

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



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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

Mississippi Professional
Engineer No.

08/07/2017

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 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 a SSDS Progress Report on the June 19-20, 2017 ambient and indoor air sampling results and the installation of extraction point (“EP”) #3. On July 17, 2017 First Environment submitted a SSDS Progress Report on the June 28-29, 2017 ambient and indoor air sampling results. On July 21-22, 2017, First Environment collected another round of ambient and indoor air samples. As discussed in more detail below, all sampling results for TCE were below the MDEQ action level of 26 µg/m³.

2.0 Indoor Air Monitoring – July 21-21, 2017

2.1 Instrumentation

On July 21-22, 2017, 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

First Environment collected 12 indoor air samples at various locations within the Plant, including the Maintenance Room, the ATS Room, and the Training Room; 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.

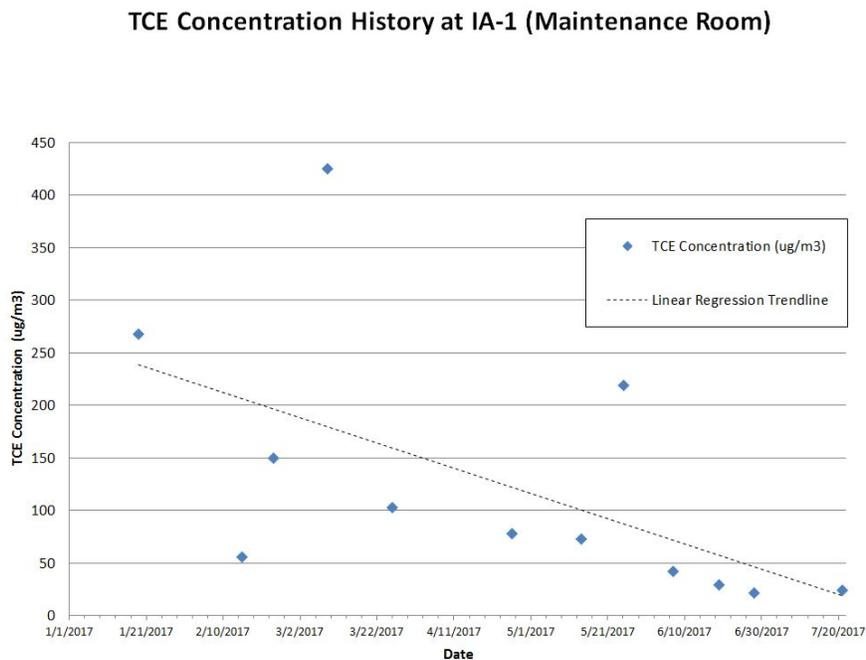
The sampling requires the Summa® canisters to be left in place for 24 hours and they are monitored by Plant security for that period of time. First Environment personnel, Borg Warner representatives, and Plant employees had access to the Summa® canisters during the 24-hour sampling period.

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

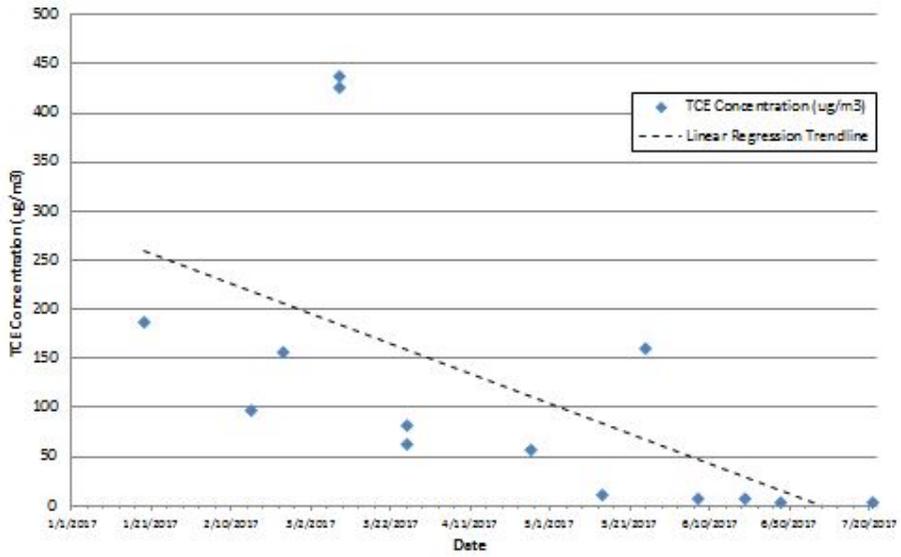
2.3 Results

Table 1 presents the ambient and indoor air sampling results for all TO-15 analytes. Table 2 presents the results of TCE, cis-DCE, and VC in comparison of all previous rounds of sampling.

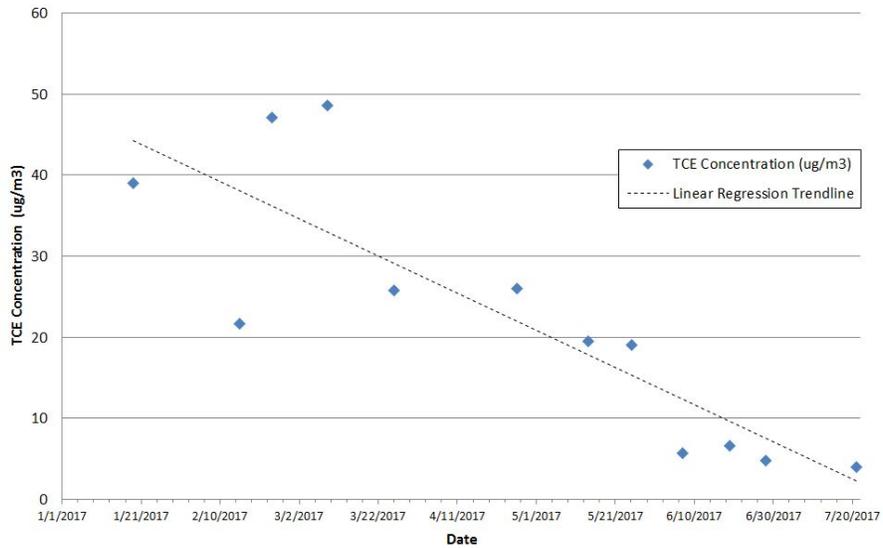
The sample results in the Maintenance Room, ATS Room, Training Room, and Cafeteria were above USEPA's Vapor Intrusion Screening Level ("VISL") for TCE of $3 \mu\text{g}/\text{m}^3$ but below the MDEQ action level of $26 \mu\text{g}/\text{m}^3$. The remaining sample results were below USEPA's VISL. As shown in the following figures, the results show a continued decreasing trend.



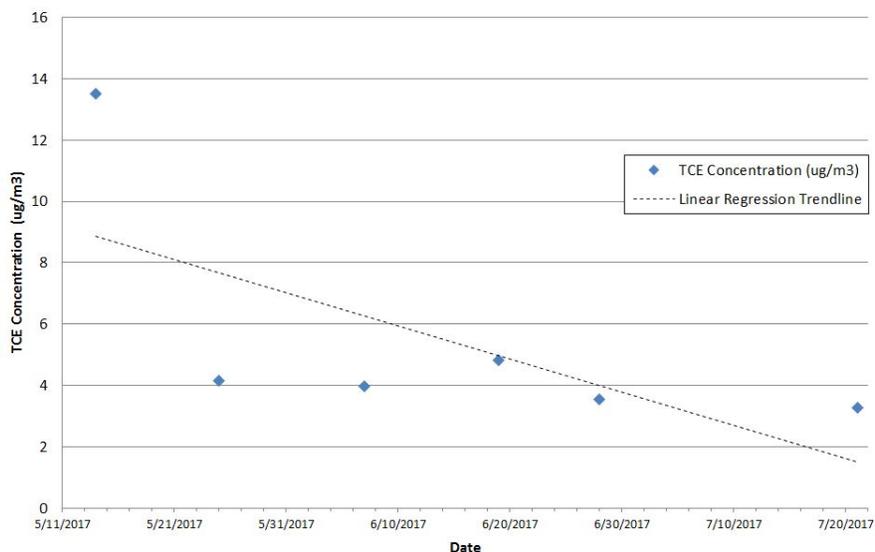
TCE Concentration History at IA-2 (ATS Room)



TCE Concentration History at IA-6 (Training Room)



TCE Concentration History at IA-17 (Cafeteria)



First Environment's July 17, 2017 SSDS Progress Report noted that TCE was detected in ambient air sample (AA-2) at $16.7 \mu\text{g}/\text{m}^3$ on June 28-29, 2017. TCE was non-detect at AA-2 on July 21-22, 2017, confirming that the detection of TCE in ambient air in June was likely due to wind gusts.

A copy of the laboratory report, including the chain-of-custody forms, is attached in Appendix A. However, it should be noted that First Environment is currently conducting QA/QC and data validation on this report.

3.0 Summary

Subsequent sampling results will be provided to the MDEQ on an ongoing basis.

TABLES

**TABLE 1
INDOOR AIR SAMPLING RESULTS
JULY 21, 2017
FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY
WATER VALLEY, MS**

SAMPLE LOCATION: SAMPLING DATE: LABORATORY ID:	IA-1 07/21/2017 L924410-01	IA-2 07/21/2017 L924410-02	IA-6 07/21/2017 L924410-03	IA-17 07/21/2017 L924410-04	IA-B12 07/21/2017 L924410-05	IA-C16 07/21/2017 L924410-06	IA-G13 07/21/2017 L924410-07	IA-D5 07/21/2017 L924410-08	IA-G4 07/21/2017 L924410-09	IA-K8 07/21/2017 L924410-10	IA-L16 07/21/2017 L924410-11	IA-K13 07/21/2017 L924410-12	AA-2 07/21/2017 L924410-13
Analyte	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
ACETONE	406	524	351	680	466	512	94.9	761	809	780	358	451	3.28
ALLYL CHLORIDE	<0.626	<0.626	<0.626	<0.626	<0.626	<0.626	<0.626	<0.626	<0.626	<0.626	<0.626	<0.626	<0.626
BENZENE	<0.639	<0.639	<0.639	0.807	<0.639	<0.639	<0.639	<0.639	<0.639	<0.639	0.751	<0.639	<0.639
BENZYL CHLORIDE	<1.04	<1.04	<1.04	<1.04	<1.04	<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	<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	<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	<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	7.05	6.24	4.65	<4.43	<4.43	<4.43
CARBON DISULFIDE	<0.622	<0.622	<0.622	<0.622	<0.622	<0.622	<0.622	<0.622	<0.622	<0.622	<0.622	<0.622	<0.622
CARBON TETRACHLORIDE	<1.26	<1.26	<1.26	<1.26	<1.26	<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	<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	<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	<0.973	<0.973	<0.973	<0.973	<0.973
CHLOROMETHANE	1.14	1.13	1.19	1.24	2.16	1.14	1.23	1.18	1.15	1.04	1.06	2.07	1.34
2-CHLOROTOLUENE	<1.03	<1.03	<1.03	<1.03	<1.03	<1.03	<1.03	<1.03	<1.03	<1.03	<1.03	<1.03	<1.03
CYCLOHEXANE	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689
CHLORODIBROMOMETHANE	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
1,2-DIBROMOETHANE	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54
1,2-DICHLOROBENZENE	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
1,3-DICHLOROBENZENE	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<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	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
1,2-DICHLOROETHANE	<0.81	<0.81	1	<0.81	1.85	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81
1,1-DICHLOROETHANE	<0.802	<0.802	<0.802	<0.802	<0.802	<0.802	<0.802	<0.802	<0.802	<0.802	<0.802	<0.802	<0.802

**TABLE 1
INDOOR AIR SAMPLING RESULTS
JULY 21, 2017
FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY
WATER VALLEY, MS**

SAMPLE LOCATION: SAMPLING DATE: LABORATORY ID:	IA-1 07/21/2017 L924410-01	IA-2 07/21/2017 L924410-02	IA-6 07/21/2017 L924410-03	IA-17 07/21/2017 L924410-04	IA-B12 07/21/2017 L924410-05	IA-C16 07/21/2017 L924410-06	IA-G13 07/21/2017 L924410-07	IA-D5 07/21/2017 L924410-08	IA-G4 07/21/2017 L924410-09	IA-K8 07/21/2017 L924410-10	IA-L16 07/21/2017 L924410-11	IA-K13 07/21/2017 L924410-12	AA-2 07/21/2017 L924410-13
Analyte	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
1,1-DICHLOROETHENE	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793
CIS-1,2-DICHLOROETHENE	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793
TRANS-1,2-DICHLOROETHENE	1.32	1.77	1	0.936	1.37	0.942	1.39	3.51	6.12	3.31	1.03	1.22	<0.793
1,2-DICHLOROPROPANE	<0.924	<0.924	<0.924	<0.924	<0.924	<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	<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	<0.908	<0.908	<0.908	<0.908	<0.908
1,4-DIOXANE	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721
ETHANOL	7,390 (E)	11,900 (E)	4,260 (E)	11,000 (E)	6,740 (E)	5,620 (E)	<1.19	9,230 (E)	8,060 (E)	11,800 (E)	5,440 (E)	6,450 (E)	<1.19
ETHYLBENZENE	2.06	2.35	1.83	2.42	3.25	2.28	3.29	2.52	2.24	2.78	2.7	4.36	<0.867
4-ETHYLTOLUENE	1.2	1.71	1.11	1.76	1.33	1.19	1.65	1.66	1.68	2.5	1.53	2.14	<0.982
TRICHLOROFUOROMETHANE	1.47	1.56	1.44	1.43	1.65	1.49	1.62	2.09	1.83	1.65	1.47	1.47	1.14
DICHLORODIFLUOROMETHANE	2.32	1.62	2.56	1.43	4.35	2.32	1.43	1.42	1.37	1.34	2	1.62	1.63
1,1,2-TRICHLOROTRIFLUOROETHANE	<1.53	<1.53	<1.53	<1.53	<1.53	<1.53	<1.53	<1.53	<1.53	<1.53	<1.53	<1.53	<1.53
1,2-DICHLOROTETRAFLUOROETHANE	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4
HEPTANE	14.6	17.1	7.85	9.71	15.9	13.5	24.9	13.6	11.8	14.7	22.3	24.5	<0.818
HEXACHLORO-1,3-BUTADIENE	<6.73	<6.73	<6.73	<6.73	<6.73	<6.73	<6.73	<6.73	<6.73	<6.73	<6.73	<6.73	<6.73
N-HEXANE	1	<0.705	0.826	<0.705	1.26	0.755	0.843	<0.705	<0.705	<0.705	1.14	1.43	<0.705
ISOPROPYLBENZENE	<0.983	<0.983	<0.983	<0.983	<0.983	<0.983	<0.983	<0.983	<0.983	<0.983	<0.983	<0.983	<0.983
METHYLENE CHLORIDE	1.4	<0.694	2.19	<0.694	1.68	1.36	1.76	<0.694	<0.694	<0.694	1.51	2.1	<0.694
METHYL BUTYL KETONE	<5.11	<5.11	<5.11	<5.11	<5.11	<5.11	<5.11	<5.11	<5.11	<5.11	<5.11	14.5	<5.11
2-BUTANONE (MEK)	745	1090	496	877	778	587	854	1240	1200	1530	593	661	<3.69
4-METHYL-2-PENTANONE (MIBK)	<5.12	<5.12	<5.12	<5.12	<5.12	13	<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	<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	<0.721	<0.721	<0.721	<0.721	<0.721
NAPHTHALENE	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3
2-PROPANOL	6,940 (E)	8,920 (E)	4,420 (E)	8,380 (E)	7,310 (E)	6,360 (E)	9.68	14,800 (E)	11,600 (E)	11,300 (E)	6,790 (E)	10,700 (E)	<3.07

TABLE 1
INDOOR AIR SAMPLING RESULTS
JULY 21, 2017
FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY
WATER VALLEY, MS

SAMPLE LOCATION:	IA-1	IA-2	IA-6	IA-17	IA-B12	IA-C16	IA-G13	IA-D5	IA-G4	IA-K8	IA-L16	IA-K13	AA-2
SAMPING DATE:	07/21/2017	07/21/2017	07/21/2017	07/21/2017	07/21/2017	07/21/2017	07/21/2017	07/21/2017	07/21/2017	07/21/2017	07/21/2017	07/21/2017	07/21/2017
LABORATORY ID:	L924410-01	L924410-02	L924410-03	L924410-04	L924410-05	L924410-06	L924410-07	L924410-08	L924410-09	L924410-10	L924410-11	L924410-12	L924410-13
Analyte	µg/m ³												
PROPENE	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689	<0.689
STYRENE	<0.851	<0.851	<0.851	<0.851	<0.851	<0.851	<0.851	<0.851	<0.851	<0.851	<0.851	<0.851	<0.851
1,1,2,2-TETRACHLOROETHANE	<1.37	<1.37	<1.37	<1.37	<1.37	<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	<1.36	<1.36	<1.36	<1.36	<1.36
TETRAHYDROFURAN	8.86	9.42	4.19	7.34	5.3	18.8	3.44	5.43	5.05	9.16	4.72	7.55	<0.59
TOLUENE	8.76	5.32	5.52	2.87	12	5.18	10.4	4.43	4.08	6.97	16.9	31.4	3.92
1,2,4-TRICHLOROETHANE	<4.66	<4.66	<4.66	<4.66	<4.66	<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	<1.09	<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	<1.09	<1.09	<1.09	<1.09	<1.09
TRICHLOROETHENE	23.8	4.3	4	3.27	1.08	1.08	1.6	<1.07	<1.07	<1.07	1.18	1.34	<1.07
1,2,4-TRIMETHYLBENZENE	5.92	8.17	5.44	7.96	6.06	5.83	7.82	8.16	7.89	11.5	7.2	11	2.57
1,3,5-TRIMETHYLBENZENE	1.76	2.47	1.55	2.62	1.86	1.71	2.23	2.36	2.26	3.45	2.11	3.48	<0.982
2,2,4-TRIMETHYLPENTANE	12.6	14.7	8.85	13.9	13.4	15.6	20.3	26.2	21	16.2	15.1	16.7	<0.934
VINYL CHLORIDE	<0.511	<0.511	<0.511	<0.511	<0.511	<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	<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	<0.704	<0.704	<0.704	<0.704	<0.704
M&P-XYLENE	7.81	8.98	6.84	9.15	10.2	9.33	10.7	9.34	8.45	10.2	9.9	16.6	3.28
O-XYLENE	2.71	3.21	2.45	3.26	3.68	3.62	3.96	3.18	2.95	3.6	3.81	5.95	1.49
1,4-BROMOFLUOROBENZENE	97.7 104	96.9 106	97.0 105	97.6 106	99.2 104	105 99.0	106 97.9	99.0 106	10396.5	97.2 105	104 97.4	107 100	102

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

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

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

SAMPLE ID	SAMPLING DATE	LABORATORY ID	CoC Concentrations (µg/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	
IA-2 IA-2 (2ND CANISTER) IA-2 (DUPLICATE)	19-Jan-17	L1702183-02	187	43.2	<0.051
	15-Feb-17	L890396-02	97.1	<0.793	2.27
	23-Feb-17	L892423-02	157	79.4	1.57
	9-Mar-17	L895061-02	426	86.7	1.18
	9-Mar-17	L895061-04	438	88.7	1.68
	26-Mar-17	L898762-02	61.8	<0.793	<0.511
	26-Mar-17	L898762-04	82.3	<0.793	<0.511
	26-Apr-17	L905292-02	56.6	10.8	<0.511
	14-May-17	L909544-02	10.8	<0.793	<0.511
	25-May-17	L912423-08	160	<0.793	<0.511
	7-Jun-17	L914832-12	6.58	<0.793	<0.511
19-Jun-17	L917924-12	8.16	1.88	<0.511	
28-Jun-17	L920054-13	4.21	<0.793	<0.511	
21-Jul-17	L924410-02	4.3	<0.793	<0.511	
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	
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	
IA-B12	26-Apr-17	L905292-04	6.54	1.77	<0.511
	25-May-17	L912423-05	3.08	<0.793	<0.511
	7-Jun-17	L914832-07	1.64	<0.793	<0.511
	19-Jun-17	L917924-09	1.66	<0.793	<0.511
	28-Jun-17	L920054-08	<1.07	<0.793	<0.511
21-Jul-17	L924410-05	1.08	<0.793	<0.511	
IA-C16	26-Apr-17	L905292-05	6.48	1.82	<0.511
	25-May-17	L912423-06	3.88	<0.793	<0.511
	7-Jun-17	L914832-08	1.55	<0.793	<0.511
	19-Jun-17	L917924-07	2	<0.793	<0.511
	28-Jun-17	L920054-07	1.22	<0.793	<0.511
21-Jul-17	L924410-06	1.08	<0.793	<0.511	
IA-D5	25-May-17	L912423-12	<1.07	<0.793	<0.511
	7-Jun-17	L914832-03	1.47	<0.793	<0.511
	19-Jun-17	L917924-03	1.66	<0.793	<0.511
	28-Jun-17	L920054-03	<1.07	<0.793	<0.511
	21-Jul-17	L924410-08	<1.07	<0.793	<0.511
IA-G4	25-May-17	L912423-11	<1.07	<0.793	<0.511
	7-Jun-17	L914832-02	3.31	<0.793	<0.511
	19-Jun-17	L917924-02	1.35	<0.793	<0.511
	28-Jun-17	L920054-02	<1.07	<0.793	<0.511
	21-Jul-17	L924410-09	<1.07	<0.793	<0.511

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

SAMPLE ID	SAMPLING DATE	LABORATORY ID	CoC Concentrations (µg/m³)		
			Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride
USEPA Vapor Intrusion Screening Level (VISL):			3	NA	2.8
IA-G13	26-Apr-17	L905292-06	8.98	<0.793	<0.511
	14-May-17	L909544-04	4.65	<0.793	<0.511
	25-May-17	L912423-06	3.88	<0.793	<0.511
	7-Jun-17	L914832-06	2.54	<0.793	<0.511
	19-Jun-17	L917924-06	2.46	<0.793	<0.511
	28-Jun-17	L920054-06	1.41	<0.793	<0.511
IA-K8	21-Jul-17	L924410-07	1.6	<0.793	<0.511
	25-May-17	L912423-10	1.47	<0.793	<0.511
	7-Jun-17	L914832-01	7.86	<0.793	<0.511
	19-Jun-17	L917924-01	1.31	<0.793	<0.511
IA-K13	28-Jun-17	L920054-01	<1.07	<0.793	<0.511
	21-Jul-17	L924410-10	<1.07	<0.793	<0.511
	26-Apr-17	L905292-07	6.53	<0.793	<0.511
	25-May-17	L912423-04	5.28	<0.793	<0.511
	7-Jun-17	L914832-05	1.59	<0.793	<0.511
IA-L16	19-Jun-17	L917924-05	2.2	<0.793	<0.511
	28-Jun-17	L920054-05	1.33	<0.793	<0.511
	21-Jul-17	L924410-12	1.34	<0.793	<0.511
	26-Apr-17	L905292-08	5.77	1.75	<0.511
	7-Jun-17	L914832-04	2.09	<0.793	<0.511
EP-1	25-May-17	L912423-09	1.36	<0.793	<0.511
	19-Jun-17	L917924-04	2.81	<0.793	<0.511
	28-Jun-17	L920054-04	1.32	<0.793	<0.511
	21-Jul-17	L924410-11	1.18	<0.793	<0.511
	14-May-17	L909544-06	1420000	361000	46300
EP-2	14-May-17	L909544-07	2820000	560000	13200
IA-SUMP-DUP	25-May-17	L912423-15	83.1	<0.793	<0.511
IA-SUMP	19-Jun-17	L917924-14	5.33	1.19	<0.511
	28-Jun-17	L920054-14	3.75	<0.793	<0.511
AA-1	19-Jan-17	L1702183-17	<0.107	<0.079	<0.051
AA-2	19-Jan-17	L1702183-18	0.129	<0.079	<0.051
	26-Apr-17	L905292-09	<0.107	<0.793	<0.051
	25-May-17	L912423-13	<1.07	<0.793	<0.511
	7-Jun-17	L914832-09	<1.07	<0.793	<0.511
	19-Jun-17	L917924-08	<1.07	<0.793	<0.511
	28-Jun-17	L920054-09	16.7	<0.793	<0.511
	21-Jul-17	L924410-13	<1.07	<0.793	<0.511

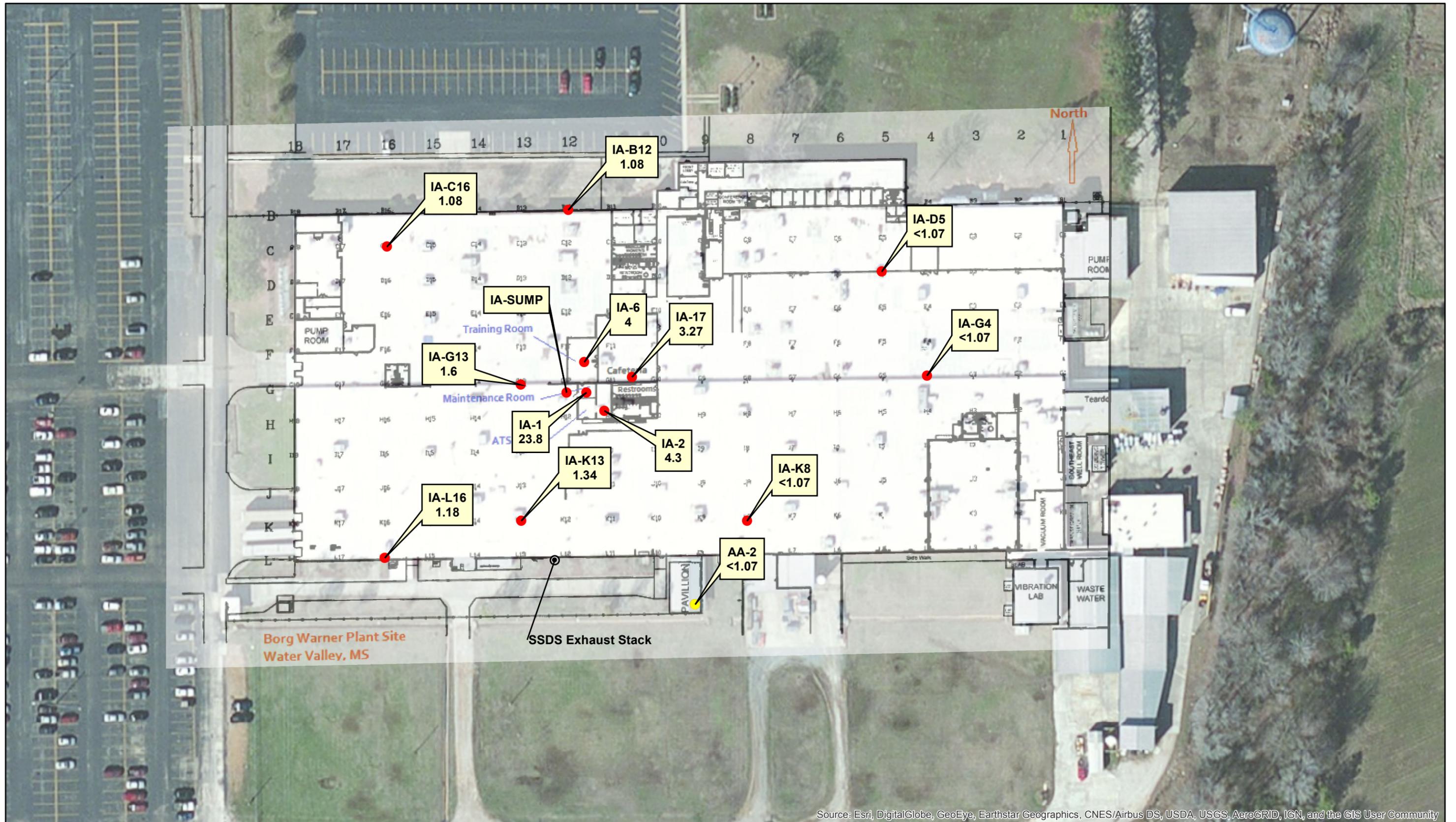
D: Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte

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



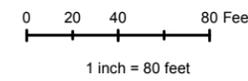
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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



BORG WARNER FACILITY
 600 Highway 32E, Water Valley, MS
 FIGURE 1
 INDOOR AIR SAMPLING RESULTS
 JULY 21 2017

91 Fulton Street
 Boonton, New Jersey 07005

Revised	Drawn	Checked	Approved	Date
LS	NMT	NMT	NMT	8/1/17

APPENDIX A

July 31, 2017

First Environment, Inc.

Sample Delivery Group: L924410
Samples Received: 07/24/2017
Project Number: ENPRO 002D
Description: EnPro Coltec Water Valley MS
Site: WATER VALLEY MS
Report To: Michael T. Slack
91 Fulton Street
Boonton, NJ 07005

Entire Report Reviewed By:



John Hawkins

Technical Service Representative

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



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IA-B12 L924410-05	14	
IA-C16 L924410-06	16	
IA-G13 L924410-07	18	
IA-D5 L924410-08	20	
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SAMPLE SUMMARY



IA-1 L924410-01 Air

			Collected by	Collected date/time	Received date/time
				07/21/17 09:36	07/24/17 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1002747	1	07/26/17 15:38	07/26/17 15:38	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1003259	25	07/27/17 22:43	07/27/17 22:43	MBF

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

IA-2 L924410-02 Air

			Collected by	Collected date/time	Received date/time
				07/21/17 09:42	07/24/17 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1002747	1	07/26/17 16:30	07/26/17 16:30	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1003259	25	07/27/17 23:24	07/27/17 23:24	MBF

IA-6 L924410-03 Air

			Collected by	Collected date/time	Received date/time
				07/21/17 09:38	07/24/17 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1002747	1	07/26/17 17:30	07/26/17 17:30	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1003259	25	07/28/17 00:05	07/28/17 00:05	MBF

IA-17 L924410-04 Air

			Collected by	Collected date/time	Received date/time
				07/21/17 09:45	07/24/17 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1002747	1	07/26/17 18:20	07/26/17 18:20	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1003605	25	07/28/17 15:59	07/28/17 15:59	MBF

IA-B12 L924410-05 Air

			Collected by	Collected date/time	Received date/time
				07/21/17 10:36	07/24/17 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1002747	1	07/26/17 19:12	07/26/17 19:12	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1003605	25	07/28/17 16:42	07/28/17 16:42	MBF

IA-C16 L924410-06 Air

			Collected by	Collected date/time	Received date/time
				07/21/17 09:52	07/24/17 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1002747	1	07/26/17 20:08	07/26/17 20:08	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1003605	25	07/28/17 17:24	07/28/17 17:24	MBF

IA-G13 L924410-07 Air

			Collected by	Collected date/time	Received date/time
				07/21/17 09:54	07/24/17 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1002747	1	07/26/17 20:59	07/26/17 20:59	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1003605	10	07/28/17 18:04	07/28/17 18:04	MBF

SAMPLE SUMMARY



IA-D5 L924410-08 Air

			Collected by	Collected date/time	Received date/time
				07/21/17 10:42	07/24/17 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1002747	1	07/26/17 21:51	07/26/17 21:51	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1003605	25	07/28/17 18:48	07/28/17 18:48	MBF

1 Cp

2 Tc

3 Ss

IA-G4 L924410-09 Air

			Collected by	Collected date/time	Received date/time
				07/21/17 10:46	07/24/17 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1002747	1	07/26/17 22:41	07/26/17 22:41	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1003605	25	07/28/17 19:30	07/28/17 19:30	MBF

4 Cn

5 Sr

6 Qc

IA-K8 L924410-10 Air

			Collected by	Collected date/time	Received date/time
				07/21/17 10:50	07/24/17 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1002747	1	07/26/17 23:33	07/26/17 23:33	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1003605	25	07/28/17 20:11	07/28/17 20:11	MBF

7 Gl

8 Al

9 Sc

IA-L16 L924410-11 Air

			Collected by	Collected date/time	Received date/time
				07/21/17 10:32	07/24/17 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1002747	1	07/27/17 00:27	07/27/17 00:27	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1003605	25	07/28/17 20:52	07/28/17 20:52	MBF

IA-K13 L924410-12 Air

			Collected by	Collected date/time	Received date/time
				07/21/17 10:00	07/24/17 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1002747	1	07/27/17 01:21	07/27/17 01:21	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1003605	25	07/28/17 21:34	07/28/17 21:34	MBF

AA-2 L924410-13 Air

			Collected by	Collected date/time	Received date/time
				07/21/17 10:25	07/24/17 10:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1002747	1	07/27/17 02:17	07/27/17 02:17	MBF



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

John Hawkins
Technical Service Representative

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



Collected date/time: 07/21/17 09:36

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
Acetone	67-64-1	58.10	31.2	74.1	171	406		25	WG1003259
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1002747
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1002747
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1002747
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1002747
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1002747
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1002747
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1002747
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1002747
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1002747
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1002747
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1002747
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1002747
Chloromethane	74-87-3	50.50	0.200	0.413	0.552	1.14		1	WG1002747
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1002747
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1002747
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1002747
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1002747
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1002747
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1002747
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1002747
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1002747
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1002747
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1002747
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1002747
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.334	1.32		1	WG1002747
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1002747
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1002747
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1002747
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1002747
Ethanol	64-17-5	46.10	15.8	29.8	3920	7390	E	25	WG1003259
Ethylbenzene	100-41-4	106	0.200	0.867	0.475	2.06		1	WG1002747
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.244	1.20		1	WG1002747
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.261	1.47		1	WG1002747
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.469	2.32		1	WG1002747
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1002747
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1002747
Heptane	142-82-5	100	0.200	0.818	3.56	14.6		1	WG1002747
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1002747
n-Hexane	110-54-3	86.20	0.200	0.705	0.284	1.00		1	WG1002747
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1002747
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.403	1.40		1	WG1002747
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1002747
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	253	745		25	WG1003259
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1002747
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1002747
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1002747
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1002747
2-Propanol	67-63-0	60.10	31.2	76.7	2820	6940	E	25	WG1003259
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1002747
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1002747
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1002747
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1002747
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	3.01	8.86		1	WG1002747
Toluene	108-88-3	92.10	0.200	0.753	2.32	8.76		1	WG1002747
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/21/17 09:36

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1002747
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1002747
Trichloroethylene	79-01-6	131	0.200	1.07	4.44	23.8		1	WG1002747
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.21	5.92		1	WG1002747
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.359	1.76		1	WG1002747
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	2.70	12.6		1	WG1002747
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1002747
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1002747
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1002747
m&p-Xylene	1330-20-7	106	0.400	1.73	1.80	7.81		1	WG1002747
o-Xylene	95-47-6	106	0.200	0.867	0.625	2.71		1	WG1002747
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		104				WG1002747
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.7				WG1003259

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/21/17 09:42

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
Acetone	67-64-1	58.10	31.2	74.1	221	524		25	WG1003259
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1002747
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1002747
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1002747
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1002747
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1002747
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1002747
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1002747
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1002747
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1002747
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1002747
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1002747
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1002747
Chloromethane	74-87-3	50.50	0.200	0.413	0.548	1.13		1	WG1002747
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1002747
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1002747
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1002747
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1002747
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1002747
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1002747
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1002747
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1002747
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1002747
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1002747
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1002747
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.448	1.77		1	WG1002747
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1002747
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1002747
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1002747
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1002747
Ethanol	64-17-5	46.10	15.8	29.8	6320	11900	E	25	WG1003259
Ethylbenzene	100-41-4	106	0.200	0.867	0.542	2.35		1	WG1002747
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.349	1.71		1	WG1002747
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.278	1.56		1	WG1002747
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.327	1.62		1	WG1002747
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1002747
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1002747
Heptane	142-82-5	100	0.200	0.818	4.18	17.1		1	WG1002747
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1002747
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1002747
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1002747
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1002747
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1002747
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	370	1090		25	WG1003259
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1002747
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1002747
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1002747
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1002747
2-Propanol	67-63-0	60.10	31.2	76.7	3630	8920	E	25	WG1003259
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1002747
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1002747
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1002747
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1002747
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	3.19	9.42		1	WG1002747
Toluene	108-88-3	92.10	0.200	0.753	1.41	5.32		1	WG1002747
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/21/17 09:42

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1002747
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1002747
Trichloroethylene	79-01-6	131	0.200	1.07	0.802	4.30		1	WG1002747
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.67	8.17		1	WG1002747
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.503	2.47		1	WG1002747
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	3.15	14.7		1	WG1002747
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1002747
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1002747
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1002747
m&p-Xylene	1330-20-7	106	0.400	1.73	2.07	8.98		1	WG1002747
o-Xylene	95-47-6	106	0.200	0.867	0.740	3.21		1	WG1002747
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.9				WG1003259
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		106				WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/21/17 09:38

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
Acetone	67-64-1	58.10	31.2	74.1	148	351		25	WG1003259
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1002747
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1002747
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1002747
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1002747
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1002747
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1002747
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1002747
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1002747
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1002747
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1002747
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1002747
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1002747
Chloromethane	74-87-3	50.50	0.200	0.413	0.575	1.19		1	WG1002747
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1002747
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1002747
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1002747
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1002747
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1002747
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1002747
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1002747
1,2-Dichloroethane	107-06-2	99	0.200	0.810	0.247	1.00		1	WG1002747
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1002747
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1002747
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1002747
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.253	1.00		1	WG1002747
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1002747
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1002747
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1002747
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1002747
Ethanol	64-17-5	46.10	15.8	29.8	2260	4260	E	25	WG1003259
Ethylbenzene	100-41-4	106	0.200	0.867	0.423	1.83		1	WG1002747
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.226	1.11		1	WG1002747
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.257	1.44		1	WG1002747
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.518	2.56		1	WG1002747
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1002747
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1002747
Heptane	142-82-5	100	0.200	0.818	1.92	7.85		1	WG1002747
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1002747
n-Hexane	110-54-3	86.20	0.200	0.705	0.234	0.826		1	WG1002747
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1002747
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.630	2.19		1	WG1002747
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1002747
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	168	496		25	WG1003259
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1002747
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1002747
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1002747
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1002747
2-Propanol	67-63-0	60.10	31.2	76.7	1800	4420	E	25	WG1003259
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1002747
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1002747
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1002747
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1002747
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	1.42	4.19		1	WG1002747
Toluene	108-88-3	92.10	0.200	0.753	1.47	5.52		1	WG1002747
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/21/17 09:38

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1002747
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1002747
Trichloroethylene	79-01-6	131	0.200	1.07	0.747	4.00		1	WG1002747
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.11	5.44		1	WG1002747
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.315	1.55		1	WG1002747
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	1.89	8.85		1	WG1002747
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1002747
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1002747
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1002747
m&p-Xylene	1330-20-7	106	0.400	1.73	1.58	6.84		1	WG1002747
o-Xylene	95-47-6	106	0.200	0.867	0.565	2.45		1	WG1002747
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.0				WG1003259
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		105				WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/21/17 09:45

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
Acetone	67-64-1	58.10	31.2	74.1	286	680		25	WG1003605
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1002747
Benzene	71-43-2	78.10	0.200	0.639	0.253	0.807		1	WG1002747
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1002747
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1002747
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1002747
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1002747
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1002747
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1002747
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1002747
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1002747
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1002747
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1002747
Chloromethane	74-87-3	50.50	0.200	0.413	0.598	1.24		1	WG1002747
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1002747
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1002747
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1002747
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1002747
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1002747
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1002747
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1002747
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1002747
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1002747
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1002747
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1002747
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.236	0.936		1	WG1002747
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1002747
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1002747
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1002747
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1002747
Ethanol	64-17-5	46.10	15.8	29.8	5850	11000	E	25	WG1003605
Ethylbenzene	100-41-4	106	0.200	0.867	0.557	2.42		1	WG1002747
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.360	1.76		1	WG1002747
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.254	1.43		1	WG1002747
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.289	1.43		1	WG1002747
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1002747
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1002747
Heptane	142-82-5	100	0.200	0.818	2.37	9.71		1	WG1002747
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1002747
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1002747
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1002747
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1002747
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1002747
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	297	877		25	WG1003605
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1002747
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1002747
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1002747
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1002747
2-Propanol	67-63-0	60.10	31.2	76.7	3410	8380	E	25	WG1003605
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1002747
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1002747
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1002747
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1002747
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	2.49	7.34		1	WG1002747
Toluene	108-88-3	92.10	0.200	0.753	0.762	2.87		1	WG1002747
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/21/17 09:45

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1002747
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1002747
Trichloroethylene	79-01-6	131	0.200	1.07	0.611	3.27		1	WG1002747
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.62	7.96		1	WG1002747
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.534	2.62		1	WG1002747
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	2.97	13.9		1	WG1002747
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1002747
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1002747
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1002747
m&p-Xylene	1330-20-7	106	0.400	1.73	2.11	9.15		1	WG1002747
o-Xylene	95-47-6	106	0.200	0.867	0.751	3.26		1	WG1002747
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.6				WG1003605
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		106				WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
Acetone	67-64-1	58.10	31.2	74.1	196	466		25	WG1003605
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1002747
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1002747
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1002747
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1002747
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1002747
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1002747
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1002747
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1002747
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1002747
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1002747
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1002747
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1002747
Chloromethane	74-87-3	50.50	0.200	0.413	1.05	2.16		1	WG1002747
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1002747
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1002747
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1002747
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1002747
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1002747
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1002747
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1002747
1,2-Dichloroethane	107-06-2	99	0.200	0.810	0.457	1.85		1	WG1002747
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1002747
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1002747
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1002747
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.347	1.37		1	WG1002747
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1002747
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1002747
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1002747
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1002747
Ethanol	64-17-5	46.10	15.8	29.8	3570	6740	E	25	WG1003605
Ethylbenzene	100-41-4	106	0.200	0.867	0.750	3.25		1	WG1002747
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.271	1.33		1	WG1002747
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.294	1.65		1	WG1002747
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.879	4.35		1	WG1002747
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1002747
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1002747
Heptane	142-82-5	100	0.200	0.818	3.88	15.9		1	WG1002747
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1002747
n-Hexane	110-54-3	86.20	0.200	0.705	0.359	1.26		1	WG1002747
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1002747
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.485	1.68		1	WG1002747
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1002747
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	264	778		25	WG1003605
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1002747
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1002747
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1002747
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1002747
2-Propanol	67-63-0	60.10	31.2	76.7	2970	7310	E	25	WG1003605
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1002747
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1002747
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1002747
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1002747
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	1.80	5.30		1	WG1002747
Toluene	108-88-3	92.10	0.200	0.753	3.19	12.0		1	WG1002747
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1002747
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1002747
Trichloroethylene	79-01-6	131	0.200	1.07	0.202	1.08		1	WG1002747
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.23	6.06		1	WG1002747
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.379	1.86		1	WG1002747
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	2.87	13.4		1	WG1002747
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1002747
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1002747
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1002747
m&p-Xylene	1330-20-7	106	0.400	1.73	2.35	10.2		1	WG1002747
o-Xylene	95-47-6	106	0.200	0.867	0.849	3.68		1	WG1002747
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.2				WG1003605
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		104				WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
Acetone	67-64-1	58.10	31.2	74.1	215	512		25	WG1003605
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1002747
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1002747
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1002747
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1002747
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1002747
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1002747
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1002747
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1002747
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1002747
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1002747
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1002747
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1002747
Chloromethane	74-87-3	50.50	0.200	0.413	0.552	1.14		1	WG1002747
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1002747
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1002747
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1002747
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1002747
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1002747
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1002747
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1002747
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1002747
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1002747
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1002747
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1002747
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.238	0.942		1	WG1002747
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1002747
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1002747
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1002747
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1002747
Ethanol	64-17-5	46.10	15.8	29.8	2980	5620	E	25	WG1003605
Ethylbenzene	100-41-4	106	0.200	0.867	0.526	2.28		1	WG1002747
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.243	1.19		1	WG1002747
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.265	1.49		1	WG1002747
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.470	2.32		1	WG1002747
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1002747
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1002747
Heptane	142-82-5	100	0.200	0.818	3.30	13.5		1	WG1002747
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1002747
n-Hexane	110-54-3	86.20	0.200	0.705	0.214	0.755		1	WG1002747
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1002747
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.391	1.36		1	WG1002747
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1002747
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	199	587		25	WG1003605
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	3.18	13.0		1	WG1002747
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1002747
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1002747
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1002747
2-Propanol	67-63-0	60.10	31.2	76.7	2590	6360	E	25	WG1003605
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1002747
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1002747
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1002747
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1002747
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	6.36	18.8		1	WG1002747
Toluene	108-88-3	92.10	0.200	0.753	1.38	5.18		1	WG1002747
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/21/17 09:52

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1002747
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1002747
Trichloroethylene	79-01-6	131	0.200	1.07	0.201	1.08		1	WG1002747
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.19	5.83		1	WG1002747
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.348	1.71		1	WG1002747
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	3.33	15.6		1	WG1002747
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1002747
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1002747
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1002747
m&p-Xylene	1330-20-7	106	0.400	1.73	2.15	9.33		1	WG1002747
o-Xylene	95-47-6	106	0.200	0.867	0.835	3.62		1	WG1002747
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		105				WG1002747
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.0				WG1003605

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
Acetone	67-64-1	58.10	1.25	2.97	39.9	94.9		1	WG1002747
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1002747
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1002747
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1002747
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1002747
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1002747
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1002747
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1002747
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1002747
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1002747
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1002747
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1002747
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1002747
Chloromethane	74-87-3	50.50	0.200	0.413	0.598	1.23		1	WG1002747
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1002747
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1002747
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1002747
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1002747
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1002747
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1002747
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1002747
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1002747
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1002747
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1002747
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1002747
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.351	1.39		1	WG1002747
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1002747
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1002747
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1002747
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1002747
Ethanol	64-17-5	46.10	0.630	1.19	ND	ND		1	WG1002747
Ethylbenzene	100-41-4	106	0.200	0.867	0.760	3.29		1	WG1002747
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.337	1.65		1	WG1002747
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.288	1.62		1	WG1002747
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.289	1.43		1	WG1002747
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1002747
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1002747
Heptane	142-82-5	100	0.200	0.818	6.09	24.9		1	WG1002747
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1002747
n-Hexane	110-54-3	86.20	0.200	0.705	0.239	0.843		1	WG1002747
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1002747
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.506	1.76		1	WG1002747
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1002747
2-Butanone (MEK)	78-93-3	72.10	12.5	36.9	290	854		10	WG1003605
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1002747
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1002747
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1002747
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1002747
2-Propanol	67-63-0	60.10	1.25	3.07	3.94	9.68		1	WG1002747
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1002747
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1002747
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1002747
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1002747
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	1.17	3.44		1	WG1002747
Toluene	108-88-3	92.10	0.200	0.753	2.75	10.4		1	WG1002747
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/21/17 09:54

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1002747
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1002747
Trichloroethylene	79-01-6	131	0.200	1.07	0.298	1.60		1	WG1002747
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.59	7.82		1	WG1002747
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.454	2.23		1	WG1002747
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	4.34	20.3		1	WG1002747
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1002747
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1002747
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1002747
m&p-Xylene	1330-20-7	106	0.400	1.73	2.48	10.7		1	WG1002747
o-Xylene	95-47-6	106	0.200	0.867	0.913	3.96		1	WG1002747
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.9				WG1003605
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		106				WG1002747

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



Collected date/time: 07/21/17 10:42

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
Acetone	67-64-1	58.10	31.2	74.1	320	761		25	WG1003605
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1002747
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1002747
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1002747
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1002747
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1002747
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1002747
1,3-Butadiene	106-99-0	54.10	2.00	4.43	3.19	7.05		1	WG1002747
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1002747
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1002747
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1002747
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1002747
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1002747
Chloromethane	74-87-3	50.50	0.200	0.413	0.572	1.18		1	WG1002747
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1002747
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1002747
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1002747
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1002747
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1002747
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1002747
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1002747
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1002747
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1002747
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1002747
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1002747
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.886	3.51		1	WG1002747
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1002747
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1002747
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1002747
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1002747
Ethanol	64-17-5	46.10	15.8	29.8	4900	9230	E	25	WG1003605
Ethylbenzene	100-41-4	106	0.200	0.867	0.580	2.52		1	WG1002747
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.338	1.66		1	WG1002747
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.372	2.09		1	WG1002747
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.287	1.42		1	WG1002747
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1002747
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1002747
Heptane	142-82-5	100	0.200	0.818	3.33	13.6		1	WG1002747
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1002747
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1002747
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1002747
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1002747
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1002747
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	420	1240		25	WG1003605
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1002747
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1002747
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1002747
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1002747
2-Propanol	67-63-0	60.10	31.2	76.7	6020	14800	E	25	WG1003605
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1002747
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1002747
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1002747
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1002747
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	1.84	5.43		1	WG1002747
Toluene	108-88-3	92.10	0.200	0.753	1.18	4.43		1	WG1002747
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/21/17 10:42

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1002747
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1002747
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1002747
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.66	8.16		1	WG1002747
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.481	2.36		1	WG1002747
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	5.60	26.2		1	WG1002747
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1002747
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1002747
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1002747
m&p-Xylene	1330-20-7	106	0.400	1.73	2.15	9.34		1	WG1002747
o-Xylene	95-47-6	106	0.200	0.867	0.733	3.18		1	WG1002747
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.0				WG1003605
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		106				WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/21/17 10:46

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
Acetone	67-64-1	58.10	31.2	74.1	340	809		25	WG1003605
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1002747
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1002747
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1002747
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1002747
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1002747
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1002747
1,3-Butadiene	106-99-0	54.10	2.00	4.43	2.82	6.24		1	WG1002747
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1002747
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1002747
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1002747
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1002747
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1002747
Chloromethane	74-87-3	50.50	0.200	0.413	0.557	1.15		1	WG1002747
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1002747
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1002747
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1002747
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1002747
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1002747
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1002747
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1002747
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1002747
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1002747
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1002747
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1002747
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	1.55	6.12		1	WG1002747
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1002747
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1002747
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1002747
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1002747
Ethanol	64-17-5	46.10	15.8	29.8	4270	8060	E	25	WG1003605
Ethylbenzene	100-41-4	106	0.200	0.867	0.517	2.24		1	WG1002747
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.341	1.68		1	WG1002747
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.326	1.83		1	WG1002747
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.278	1.37		1	WG1002747
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1002747
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1002747
Heptane	142-82-5	100	0.200	0.818	2.89	11.8		1	WG1002747
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1002747
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1002747
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1002747
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1002747
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1002747
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	405	1200		25	WG1003605
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1002747
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1002747
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1002747
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1002747
2-Propanol	67-63-0	60.10	31.2	76.7	4710	11600	E	25	WG1003605
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1002747
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1002747
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1002747
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1002747
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	1.71	5.05		1	WG1002747
Toluene	108-88-3	92.10	0.200	0.753	1.08	4.08		1	WG1002747
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/21/17 10:46

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1002747
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1002747
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1002747
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.61	7.89		1	WG1002747
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.460	2.26		1	WG1002747
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	4.50	21.0		1	WG1002747
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1002747
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1002747
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1002747
m&p-Xylene	1330-20-7	106	0.400	1.73	1.95	8.45		1	WG1002747
o-Xylene	95-47-6	106	0.200	0.867	0.681	2.95		1	WG1002747
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.5				WG1003605
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		103				WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/21/17 10:50

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
Acetone	67-64-1	58.10	31.2	74.1	328	780		25	WG1003605
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1002747
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1002747
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1002747
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1002747
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1002747
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1002747
1,3-Butadiene	106-99-0	54.10	2.00	4.43	2.10	4.65		1	WG1002747
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1002747
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1002747
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1002747
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1002747
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1002747
Chloromethane	74-87-3	50.50	0.200	0.413	0.504	1.04		1	WG1002747
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1002747
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1002747
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1002747
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1002747
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1002747
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1002747
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1002747
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1002747
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1002747
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1002747
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1002747
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.836	3.31		1	WG1002747
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1002747
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1002747
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1002747
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1002747
Ethanol	64-17-5	46.10	15.8	29.8	6270	11800	E	25	WG1003605
Ethylbenzene	100-41-4	106	0.200	0.867	0.641	2.78		1	WG1002747
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.509	2.50		1	WG1002747
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.293	1.65		1	WG1002747
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.270	1.34		1	WG1002747
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1002747
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1002747
Heptane	142-82-5	100	0.200	0.818	3.59	14.7		1	WG1002747
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1002747
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1002747
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1002747
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1002747
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1002747
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	518	1530		25	WG1003605
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1002747
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1002747
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1002747
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1002747
2-Propanol	67-63-0	60.10	31.2	76.7	4610	11300	E	25	WG1003605
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1002747
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1002747
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1002747
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1002747
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	3.11	9.16		1	WG1002747
Toluene	108-88-3	92.10	0.200	0.753	1.85	6.97		1	WG1002747
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/21/17 10:50

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1002747
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1002747
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1002747
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	2.35	11.5		1	WG1002747
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.704	3.45		1	WG1002747
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	3.47	16.2		1	WG1002747
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1002747
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1002747
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1002747
m&p-Xylene	1330-20-7	106	0.400	1.73	2.35	10.2		1	WG1002747
o-Xylene	95-47-6	106	0.200	0.867	0.830	3.60		1	WG1002747
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		105				WG1002747
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.2				WG1003605

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/21/17 10:32

L924410

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	151	358		25	WG1003605
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1002747
Benzene	71-43-2	78.10	0.200	0.639	0.235	0.751		1	WG1002747
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1002747
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1002747
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1002747
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1002747
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1002747
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1002747
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1002747
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1002747
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1002747
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1002747
Chloromethane	74-87-3	50.50	0.200	0.413	0.511	1.06		1	WG1002747
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1002747
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1002747
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1002747
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1002747
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1002747
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1002747
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1002747
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1002747
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1002747
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1002747
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1002747
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.260	1.03		1	WG1002747
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1002747
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1002747
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1002747
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1002747
Ethanol	64-17-5	46.10	15.8	29.8	2880	5440	E	25	WG1003605
Ethylbenzene	100-41-4	106	0.200	0.867	0.623	2.70		1	WG1002747
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.312	1.53		1	WG1002747
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.262	1.47		1	WG1002747
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.405	2.00		1	WG1002747
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1002747
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1002747
Heptane	142-82-5	100	0.200	0.818	5.46	22.3		1	WG1002747
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1002747
n-Hexane	110-54-3	86.20	0.200	0.705	0.322	1.14		1	WG1002747
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1002747
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.436	1.51		1	WG1002747
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1002747
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	201	593		25	WG1003605
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1002747
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1002747
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1002747
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1002747
2-Propanol	67-63-0	60.10	31.2	76.7	2760	6790	E	25	WG1003605
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1002747
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1002747
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1002747
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1002747
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	1.60	4.72		1	WG1002747
Toluene	108-88-3	92.10	0.200	0.753	4.47	16.9		1	WG1002747
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1002747
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1002747
Trichloroethylene	79-01-6	131	0.200	1.07	0.220	1.18		1	WG1002747
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.47	7.20		1	WG1002747
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.430	2.11		1	WG1002747
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	3.23	15.1		1	WG1002747
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1002747
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1002747
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1002747
m&p-Xylene	1330-20-7	106	0.400	1.73	2.28	9.90		1	WG1002747
o-Xylene	95-47-6	106	0.200	0.867	0.878	3.81		1	WG1002747
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.4				WG1003605
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		104				WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
Acetone	67-64-1	58.10	31.2	74.1	190	451		25	WG1003605
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1002747
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1002747
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1002747
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1002747
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1002747
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1002747
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1002747
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1002747
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1002747
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1002747
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1002747
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1002747
Chloromethane	74-87-3	50.50	0.200	0.413	1.00	2.07		1	WG1002747
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1002747
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1002747
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1002747
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1002747
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1002747
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1002747
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1002747
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1002747
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1002747
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1002747
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1002747
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.309	1.22		1	WG1002747
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1002747
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1002747
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1002747
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1002747
Ethanol	64-17-5	46.10	15.8	29.8	3420	6450	E	25	WG1003605
Ethylbenzene	100-41-4	106	0.200	0.867	1.00	4.36		1	WG1002747
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.437	2.14		1	WG1002747
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.262	1.47		1	WG1002747
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.327	1.62		1	WG1002747
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1002747
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1002747
Heptane	142-82-5	100	0.200	0.818	6.00	24.5		1	WG1002747
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1002747
n-Hexane	110-54-3	86.20	0.200	0.705	0.405	1.43		1	WG1002747
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1002747
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.605	2.10		1	WG1002747
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	3.54	14.5		1	WG1002747
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	224	661		25	WG1003605
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1002747
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1002747
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1002747
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1002747
2-Propanol	67-63-0	60.10	31.2	76.7	4340	10700	E	25	WG1003605
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1002747
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1002747
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1002747
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1002747
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	2.56	7.55		1	WG1002747
Toluene	108-88-3	92.10	0.200	0.753	8.34	31.4		1	WG1002747
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/21/17 10:00

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1002747
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1002747
Trichloroethylene	79-01-6	131	0.200	1.07	0.250	1.34		1	WG1002747
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	2.24	11.0		1	WG1002747
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.709	3.48		1	WG1002747
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	3.57	16.7		1	WG1002747
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1002747
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1002747
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1002747
m&p-Xylene	1330-20-7	106	0.400	1.73	3.83	16.6		1	WG1002747
o-Xylene	95-47-6	106	0.200	0.867	1.37	5.95		1	WG1002747
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				WG1003605
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		107				WG1002747

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



Collected date/time: 07/21/17 10:25

L924410

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	1.38	3.28		1	WG1002747
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1002747
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1002747
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1002747
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1002747
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1002747
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1002747
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1002747
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1002747
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1002747
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1002747
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1002747
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1002747
Chloromethane	74-87-3	50.50	0.200	0.413	0.651	1.34		1	WG1002747
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1002747
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1002747
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1002747
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1002747
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1002747
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1002747
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1002747
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1002747
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1002747
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1002747
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1002747
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1002747
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1002747
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1002747
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1002747
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1002747
Ethanol	64-17-5	46.10	0.630	1.19	ND	ND		1	WG1002747
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1002747
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1002747
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.203	1.14		1	WG1002747
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.330	1.63		1	WG1002747
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1002747
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1002747
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1002747
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1002747
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1002747
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1002747
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1002747
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1002747
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1002747
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1002747
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1002747
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1002747
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1002747
2-Propanol	67-63-0	60.10	1.25	3.07	ND	ND		1	WG1002747
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1002747
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1002747
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1002747
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1002747
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1002747
Toluene	108-88-3	92.10	0.200	0.753	1.04	3.92		1	WG1002747
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 07/21/17 10:25

L924410

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1002747
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1002747
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1002747
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.524	2.57		1	WG1002747
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1002747
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1002747
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1002747
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1002747
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1002747
m&p-Xylene	1330-20-7	106	0.400	1.73	0.756	3.28		1	WG1002747
o-Xylene	95-47-6	106	0.200	0.867	0.344	1.49		1	WG1002747
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		102				WG1002747

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3236678-3 07/26/17 09:36

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.0569	1.25
Allyl Chloride	U		0.0546	0.200
Benzene	U		0.0460	0.200
Benzyl Chloride	0.0722	J	0.0598	0.200
Bromodichloromethane	U		0.0436	0.200
Bromoform	U		0.0786	0.600
Bromomethane	U		0.0609	0.200
1,3-Butadiene	U		0.0563	2.00
Carbon disulfide	U		0.0544	0.200
Carbon tetrachloride	U		0.0585	0.200
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.200
Chloroform	U		0.0574	0.200
Chloromethane	U		0.0544	0.200
2-Chlorotoluene	U		0.0605	0.200
Cyclohexane	U		0.0534	0.200
Dibromochloromethane	U		0.0494	0.200
1,2-Dibromoethane	U		0.0185	0.200
1,2-Dichlorobenzene	U		0.0603	0.200
1,3-Dichlorobenzene	U		0.0597	0.200
1,4-Dichlorobenzene	0.0745	J	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

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3236678-3 07/26/17 09:36

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Methylene Chloride	U		0.0465	0.200
Methyl Butyl Ketone	U		0.0682	1.25
2-Butanone (MEK)	U		0.0493	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25
Methyl Methacrylate	U		0.0773	0.200
MTBE	U		0.0505	0.200
Naphthalene	0.174	J	0.154	0.630
2-Propanol	U		0.0882	1.25
Propene	U		0.0932	0.400
Styrene	U		0.0465	0.200
1,1,2,2-Tetrachloroethane	U		0.0576	0.200
Tetrachloroethylene	U		0.0497	0.200
Tetrahydrofuran	U		0.0508	0.200
Toluene	U		0.0499	0.200
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0665	0.200
1,1,2-Trichloroethane	U		0.0287	0.200
Trichloroethylene	U		0.0545	0.200
1,2,4-Trimethylbenzene	U		0.0483	0.200
1,3,5-Trimethylbenzene	U		0.0631	0.200
2,2,4-Trimethylpentane	U		0.0456	0.200
Vinyl chloride	U		0.0457	0.200
Vinyl Bromide	U		0.0727	0.200
Vinyl acetate	U		0.0639	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
Ethanol	U		0.0832	0.630
(S) 1,4-Bromofluorobenzene	87.1			60.0-140

- 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) R3236678-1 07/26/17 07:57 • (LCSD) R3236678-2 07/26/17 08:46

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Ethanol	3.75	3.88	4.08	104	109	52.0-158			5.04	25
Propene	3.75	3.75	3.80	100	101	54.0-155			1.39	25
Dichlorodifluoromethane	3.75	3.43	3.35	91.6	89.3	69.0-143			2.45	25
1,2-Dichlorotetrafluoroethane	3.75	4.05	4.01	108	107	70.0-130			0.970	25
Chloromethane	3.75	3.74	3.77	99.9	101	70.0-130			0.770	25



Volatile Organic Compounds (MS) by Method TO-15

[L924410-01,02,03,04,05,06,07,08,09,10,11,12,13](#)

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

(LCS) R3236678-1 07/26/17 07:57 • (LCSD) R3236678-2 07/26/17 08:46

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	3.75	3.88	3.88	103	104	70.0-130			0.130	25
1,3-Butadiene	3.75	4.02	4.08	107	109	70.0-130			1.44	25
Bromomethane	3.75	3.79	3.80	101	101	70.0-130			0.320	25
Chloroethane	3.75	3.78	3.76	101	100	70.0-130			0.630	25
Trichlorofluoromethane	3.75	3.78	3.78	101	101	70.0-130			0.0400	25
1,1,2-Trichlorotrifluoroethane	3.75	3.71	3.72	99.0	99.3	70.0-130			0.280	25
1,1-Dichloroethene	3.75	3.74	3.76	99.6	100	70.0-130			0.670	25
1,1-Dichloroethane	3.75	3.82	3.82	102	102	70.0-130			0.180	25
Acetone	3.75	3.96	3.99	105	106	70.0-130			0.830	25
2-Propanol	3.75	3.98	4.00	106	107	66.0-150			0.590	25
Carbon disulfide	3.75	3.77	3.78	101	101	70.0-130			0.320	25
Methylene Chloride	3.75	3.70	3.87	98.7	103	70.0-130			4.42	25
MTBE	3.75	3.84	3.86	102	103	70.0-130			0.530	25
trans-1,2-Dichloroethene	3.75	3.74	3.75	99.7	100	70.0-130			0.250	25
n-Hexane	3.75	3.83	3.84	102	102	70.0-130			0.190	25
Vinyl acetate	3.75	4.17	4.19	111	112	70.0-130			0.340	25
Methyl Ethyl Ketone	3.75	3.94	3.82	105	102	70.0-130			2.91	25
cis-1,2-Dichloroethene	3.75	4.01	4.00	107	107	70.0-130			0.220	25
Chloroform	3.75	3.79	3.77	101	100	70.0-130			0.530	25
Cyclohexane	3.75	3.74	3.75	99.8	99.9	70.0-130			0.0900	25
1,1,1-Trichloroethane	3.75	3.75	3.76	100	100	70.0-130			0.140	25
Carbon tetrachloride	3.75	3.74	3.76	99.7	100	70.0-130			0.580	25
Benzene	3.75	3.71	3.70	99.0	98.5	70.0-130			0.460	25
1,2-Dichloroethane	3.75	3.79	3.78	101	101	70.0-130			0.470	25
Heptane	3.75	3.81	3.81	102	102	70.0-130			0.0300	25
Trichloroethylene	3.75	3.69	3.70	98.5	98.6	70.0-130			0.110	25
1,2-Dichloropropane	3.75	3.68	3.69	98.1	98.3	70.0-130			0.190	25
1,4-Dioxane	3.75	3.57	3.71	95.3	98.8	70.0-152			3.68	25
Bromodichloromethane	3.75	3.71	3.68	98.9	98.2	70.0-130			0.720	25
cis-1,3-Dichloropropene	3.75	3.81	3.85	102	103	70.0-130			1.02	25
4-Methyl-2-pentanone (MIBK)	3.75	3.82	3.91	102	104	70.0-142			2.28	25
Toluene	3.75	3.59	3.65	95.8	97.4	70.0-130			1.72	25
trans-1,3-Dichloropropene	3.75	3.76	3.82	100	102	70.0-130			1.57	25
1,1,2-Trichloroethane	3.75	3.58	3.60	95.5	96.1	70.0-130			0.600	25
Tetrachloroethylene	3.75	3.49	3.48	93.0	92.9	70.0-130			0.150	25
Methyl Butyl Ketone	3.75	4.07	4.14	108	111	70.0-150			1.93	25
Dibromochloromethane	3.75	3.52	3.58	93.9	95.3	70.0-130			1.58	25
1,2-Dibromoethane	3.75	3.61	3.67	96.3	97.9	70.0-130			1.60	25
Chlorobenzene	3.75	3.48	3.52	92.8	93.9	70.0-130			1.16	25
Ethylbenzene	3.75	3.57	3.62	95.3	96.6	70.0-130			1.34	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) R3236678-1 07/26/17 07:57 • (LCSD) R3236678-2 07/26/17 08:46

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
m&p-Xylene	7.50	7.11	7.20	94.8	96.0	70.0-130			1.29	25
o-Xylene	3.75	3.43	3.49	91.4	93.1	70.0-130			1.80	25
Styrene	3.75	3.57	3.66	95.2	97.5	70.0-130			2.37	25
Bromoform	3.75	3.58	3.60	95.4	95.9	70.0-130			0.510	25
1,1,2,2-Tetrachloroethane	3.75	3.35	3.41	89.3	90.9	70.0-130			1.81	25
4-Ethyltoluene	3.75	3.43	3.50	91.4	93.4	70.0-130			2.12	25
1,3,5-Trimethylbenzene	3.75	3.30	3.36	88.1	89.5	70.0-130			1.63	25
1,2,4-Trimethylbenzene	3.75	3.24	3.34	86.5	89.2	70.0-130			3.03	25
1,3-Dichlorobenzene	3.75	3.46	3.53	92.3	94.1	70.0-130			1.91	25
1,4-Dichlorobenzene	3.75	3.41	3.48	91.0	92.8	70.0-130			2.00	25
Benzyl Chloride	3.75	3.43	3.59	91.6	95.7	70.0-144			4.44	25
1,2-Dichlorobenzene	3.75	3.16	3.27	84.4	87.3	70.0-130			3.38	25
1,2,4-Trichlorobenzene	3.75	3.71	3.67	98.9	98.0	70.0-155			0.960	25
Hexachloro-1,3-butadiene	3.75	3.79	3.73	101	99.6	70.0-145			1.55	25
Naphthalene	3.75	3.58	3.76	95.5	100	70.0-155			4.83	25
Allyl Chloride	3.75	3.89	3.88	104	103	70.0-130			0.370	25
2-Chlorotoluene	3.75	3.38	3.43	90.1	91.4	70.0-130			1.44	25
Methyl Methacrylate	3.75	3.75	3.79	100	101	70.0-130			1.04	25
Tetrahydrofuran	3.75	3.88	3.90	104	104	70.0-140			0.300	25
2,2,4-Trimethylpentane	3.75	3.94	3.94	105	105	70.0-130			0.000	25
Vinyl Bromide	3.75	3.77	3.75	100	100	70.0-130			0.380	25
Isopropylbenzene	3.75	3.37	3.44	89.8	91.8	70.0-130			2.20	25
<i>(S) 1,4-Bromofluorobenzene</i>				96.1	98.1	60.0-140				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3236729-2 07/27/17 09:07

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Acetone	0.0805	J	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	94.6			60.0-140

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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

(LCS) R3236729-1 07/27/17 07:38 • (LCSD) R3236729-3 07/27/17 10:03

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Ethanol	3.75	4.20	3.44	112	91.7	52.0-158			19.9	25
Acetone	3.75	4.22	3.86	113	103	70.0-130			8.96	25
2-Propanol	3.75	4.42	4.11	118	110	66.0-150			7.32	25
Methyl Ethyl Ketone	3.75	4.41	4.32	118	115	70.0-130			2.18	25
(S) 1,4-Bromofluorobenzene				97.4	98.0	60.0-140				

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3237094-3 07/28/17 09:16

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Acetone	0.0830	J	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	97.6			60.0-140

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

(LCS) R3237094-1 07/28/17 07:48 • (LCSD) R3237094-2 07/28/17 08:31

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Ethanol	3.75	4.46	4.35	119	116	52.0-158			2.43	25
Acetone	3.75	4.47	4.44	119	118	70.0-130			0.740	25
2-Propanol	3.75	4.76	4.72	127	126	66.0-150			0.690	25
Methyl Ethyl Ketone	3.75	4.75	4.83	127	129	70.0-130			1.68	25
(S) 1,4-Bromofluorobenzene				98.1	98.0	60.0-140				

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Abbreviations and Definitions

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

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



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

State Accreditations

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

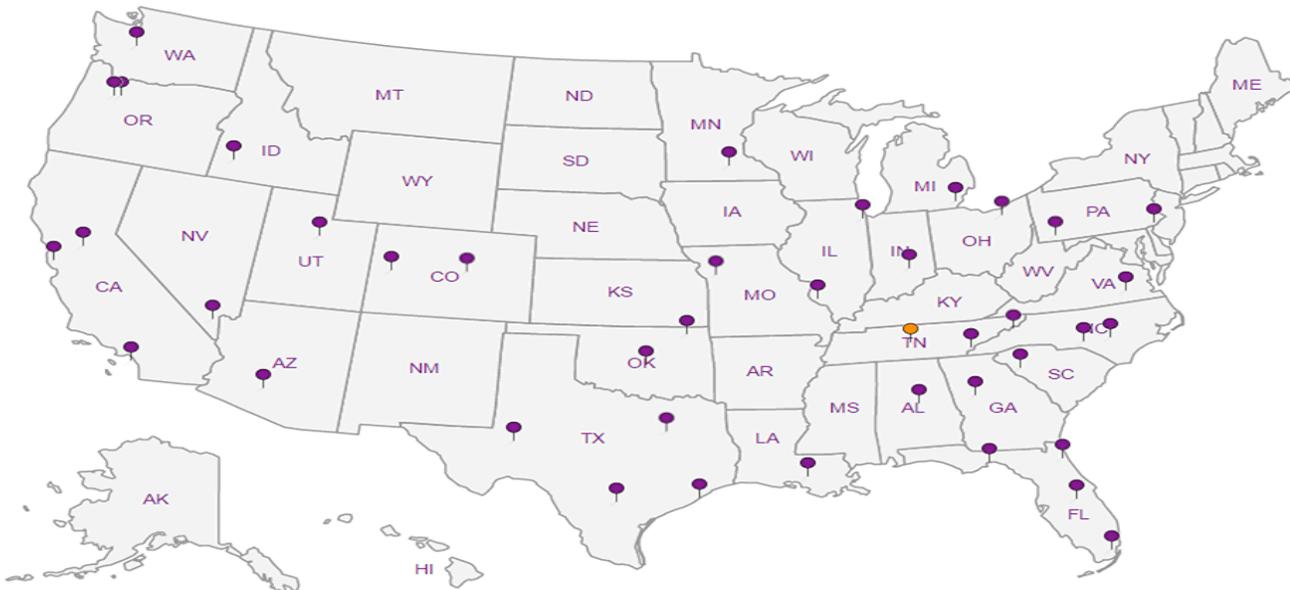
Third Party & Federal Accreditations

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

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

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



Vapor Intrusion Investigation
 Borg Warner Facility
 Water Valley, Yalobusha Co., MS
 July 21-22, 2017
 Indoor Air (IA) and Ambient Air (AA) Sampling Event

Sample ID	Sample Location	Flow Controller ID	Canister ID	Canister Size (liters)	Initial Date/time	Initial Vacuum ("Hg)	Final Date/time	Final Vacuum ("Hg)	Sampler
IA-1	Maintenance Room	7097	5141	6	7/21/17 0936	24	7/22/17 10:25	0	M. Slack
IA-2	ATS Room	6093	5842	6	7/21/17 0942	26	7/22/17 10:30	3	M. Slack
IA-6	Training Room	6048	6906	6	7/21/17 0938	24	7/22/17 10:26	7	M. Slack
IA-17	Cafeteria	6832	5401	6	7/21/17 0940	26	7/22/17 10:55	0	M. Slack
IA-B12	I-Beam B12	7088	8003	6	7/21/17 1036	22	7/22/17 10:59	3	M. Slack
IA-C16	I-Beam C16	6000	5629	6	7/21/17 0952	26	7/22/17 10:57	0	M. Slack
IA-G13	I-Beam G13	7552	6910	6	7/21/17 0954	28	7/22/17 11:04	3	M. Slack
IA-K13	I-Beam K13	7765	8530	6	7/21/17 10:00	30	7/22/17 11:19	9	M. Slack
IA-L16	I-Beam L16	5896	7693	6	7/21/17 10:32	23	7/22/17 11:21	8	M. Slack
IA-D5	I-Beam D5	8445	5447	6	7/21/17 10:42	29	7/22/17 11:20	3 2	M. Slack
IA-G4	I-Beam G4	5295	5710	6	7/21/17 10:46	29	7/22/17 11:42	0	M. Slack
IA-K8	I-Beam K8	5699	5545	6	7/21/17 10:50	29	7/22/17 11:25	5	M. Slack
AA-2	Pavilion	5313	5139	6	7/21/17 10:25	29	7/22/17 11:27	9	M. Slack

Weather Conditions (@ time of canister placement): WINDS CALM - MID-80S - HUMID - 85%

Michael T. Slack (First Environmen

M. Slack 7/22/17