

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



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December 13, 2017

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EnPro002-D-08072017



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.

12/13/2017

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 to as the “Plant”). The Plant is located at 600 State Highway 32 in Water Valley, Yalobusha County, Mississippi.

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

On November 30-December 1, 2017, First Environment collected the following samples:

1. a round of ambient and indoor air samples from the four interior rooms at the Plant—the Training Room, ATS Room, Maintenance Room, and Cafeteria;
2. the first round of quarterly indoor air samples from three locations at the west, center, and east areas of the Plant (IA-C16, IA-K13, and IA-G4); and
3. the final round of samples of the influent and effluent of the SSDS for an air permit evaluation.

As discussed in more detail below, all indoor air sampling results for TCE were below the MDEQ action level of 26 µg/m³. Additionally, as discussed below, First Environment requests the MDEQ’s concurrence that an air permit is not needed for the SSDS.

2.0 Indoor Air Monitoring – November 30-December 1, 2017

2.1 Instrumentation

On November 30-December 1, 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 four indoor air samples at the four interior rooms of the Plant, and one ambient air sample outside the Plant. Standard chain-of-custody procedures were implemented for the sampling, including signing the sample lot in and out from the facility to the laboratory on a chain-of-custody sheet and dating the start and end dates/times of sample collection. First Environment also followed standard indoor air sampling techniques to collect the indoor air samples at the locations depicted in Figure 1. Wherever possible, First Environment mounted the Summa® canisters on columns or secured them in an area above the floor at or near the “breathing space.” The vacuum measurements in Summa® canisters were noted before and after sampling to ensure that the flow regulator at each canister was working properly.

The sampling 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.

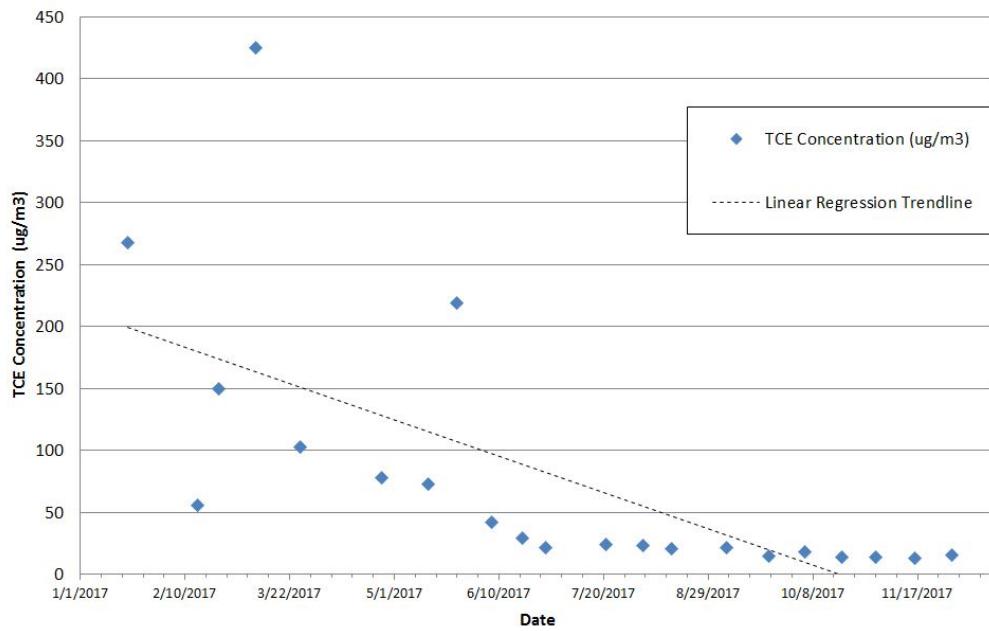
2.3 Results

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. A copy of the laboratory report, including the chain-of-custody forms, is attached in Appendix A.

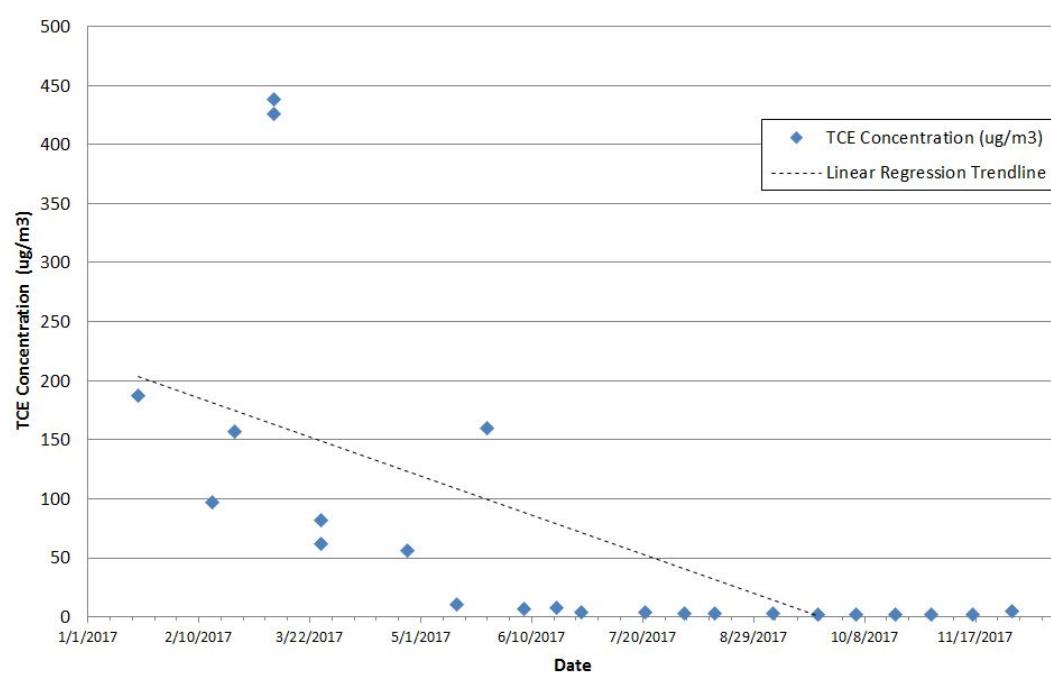
2.3.1 Interior Rooms

The sample results in the Training Room, Maintenance Room, and ATS Room were above USEPA’s Vapor Intrusion Screening Level (“VISL”) for TCE of 3 µg/m³ but below the MDEQ action level of 26 µg/m³. The sample results in the Cafeteria were below USEPA’s VISL. The following figures show the linear regression trendline for the interior rooms.

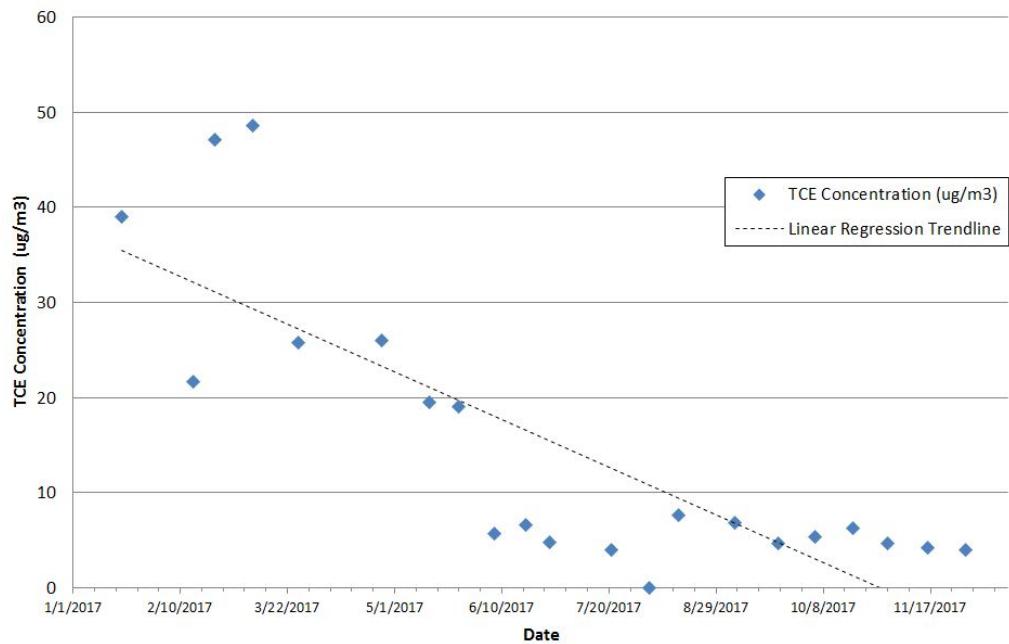
TCE Concentration History at IA-1 (Maintenance Room)



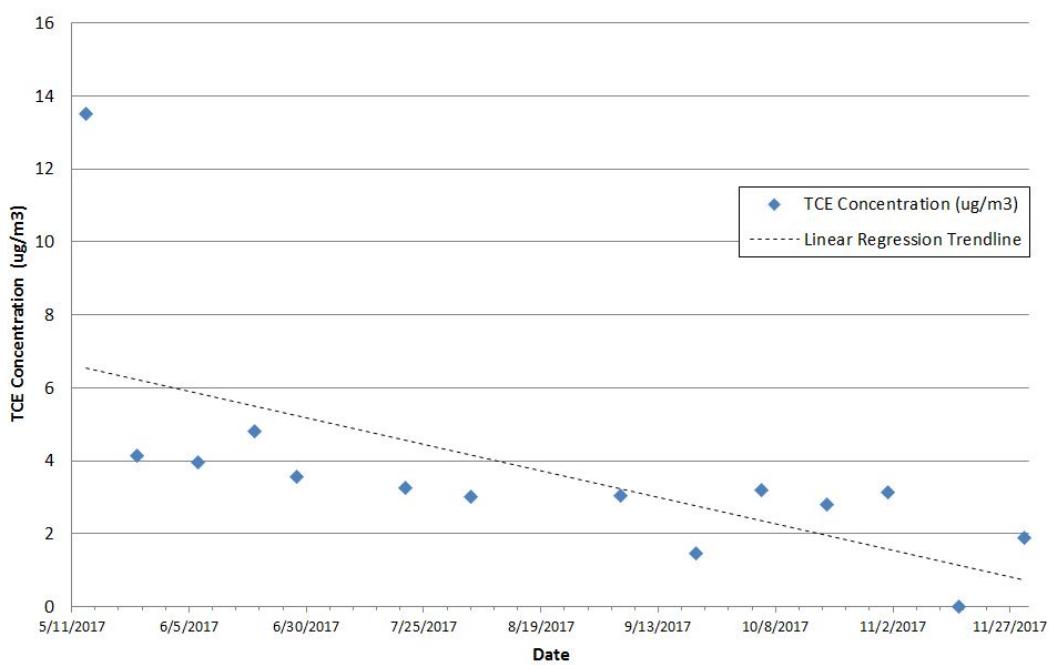
TCE Concentration History at IA-2 (ATS Room)



TCE Concentration History at IA-6 (Training Room)



TCE Concentration History at IA-17 (Cafeteria)



2.3.2 West, Center, and East areas of the Plant

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

2.3.3 Ambient Air

TCE was detected in ambient air sample (AA-2) at 2.46 $\mu\text{g}/\text{m}^3$. A review of the local weather on November 30 and December 1 indicates that there were wind gusts up to 17 miles per hour. These wind gusts may have created downwind components and transported TCE from the SSDS emission stack to the location of AA-2. As discussed in Section 4.0 below, the discharge of TCE vapors to the atmosphere measured on December 1, 2017 was equivalent to approximately 0.011 tons/year, based on a TCE concentration of 2,460 $\mu\text{g}/\text{m}^3$ at the stack. Additionally, the absence of any elevated TCE concentrations inside the Plant is evidence that there is no infiltration into the Plant from the SSDS emission stack.

3.0 Summary of Indoor Air Sampling

Since June 2017, the sample results in the Maintenance Room (IA-1), ATS Room (IA-2), Training Room (IA-6), and Cafeteria (IA-17) have been below the MDEQ action level of 26 $\mu\text{g}/\text{m}^3$.

On September 20, 2017, First Environment, on behalf of EnPro, submitted a letter request to the MDEQ for modification to the indoor air sampling program pursuant to Section 3.A. of the Agreed Order. The revised indoor air sampling schedule provides for bi-weekly sampling for the four interior room indoor air sampling locations (IA-1, IA-2, IA-6, & IA-17) and semi-annual sampling of three locations at the west, center, and east areas of the Plant (IA-C16, IA-K13, and IA-G4). On September 28, 2017, the MDEQ approved the sampling schedule with a request that IA-C16, IA-K13, and IA-G4 be sampled on a quarterly basis. Accordingly, IA-C16, IA-K13, and IA-G4 will be sampled quarterly. Subsequent indoor air sampling results under the approved sampling schedule will be provided to the MDEQ on an ongoing basis.

4.0 Air Permit Evaluation

As reported in First Environment's June 19, 2017 Vapor Intrusion Investigation and Mitigation Report, based on the June 13, 2017 measurements, the discharge of TCE vapors to the atmosphere was estimated to be approximately 36.4 pounds/year, which is equivalent to approximately 0.02 tons/year. On July 17, 2017, at the request of MDEQ, First Environment

resampled the influent and effluent of the SSDS and estimated the discharge of TCE vapors to the atmosphere to be about 2.35×10^{-4} pounds/hour, which is equivalent to approximately 0.001 tons/year. On October 4, 2017, the MDEQ responded that “the results from the analytical sample collected during the evaluation [in July] are promising,” but the agency needed additional samples. On October 11, 2017, to address the MDEQ’s requests, First Environment proposed four rounds of bi-weekly sampling of the influent and effluent of the SSDS.

On October 20, 2017, First Environment sampled the influent and effluent of the SSDS and estimated the discharge of TCE vapors to the atmosphere to be about 2.37×10^{-3} pounds/hour, which is equivalent to approximately 0.01 tons/year. On November 2, 2017, First Environment sampled the influent and effluent of the SSDS and estimated the discharge of TCE vapors to the atmosphere to be about 2.30×10^{-3} pounds/hour, which is equivalent to approximately 0.01 tons/year. On November 17, 2017, First Environment sampled the influent and effluent of the SSDS and estimated the discharge of TCE vapors to the atmosphere to be about 2.10×10^{-3} pounds/hour, which is equivalent to approximately 0.009 tons/year. These rounds of sampling were reported in the November 1, November 15, and November 29, 2017 SSDS Progress Reports, respectively.

On December 1, 2017, First Environment collected the final round of samples from the influent and effluent of the SSDS. Prior to sampling, First Environment closed the intake control valve on the roof of the Plant so that no outside ambient air would influence the sampling results. As discussed with MDEQ, First Environment left open the ambient air extraction system intake valve located in the ATS room, which is part of the SSDS’ treatment system. The discharge flow rate measured at the stack of the SSDS was approximately 265 cubic feet per minute (“cfm”). The effluent TCE concentration measured at the stack was $2,460 \mu\text{g}/\text{m}^3$. Based on these measurements, the discharge of TCE vapors to the atmosphere is estimated to be about 2.44×10^{-3} pounds/hour, which is equivalent to approximately 0.011 tons/year.

The six rounds of effluent sampling results (June 13, July 17, October 20, November 2, November 17, and December 1) indicate that an air permit is not needed. Additionally, these samples indicate that the ultraviolet (UV) air processing unit (Sanuvox UV Bio-Wall Quattro) is no longer needed. First Environment requests the MDEQ’s concurrence regarding this air permit evaluation and authorization that the UV control device can be taken off-line.

TABLES

TABLE 1
INDOOR AIR SAMPLING RESULTS
NOVEMBER 30, 2017
FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY
WATER VALLEY, MS

SAMPLE LOCATION: SAMPING DATE: LABORATORY ID:	IA-1 11/30/2017 L954578-01	IA-2 11/30/2017 L954578-02	IA-6 11/30/2017 L954578-03	IA-17 11/30/2017 L954578-04	IA-C16 11/30/2017 L954578-05	IA-K13 11/30/2017 L954578-06	IA-G4 11/30/2017 L954578-07	SSD-EFFLU 12/01/2017 L954578-08	SSD-INFLU 12/01/2017 L954578-09	AA-2 11/30/2017 L954578-10
Analyte	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
ACETONE	224	3240	877	239	176	191	452	334	231	13.2
ALLYL CHLORIDE	<0.626	<0.626	<0.626	<0.626	<0.626	<0.626	<0.626	<1.25	<1.25	<0.626
BENZENE	1.05	1.3	1.15	1.08	1.1	1.37	1.38	<1.28	1.34	<0.639
BENZYL CHLORIDE	<1.04	<1.04	2.34 (B)	<1.04	<1.04	<1.04	<1.04	<2.08	<2.08	<1.04
BROMODICHLOROMETHANE	<1.34	<1.34	<1.34	<1.34	<1.34	<1.34	<1.34	<2.68	<2.68	<1.34
BROMOFORM	<6.21	<6.21	<6.21	<6.21	<6.21	<6.21	<6.21	<12.4	<12.4	<6.21
BROMOMETHANE	<0.776	<0.776	<0.776	<0.776	<0.776	<0.776	<0.776	<1.55	<1.55	<0.776
1,3-BUTADIENE	<4.43	<4.43	<4.43	<4.43	<4.43	<4.43	<4.43	5.89	<8.85	<8.85
CARBON DISULFIDE	<0.622	<0.622	<0.622	<0.622	<0.622	<0.622	<0.622	<1.24	<1.24	<0.622
CARBON TETRACHLORIDE	<1.26	<1.26	<1.26	<1.26	<1.26	<1.26	<1.26	<2.52	<2.52	<1.26
CHLOROBENZENE	<0.924	<0.924	1.13	<0.924	<0.924	<0.924	<0.924	<1.85	<1.85	<0.924
CHLOROETHANE	<0.528	<0.528	<0.528	<0.528	<0.528	<0.528	<0.528	<1.06	<1.06	<0.528
CHLOROFORM	<0.973	<0.973	<0.973	<0.973	<0.973	<0.973	<0.973	<1.95	<1.95	<0.973
CHLOROMETHANE	1.15	1.15	1.36	1.32	1.23	1.26	1.2	1.61	1.73	1.15
2-CHLOROTOLUENE	<1.03	<1.03	1.53	<1.03	<1.03	<1.03	<1.03	<2.06	<2.06	<1.03
CYCLOHEXANE	1.69	<0.689	1.53	<0.689	<0.689	<0.689	<0.689	<1.38	<1.38	<0.689
CHLORODIBROMOMETHANE	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<3.4	<3.4	<1.7
1,2-DIBROMOETHANE	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54	<1.54	<3.08	<3.08	<1.54
1,2-DICHLOROBENZENE	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<2.4	<2.4	<1.2
1,3-DICHLOROBENZENE	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<2.4	<2.4	<1.2
1,4-DICHLOROBENZENE	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<2.4	<2.4	<1.2
1,2-DICHLOROETHANE	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<1.62	<1.62	<0.81
1,1-DICHLOROETHANE	<0.802	<0.802	<0.802	<0.802	<0.802	<0.802	<0.802	<1.6	<1.6	<0.802

TABLE 1
INDOOR AIR SAMPLING RESULTS
NOVEMBER 30, 2017
FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY
WATER VALLEY, MS

SAMPLE LOCATION: SAMPING DATE: LABORATORY ID:	IA-1 11/30/2017 L954578-01	IA-2 11/30/2017 L954578-02	IA-6 11/30/2017 L954578-03	IA-17 11/30/2017 L954578-04	IA-C16 11/30/2017 L954578-05	IA-K13 11/30/2017 L954578-06	IA-G4 11/30/2017 L954578-07	SSD-EFFLU 12/01/2017 L954578-08	SSD-INFLU 12/01/2017 L954578-09	AA-2 11/30/2017 L954578-10
Analyte	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
1,1-DICHLOROETHENE	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	1.73	2.47	<0.793
CIS-1,2-DICHLOROETHENE	<0.793	<0.793	3	<0.793	<0.793	<0.793	<0.793	1210	1590	<0.793
TRANS-1,2-DICHLOROETHENE	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	2.75	14.7	19.6	<0.793
1,2-DICHLOROPROPANE	<0.924	<0.924	<0.924	<0.924	<0.924	<0.924	<0.924	<1.85	<1.85	<0.924
CIS-1,3-DICHLOROPROPENE	<0.908	<0.908	<0.908	<0.908	<0.908	<0.908	<0.908	<1.82	<1.82	<0.908
TRANS-1,3-DICHLOROPROPENE	<0.908	<0.908	<0.908	<0.908	<0.908	<0.908	<0.908	<1.82	<1.82	<0.908
1,4-DIOXANE	1.05	<0.721	1.23	<0.721	<0.721	<0.721	<0.721	<1.44	<1.44	<0.721
ETHANOL	8,470 (E)	3250	2110	7920 (E)	4,380 (E)	4,950 (E)	4,790 (E)	5,500 (E)	8,170 (E)	234 (E)
ETHYLBENZENE	2.06	2.22	1.76	1.86	1.79	1.87	1.49	2.28	2.86	<0.867
4-ETHYLtolUENE	<0.982	1.23	<0.982	<0.982	1.44	<0.982	<0.982	<1.96	<1.96	<0.982
TRICHLOROFLUOROMETHANE	1.32	1.4	1.6	1.39	1.41	1.4	1.41	<2.25	<2.25	1.32
DICHLORODIFLUOROMETHANE	1.44	1.62	1.67	1.43	1.41	1.41	1.32	2.02	<1.98	1.38
1,1,2-TRICHLOROTRIFLUOROETHANE	<1.53	<1.53	<1.53	<1.53	<1.53	<1.53	<1.53	19.3	25.8	<1.53
1,2-DICHLOROTETRAFLUOROETHANE	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<2.8	<2.8	<1.4
HEPTANE	19.9	29.6	23.2	27.1	28.2	20.9	53.2	9.13	10.9	<0.818
HEXAChLORO-1,3-BUTADIENE	<6.73	<6.73	<6.73	<6.73	<6.73	<6.73	<6.73	<13.5	<13.5	<6.73
N-HEXANE	1.07	<0.705	1.01	<0.705	0.85	1.4	1.43	1.46	<1.41	<0.705
ISOPROPYLBENZENE	<0.983	<0.983	1.06	<0.983	<0.983	<0.983	<0.983	<1.97	<1.97	<0.983
METHYLENE CHLORIDE	<0.694	<0.694	0.911	<0.694	0.788	3.43	<0.694	2.13	<1.39	1.15
METHYL BUTYL KETONE	<5.11	<5.11	<5.11	<5.11	<5.11	<5.11	<5.11	<10.2	<10.2	<5.11
2-BUTANONE (MEK)	457	464	385	573	308	336	563	359	494	<3.69
4-METHYL-2-PENTANONE (MIBK)	<5.12	<5.12	<5.12	<5.12	<5.12	<5.12	<5.12	<10.2	<10.2	<5.12
METHYL METHACRYLATE	<0.819	<0.819	1.61	<0.819	<0.819	<0.819	<0.819	<1.64	<1.64	<0.819
METHYL TERT-BUTYL ETHER	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721	<1.44	<1.44	<0.721
NAPHTHALENE	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<3.3	<6.6	<6.6	<3.3
2-PROPANOL	9,930 (E)	3270	2670	7,190 (E)	5,220 (E)	6,520 (E)	7,530 (E)	3,230 (E)	5,240 (E)	31.1

TABLE 1
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NOVEMBER 30, 2017
FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY
WATER VALLEY, MS

SAMPLE LOCATION: SAMPING DATE: LABORATORY ID:	IA-1 11/30/2017 L954578-01	IA-2 11/30/2017 L954578-02	IA-6 11/30/2017 L954578-03	IA-17 11/30/2017 L954578-04	IA-C16 11/30/2017 L954578-05	IA-K13 11/30/2017 L954578-06	IA-G4 11/30/2017 L954578-07	SSD-EFFLU 12/01/2017 L954578-08	SSD-INFLU 12/01/2017 L954578-09	AA-2 11/30/2017 L954578-10
Analyte	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
PROPENE	<0.689	<0.689	62.5	<0.689	<0.689	<0.689	<0.689	<1.38	<1.38	<0.689
STYRENE	<0.851	<0.851	0.871	<0.851	<0.851	<0.851	<0.851	<1.7	<1.7	<0.851
1,1,2,2-TETRACHLOROETHANE	<1.37	<1.37	<1.37	<1.37	<1.37	<1.37	<1.37	<2.75	<2.75	<1.37
TETRACHLOROETHENE	<1.36	<1.36	3.16	2.34	<1.36	<1.36	<1.36	6.5	8.29	<1.36
TETRAHYDROFURAN	<0.59	<0.59	1.33	<0.59	<0.59	<0.59	<0.59	19.2	23.4	<0.59
TOLUENE	13.8	14.5	11.2	8.43	8.24	12	14.8	6.98	8.29	5.65
1,2,4-TRICHLOROBENZENE	<4.66	<4.66	<4.66	<4.66	<4.66	<4.66	<4.66	<9.33	<9.33	<4.66
1,1,1-TRICHLOROETHANE	<1.09	<1.09	<1.09	<1.09	<1.09	<1.09	<1.09	<2.18	<2.18	<1.09
1,1,2-TRICHLOROETHANE	<1.09	<1.09	<1.09	<1.09	<1.09	<1.09	<1.09	<2.18	<2.18	<1.09
TRICHLOROETHENE	15.3	5.01	4.06	1.89	<1.07	<1.07	<1.07	2,460	3,240	2.46
1,2,4-TRIMETHYLBENZENE	<0.982	4.65	2.88	2.86	2.39	2.85	2.66	2.81	3.8	<0.982
1,3,5-TRIMETHYLBENZENE	<0.982	1.34	1.05	1.07	<0.982	1.06	<0.982	<1.96	<1.96	<0.982
2,2,4-TRIMETHYL PENTANE	6.9	7.99	7.07	8.19	5.58	6.16	24.7	5.73	7.56	<0.934
VINYL CHLORIDE	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511	<0.511	14.2	19.8	<0.511
VINYL BROMIDE	<0.875	<0.875	<0.875	<0.875	<0.875	<0.875	<0.875	<1.75	<1.75	<0.875
VINYL ACETATE	<0.704	<0.704	<0.704	<0.704 (J4)	<0.704 (J4)	<0.704 (J4)	<0.704 (J4)	<1.41 (J4)	<1.41 (J4)	<0.704 (J4)
M&P-XYLENE	7.59	8.14	6.13	6.07	6	6.86	5.17	7.14	9.03	<1.73
O-XYLENE	2.59	2.76	2.11	2.1	2.49	2.44	1.74	2.3	2.9	<0.867
1,4-BROMOFLUOROBENZENE	98.6 21.5 101	118 106 99.3	106 97.4	102 97.6	101 97.4	98.2 102	91.5 104	96.3 102	103 99.0	98.5

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 NOVEMBER 2017
FORMER HOLLEY AUTOMOTIVE/COLTEC INDUSTRIES FACILITY
WATER VALLEY, MS

SAMPLE ID	SAMPLING DATE	LABORATORY ID	CoC Concentrations ($\mu\text{g}/\text{m}^3$)		
			Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride
	USEPA Vapor Intrusion Screening Level (VISL):		3	NA	2.8
IA-1	19-Jan-17	L1702183-01	268(D)	63.8	<0.051
	15-Feb-17	L890396-01	55.8	<0.793	2.51
	23-Feb-17	L892423-01	150	82.1	1.68
	9-Mar-17	L895061-01	425	97.9	2.47
	26-Mar-17	L898762-01	103	11.4	0.604
	26-Apr-17	L905292-01	78.3	<0.793	0.712
	14-May-17	L909544-01	72.7	14	<0.511
	25-May-17	L912423-03	219	<0.793	0.526
	7-Jun-17	L914832-13	41.7	<0.793	<0.511
	19-Jun-17	L917924-13	29.4	3.68	<0.511
	28-Jun-17	L920054-12	21.4	<0.793	<0.511
	21-Jul-17	L924410-01	23.8	<0.793	<0.511
	4-Aug-17	L927407-01	22.9	2.85	<0.511
	15-Aug-17	L930026-01	20.6	<0.793	<0.511
	5-Sep-17	L934535-01	21.8	3.17	<0.511
	21-Sep-17	L938896-01	14.7	<0.793	<0.511
	5-Oct-17	L942068-01	18.2	<0.793	<0.511
	19-Oct-17	L945503-01	14.1	<0.793	<0.511
	1-Nov-17	L948263-01	13.5	1.83	<0.511
	16-Nov-17	L952200-01	12.7	<0.793	<0.511
	30-Nov-17	L954578-01	15.3	<0.793	<0.511
IA-2	19-Jan-17	L1702183-02	187	43.2	<0.051
	15-Feb-17	L890396-02	97.1	<0.793	2.27
	23-Feb-17	L892423-02	157	79.4	1.57
	9-Mar-17	L895061-02	426	86.7	1.18
	9-Mar-17	L895061-04	438	88.7	1.68
	26-Mar-17	L898762-02	61.8	<0.793	<0.511
	26-Mar-17	L898762-04	82.3	<0.793	<0.511
	26-Apr-17	L905292-02	56.6	10.8	<0.511
	14-May-17	L909544-02	10.8	<0.793	<0.511
	25-May-17	L912423-08	160	<0.793	<0.511
	7-Jun-17	L914832-12	6.58	<0.793	<0.511
	19-Jun-17	L917924-12	8.16	1.88	<0.511
	28-Jun-17	L920054-13	4.21	<0.793	<0.511
	21-Jul-17	L924410-02	4.3	<0.793	<0.511
	4-Aug-17	L927407-02	2.94	<0.793	<0.511
	15-Aug-17	L930026-02	2.91	<0.793	<0.511
	5-Sep-17	L934535-02	3.52	0.967	<0.511
	21-Sep-17	L938896-02	2.22	<0.793	<0.511
	5-Oct-17	L942068-02	2.46	<0.793	<0.511
	19-Oct-17	L945503-02	1.87	<0.793	<0.511
	1-Nov-17	L948263-02	1.7	<0.793	<0.511
	16-Nov-17	L952200-02	1.82	<0.793	<0.511
	30-Nov-17	L954578-02	5.01	<0.793	<0.511
IA-6	19-Jan-17	L1702183-06	39	12.8	0.585
	15-Feb-17	L890396-03	21.7	<0.793	0.57
	23-Feb-17	L892423-03	47.1	14.2	<0.511
	9-Mar-17	L895061-03	48.6	12.3	0.511
	26-Mar-17	L898762-03	25.8	<0.793	<0.511
	26-Apr-17	L905292-03	26	9.12	<0.511
	14-May-17	L909544-03	19.5	<0.793	<0.511
	25-May-17	L912423-01	19.1	<0.793	<0.511
	7-Jun-17	L914832-11	5.75	<0.793	<0.511
	19-Jun-17	L917924-11	6.67	4.14	<0.511
	28-Jun-17	L920054-11	4.84	<0.793	<0.511
	21-Jul-17	L924410-03	4	<0.793	<0.511
	4-Aug-17	L927407-03	<1.07	<0.793	<0.511
	15-Aug-17	L930026-03	7.61	<0.793	<0.511
	5-Sep-17	L934535-03	6.85	5.17	<0.511
	21-Sep-17	L938896-03	4.65	<0.793	<0.511
	5-Oct-17	L942068-03	5.37	<0.793	<0.511
	19-Oct-17	L945503-03	6.31	<0.793	<0.511
	1-Nov-17	L948263-03	4.67	2.89	<0.511
	16-Nov-17	L952200-03	4.19	<0.793	<0.511
	30-Nov-17	L954578-03	4.06	3	<0.511
IA-14	19-Jan-17	L1702183-14	3.07	0.928	<0.051
	23-Feb-17	L892423-04	3.32	<0.793	<0.511
IA-17	14-May-17	L909544-05	13.5	<0.793	<0.511
	25-May-17	L912423-02	4.15	<0.793	<0.511
	7-Jun-17	L914832-10	3.96	<0.793	<0.511
	19-Jun-17	L917924-10	4.82	4.48	<0.511
	28-Jun-17	L920054-10	3.56	<0.793	<0.511
	21-Jul-17	L924410-04	3.27	<0.793	<0.511
	4-Aug-17	L927407-04	3.02	<0.793	<0.511
	15-Aug-17	L930026-04	<5.36	<3.96	<2.56
	5-Sep-17	L934535-04	3.04	5.6	<0.511
	21-Sep-17	L938896-04	1.46	<0.793	<0.511
	5-Oct-17	L942068-04	3.2	<0.793	<0.511
	19-Oct-17	L945503-04	2.79	<0.793	<0.511
	1-Nov-17	L948263-04	3.15	2.33	<0.511
	16-Nov-17	L952200-04	<1.07	<0.793	<0.511
	30-Nov-17	L954578-04	1.89	<0.793	<0.511

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

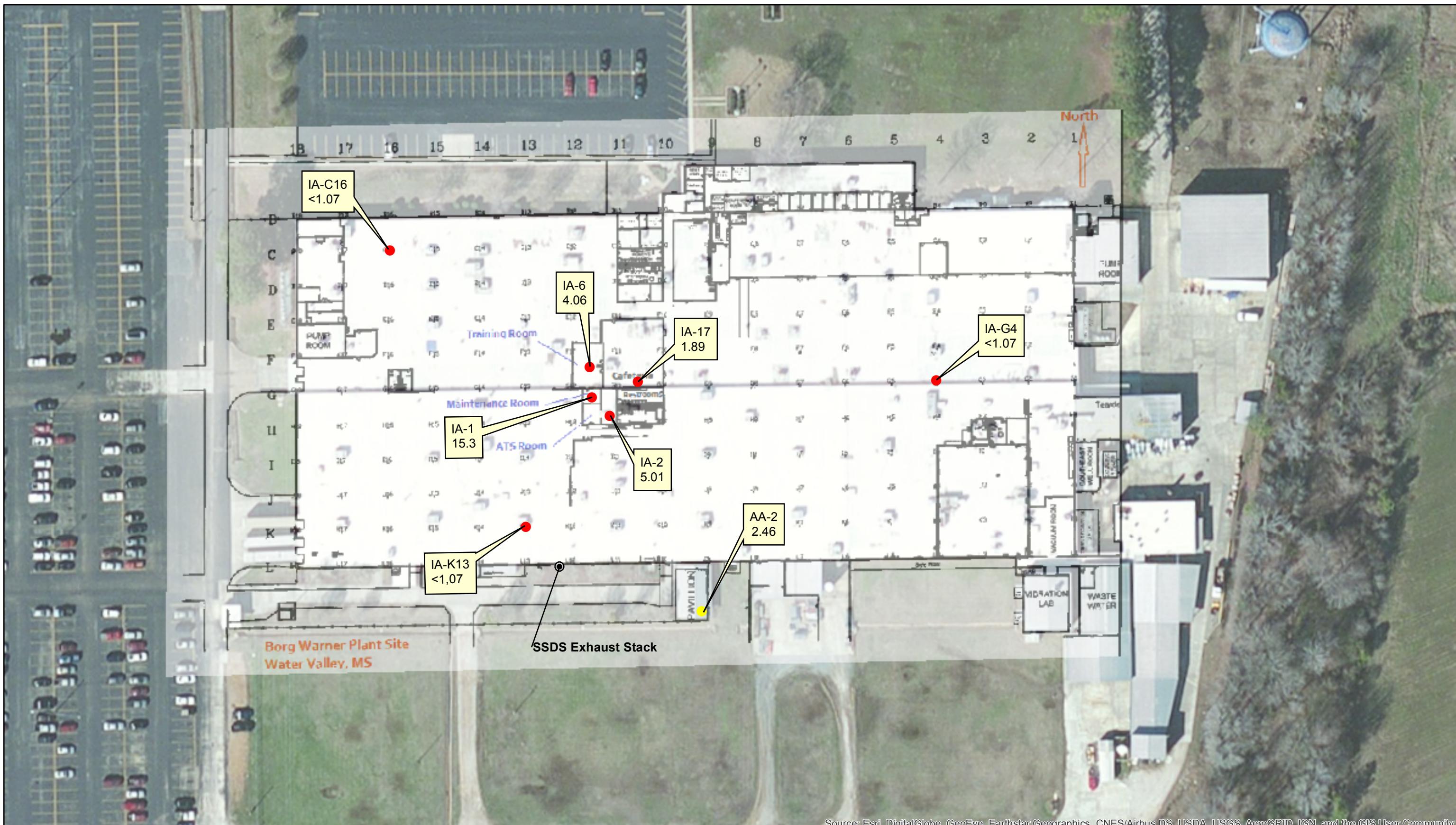
SAMPLE ID	SAMPLING DATE	LABORATORY ID	CoC Concentrations ($\mu\text{g}/\text{m}^3$)		
			Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride
	USEPA Vapor Intrusion Screening Level (VISL):		3	NA	2.8
IA-B12	26-Apr-17 25-May-17 7-Jun-17 19-Jun-17 28-Jun-17 21-Jul-17 4-Aug-17 15-Aug-17 5-Sep-17	L905292-04 L912423-05 L914832-07 L917924-09 L920054-08 L924410-05 L927407-05 L930026-05 L934535-05	6.54 3.08 1.64 1.66 <1.07 1.08 <1.07 <1.07 <1.07	1.77 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793	<0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511
IA-C16	26-Apr-17 25-May-17 7-Jun-17 19-Jun-17 28-Jun-17 21-Jul-17 4-Aug-17 15-Aug-17 5-Sep-17 30-Nov-17	L905292-05 L912423-06 L914832-08 L917924-07 L920054-07 L924410-06 L927407-06 L930026-06 L934535-06 L954578-05	6.48 3.88 1.55 2 1.22 1.08 1.25 <1.07 <1.07 <1.07	1.82 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793	<0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511
IA-D5	25-May-17 7-Jun-17 19-Jun-17 28-Jun-17 21-Jul-17 4-Aug-17 15-Aug-17 5-Sep-17	L912423-12 L914832-03 L917924-03 L920054-03 L924410-08 L927407-10 L930026-10 L934535-10	<1.07 1.47 1.66 <1.07 <1.07 <1.07 <1.07 1.3	<0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793	<0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511
IA-G4	25-May-17 7-Jun-17 19-Jun-17 28-Jun-17 21-Jul-17 4-Aug-17 15-Aug-17 5-Sep-17 30-Nov-17	L912423-11 L914832-02 L917924-02 L920054-02 L924410-09 L927407-11 L930026-11 L934535-11 L954578-07	<1.07 3.31 1.35 <1.07 <1.07 <1.07 <1.07 1.17 <1.07	<0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793	<0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511
IA-G13	26-Apr-17 14-May-17 25-May-17 7-Jun-17 19-Jun-17 28-Jun-17 21-Jul-17 4-Aug-17 15-Aug-17 5-Sep-17	L905292-06 L909544-04 L912423-06 L914832-06 L917924-06 L920054-06 L924410-07 L927407-07 L930026-07 L934535-07	8.98 4.65 3.88 2.54 2.46 1.41 1.6 1.76 1.25 1.78	<0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793	<0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511
IA-K8	25-May-17 7-Jun-17 19-Jun-17 28-Jun-17 21-Jul-17 4-Aug-17 15-Aug-17 5-Sep-17	L912423-10 L914832-01 L917924-01 L920054-01 L924410-10 L927407-12 L930026-12 L934535-12	1.47 7.86 1.31 <1.07 <1.07 <1.07 <1.07 <1.07	<0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793	<0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511
IA-K13	26-Apr-17 25-May-17 7-Jun-17 19-Jun-17 28-Jun-17 21-Jul-17 4-Aug-17 15-Aug-17 5-Sep-17 30-Nov-17	L905292-07 L912423-04 L914832-05 L917924-05 L920054-05 L924410-12 L927407-08 L930026-08 L934535-08 L954578-06	6.53 5.28 1.59 2.2 1.33 1.34 <1.07 1.67 <1.07	<0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793	<0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511
IA-L16	26-Apr-17 7-Jun-17 25-May-17 19-Jun-17 28-Jun-17 21-Jul-17 4-Aug-17 15-Aug-17 5-Sep-17	L905292-08 L914832-04 L912423-09 L917924-04 L920054-04 L924410-11 L927407-09 L930026-09 L934535-09	5.77 2.09 1.36 2.81 1.32 1.18 <1.07 1.13 1.14	1.75 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793 <0.793	<0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511 <0.511
EP-1	14-May-17	L909544-06	1420000	361000	46300
EP-2	14-May-17	L909544-07	2820000	560000	13200
IA-SUMP-DUP	25-May-17	L912423-15	83.1	<0.793	<0.511

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

SAMPLE ID	SAMPLING DATE	LABORATORY ID	CoC Concentrations ($\mu\text{g}/\text{m}^3$)		
			Trichloroethene	cis-1,2-Dichloroethene	Vinyl chloride
		USEPA Vapor Intrusion Screening Level (VIISL):	3	NA	2.8
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	<0.511
	25-May-17	L912423-13	<1.07	<0.793	<0.511
	7-Jun-17	L914832-09	<1.07	<0.793	<0.511
	19-Jun-17	L917924-08	<1.07	<0.793	<0.511
	28-Jun-17	L920054-09	16.7	<0.793	<0.511
	21-Jul-17	L924410-13	<1.07	<0.793	<0.511
	4-Aug-17	L927407-13	<1.07	<0.793	<0.511
	15-Aug-17	L930026-13	<1.07	<0.793	<0.511
	5-Sep-17	L934535-13	<1.07	<0.793	<0.511
	21-Sep-17	L938896-05	<1.07	<0.793	<0.511
	5-Oct-17	L942068-05	<1.07	<0.793	<0.511
	19-Oct-17	L945503-05	<1.07	<0.793	<0.511
	1-Nov-17	L948263-05	<1.07	<0.793	<0.511
	16-Nov-17	L952200-05	<1.07	<0.793	<0.511
	30-Nov-17	L954578-10	2.46	<0.793	<0.511
IA-ATS-2ND F	15-Aug-17	L930026-14	1.86	<0.793	<0.511
IA-OFFICE 2ND F	15-Aug-17	L930026-15	<1.07	<0.793	<0.511

D: Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte
VIISL: Calculated based on USEPA's OSWER Vapor Intrusion Assessment VIISL Calculator Version 3.4, November 2015 RSLs for Target Indoor Air Concentration @ TCR=1E-6 or THQ=1
TCR: Target Carcinogen Risk
THQ: Target Hazard Quotient for Non-Carcinogens

FIGURES



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

Legend

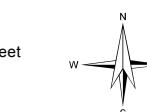
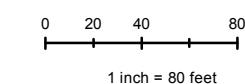
- IA-1: Indoor Air Concentrations in ug/m³
- AA-1: Ambient Air Concentrations in ug/m³
- SSDS Exhaust Stack

USEPA Screening Level for TCE: 3 ug/m³

MDEQ Action Level for TCE: 26 ug/m³

 TCE Level Exceeding the MDEQ Action Level

ND Concentration not detected above laboratory reported limits



**FIRST
ENVIRONMENT**

BORG WARNER FACILITY
600 Highway 32E, Water Valley, MS

FIGURE 1
INDOOR AIR SAMPLING RESULTS
NOVEMBER 30 2017

91 Fulton Street Boonton, New Jersey 07005	Revised LS	Drawn NMT	Checked NMT	Approved NMT	Date 12/7/17
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APPENDIX A

December 06, 2017

First Environment, Inc.

Sample Delivery Group: L954578
Samples Received: 12/02/2017
Project Number: ENPRO 002D-VM
Description: EnPro 002D-VM Borg Warner Plant Site
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-2 L954578-02	8	 ⁷ Gl
IA-6 L954578-03	10	 ⁸ Al
IA-17 L954578-04	12	 ⁹ Sc
IA-C16 L954578-05	14	
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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



			Collected by Michael Slack	Collected date/time 11/30/17 12:12	Received date/time 12/02/17 08:45
IA-1 L954578-01 Air	Method	Batch	Dilution	Preparation date/time	Analysis date/time
Volatile Organic Compounds (MS) by Method TO-15		WG1048756	1	12/03/17 00:31	12/03/17 00:31
Volatile Organic Compounds (MS) by Method TO-15		WG1049048	10	12/03/17 19:23	12/03/17 19:23
Volatile Organic Compounds (MS) by Method TO-15		WG1049299	40	12/04/17 16:11	12/04/17 16:11
IA-2 L954578-02 Air				Collected by Michael Slack	Collected date/time 11/30/17 12:20
IA-6 L954578-03 Air	Method	Batch	Dilution	Preparation date/time	Analysis date/time
Volatile Organic Compounds (MS) by Method TO-15		WG1048756	1	12/03/17 01:25	12/03/17 01:25
Volatile Organic Compounds (MS) by Method TO-15		WG1049053	80	12/03/17 23:04	12/03/17 23:04
IA-17 L954578-04 Air				Collected by Michael Slack	Collected date/time 11/30/17 12:10
IA-C16 L954578-05 Air	Method	Batch	Dilution	Preparation date/time	Analysis date/time
Volatile Organic Compounds (MS) by Method TO-15		WG1049053	1	12/03/17 14:32	12/03/17 14:32
Volatile Organic Compounds (MS) by Method TO-15		WG1049299	25	12/04/17 16:50	12/04/17 16:50
IA-K13 L954578-06 Air				Collected by Michael Slack	Collected date/time 11/30/17 12:00
IA-G4 L954578-07 Air	Method	Batch	Dilution	Preparation date/time	Analysis date/time
Volatile Organic Compounds (MS) by Method TO-15		WG1049053	1	12/03/17 16:03	12/03/17 16:03
Volatile Organic Compounds (MS) by Method TO-15		WG1049299	25	12/04/17 18:07	12/04/17 18:07
IA-G4 L954578-07 Air				Collected by Michael Slack	Collected date/time 11/30/17 12:05
IA-G4 L954578-07 Air	Method	Batch	Dilution	Preparation date/time	Analysis date/time
Volatile Organic Compounds (MS) by Method TO-15		WG1049053	1	12/03/17 16:51	12/03/17 16:51
Volatile Organic Compounds (MS) by Method TO-15		WG1049299	25	12/04/17 18:45	12/04/17 18:45

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

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



			Collected by Michael Slack	Collected date/time 12/01/17 00:00	Received date/time 12/02/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1049053	2	12/03/17 17:32	12/03/17 17:32	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1049299	25	12/04/17 19:24	12/04/17 19:24	AMC
SSD-INFLU L954578-09 Air			Collected by Michael Slack	Collected date/time 12/01/17 00:00	Received date/time 12/02/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1049053	2	12/03/17 18:14	12/03/17 18:14	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1049299	25	12/04/17 20:02	12/04/17 20:02	AMC
AA-2 L954578-10 Air			Collected by Michael Slack	Collected date/time 11/30/17 12:08	Received date/time 12/02/17 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1049053	1	12/03/17 18:59	12/03/17 18:59	MBF

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



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John Hawkins
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ GI
- ⁸ AI
- ⁹ SC



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	12.5	29.7	94.4	224		10	WG1049048
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1048756
Benzene	71-43-2	78.10	0.200	0.639	0.329	1.05		1	WG1048756
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1048756
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1048756
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1048756
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1048756
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1048756
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1048756
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1048756
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1048756
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1048756
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1048756
Chloromethane	74-87-3	50.50	0.200	0.413	0.555	1.15		1	WG1048756
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1048756
Cyclohexane	110-82-7	84.20	0.200	0.689	0.492	1.69		1	WG1048756
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1048756
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1048756
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1048756
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1048756
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1048756
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1048756
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1048756
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1048756
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1048756
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1048756
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1048756
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1048756
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1048756
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.291	1.05		1	WG1048756
Ethanol	64-17-5	46.10	25.2	47.5	4490	8470	E	40	WG1049299
Ethylbenzene	100-41-4	106	0.200	0.867	0.474	2.06		1	WG1048756
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1048756
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.235	1.32		1	WG1048756
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.291	1.44		1	WG1048756
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1048756
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1048756
Heptane	142-82-5	100	0.200	0.818	4.87	19.9		1	WG1048756
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1048756
n-Hexane	110-54-3	86.20	0.200	0.705	0.303	1.07		1	WG1048756
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1048756
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1048756
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1048756
2-Butanone (MEK)	78-93-3	72.10	12.5	36.9	155	457		10	WG1049048
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1048756
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1048756
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1048756
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1048756
2-Propanol	67-63-0	60.10	50.0	123	4040	9930	E	40	WG1049299
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1048756
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1048756
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1048756
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1048756
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1048756
Toluene	108-88-3	92.10	0.200	0.753	3.67	13.8		1	WG1048756
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1048756

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1048756
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1048756
Trichloroethylene	79-01-6	131	0.200	1.07	2.86	15.3		1	WG1048756
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1048756
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1048756
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	1.48	6.90		1	WG1048756
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1048756
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1048756
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1048756
m&p-Xylene	1330-20-7	106	0.400	1.73	1.75	7.59		1	WG1048756
o-Xylene	95-47-6	106	0.200	0.867	0.597	2.59		1	WG1048756
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.6				WG1049299
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		101				WG1049048
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		21.5		J2		WG1048756

Sample Narrative:

L954578-01 WG1048756: Surrogate failure due to matrix interference.

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
Acetone	67-64-1	58.10	100	238	1370	3240		80	WG1049053
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1048756
Benzene	71-43-2	78.10	0.200	0.639	0.406	1.30		1	WG1048756
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1048756
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1048756
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1048756
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1048756
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1048756
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1048756
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1048756
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1048756
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1048756
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1048756
Chloromethane	74-87-3	50.50	0.200	0.413	0.558	1.15		1	WG1048756
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1048756
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1048756
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1048756
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1048756
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1048756
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1048756
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1048756
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1048756
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1048756
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1048756
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1048756
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1048756
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1048756
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1048756
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1048756
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1048756
Ethanol	64-17-5	46.10	50.4	95.0	1720	3250		80	WG1049053
Ethylbenzene	100-41-4	106	0.200	0.867	0.513	2.22		1	WG1048756
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.252	1.23		1	WG1048756
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.249	1.40		1	WG1048756
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.327	1.62		1	WG1048756
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1048756
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1048756
Heptane	142-82-5	100	0.200	0.818	7.23	29.6		1	WG1048756
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1048756
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1048756
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1048756
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1048756
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1048756
2-Butanone (MEK)	78-93-3	72.10	100	295	157	464		80	WG1049053
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1048756
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1048756
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1048756
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1048756
2-Propanol	67-63-0	60.10	100	246	1330	3270		80	WG1049053
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1048756
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1048756
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1048756
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1048756
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1048756
Toluene	108-88-3	92.10	0.200	0.753	3.86	14.5		1	WG1048756
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1048756

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1048756
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1048756
Trichloroethylene	79-01-6	131	0.200	1.07	0.934	5.01		1	WG1048756
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.947	4.65		1	WG1048756
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.274	1.34		1	WG1048756
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	1.71	7.99		1	WG1048756
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1048756
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1048756
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1048756
m&p-Xylene	1330-20-7	106	0.400	1.73	1.88	8.14		1	WG1048756
o-Xylene	95-47-6	106	0.200	0.867	0.637	2.76		1	WG1048756
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.3				WG1049053
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		118				WG1048756

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	100	238	369	877		80	WG1049053
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1048743
Benzene	71-43-2	78.10	0.200	0.639	0.361	1.15		1	WG1048743
Benzyl Chloride	100-44-7	127	0.200	1.04	0.451	2.34	B	1	WG1048743
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1048743
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1048743
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1048743
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1048743
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1048743
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1048743
Chlorobenzene	108-90-7	113	0.200	0.924	0.245	1.13		1	WG1048743
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1048743
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1048743
Chloromethane	74-87-3	50.50	0.200	0.413	0.657	1.36		1	WG1048743
2-Chlorotoluene	95-49-8	126	0.200	1.03	0.298	1.53		1	WG1048743
Cyclohexane	110-82-7	84.20	0.200	0.689	0.445	1.53		1	WG1048743
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1048743
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1048743
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1048743
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1048743
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1048743
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1048743
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1048743
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1048743
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	0.756	3.00		1	WG1048743
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1048743
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1048743
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1048743
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1048743
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.342	1.23		1	WG1048743
Ethanol	64-17-5	46.10	50.4	95.0	1120	2110		80	WG1049053
Ethylbenzene	100-41-4	106	0.200	0.867	0.405	1.76		1	WG1048743
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1048743
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.284	1.60		1	WG1048743
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.338	1.67		1	WG1048743
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1048743
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1048743
Heptane	142-82-5	100	0.200	0.818	5.67	23.2		1	WG1048743
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1048743
n-Hexane	110-54-3	86.20	0.200	0.705	0.287	1.01		1	WG1048743
Isopropylbenzene	98-82-8	120.20	0.200	0.983	0.216	1.06		1	WG1048743
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.262	0.911		1	WG1048743
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1048743
2-Butanone (MEK)	78-93-3	72.10	100	295	131	385		80	WG1049053
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1048743
Methyl methacrylate	80-62-6	100.12	0.200	0.819	0.394	1.61		1	WG1048743
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1048743
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1048743
2-Propanol	67-63-0	60.10	100	246	1090	2670		80	WG1049053
Propene	115-07-1	42.10	0.400	0.689	36.3	62.5		1	WG1048743
Styrene	100-42-5	104	0.200	0.851	0.205	0.871		1	WG1048743
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1048743
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.465	3.16		1	WG1048743
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	0.450	1.33		1	WG1048743
Toluene	108-88-3	92.10	0.200	0.753	2.97	11.2		1	WG1048743
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1048743

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1048743
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1048743
Trichloroethylene	79-01-6	131	0.200	1.07	0.759	4.06		1	WG1048743
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.586	2.88		1	WG1048743
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.214	1.05		1	WG1048743
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	1.51	7.07		1	WG1048743
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1048743
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1048743
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1048743
m&p-Xylene	1330-20-7	106	0.400	1.73	1.41	6.13		1	WG1048743
o-Xylene	95-47-6	106	0.200	0.867	0.486	2.11		1	WG1048743
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		106				WG1048743
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.4				WG1049053

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	31.2	74.1	101	239		25	WG1049299
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1049053
Benzene	71-43-2	78.10	0.200	0.639	0.337	1.08		1	WG1049053
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1049053
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1049053
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1049053
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1049053
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1049053
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1049053
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1049053
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1049053
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1049053
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1049053
Chloromethane	74-87-3	50.50	0.200	0.413	0.638	1.32		1	WG1049053
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1049053
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1049053
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1049053
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1049053
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1049053
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1049053
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1049053
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1049053
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1049053
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1049053
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1049053
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1049053
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1049053
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1049053
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1049053
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1049053
Ethanol	64-17-5	46.10	15.8	29.8	4200	7920	E	25	WG1049299
Ethylbenzene	100-41-4	106	0.200	0.867	0.429	1.86		1	WG1049053
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1049053
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.248	1.39		1	WG1049053
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.289	1.43		1	WG1049053
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1049053
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1049053
Heptane	142-82-5	100	0.200	0.818	6.62	27.1		1	WG1049053
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1049053
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1049053
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1049053
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1049053
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1049053
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	194	573		25	WG1049299
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1049053
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1049053
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1049053
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1049053
2-Propanol	67-63-0	60.10	31.2	76.7	2930	7190	E	25	WG1049299
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1049053
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1049053
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1049053
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.345	2.34		1	WG1049053
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1049053
Toluene	108-88-3	92.10	0.200	0.753	2.24	8.43		1	WG1049053
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1049053

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1049053
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1049053
Trichloroethylene	79-01-6	131	0.200	1.07	0.352	1.89		1	WG1049053
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.583	2.86		1	WG1049053
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.217	1.07		1	WG1049053
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	1.75	8.19		1	WG1049053
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1049053
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1049053
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND	J4	1	WG1049053
m&p-Xylene	1330-20-7	106	0.400	1.73	1.40	6.07		1	WG1049053
o-Xylene	95-47-6	106	0.200	0.867	0.483	2.10		1	WG1049053
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.6				WG1049299
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		102				WG1049053

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	31.2	74.1	74.0	176		25	WG1049299
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1049053
Benzene	71-43-2	78.10	0.200	0.639	0.344	1.10		1	WG1049053
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1049053
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1049053
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1049053
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1049053
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1049053
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1049053
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1049053
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1049053
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1049053
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1049053
Chloromethane	74-87-3	50.50	0.200	0.413	0.594	1.23		1	WG1049053
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1049053
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1049053
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1049053
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1049053
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1049053
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1049053
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1049053
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1049053
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1049053
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1049053
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1049053
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1049053
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1049053
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1049053
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1049053
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1049053
Ethanol	64-17-5	46.10	15.8	29.8	2330	4380	E	25	WG1049299
Ethylbenzene	100-41-4	106	0.200	0.867	0.414	1.79		1	WG1049053
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.293	1.44		1	WG1049053
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.251	1.41		1	WG1049053
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.286	1.41		1	WG1049053
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1049053
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1049053
Heptane	142-82-5	100	0.200	0.818	6.89	28.2		1	WG1049053
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1049053
n-Hexane	110-54-3	86.20	0.200	0.705	0.241	0.850		1	WG1049053
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1049053
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.227	0.788		1	WG1049053
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1049053
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	104	308		25	WG1049299
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1049053
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1049053
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1049053
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1049053
2-Propanol	67-63-0	60.10	31.2	76.7	2120	5220	E	25	WG1049299
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1049053
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1049053
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1049053
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1049053
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1049053
Toluene	108-88-3	92.10	0.200	0.753	2.19	8.24		1	WG1049053
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1049053

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1049053
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1049053
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1049053
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.486	2.39		1	WG1049053
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1049053
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	1.20	5.58		1	WG1049053
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1049053
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1049053
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND	J4	1	WG1049053
m&p-Xylene	1330-20-7	106	0.400	1.73	1.38	6.00		1	WG1049053
o-Xylene	95-47-6	106	0.200	0.867	0.574	2.49		1	WG1049053
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		101				WG1049053
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.4				WG1049299

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	31.2	74.1	80.5	191		25	WG1049299
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1049053
Benzene	71-43-2	78.10	0.200	0.639	0.429	1.37		1	WG1049053
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1049053
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1049053
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1049053
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1049053
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1049053
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1049053
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1049053
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1049053
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1049053
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1049053
Chloromethane	74-87-3	50.50	0.200	0.413	0.610	1.26		1	WG1049053
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1049053
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1049053
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1049053
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1049053
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1049053
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1049053
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1049053
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1049053
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1049053
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1049053
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1049053
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1049053
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1049053
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1049053
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1049053
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1049053
Ethanol	64-17-5	46.10	15.8	29.8	2620	4950	E	25	WG1049299
Ethylbenzene	100-41-4	106	0.200	0.867	0.432	1.87		1	WG1049053
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1049053
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.249	1.40		1	WG1049053
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.286	1.41		1	WG1049053
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1049053
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1049053
Heptane	142-82-5	100	0.200	0.818	5.10	20.9		1	WG1049053
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1049053
n-Hexane	110-54-3	86.20	0.200	0.705	0.397	1.40		1	WG1049053
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1049053
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.987	3.43		1	WG1049053
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1049053
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	114	336		25	WG1049299
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1049053
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1049053
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1049053
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1049053
2-Propanol	67-63-0	60.10	31.2	76.7	2650	6520	E	25	WG1049299
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1049053
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1049053
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1049053
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1049053
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1049053
Toluene	108-88-3	92.10	0.200	0.753	3.18	12.0		1	WG1049053
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1049053

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1049053
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1049053
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1049053
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.580	2.85		1	WG1049053
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.216	1.06		1	WG1049053
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	1.32	6.16		1	WG1049053
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1049053
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1049053
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND	J4	1	WG1049053
m&p-Xylene	1330-20-7	106	0.400	1.73	1.58	6.86		1	WG1049053
o-Xylene	95-47-6	106	0.200	0.867	0.562	2.44		1	WG1049053
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		102				WG1049053
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.2				WG1049299

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	31.2	74.1	190	452		25	WG1049299
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1049053
Benzene	71-43-2	78.10	0.200	0.639	0.433	1.38		1	WG1049053
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1049053
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1049053
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1049053
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1049053
1,3-Butadiene	106-99-0	54.10	2.00	4.43	2.66	5.89		1	WG1049053
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1049053
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1049053
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1049053
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1049053
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1049053
Chloromethane	74-87-3	50.50	0.200	0.413	0.580	1.20		1	WG1049053
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1049053
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1049053
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1049053
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1049053
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1049053
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1049053
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1049053
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1049053
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1049053
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1049053
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1049053
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.693	2.75		1	WG1049053
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1049053
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1049053
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1049053
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1049053
Ethanol	64-17-5	46.10	15.8	29.8	2540	4790	E	25	WG1049299
Ethylbenzene	100-41-4	106	0.200	0.867	0.343	1.49		1	WG1049053
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1049053
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.251	1.41		1	WG1049053
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.268	1.32		1	WG1049053
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1049053
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1049053
Heptane	142-82-5	100	0.200	0.818	13.0	53.2		1	WG1049053
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1049053
n-Hexane	110-54-3	86.20	0.200	0.705	0.405	1.43		1	WG1049053
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1049053
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1049053
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1049053
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	191	563		25	WG1049299
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1049053
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1049053
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1049053
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1049053
2-Propanol	67-63-0	60.10	31.2	76.7	3060	7530	E	25	WG1049299
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1049053
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1049053
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1049053
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1049053
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1049053
Toluene	108-88-3	92.10	0.200	0.753	3.93	14.8		1	WG1049053
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1049053

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1049053
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1049053
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1049053
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.543	2.66		1	WG1049053
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1049053
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	5.29	24.7		1	WG1049053
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1049053
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1049053
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND	J4	1	WG1049053
m&p-Xylene	1330-20-7	106	0.400	1.73	1.19	5.17		1	WG1049053
o-Xylene	95-47-6	106	0.200	0.867	0.401	1.74		1	WG1049053
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		91.5				WG1049299
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		104				WG1049053

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc



Collected date/time: 12/01/17 00:00

L954578

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	140	334		25	WG1049299
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG1049053
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG1049053
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG1049053
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG1049053
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG1049053
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG1049053
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG1049053
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG1049053
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG1049053
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG1049053
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG1049053
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG1049053
Chloromethane	74-87-3	50.50	0.400	0.826	0.777	1.61		2	WG1049053
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG1049053
Cyclohexane	110-82-7	84.20	0.400	1.38	ND	ND		2	WG1049053
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG1049053
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG1049053
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG1049053
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG1049053
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG1049053
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG1049053
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG1049053
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	0.435	1.73		2	WG1049053
cis-1,2-Dichloroethene	156-59-2	96.90	5.00	19.8	304	1210		25	WG1049299
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	3.71	14.7		2	WG1049053
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG1049053
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG1049053
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG1049053
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG1049053
Ethanol	64-17-5	46.10	15.8	29.8	2920	5500	E	25	WG1049299
Ethylbenzene	100-41-4	106	0.400	1.73	0.526	2.28		2	WG1049053
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG1049053
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG1049053
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.409	2.02		2	WG1049053
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	2.52	19.3		2	WG1049053
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG1049053
Heptane	142-82-5	100	0.400	1.64	2.23	9.13		2	WG1049053
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG1049053
n-Hexane	110-54-3	86.20	0.400	1.41	0.414	1.46		2	WG1049053
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG1049053
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.612	2.13		2	WG1049053
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG1049053
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	122	359		25	WG1049299
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG1049053
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG1049053
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG1049053
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG1049053
2-Propanol	67-63-0	60.10	31.2	76.7	1310	3230	E	25	WG1049299
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG1049053
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG1049053
1,1,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG1049053
Tetrachloroethylene	127-18-4	166	0.400	2.72	0.958	6.50		2	WG1049053
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	6.51	19.2		2	WG1049053
Toluene	108-88-3	92.10	0.400	1.51	1.85	6.98		2	WG1049053
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG1049053

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG1049053
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG1049053
Trichloroethylene	79-01-6	131	5.00	26.8	459	2460		25	WG1049299
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.573	2.81		2	WG1049053
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG1049053
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	1.23	5.73		2	WG1049053
Vinyl chloride	75-01-4	62.50	0.400	1.02	5.56	14.2		2	WG1049053
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG1049053
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND	J4	2	WG1049053
m&p-Xylene	1330-20-7	106	0.800	3.47	1.65	7.14		2	WG1049053
o-Xylene	95-47-6	106	0.400	1.73	0.531	2.30		2	WG1049053
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		102				WG1049053
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.3				WG1049299

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	97.4	231		2	WG1049053
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG1049053
Benzene	71-43-2	78.10	0.400	1.28	0.420	1.34		2	WG1049053
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG1049053
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG1049053
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG1049053
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG1049053
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG1049053
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG1049053
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG1049053
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG1049053
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG1049053
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG1049053
Chloromethane	74-87-3	50.50	0.400	0.826	0.837	1.73		2	WG1049053
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG1049053
Cyclohexane	110-82-7	84.20	0.400	1.38	ND	ND		2	WG1049053
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG1049053
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG1049053
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG1049053
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG1049053
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG1049053
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG1049053
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG1049053
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	0.623	2.47		2	WG1049053
cis-1,2-Dichloroethene	156-59-2	96.90	5.00	19.8	400	1590		25	WG1049299
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	4.94	19.6		2	WG1049053
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG1049053
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG1049053
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG1049053
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG1049053
Ethanol	64-17-5	46.10	15.8	29.8	4330	8170	E	25	WG1049299
Ethylbenzene	100-41-4	106	0.400	1.73	0.660	2.86		2	WG1049053
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG1049053
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG1049053
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	ND	ND		2	WG1049053
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	3.37	25.8		2	WG1049053
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND		2	WG1049053
Heptane	142-82-5	100	0.400	1.64	2.66	10.9		2	WG1049053
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG1049053
n-Hexane	110-54-3	86.20	0.400	1.41	ND	ND		2	WG1049053
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG1049053
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG1049053
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG1049053
2-Butanone (MEK)	78-93-3	72.10	31.2	92.0	167	494		25	WG1049299
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG1049053
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG1049053
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG1049053
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG1049053
2-Propanol	67-63-0	60.10	31.2	76.7	2130	5240	E	25	WG1049299
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG1049053
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG1049053
1,1,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG1049053
Tetrachloroethylene	127-18-4	166	0.400	2.72	1.22	8.29		2	WG1049053
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	7.93	23.4		2	WG1049053
Toluene	108-88-3	92.10	0.400	1.51	2.20	8.29		2	WG1049053
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG1049053

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG1049053
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG1049053
Trichloroethylene	79-01-6	131	5.00	26.8	606	3240		25	WG1049299
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.775	3.80		2	WG1049053
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG1049053
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	1.62	7.56		2	WG1049053
Vinyl chloride	75-01-4	62.50	0.400	1.02	7.75	19.8		2	WG1049053
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG1049053
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND	J4	2	WG1049053
m&p-Xylene	1330-20-7	106	0.800	3.47	2.08	9.03		2	WG1049053
o-Xylene	95-47-6	106	0.400	1.73	0.669	2.90		2	WG1049053
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.0				WG1049299
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		103				WG1049053

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	5.55	13.2		1	WG1049053
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1049053
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1049053
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1049053
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1049053
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1049053
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1049053
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1049053
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1049053
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1049053
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1049053
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1049053
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1049053
Chloromethane	74-87-3	50.50	0.200	0.413	0.555	1.15		1	WG1049053
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1049053
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1049053
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1049053
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1049053
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1049053
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1049053
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1049053
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1049053
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1049053
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1049053
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1049053
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1049053
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1049053
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1049053
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1049053
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1049053
Ethanol	64-17-5	46.10	0.630	1.19	124	234	E	1	WG1049053
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1049053
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1049053
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.235	1.32		1	WG1049053
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.280	1.38		1	WG1049053
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1049053
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1049053
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1049053
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1049053
n-Hexane	110-54-3	86.20	0.200	0.705	ND	ND		1	WG1049053
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1049053
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.331	1.15		1	WG1049053
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1049053
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1049053
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1049053
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1049053
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1049053
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1049053
2-Propanol	67-63-0	60.10	1.25	3.07	12.6	31.1		1	WG1049053
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1049053
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1049053
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1049053
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1049053
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1049053
Toluene	108-88-3	92.10	0.200	0.753	1.50	5.65		1	WG1049053
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1049053

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	Batch
			ppbv	ug/m3	ppbv	ug/m3			
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1049053
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1049053
Trichloroethylene	79-01-6	131	0.200	1.07	0.459	2.46		1	WG1049053
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1049053
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1049053
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1049053
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1049053
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1049053
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND	J4	1	WG1049053
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1049053
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1049053
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.5				WG1049053

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ Al⁹ Sc



Method Blank (MB)

(MB) R3269915-3 12/02/17 10:19

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	
Allyl Chloride	U		0.0546	0.200	¹ Cp
Benzene	U		0.0460	0.200	² Tc
Benzyl Chloride	0.0874	J	0.0598	0.200	³ Ss
Bromodichloromethane	U		0.0436	0.200	⁴ Cn
Bromoform	U		0.0786	0.600	⁵ Sr
Bromomethane	U		0.0609	0.200	⁶ Qc
1,3-Butadiene	U		0.0563	2.00	⁷ Gl
Carbon disulfide	U		0.0544	0.200	⁸ Al
Carbon tetrachloride	U		0.0585	0.200	⁹ Sc
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	0.0809	J	0.0603	0.200	
1,3-Dichlorobenzene	U		0.0597	0.200	
1,4-Dichlorobenzene	0.0798	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	
Methylene Chloride	U		0.0465	0.200	



Method Blank (MB)

(MB) R3269915-3 12/02/17 10:19

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv									
Methyl Butyl Ketone	U		0.0682	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	0.341	J	0.154	0.630									
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	0.238	J	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									
(S) 1,4-Bromofluorobenzene	94.8			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) R3269915-1 12/02/17 08:41 • (LCSD) R3269915-2 12/02/17 09:29

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Propene	3.75	4.39	4.41	117	118	54.0-155			0.549	25
Dichlorodifluoromethane	3.75	3.64	3.69	97.1	98.5	69.0-143			1.41	25
1,2-Dichlorotetrafluoroethane	3.75	4.12	4.23	110	113	70.0-130			2.84	25
Chloromethane	3.75	4.30	4.33	115	116	70.0-130			0.891	25
Vinyl chloride	3.75	4.26	4.37	114	117	70.0-130			2.65	25
1,3-Butadiene	3.75	4.28	4.40	114	117	70.0-130			2.89	25
Bromomethane	3.75	4.47	4.53	119	121	70.0-130			1.34	25
Chloroethane	3.75	4.43	4.49	118	120	70.0-130			1.32	25
Trichlorofluoromethane	3.75	4.32	4.39	115	117	70.0-130			1.66	25



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

(LCS) R3269915-1 12/02/17 08:41 • (LCSD) R3269915-2 12/02/17 09:29

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
1,1,2-Trichlorotrifluoroethane	3.75	4.40	4.45	117	119	70.0-130			1.09	25
1,1-Dichloroethene	3.75	4.35	4.38	116	117	70.0-130			0.858	25
1,1-Dichloroethane	3.75	4.42	4.45	118	119	70.0-130			0.488	25
Carbon disulfide	3.75	4.42	4.45	118	119	70.0-130			0.758	25
Methylene Chloride	3.75	4.23	4.36	113	116	70.0-130			2.95	25
MTBE	3.75	4.45	4.49	119	120	70.0-130			0.922	25
trans-1,2-Dichloroethene	3.75	4.53	4.48	121	120	70.0-130			1.02	25
n-Hexane	3.75	4.46	4.50	119	120	70.0-130			0.872	25
Vinyl acetate	3.75	4.75	4.81	127	128	70.0-130			1.17	25
cis-1,2-Dichloroethene	3.75	4.42	4.53	118	121	70.0-130			2.65	25
Chloroform	3.75	4.41	4.42	118	118	70.0-130			0.257	25
Cyclohexane	3.75	4.43	4.46	118	119	70.0-130			0.680	25
1,1,1-Trichloroethane	3.75	4.40	4.46	117	119	70.0-130			1.38	25
Carbon tetrachloride	3.75	4.37	4.44	116	118	70.0-130			1.62	25
Benzene	3.75	4.40	4.45	117	119	70.0-130			1.12	25
1,2-Dichloroethane	3.75	4.26	4.34	114	116	70.0-130			1.77	25
Heptane	3.75	4.44	4.48	118	120	70.0-130			0.936	25
Trichloroethylene	3.75	4.39	4.43	117	118	70.0-130			0.878	25
1,2-Dichloropropane	3.75	4.34	4.41	116	118	70.0-130			1.73	25
1,4-Dioxane	3.75	4.52	4.74	120	126	70.0-152			4.78	25
Bromodichloromethane	3.75	4.37	4.43	117	118	70.0-130			1.31	25
cis-1,3-Dichloropropene	3.75	4.47	4.56	119	122	70.0-130			2.07	25
4-Methyl-2-pentanone (MIBK)	3.75	4.47	4.53	119	121	70.0-142			1.34	25
Toluene	3.75	4.47	4.53	119	121	70.0-130			1.38	25
trans-1,3-Dichloropropene	3.75	4.49	4.57	120	122	70.0-130			1.89	25
1,1,2-Trichloroethane	3.75	4.42	4.50	118	120	70.0-130			1.78	25
Tetrachloroethylene	3.75	4.38	4.45	117	119	70.0-130			1.75	25
Methyl Butyl Ketone	3.75	4.59	4.74	122	126	70.0-150			3.19	25
Dibromochloromethane	3.75	4.43	4.53	118	121	70.0-130			2.30	25
1,2-Dibromoethane	3.75	4.45	4.54	119	121	70.0-130			1.79	25
Chlorobenzene	3.75	4.39	4.50	117	120	70.0-130			2.47	25
Ethylbenzene	3.75	4.46	4.55	119	121	70.0-130			2.01	25
m&p-Xylene	7.50	8.84	9.01	118	120	70.0-130			1.86	25
o-Xylene	3.75	4.41	4.51	118	120	70.0-130			2.32	25
Styrene	3.75	4.48	4.62	119	123	70.0-130			3.16	25
Bromoform	3.75	4.36	4.50	116	120	70.0-130			3.18	25
1,1,2,2-Tetrachloroethane	3.75	4.19	4.39	112	117	70.0-130			4.64	25
4-Ethyltoluene	3.75	4.36	4.52	116	120	70.0-130			3.52	25
1,3,5-Trimethylbenzene	3.75	4.29	4.45	114	119	70.0-130			3.74	25
1,2,4-Trimethylbenzene	3.75	4.25	4.48	113	119	70.0-130			5.24	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) R3269915-1 12/02/17 08:41 • (LCSD) R3269915-2 12/02/17 09:29

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
1,3-Dichlorobenzene	3.75	4.29	4.47	114	119	70.0-130			4.20	25
1,4-Dichlorobenzene	3.75	4.23	4.45	113	119	70.0-130			5.20	25
Benzyl Chloride	3.75	4.25	4.53	113	121	70.0-144			6.45	25
1,2-Dichlorobenzene	3.75	4.03	4.28	107	114	70.0-130			6.10	25
1,2,4-Trichlorobenzene	3.75	3.85	4.18	103	112	70.0-155			8.34	25
Hexachloro-1,3-butadiene	3.75	3.88	4.08	103	109	70.0-145			5.10	25
Naphthalene	3.75	3.77	4.12	101	110	70.0-155			8.89	25
Allyl Chloride	3.75	4.50	4.54	120	121	70.0-130			0.806	25
2-Chlorotoluene	3.75	4.23	4.38	113	117	70.0-130			3.55	25
Methyl Methacrylate	3.75	4.52	4.58	121	122	70.0-130			1.23	25
Tetrahydrofuran	3.75	4.48	4.55	119	121	70.0-140			1.52	25
2,2,4-Trimethylpentane	3.75	4.52	4.58	121	122	70.0-130			1.35	25
Vinyl Bromide	3.75	4.56	4.54	122	121	70.0-130			0.461	25
Isopropylbenzene	3.75	4.32	4.48	115	120	70.0-130			3.68	25
(S) 1,4-Bromofluorobenzene				101	102	60.0-140				

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3269916-3 12/02/17 10:00

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	
Allyl Chloride	U		0.0546	0.200	¹ Cp
Benzene	U		0.0460	0.200	² Tc
Benzyl Chloride	U		0.0598	0.200	³ Ss
Bromodichloromethane	U		0.0436	0.200	⁴ Cn
Bromoform	U		0.0786	0.600	⁵ Sr
Bromomethane	U		0.0609	0.200	⁶ Qc
1,3-Butadiene	U		0.0563	2.00	⁷ Gl
Carbon disulfide	0.0779	J	0.0544	0.200	⁸ Al
Carbon tetrachloride	U		0.0585	0.200	⁹ Sc
Chlorobenzene	U		0.0601	0.200	
Chloroethane	U		0.0489	0.200	
Chloroform	U		0.0574	0.200	
Chloromethane	U		0.0544	0.200	
2-Chlorotoluene	U		0.0605	0.200	
Cyclohexane	U		0.0534	0.200	
Dibromochloromethane	U		0.0494	0.200	
1,2-Dibromoethane	U		0.0185	0.200	
1,2-Dichlorobenzene	U		0.0603	0.200	
1,3-Dichlorobenzene	U		0.0597	0.200	
1,4-Dichlorobenzene	U		0.0557	0.200	
1,2-Dichloroethane	U		0.0616	0.200	
1,1-Dichloroethane	U		0.0514	0.200	
1,1-Dichloroethene	U		0.0490	0.200	
cis-1,2-Dichloroethene	U		0.0389	0.200	
trans-1,2-Dichloroethene	U		0.0464	0.200	
1,2-Dichloropropane	U		0.0599	0.200	
cis-1,3-Dichloropropene	U		0.0588	0.200	
trans-1,3-Dichloropropene	U		0.0435	0.200	
1,4-Dioxane	U		0.0554	0.200	
Ethylbenzene	U		0.0506	0.200	
4-Ethyltoluene	U		0.0666	0.200	
Trichlorofluoromethane	U		0.0673	0.200	
Dichlorodifluoromethane	U		0.0601	0.200	
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.200	
1,2-Dichlorotetrafluoroethane	U		0.0458	0.200	
Heptane	U		0.0626	0.200	
Hexachloro-1,3-butadiene	0.0840	J	0.0656	0.630	
n-Hexane	U		0.0457	0.200	
Isopropylbenzene	U		0.0563	0.200	
Methylene Chloride	U		0.0465	0.200	



L954578-01,02

Method Blank (MB)

(MB) R3269916-3 12/02/17 10:00

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv									
Methyl Butyl Ketone	U		0.0682	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	0.154	J	0.154	0.630									
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	0.0663	J	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									
(S) 1,4-Bromofluorobenzene	98.6			60.0-140									

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3269916-1 12/02/17 08:32 • (LCSD) R3269916-2 12/02/17 09:16

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Propene	3.75	3.37	3.48	89.9	92.8	54.0-155			3.08	25
Dichlorodifluoromethane	3.75	3.39	3.26	90.3	86.9	69.0-143			3.85	25
1,2-Dichlorotetrafluoroethane	3.75	3.59	3.47	95.7	92.5	70.0-130			3.42	25
Chloromethane	3.75	3.49	3.52	93.0	93.8	70.0-130			0.873	25
Vinyl chloride	3.75	3.68	3.61	98.1	96.2	70.0-130			2.00	25
1,3-Butadiene	3.75	3.77	3.59	100	95.6	70.0-130			4.97	25
Bromomethane	3.75	3.73	3.81	99.6	102	70.0-130			1.96	25
Chloroethane	3.75	3.60	3.60	96.0	96.0	70.0-130			0.0207	25
Trichlorofluoromethane	3.75	3.64	3.70	97.1	98.6	70.0-130			1.59	25



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

(LCS) R3269916-1 12/02/17 08:32 • (LCSD) R3269916-2 12/02/17 09:16

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
1,1,2-Trichlorotrifluoroethane	3.75	3.64	3.70	97.0	98.6	70.0-130			1.61	25
1,1-Dichloroethene	3.75	3.60	3.69	96.0	98.3	70.0-130			2.43	25
1,1-Dichloroethane	3.75	3.60	3.60	95.9	96.1	70.0-130			0.216	25
Carbon disulfide	3.75	3.51	3.48	93.7	92.8	70.0-130			0.892	25
Methylene Chloride	3.75	3.50	3.69	93.3	98.4	70.0-130			5.31	25
MTBE	3.75	3.64	3.60	97.1	96.0	70.0-130			1.12	25
trans-1,2-Dichloroethene	3.75	3.66	3.67	97.6	97.8	70.0-130			0.241	25
n-Hexane	3.75	3.59	3.62	95.8	96.5	70.0-130			0.679	25
Vinyl acetate	3.75	3.86	3.86	103	103	70.0-130			0.0577	25
cis-1,2-Dichloroethene	3.75	3.70	3.80	98.8	101	70.0-130			2.50	25
Chloroform	3.75	3.62	3.65	96.6	97.2	70.0-130			0.689	25
Cyclohexane	3.75	3.62	3.62	96.7	96.6	70.0-130			0.0775	25
1,1,1-Trichloroethane	3.75	3.65	3.64	97.2	97.1	70.0-130			0.155	25
Carbon tetrachloride	3.75	3.66	3.69	97.5	98.4	70.0-130			0.894	25
Benzene	3.75	3.68	3.74	98.1	99.8	70.0-130			1.69	25
1,2-Dichloroethane	3.75	3.66	3.72	97.5	99.1	70.0-130			1.67	25
Heptane	3.75	3.55	3.57	94.8	95.3	70.0-130			0.506	25
Trichloroethylene	3.75	3.70	3.66	98.6	97.6	70.0-130			1.03	25
1,2-Dichloropropane	3.75	3.58	3.64	95.5	97.1	70.0-130			1.58	25
1,4-Dioxane	3.75	3.64	3.70	97.0	98.6	70.0-152			1.58	25
Bromodichloromethane	3.75	3.67	3.70	98.0	98.6	70.0-130			0.655	25
cis-1,3-Dichloropropene	3.75	3.78	3.82	101	102	70.0-130			1.17	25
4-Methyl-2-pentanone (MIBK)	3.75	3.68	3.72	98.2	99.2	70.0-142			1.04	25
Toluene	3.75	3.67	3.71	97.9	99.0	70.0-130			1.13	25
trans-1,3-Dichloropropene	3.75	3.82	3.95	102	105	70.0-130			3.43	25
1,1,2-Trichloroethane	3.75	3.77	3.85	101	103	70.0-130			2.10	25
Tetrachloroethylene	3.75	3.71	3.76	98.9	100	70.0-130			1.36	25
Methyl Butyl Ketone	3.75	3.95	3.93	105	105	70.0-150			0.682	25
Dibromochloromethane	3.75	3.84	3.83	102	102	70.0-130			0.107	25
1,2-Dibromoethane	3.75	3.85	3.90	103	104	70.0-130			1.31	25
Chlorobenzene	3.75	3.76	3.78	100	101	70.0-130			0.759	25
Ethylbenzene	3.75	3.71	3.76	98.9	100	70.0-130			1.30	25
m&p-Xylene	7.50	7.47	7.54	99.6	101	70.0-130			0.908	25
o-Xylene	3.75	3.69	3.72	98.4	99.2	70.0-130			0.812	25
Styrene	3.75	3.75	3.82	100	102	70.0-130			1.76	25
Bromoform	3.75	3.82	3.85	102	103	70.0-130			0.907	25
1,1,2,2-Tetrachloroethane	3.75	3.63	3.71	96.7	99.0	70.0-130			2.35	25
4-Ethyltoluene	3.75	3.69	3.75	98.5	100	70.0-130			1.62	25
1,3,5-Trimethylbenzene	3.75	3.75	3.73	99.9	99.4	70.0-130			0.472	25
1,2,4-Trimethylbenzene	3.75	3.68	3.77	98.1	101	70.0-130			2.48	25

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



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

(LCS) R3269916-1 12/02/17 08:32 • (LCSD) R3269916-2 12/02/17 09:16

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
1,3-Dichlorobenzene	3.75	3.74	3.73	99.9	99.5	70.0-130			0.368	25
1,4-Dichlorobenzene	3.75	3.76	3.84	100	102	70.0-130			2.17	25
Benzyl Chloride	3.75	3.82	3.91	102	104	70.0-144			2.27	25
1,2-Dichlorobenzene	3.75	3.73	3.76	99.4	100	70.0-130			0.909	25
1,2,4-Trichlorobenzene	3.75	4.04	4.10	108	109	70.0-155			1.66	25
Hexachloro-1,3-butadiene	3.75	3.79	3.84	101	102	70.0-145			1.28	25
Naphthalene	3.75	3.92	4.07	104	109	70.0-155			3.98	25
Allyl Chloride	3.75	3.62	3.65	96.5	97.3	70.0-130			0.827	25
2-Chlorotoluene	3.75	3.75	3.73	100	99.5	70.0-130			0.491	25
Methyl Methacrylate	3.75	3.67	3.77	97.9	100	70.0-130			2.60	25
Tetrahydrofuran	3.75	3.67	3.65	98.0	97.4	70.0-140			0.599	25
2,2,4-Trimethylpentane	3.75	3.58	3.64	95.5	97.0	70.0-130			1.50	25
Vinyl Bromide	3.75	3.66	3.70	97.6	98.7	70.0-130			1.11	25
Isopropylbenzene	3.75	3.65	3.71	97.4	99.0	70.0-130			1.65	25
(S) 1,4-Bromofluorobenzene				99.8	99.6	60.0-140				

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



Method Blank (MB)

(MB) R3270010-3 12/03/17 09:03

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.0569	1.25
2-Butanone (MEK)	U		0.0493	1.25
(S) 1,4-Bromofluorobenzene	99.1			60.0-140

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3270010-1 12/03/17 07:36 • (LCSD) R3270010-2 12/03/17 08:19

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acetone	3.75	3.86	3.81	103	102	70.0-130			1.23	25
Methyl Ethyl Ketone	3.75	4.03	3.90	108	104	70.0-130			3.41	25
(S) 1,4-Bromofluorobenzene			100	101		60.0-140				

L954578-02,03,04,05,06,07,08,09,10

Method Blank (MB)

(MB) R3270041-3 12/03/17 09:17

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv	
Acetone	U		0.0569	1.25	¹ Cp
Allyl Chloride	U		0.0546	0.200	² Tc
Benzene	U		0.0460	0.200	³ Ss
Benzyl Chloride	0.0950	J	0.0598	0.200	⁴ Cn
Bromodichloromethane	U		0.0436	0.200	⁵ Sr
Bromoform	U		0.0786	0.600	⁶ Qc
Bromomethane	U		0.0609	0.200	⁷ Gl
1,3-Butadiene	U		0.0563	2.00	⁸ Al
Carbon disulfide	U		0.0544	0.200	⁹ Sc
Carbon tetrachloride	U		0.0585	0.200	
Chlorobenzene	U		0.0601	0.200	
Chloroethane	U		0.0489	0.200	
Chloroform	U		0.0574	0.200	
Chloromethane	U		0.0544	0.200	
2-Chlorotoluene	U		0.0605	0.200	
Cyclohexane	U		0.0534	0.200	
Dibromochloromethane	U		0.0494	0.200	
1,2-Dibromoethane	U		0.0185	0.200	
1,2-Dichlorobenzene	0.0776	J	0.0603	0.200	
1,3-Dichlorobenzene	0.0641	J	0.0597	0.200	
1,4-Dichlorobenzene	0.0845	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	

L954578-02,03,04,05,06,07,08,09,10

Method Blank (MB)

(MB) R3270041-3 12/03/17 09:17

Analyte	MB Result ppbv	<u>MB Qualifier</u>	MB MDL ppbv	MB RDL ppbv								
Methylene Chloride	U		0.0465	0.200								
Methyl Butyl Ketone	U		0.0682	1.25								
2-Butanone (MEK)	U		0.0493	1.25								
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25								
Methyl Methacrylate	U		0.0773	0.200								
MTBE	U		0.0505	0.200								
Naphthalene	0.331	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	0.224	J	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	95.4			60.0-140								

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3270041-1 12/03/17 07:40 • (LCSD) R3270041-2 12/03/17 08:28

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD	RPD Limits
Ethanol	3.75	4.75	4.70	127	125	52.0-158			1.04	25
Propene	3.75	4.65	4.69	124	125	54.0-155			0.848	25
Dichlorodifluoromethane	3.75	3.69	3.70	98.3	98.5	69.0-143			0.260	25
1,2-Dichlorotetrafluoroethane	3.75	4.23	4.28	113	114	70.0-130			1.16	25
Chloromethane	3.75	4.55	4.55	121	121	70.0-130			0.119	25



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

(LCS) R3270041-1 12/03/17 07:40 • (LCSD) R3270041-2 12/03/17 08:28

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Vinyl chloride	3.75	4.43	4.45	118	119	70.0-130			0.416	25
1,3-Butadiene	3.75	4.57	4.62	122	123	70.0-130			1.15	25
Bromomethane	3.75	4.36	4.33	116	115	70.0-130			0.761	25
Chloroethane	3.75	4.49	4.46	120	119	70.0-130			0.628	25
Trichlorofluoromethane	3.75	4.40	4.38	117	117	70.0-130			0.534	25
1,1,2-Trichlorotrifluoroethane	3.75	4.43	4.40	118	117	70.0-130			0.879	25
1,1-Dichloroethene	3.75	4.50	4.43	120	118	70.0-130			1.44	25
1,1-Dichloroethane	3.75	4.53	4.51	121	120	70.0-130			0.423	25
Acetone	3.75	4.66	4.62	124	123	70.0-130			0.659	25
2-Propanol	3.75	4.62	4.64	123	124	66.0-150			0.488	25
Carbon disulfide	3.75	4.47	4.46	119	119	70.0-130			0.425	25
Methylene Chloride	3.75	4.47	4.43	119	118	70.0-130			0.683	25
MTBE	3.75	4.50	4.53	120	121	70.0-130			0.651	25
trans-1,2-Dichloroethene	3.75	4.47	4.47	119	119	70.0-130			0.0100	25
n-Hexane	3.75	4.60	4.61	123	123	70.0-130			0.261	25
Vinyl acetate	3.75	4.92	4.89	131	130	70.0-130	J4		0.525	25
Methyl Ethyl Ketone	3.75	4.75	4.72	127	126	70.0-130			0.676	25
cis-1,2-Dichloroethene	3.75	4.57	4.55	122	121	70.0-130			0.517	25
Chloroform	3.75	4.48	4.46	119	119	70.0-130			0.315	25
Cyclohexane	3.75	4.52	4.49	121	120	70.0-130			0.772	25
1,1,1-Trichloroethane	3.75	4.47	4.42	119	118	70.0-130			1.07	25
Carbon tetrachloride	3.75	4.41	4.40	118	117	70.0-130			0.205	25
Benzene	3.75	4.45	4.42	119	118	70.0-130			0.568	25
1,2-Dichloroethane	3.75	4.33	4.37	115	117	70.0-130			1.05	25
Heptane	3.75	4.62	4.60	123	123	70.0-130			0.573	25
Trichloroethylene	3.75	4.38	4.38	117	117	70.0-130			0.180	25
1,2-Dichloropropane	3.75	4.44	4.46	118	119	70.0-130			0.607	25
1,4-Dioxane	3.75	4.76	4.72	127	126	70.0-152			0.850	25
Bromodichloromethane	3.75	4.46	4.47	119	119	70.0-130			0.0553	25
cis-1,3-Dichloropropene	3.75	4.50	4.58	120	122	70.0-130			1.62	25
4-Methyl-2-pentanone (MIBK)	3.75	4.70	4.68	125	125	70.0-142			0.363	25
Toluene	3.75	4.54	4.52	121	121	70.0-130			0.554	25
trans-1,3-Dichloropropene	3.75	4.55	4.54	121	121	70.0-130			0.247	25
1,1,2-Trichloroethane	3.75	4.47	4.48	119	119	70.0-130			0.311	25
Tetrachloroethylene	3.75	4.41	4.43	118	118	70.0-130			0.516	25
Methyl Butyl Ketone	3.75	4.86	4.85	130	129	70.0-150			0.165	25
Dibromochloromethane	3.75	4.51	4.54	120	121	70.0-130			0.560	25
1,2-Dibromoethane	3.75	4.52	4.49	121	120	70.0-130			0.794	25
Chlorobenzene	3.75	4.49	4.52	120	120	70.0-130			0.527	25
Ethylbenzene	3.75	4.48	4.52	119	120	70.0-130			0.764	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) R3270041-1 12/03/17 07:40 • (LCSD) R3270041-2 12/03/17 08:28

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
m&p-Xylene	7.50	8.86	8.90	118	119	70.0-130			0.439	25
o-Xylene	3.75	4.44	4.46	118	119	70.0-130			0.408	25
Styrene	3.75	4.56	4.54	121	121	70.0-130			0.275	25
Bromoform	3.75	4.42	4.42	118	118	70.0-130			0.0541	25
1,1,2,2-Tetrachloroethane	3.75	4.32	4.33	115	116	70.0-130			0.359	25
4-Ethyltoluene	3.75	4.47	4.47	119	119	70.0-130			0.0627	25
1,3,5-Trimethylbenzene	3.75	4.37	4.39	117	117	70.0-130			0.332	25
1,2,4-Trimethylbenzene	3.75	4.40	4.42	117	118	70.0-130			0.497	25
1,3-Dichlorobenzene	3.75	4.32	4.36	115	116	70.0-130			0.971	25
1,4-Dichlorobenzene	3.75	4.34	4.31	116	115	70.0-130			0.759	25
Benzyl Chloride	3.75	4.38	4.38	117	117	70.0-144			0.0290	25
1,2-Dichlorobenzene	3.75	4.18	4.19	111	112	70.0-130			0.231	25
1,2,4-Trichlorobenzene	3.75	3.95	4.00	105	107	70.0-155			1.28	25
Hexachloro-1,3-butadiene	3.75	3.95	3.96	105	106	70.0-145			0.236	25
Naphthalene	3.75	3.88	3.99	103	106	70.0-155			2.93	25
Allyl Chloride	3.75	4.73	4.68	126	125	70.0-130			1.20	25
2-Chlorotoluene	3.75	4.35	4.34	116	116	70.0-130			0.174	25
Methyl Methacrylate	3.75	4.66	4.63	124	124	70.0-130			0.650	25
Tetrahydrofuran	3.75	4.73	4.71	126	126	70.0-140			0.518	25
2,2,4-Trimethylpentane	3.75	4.68	4.67	125	124	70.0-130			0.214	25
Vinyl Bromide	3.75	4.51	4.49	120	120	70.0-130			0.318	25
Isopropylbenzene	3.75	4.41	4.42	118	118	70.0-130			0.193	25
(S) 1,4-Bromofluorobenzene			103	103	60.0-140					

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc



L954578-01,04,05,06,07,08,09

Method Blank (MB)

(MB) R3270261-3 12/04/17 09:48

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.0569	1.25
cis-1,2-Dichloroethene	U		0.0389	0.200
2-Butanone (MEK)	U		0.0493	1.25
2-Propanol	U		0.0882	1.25
Trichloroethylene	U		0.0545	0.200
Ethanol	U		0.0832	0.630
(S) 1,4-Bromofluorobenzene	97.6		60.0-140	

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

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

(LCS) R3270261-1 12/04/17 08:26 • (LCSD) R3270261-2 12/04/17 09:07

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Ethanol	3.75	3.48	3.65	92.7	97.4	52.0-158			4.91	25
Acetone	3.75	3.63	3.67	96.9	97.8	70.0-130			0.930	25
2-Propanol	3.75	3.53	3.61	94.2	96.3	66.0-150			2.15	25
Methyl Ethyl Ketone	3.75	3.76	3.75	100	100	70.0-130			0.303	25
cis-1,2-Dichloroethene	3.75	3.80	3.75	101	99.9	70.0-130			1.50	25
Trichloroethylene	3.75	3.83	3.79	102	101	70.0-130			1.17	25
(S) 1,4-Bromofluorobenzene			99.8	101	60.0-140					



Guide to Reading and Understanding Your Laboratory Report

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

Abbreviations and Definitions

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

Qualifier

Description

B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J4	The associated batch QC was outside the established quality control range for accuracy.



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		

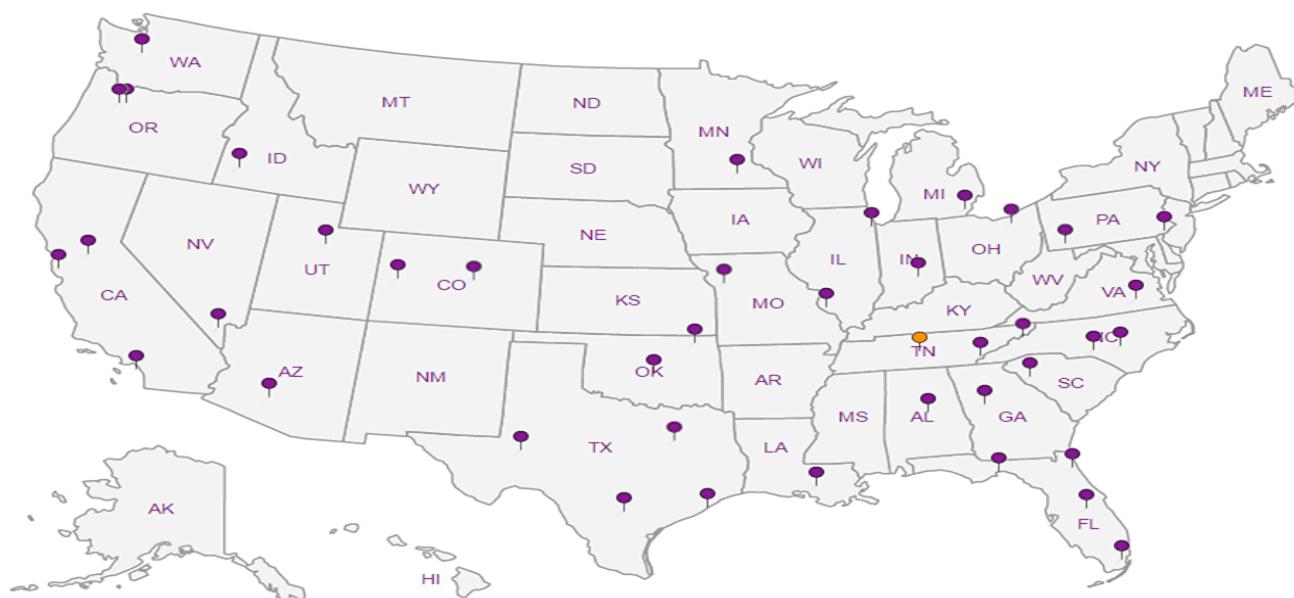
Third Party & Federal Accreditations

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.**

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Company Name/Address: FIRST ENVIRONMENT 91 FULTON ST. BOONTON, NJ 07005		Billing Information: PROJECT: ENPRO002D-VM FIRST ENVIRONMENT INC. 91 FULTON ST BOONTON NJ 07005 ATTN: JUSTIN PICOLI JPICOLI@FIRSTENVIRONMENT.COM		Analysis / Container / Preservative								Chain of Custody	Page ____ of ____		
Report to: MICHAEL T. SLACK(FE)		Email To: MSLACK@FIRSTENVIRONMENT.COM										ESCL LA-B S-C-I-E-N-C-E-S YOUR LAB OF CHOICE			
Project ENPRO - COLTEC - WATER VALLEY, MS Description: BORGWARNER PLANT SITE - INDOOR AIR		City/State WATER VALLEY, MS Collected: BORGWARNER PLANT SITE										12055 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859			
Phone: 973-334-0003	Client Project #	Lab Project #										L# 1954578			
Fax: 973-334-0928	ENPRO002D-VM	FIRENVBNJ-OXFORDMS										Table M085			
Collected by (print): MICHAEL SLACK	Site/Facility ID # BORGWARNER PLANT SITE	P.O. #										Acctnum: FIRENVBNJ			
Collected by (signature): MICHAEL SLACK	Rush? (Lab MUST Be Notified) Same Day _____ 200% Next Day _____ 100% Two Day _____ 50% Three Day _____ 25%	Date Results Needed STANDARD TURNAROUND										Template: T720396			
Immediately ✓ Packed on ice N ✓ Y	Email? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	No. of Entris										Prelogin: P625912			
Sample ID	Comp/Grab	Matrix *	Depth	Date START	Time START									TSR: John V. Hawkins	
IA-1	COMP 24-HR	AIR	-	11/30/17	12:12									PB: BF 11/3/17	
IA-2	COMP 24-HR	AIR	-	11/30/17	12:20									Shipped Via: Ground	
IA-6	COMP 24-HR	AIR	-	11/30/17	12:10									Rem./Contaminant	
IA-17	COMP 24-HR	AIR	-	11/30/17	12:24									Sample # (Lab only)	
IA-C16	COMP 24-HR	AIR	-	11/30/17	12:00									-01	
IA-K13	COMP 24-HR	AIR	-	11/30/17	12:07									02	
IA-G4	COMP 24-HR	AIR	-	11/30/17	12:05									03	
SSD-EFFLU	GRAB	AIR	-	12/1/17	12:29 ^{11/5}									04	
SSD-INFILU	GRAB	AIR	-	12/1/17	12:39 ^{11/5}									05	
AA-2	COMP 24-HR	AIR	-	11/30/17	12:08									06	
														07	
														08	
														09	
														10	
* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other AIR SEE SAMPLE TABLE FOR ADDITIONAL INFO.														pH _____	Temp _____
(5-MIN.-GRAB)														Flow _____	Other _____
Remarks: IA - INDOOR AIR; AA - AMBIENT AIR; SSD - SYSTEM AIR PERMIT EVALUATION														Hold #	
Relinquished by: (Signature) MICHAEL SLACK		Date: 12/1/17	Time: 15:45	Received by: (Signature)		Samples returned via: <input type="checkbox"/> UPS		Condition: <input type="checkbox"/> (lab use only)							
						<input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>									
Relinquished by: (Signature)		Date:	Time:	Received by: (Signature)		Temp: 70 °C Bottles Received: 10		COC Seal Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA							
Relinquished by: (Signature)		Date: 12/1/17	Time: 8:45	Received for lab by: (Signature) DMW 12/1/17 8:45		Date: 12/1/17	Time: 8:45	pH Checked: <input type="checkbox"/>	NCF: <input type="checkbox"/>						

Invo: FIRENVBNJ-0XFOR Date : 03Nov17
 Customer : P625912 Weight : 10 LBS
 Phone : (615)758-5858 COD :
 SAT Del : Y DV : 0.00
 Svc: PRIORITY OVERNIGHT
 TRCK: 4094 6310 2560

Indoor Air Monitoring (Bi-Weekly Sampling)

Borg Warner Facility

Water Valley, Yalobusha Co., MS

November 30 – December 1, 2017

Indoor Air (IA), Ambient Air (AA), Air Permit Evaluation (SSD) - Sampling Event

Invo: FIRENVBNJ-0XFOR Date : 03Nov17
 Customer : P625912 Weight : 10 LBS
 Phone : (615)758-5858 COD :
 SAT Del : Y DV :
 Svc: PRIORITY OVERNIGHT
 TRCK: 4094 6310 2560

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

L954K78

Sample ID	Sample Location	Flow Controller ID	Canister ID	Canister Size (liters)	Initial Date/time	Vacuum ("Hg)	Final Date/time	Vacuum ("Hg)	Sampler
IA-1	Maintenance Room	7791	7362	6	11/30/17 12:12	21	12/1/17 11:10	1	M. Slack
IA-2	ATS Room.	7720 6245	5367 7660	6	11/30/17 12:20	30	12/1/17 12:20	13	M. Slack
IA-6	Training Room	7766	5080	6	11/30/17 12:10	30	12/1/17 12/1/17	10	M. Slack
IA-17	Cafeteria	8416	5654	6	11/30/17 12:24	30	12/1/17 11:50	2	M. Slack
IA-C16	I-Beam C16	6003	7921	6	11/30/17 12:00	29	11:38 12/1/17	2	M. Slack
IA-K13	I-Beam K13	5895	7383	6	11/30/17 12:07	26	11:00 12/1/17	1	M. Slack
IA-G4	I-Beam G4	8449	6576	6	11/30/17 12:05	30	12:05 12/1/17	7	M. Slack
SSD-EFFLU	SSDS-Effluent Stack	8385	7249	1	12/1/17	27	12:29 12/1/17	12:34 12/1/17	M. Slack
SSD-INFLU	SSDS-Influent Pre-Control Unit	8418	8025	1	12/1/17	30	12:39 12/1/17	12:44 12/1/17	M. Slack
AA-2	Pavilion	5729	6085	6	12:08	26	12:00 12/1/17	5	M. Slack

Weather Conditions (@ time of canister placement):

Sunny - W INSE-LAQM (SE - 3 mph)
 70°F 65% HUMIDITY

Michael T. Slack (First Environment)

Invo: FIRENVBNJ-0XFOR Date : 25Oct17
 Customer : P623946 Weight : 10 LBS
 Phone : (615)758-5858 COD :
 SAT Del : Y DV : 0.00 Total :

Svc: PRIORITY OVERNIGHT
 TRCK: 4094 6306 9375

Invo: FIRENVBNJ-0XFOR Date : 03Nov17
 Customer : P625912 Weight : 10 LBS
 Phone : (615)758-5858 COD :
 SAT Del : Y DV : 0.00 Total :

Svc: PRIORITY OVERNIGHT
 TRCK: 4094 6310 2560

MTS
 12/1/17

ESC LAB SCIENCES
Cooler Receipt Form

Client:	FERENY BNJ	SDG#	L954578
Cooler Received/Opened On:	12/ 2 /17	Temperature:	AMBI
Received by :	Christian Kacar		
Signature:	<i>dwk</i>		
Receipt Check List	NP	Yes	No
COC Seal Present / Intact?		/	
COC Signed / Accurate?		/	
Bottles arrive intact?		/	
Correct bottles used?		/	
Sufficient volume sent?		/	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			