	WG1119597
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1119597
Benzene	71-43-2	78.10	0.200	0.639	0.343	1.09		1	WG1119597
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1119597
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1119597
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1119597
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1119597
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1119597
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.208	0.648	B	1	WG1119597
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1119597
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1119597
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1119597
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1119597
Chloromethane	74-87-3	50.50	0.200	0.413	0.659	1.36		1	WG1119597
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1119597
Cyclohexane	110-82-7	84.20	0.200	0.689	9.72	33.5		1	WG1119597
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1119597
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1119597
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1119597
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1119597
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1119597
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1119597
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1119597
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1119597
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1119597
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.708	2.80		1	WG1119597
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1119597
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1119597
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1119597
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1119597
Ethanol	64-17-5	46.10	15.8	29.8	3880	7310	E	25	WG1119597
Ethylbenzene	100-41-4	106	0.200	0.867	0.442	1.92		1	WG1119597
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1119597
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.276	1.55		1	WG1119597
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.279	1.38		1	WG1119597
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1119597
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1119597
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1119597
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1119597
n-Hexane	110-54-3	86.20	0.200	0.705	1.38	4.87		1	WG1119597
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1119597
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1119597
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1119597
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	159	469		25	WG1119597
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1119597
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1119597
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1119597
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1119597
2-Propanol	67-63-0	60.10	31.2	76.7	1780	4380	E	25	WG1119597
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1119597
Styrene	100-42-5	104	0.200	0.851	0.232	0.985		1	WG1119597
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1119597
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1119597
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1119597
Toluene	108-88-3	92.10	0.200	0.753	0.648	2.44		1	WG1119597
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1119597

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

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>	1 Cp
			ppbv	ug/m3	ppbv	ug/m3				
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1119597	2 Tc
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1119597	3 Ss
Trichloroethylene	79-01-6	131	0.200	1.07	0.292	1.56		1	WG1119597	4 Cn
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.770	3.78		1	WG1119597	5 Sr
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.250	1.23		1	WG1119597	6 Qc
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1119597	7 GI
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1119597	8 Al
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1119597	9 Sc
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1119597	
m&p-Xylene	1330-20-7	106	0.400	1.73	1.57	6.82		1	WG1119597	
o-Xylene	95-47-6	106	0.200	0.867	0.537	2.33		1	WG1119597	
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		113				WG1119597	
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		94.7				WG1119946	



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	5.18	12.3	1	WG1119597	1 Cp
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND	1	WG1119597	2 Tc
Benzene	71-43-2	78.10	0.200	0.639	ND	ND	1	WG1119597	3 Ss
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND	1	WG1119597	4 Cn
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND	1	WG1119597	5 Sr
Bromoform	75-25-2	253	0.600	6.21	ND	ND	1	WG1119597	6 Qc
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND	1	WG1119597	7 GI
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND	1	WG1119597	8 Al
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND	1	WG1119597	9 Sc
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND	1	WG1119597	
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND	1	WG1119597	
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND	1	WG1119597	
Chloroform	67-66-3	119	0.200	0.973	ND	ND	1	WG1119597	
Chloromethane	74-87-3	50.50	0.200	0.413	0.580	1.20	1	WG1119597	
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND	1	WG1119597	
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND	1	WG1119597	
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND	1	WG1119597	
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND	1	WG1119597	
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND	1	WG1119597	
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND	1	WG1119597	
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND	1	WG1119597	
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND	1	WG1119597	
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND	1	WG1119597	
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND	1	WG1119597	
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND	1	WG1119597	
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND	1	WG1119597	
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND	1	WG1119597	
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND	1	WG1119597	
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND	1	WG1119597	
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND	1	WG1119597	
Ethanol	64-17-5	46.10	0.630	1.19	6.47	12.2	1	WG1119597	
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND	1	WG1119597	
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND	1	WG1119597	
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.220	1.24	1	WG1119597	
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.277	1.37	1	WG1119597	
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND	1	WG1119597	
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND	1	WG1119597	
Heptane	142-82-5	100	0.200	0.818	ND	ND	1	WG1119597	
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND	1	WG1119597	
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND	1	WG1119597	
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND	1	WG1119597	
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND	1	WG1119597	
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND	1	WG1119597	
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND	1	WG1119597	
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND	1	WG1119597	
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND	1	WG1119597	
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND	1	WG1119597	
Naphthalene	91-20-3	128	0.630	3.30	ND	ND	1	WG1119597	
2-Propanol	67-63-0	60.10	1.25	3.07	ND	ND	1	WG1119597	
Propene	115-07-1	42.10	0.400	0.689	ND	ND	1	WG1119597	
Styrene	100-42-5	104	0.200	0.851	ND	ND	1	WG1119597	
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND	1	WG1119597	
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND	1	WG1119597	
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND	1	WG1119597	
Toluene	108-88-3	92.10	0.200	0.753	ND	ND	1	WG1119597	
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND	1	WG1119597	

AA-2

Collected date/time: 05/30/18 13:09

SAMPLE RESULTS - 05

L998373

ONE LAB. NATIONWIDE.



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	WG1119597
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1119597
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1119597
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1119597
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1119597
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1119597
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1119597
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1119597
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1119597
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1119597
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1119597
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.7				WG1119597

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	73.7	175		25	WG1119597
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1119597
Benzene	71-43-2	78.10	0.200	0.639	0.327	1.05		1	WG1119597
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1119597
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1119597
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1119597
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1119597
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1119597
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1119597
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1119597
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1119597
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1119597
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1119597
Chloromethane	74-87-3	50.50	0.200	0.413	0.620	1.28		1	WG1119597
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1119597
Cyclohexane	110-82-7	84.20	0.200	0.689	8.68	29.9		1	WG1119597
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1119597
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1119597
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1119597
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1119597
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1119597
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1119597
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1119597
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1119597
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1119597
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.299	1.19		1	WG1119597
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1119597
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1119597
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1119597
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.617	2.22		1	WG1119597
Ethanol	64-17-5	46.10	15.8	29.8	3110	5870	E	25	WG1119597
Ethylbenzene	100-41-4	106	0.200	0.867	0.496	2.15		1	WG1119597
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1119597
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.266	1.50		1	WG1119597
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.239	1.18		1	WG1119597
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1119597
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1119597
Heptane	142-82-5	100	0.200	0.818	1.16	4.75		1	WG1119597
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1119597
n-Hexane	110-54-3	86.20	0.200	0.705	1.31	4.60		1	WG1119597
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1119597
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1119597
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1119597
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	112	329		25	WG1119597
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1119597
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1119597
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1119597
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1119597
2-Propanol	67-63-0	60.10	31.2	76.7	1490	3660	E	25	WG1119597
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1119597
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1119597
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1119597
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1119597
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1119597
Toluene	108-88-3	92.10	0.200	0.753	0.779	2.94		1	WG1119597
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1119597

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

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	WG1119597
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1119597
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1119597
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.755	3.70		1	WG1119597
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.258	1.27		1	WG1119597
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1119597
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1119597
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1119597
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1119597
m&p-Xylene	1330-20-7	106	0.400	1.73	1.85	8.01		1	WG1119597
o-Xylene	95-47-6	106	0.200	0.867	0.630	2.73		1	WG1119597
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		115				WG1119597
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		91.8				WG1119946

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	84.6	201		25	WG1119597
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1119597
Benzene	71-43-2	78.10	0.200	0.639	0.941	3.01		1	WG1119597
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1119597
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1119597
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1119597
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1119597
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1119597
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1119597
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1119597
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1119597
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1119597
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1119597
Chloromethane	74-87-3	50.50	0.200	0.413	0.601	1.24		1	WG1119597
2-Chlorotoluene	95-49-8	126	0.200	1.03	0.237	1.22		1	WG1119597
Cyclohexane	110-82-7	84.20	0.200	0.689	10.0	34.4		1	WG1119597
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1119597
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1119597
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1119597
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1119597
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1119597
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1119597
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1119597
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1119597
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1119597
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.336	1.33		1	WG1119597
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1119597
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1119597
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1119597
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1119597
Ethanol	64-17-5	46.10	15.8	29.8	4410	8310	E	25	WG1119597
Ethylbenzene	100-41-4	106	0.200	0.867	2.95	12.8		1	WG1119597
4-Ethyltoluene	622-96-8	120	0.200	0.982	1.58	7.75		1	WG1119597
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.263	1.48		1	WG1119597
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.274	1.36		1	WG1119597
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1119597
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1119597
Heptane	142-82-5	100	0.200	0.818	1.45	5.93		1	WG1119597
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1119597
n-Hexane	110-54-3	86.20	0.200	0.705	1.80	6.34		1	WG1119597
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1119597
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1119597
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1119597
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	141	416		25	WG1119597
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1119597
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1119597
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1119597
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1119597
2-Propanol	67-63-0	60.10	31.2	76.7	2010	4940	E	25	WG1119597
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1119597
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1119597
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1119597
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1119597
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1119597
Toluene	108-88-3	92.10	0.200	0.753	7.91	29.8		1	WG1119597
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1119597

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

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	WG1119597
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1119597
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1119597
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	7.49	36.7		1	WG1119597
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	1.73	8.50		1	WG1119597
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1119597
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1119597
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1119597
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1119597
m&p-Xylene	1330-20-7	106	0.400	1.73	10.9	47.4		1	WG1119597
o-Xylene	95-47-6	106	0.200	0.867	5.07	22.0		1	WG1119597
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		123				WG1119597
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		94.6				WG1119946

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	167	396		25	WG1119597
Allyl chloride	107-05-1	76.53	0.200	0.626	1.11	3.48		1	WG1119597
Benzene	71-43-2	78.10	0.200	0.639	0.482	1.54		1	WG1119597
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1119597
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1119597
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1119597
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1119597
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1119597
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.294	0.916	B	1	WG1119597
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1119597
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1119597
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1119597
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1119597
Chloromethane	74-87-3	50.50	0.200	0.413	0.638	1.32		1	WG1119597
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1119597
Cyclohexane	110-82-7	84.20	0.200	0.689	33.7	116		1	WG1119597
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1119597
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1119597
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1119597
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1119597
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1119597
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1119597
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1119597
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1119597
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1119597
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	1.32	5.24		1	WG1119597
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1119597
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1119597
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1119597
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1119597
Ethanol	64-17-5	46.10	15.8	29.8	4900	9250	E	25	WG1119597
Ethylbenzene	100-41-4	106	0.200	0.867	0.757	3.28		1	WG1119597
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.290	1.42		1	WG1119597
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.269	1.51		1	WG1119597
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.240	1.19		1	WG1119597
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1119597
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	1.16	8.09		1	WG1119597
Heptane	142-82-5	100	0.200	0.818	3.15	12.9		1	WG1119597
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1119597
n-Hexane	110-54-3	86.20	0.200	0.705	2.40	8.47		1	WG1119597
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1119597
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.823	2.86		1	WG1119597
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1119597
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	236	697		25	WG1119597
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1119597
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1119597
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1119597
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1119597
2-Propanol	67-63-0	60.10	31.2	76.7	2660	6540	E	25	WG1119597
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1119597
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1119597
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1119597
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1119597
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1119597
Toluene	108-88-3	92.10	0.200	0.753	1.51	5.71		1	WG1119597
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1119597

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

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>	1 Cp
			ppbv	ug/m3	ppbv	ug/m3				
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1119597	2 Tc
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1119597	3 Ss
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1119597	4 Cn
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.36	6.67		1	WG1119597	5 Sr
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.451	2.21		1	WG1119597	6 Qc
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1119597	7 GI
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1119597	8 Al
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1119597	9 Sc
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1119597	
m&p-Xylene	1330-20-7	106	0.400	1.73	2.61	11.3		1	WG1119597	
o-Xylene	95-47-6	106	0.200	0.867	0.975	4.23		1	WG1119597	
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		114				WG1119597	
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		94.7				WG1119946	

L998373-01,02,03,04,05,06,07,08

Method Blank (MB)

(MB) R3315168-3 06/04/18 10:36

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	1 ¹ Cp
Acetone	U		0.0569	1.25	
Allyl Chloride	U		0.0546	0.200	
Benzene	U		0.0460	0.200	
Benzyl Chloride	U		0.0598	0.200	
Bromodichloromethane	U		0.0436	0.200	
Bromoform	U		0.0786	0.600	
Bromomethane	U		0.0609	0.200	
1,3-Butadiene	U		0.0563	2.00	
Carbon disulfide	0.115	J	0.0544	0.200	
Carbon tetrachloride	U		0.0585	0.200	
Chlorobenzene	U		0.0601	0.200	
Chloroethane	U		0.0489	0.200	
Chloroform	U		0.0574	0.200	
Chloromethane	U		0.0544	0.200	
2-Chlorotoluene	U		0.0605	0.200	
Cyclohexane	U		0.0534	0.200	
Dibromochloromethane	U		0.0494	0.200	
1,2-Dibromoethane	U		0.0185	0.200	
1,2-Dichlorobenzene	U		0.0603	0.200	
1,3-Dichlorobenzene	U		0.0597	0.200	
1,4-Dichlorobenzene	U		0.0557	0.200	
1,2-Dichloroethane	U		0.0616	0.200	
1,1-Dichloroethane	U		0.0514	0.200	
1,1-Dichloroethene	U		0.0490	0.200	
cis-1,2-Dichloroethene	U		0.0389	0.200	
trans-1,2-Dichloroethene	U		0.0464	0.200	
1,2-Dichloropropane	U		0.0599	0.200	
cis-1,3-Dichloropropene	U		0.0588	0.200	
trans-1,3-Dichloropropene	U		0.0435	0.200	
1,4-Dioxane	U		0.0554	0.200	
Ethylbenzene	U		0.0506	0.200	
4-Ethyltoluene	U		0.0666	0.200	
Trichlorofluoromethane	U		0.0673	0.200	
Dichlorodifluoromethane	U		0.0601	0.200	
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.200	
1,2-Dichlorotetrafluoroethane	U		0.0458	0.200	
Heptane	U		0.0626	0.200	
Hexachloro-1,3-butadiene	0.185	J	0.0656	0.630	
n-Hexane	U		0.0457	0.200	
Isopropylbenzene	U		0.0563	0.200	

L998373-01,02,03,04,05,06,07,08

Method Blank (MB)

(MB) R3315168-3 06/04/18 10:36

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv										
Methylene Chloride	U		0.0465	0.200										
Methyl Butyl Ketone	U		0.0682	1.25										
2-Butanone (MEK)	U		0.0493	1.25										
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25										
Methyl Methacrylate	U		0.0773	0.200										
MTBE	U		0.0505	0.200										
Naphthalene	U		0.154	0.630										
2-Propanol	U		0.0882	1.25										
Propene	0.113	J	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	92.0			60.0-140										

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3315168-1 06/04/18 09:08 • (LCSD) R3315168-2 06/04/18 09:51

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	3.88	3.63	103	96.7	52.0-158			6.75	25
Propene	3.75	4.00	3.86	107	103	54.0-155			3.48	25
Dichlorodifluoromethane	3.75	3.89	3.93	104	105	69.0-143			1.11	25
1,2-Dichlorotetrafluoroethane	3.75	4.07	4.07	109	108	70.0-130			0.134	25
Chloromethane	3.75	3.95	3.92	105	104	70.0-130			0.924	25



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

(LCS) R3315168-1 06/04/18 09:08 • (LCSD) R3315168-2 06/04/18 09:51

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	3.87	3.79	103	101	70.0-130			2.01	25
1,3-Butadiene	3.75	3.85	3.69	103	98.4	70.0-130			4.36	25
Bromomethane	3.75	3.97	3.95	106	105	70.0-130			0.614	25
Chloroethane	3.75	4.06	4.04	108	108	70.0-130			0.299	25
Trichlorofluoromethane	3.75	3.99	4.05	106	108	70.0-130			1.67	25
1,1,2-Trichlorotrifluoroethane	3.75	3.99	4.04	106	108	70.0-130			1.28	25
1,1-Dichloroethene	3.75	4.01	3.99	107	106	70.0-130			0.416	25
1,1-Dichloroethane	3.75	3.99	3.99	106	106	70.0-130			0.0669	25
Acetone	3.75	4.00	3.92	107	104	70.0-130			2.10	25
2-Propanol	3.75	4.16	4.02	111	107	66.0-150			3.46	25
Carbon disulfide	3.75	4.08	4.07	109	109	70.0-130			0.284	25
Methylene Chloride	3.75	3.83	3.79	102	101	70.0-130			1.05	25
MTBE	3.75	4.01	4.08	107	109	70.0-130			1.87	25
trans-1,2-Dichloroethene	3.75	4.04	4.09	108	109	70.0-130			1.17	25
n-Hexane	3.75	4.04	4.09	108	109	70.0-130			1.14	25
Vinyl acetate	3.75	4.18	4.07	111	109	70.0-130			2.54	25
Methyl Ethyl Ketone	3.75	4.11	4.17	110	111	70.0-130			1.28	25
cis-1,2-Dichloroethene	3.75	4.10	4.10	109	109	70.0-130			0.0138	25
Chloroform	3.75	3.98	4.05	106	108	70.0-130			1.70	25
Cyclohexane	3.75	4.03	4.13	107	110	70.0-130			2.45	25
1,1,1-Trichloroethane	3.75	4.02	4.09	107	109	70.0-130			1.73	25
Carbon tetrachloride	3.75	4.02	4.04	107	108	70.0-130			0.647	25
Benzene	3.75	4.12	4.08	110	109	70.0-130			1.05	25
1,2-Dichloroethane	3.75	3.95	3.98	105	106	70.0-130			0.640	25
Heptane	3.75	4.05	4.06	108	108	70.0-130			0.373	25
Trichloroethylene	3.75	4.06	4.12	108	110	70.0-130			1.47	25
1,2-Dichloropropane	3.75	4.00	4.08	107	109	70.0-130			1.98	25
1,4-Dioxane	3.75	4.19	4.29	112	114	70.0-152			2.50	25
Bromodichloromethane	3.75	4.08	4.09	109	109	70.0-130			0.338	25
cis-1,3-Dichloropropene	3.75	4.24	4.24	113	113	70.0-130			0.00527	25
4-Methyl-2-pentanone (MIBK)	3.75	4.11	4.12	110	110	70.0-142			0.0754	25
Toluene	3.75	4.16	4.16	111	111	70.0-130			0.0686	25
trans-1,3-Dichloropropene	3.75	4.17	4.18	111	111	70.0-130			0.175	25
1,1,2-Trichloroethane	3.75	4.07	4.06	108	108	70.0-130			0.214	25
Tetrachloroethylene	3.75	4.17	4.24	111	113	70.0-130			1.72	25
Methyl Butyl Ketone	3.75	4.11	4.06	110	108	70.0-150			1.32	25
Dibromochloromethane	3.75	4.20	4.23	112	113	70.0-130			0.872	25
1,2-Dibromoethane	3.75	4.20	4.21	112	112	70.0-130			0.314	25
Chlorobenzene	3.75	4.13	4.06	110	108	70.0-130			1.80	25
Ethylbenzene	3.75	4.19	4.25	112	113	70.0-130			1.36	25

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L998373-01,02,03,04,05,06,07,08

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

(LCS) R3315168-1 06/04/18 09:08 • (LCSD) R3315168-2 06/04/18 09:51

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	8.40	8.68	112	116	70.0-130			3.28	25
o-Xylene	3.75	4.13	4.23	110	113	70.0-130			2.55	25
Styrene	3.75	4.35	4.44	116	118	70.0-130			1.99	25
Bromoform	3.75	4.42	4.51	118	120	70.0-130			1.95	25
1,1,2,2-Tetrachloroethane	3.75	4.14	4.16	110	111	70.0-130			0.531	25
4-Ethyltoluene	3.75	4.27	4.30	114	115	70.0-130			0.814	25
1,3,5-Trimethylbenzene	3.75	4.23	4.26	113	114	70.0-130			0.806	25
1,2,4-Trimethylbenzene	3.75	4.19	4.27	112	114	70.0-130			1.71	25
1,3-Dichlorobenzene	3.75	4.43	4.52	118	120	70.0-130			1.90	25
1,4-Dichlorobenzene	3.75	4.64	4.68	124	125	70.0-130			0.704	25
Benzyl Chloride	3.75	4.63	4.79	124	128	70.0-144			3.35	25
1,2-Dichlorobenzene	3.75	4.36	4.41	116	118	70.0-130			1.13	25
1,2,4-Trichlorobenzene	3.75	5.59	5.51	149	147	70.0-155			1.45	25
Hexachloro-1,3-butadiene	3.75	4.58	4.53	122	121	70.0-145			1.13	25
Naphthalene	3.75	5.43	5.50	145	147	70.0-155			1.30	25
Allyl Chloride	3.75	4.07	4.03	109	108	70.0-130			0.941	25
2-Chlorotoluene	3.75	4.30	4.35	115	116	70.0-130			1.11	25
Methyl Methacrylate	3.75	4.09	4.12	109	110	70.0-130			0.661	25
Tetrahydrofuran	3.75	4.03	4.04	108	108	70.0-140			0.291	25
2,2,4-Trimethylpentane	3.75	4.01	4.07	107	109	70.0-130			1.40	25
Vinyl Bromide	3.75	3.99	4.06	107	108	70.0-130			1.64	25
Isopropylbenzene	3.75	4.12	4.21	110	112	70.0-130			1.98	25
(S) 1,4-Bromofluorobenzene				102	104	60.0-140				

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

L998373-01,02,03,04,06,07,08

Method Blank (MB)

(MB) R3315670-3 06/05/18 10:13

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	U		0.0882	1.25
Ethanol	U		0.0832	0.630
(S) 1,4-Bromofluorobenzene	93.1			60.0-140

¹Cp²Tc³Ss⁴Cn⁵Sr

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

(LCS) R3315670-1 06/05/18 08:45 • (LCSD) R3315670-2 06/05/18 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	3.54	3.44	94.3	91.9	52.0-158			2.65	25
Acetone	3.75	3.64	3.68	97.1	98.1	70.0-130			0.981	25
2-Propanol	3.75	3.91	3.91	104	104	66.0-150			0.0397	25
Methyl Ethyl Ketone	3.75	4.12	4.19	110	112	70.0-130			1.52	25
(S) 1,4-Bromofluorobenzene			98.9	101		60.0-140				

⁶Qc⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3316041-3 06/06/18 10:26

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv
Ethanol	U		0.0832	0.630
(S) 1,4-Bromofluorobenzene	93.4			60.0-140

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3316041-1 06/06/18 08:57 • (LCSD) R3316041-2 06/06/18 09:41

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	3.52	3.38	93.8	90.2	52.0-158			3.91	25
(S) 1,4-Bromofluorobenzene				99.6	98.6	60.0-140				



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

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).
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

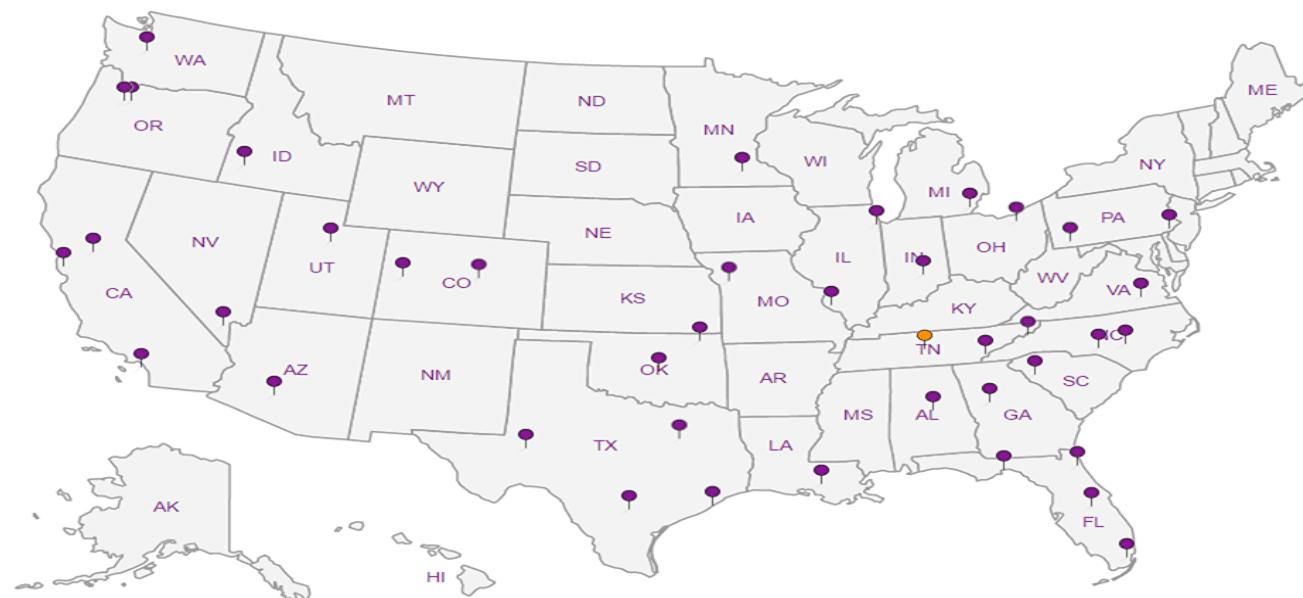
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 ⁵	1461.02
Canada	1461.01
EPA-Crypto	TN00003

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

Company Name/Address:

First Environment, Inc.91 Fulton St.
Boonton, NJ 07005

Billing Information:

First Environment, Inc.
91 Fulton St.
Boonton NJ 07005
Attn: Justin Picolo
JPicolo@firstenvironment.com

Report to:

Michael T. Slack - First Environment

Project:

EnPro: Quarterly - 24-hr Indoor Air Sampling

Phone: 973-334-0003

Fax: 973-334-0928

Client Project #

EnPro002D-VM

Email To:

MSlack@firstenvironment.com

Description:

City/State
Collected: **Water Valley, MS (Borg Warner Plant Site)**

Phone: 973-334-0003

Fax: 973-334-0928

Lab Project #

FIREN VBNJ-OxfordMS

Collected by (print):

Michael T. Slack

Site/Facility ID #

Borg Warner Plant Site

P.O. #

Collected by (signature):

*Michael T. Slack***Rush?** (Lab MUST Be Notified)

Same Day 200%
 Next Day 100%
 Two Day 50%
 Three Day 25%

Date Results Needed

Standard TurnaroundEmail? No Yes
FAX? No Yes

Canister Pressure/Vacuum

Sample ID	Sample Description	Can #	Date	Time	Initial	Final	X TO-15 Summa	Rem./Contaminant	Sample # (lab only)
IA-1	Maintenance Room	66013	5/30/2018	13:20	30	9	X		61
IA-2	ATS Room	6842	5/30/2018	13:17	30	1	X		8
IA-6	Training Room	6621	5/30/2018	13:15	30	6	X		23
IA-17	Cafeteria	5746	5/30/2018	13:14	30	3	X		04
AA-2	Ambient Air - Pavilion	5132	5/30/2018	13:09	29	1	X		05
IA-C16	Column C16-West Side of Plant	5057	5/30/2018	13:12	30	5	X		06
IA-K13	Column K13-Central part of Plant	8963	5/30/2018	13:10	30	3	X		9
IA-G4	Column G4-East side of Plant	6900	5/30/2018	13:05	29	7	X		00

4361 6935 8490

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

Relinquished by : (Signature)

MTS

Date:

5/31/18

Time:

16:50

Received by: (Signature)

*Eric H*Samples returned via: UPS FedEx Courier

Relinquished by : (Signature)

MTS

Date:

Time:

Received by: (Signature)

Temp: °C Bottles Received:

Amb 8

Relinquished by : (Signature)

MTS

Date:

Time:

Received for lab by: (Signature)

Eric H

Date:

6/1/18

Time:

0645

Hold #

Condition: (lab use only) *✓*COC Seal Intact: Y N NApH Checked: *✓*NCF: *✓*12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859L# *598373*
Tabl *M017*Acctnum:
Template:
Prelogin:
TSR:
PB:

Shipped Via:

Rem./Contaminant

Sample # (lab only)

Indoor Air Monitoring (Bi-Weekly Sampling)

Borg Warner Facility

Water Valley, Yalobusha Co., MS

May 30-31, 2018

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

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	6613	6	5/30/2018 13:20	30	5/31/18 13:25	9	M. Slack
IA-2	ATS Room	B425	6842	6	5/30/2018 13:17	30	5/31/18 12:55	1	M. Slack
IA-6	Training Room	6049	6621	6	5/30/2018 13:15	30	5/31/18 13:34	6	M. Slack
IA-17	Cafeteria	6003	5746	6	5/30/2018 13:14	30	5/31/18 13:35	3	M. Slack
IA-C16	I-Beam C16	6506	5057	6	5/30/18 13:12	30	5/31/18 13:20	5	M. Slack
IA-K13	I-Beam K13	7092	B963	6	5/30/18 13:10	30	5/31/18 13:18	3	M. Slack
IA-G4	I-Beam G4	5888	6900	6	5/30/18 13:05	29	5/31/18 13:10	7	M. Slack
AA-2	Pavilion	7427	5132	6	5/30/2018 13:09	29	5/31/18 12:50	1	M. Slack

Weather Conditions (@ time of canister placement):

WINDY, OVERCAST - 10-15 mph - SW WINDS
90°F

Michael T. Slack (First Environment)

Weather Conditions during 24-hr sampling period:

WINDY, HUMID 80°s-Low 90s F - 10-15 S WINDS

MTRY 5/31/18

NS - Not Sampled

Invo: FIRENVBNJ-OXFOR Date : 10May18
 Customer : P653209 Weight : 10 LBS
 Phone : (615)758-5858 COD :
 SAT Del : N DV : 0.00 Total : 0.00

Svc: STANDARD OVERNIGHT
 TRCK: 4361 6935 8490

Invo: FIRENVBNJ-OXFOR Date : 10May18
 Customer : P653209 Weight : 10 LBS
 Phone : (615)758-5858 COD :
 SAT Del : N DV : 0.00 Total : 0.00

Svc: STANDARD OVERNIGHT
 TRCK: 4361 6935 8505

ESC LAB SCIENCES
Cooler Receipt Form

Client:	FIREN & BNU	SDG#	998373
Cooler Received/Opened On:	6/ 1 /18	Temperature:	Amb
Received By:	Eric Struck		
Signature:	Eric Struck		
Receipt Check List	NP	Yes	No
COC Signed / Accurate?	/	/	/
Bottles arrive intact?	/	/	/
Correct bottles used?	/	/	/
Sufficient volume sent?	/	/	/
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			