

Emergency Discharges / Spills should be reported via the 24-Hour Hotline: 1-800-943-0003

Notice: Hazardous substance discharges must be reported immediately according to s. 292.11 Wis. Stats. Non-emergency hazardous substance discharges may be reported by telefaxing or e-mailing a completed report to the Department, or calling or visiting a Department office in person. If you choose to notify the Department by telefax or by email, you should use this form to be sure that all necessary information is included. However, use of this form is not mandatory. Under s. 292.99, Wis. Stats., the penalty for violating the reporting requirements of ch. 292 Wis. Stats., shall be no less than \$10 nor more than \$5000 for each violation. Each day of continued violation is a separate offense. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than program administration. However, information submitted on this form may also be made available to requesters under Wisconsin's Open Records Law (ss. 19.31 – 19.39, Wis. Stats.).

Confirmatory laboratory data should be included with this form, to assist the DNR in processing this Hazardous Substance Release Notification.

Complete this form. **TYPE or PRINT LEGIBLY.** NOTIFY appropriate DNR region (see next page) **IMMEDIATELY** upon discovery of a potential release from (**check one**):

- Underground Petroleum Storage Tank System (additional information may be required for Item 6 below)
- Aboveground Petroleum Storage Tank System
- Dry Cleaner Facility
- Other - Describe: _____

ATTN DNR: **R & R Program Associate** Date DNR Notified: **01/04/2019**

1. Discharge Reported By		
Name Gregory S. Walsh	Firm Assured Environmental Associates, Inc.	Phone Number (include area code) (262) 781-4646
Mailing Address 14120 W Glendale Avenue, Brookfield WI 53005	Email aea@wi.rr.com	

2. Site Information
Name of site at which discharge occurred. Include local name of site/business, not responsible party name, unless a residence/vacant property. One Hour Martinizing/ Martinizing Green Cleaning
Location: Include street address, <u>not PO Box</u> . If no street address, describe as precisely as possible, i.e., 1/4 mile NW of CTHs 60 & 123 on E side of CTH 60. 1035 Summit Avenue
Municipality: (City, Village, Township) Specify municipality in which the site is located, not mailing address/city. City of Oconomowoc
County Waukesha
Legal Description: _____ ¼ of _____ ¼ Section _____, Town _____ N, Range _____ <input type="radio"/> E <input type="radio"/> W
WTM: X Y

3. Responsible Party (RP) and/or RP Representative
Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary. One Hour Martinizing
<input type="checkbox"/> A local governmental unit claiming an exemption from state Spill Law and Solid Waste Management responsibilities for the discharge being reported, per Wis. Stat. §§ 292.11(9)(e) and 292.23, should: 1) check this box; 2) review DNR publication RR-055 ; and 3) provide documentation to DNR that demonstrates compliance with the statutory requirements of the liability exemptions. Local governmental units may also request a fee-based liability clarification letter from DNR by using DNR Form 4400-237 .
Contact Person Name (if different) Maura O'Connor
Phone Number (414) 258-2972
Email jenningsrealstate@sbcglobal.net
Mailing Address 7635 West Bluemound Road, Ste. 203
City Milwaukee
State WI
ZIP Code 53213

Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary. One Hour Martinizing/ Marinizing Green Cleaning				
Contact Person Name (if different) Brian Cass	Phone Number (414) 588-9847	Email brian@ohmholdings.com	City Waukesha	State WI
Mailing Address W229 N2494 Highway F	City Waukesha	State WI	ZIP Code 53186	

Notification For Hazardous Substance Discharge (Non-Emergency Only)

4. Hazardous Substance Information

Identify hazardous substance discharged (check all that apply):

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> VOCs
<input checked="" type="checkbox"/> PCE
<input type="checkbox"/> TCE
<input type="checkbox"/> Other Chlorinated
<input type="checkbox"/> Diesel
<input type="checkbox"/> Fuel Oil
<input type="checkbox"/> Gasoline
<input type="checkbox"/> Hydraulic Oil
<input type="checkbox"/> Jet Fuel | <i>(VOCs continued)</i>
<input type="checkbox"/> Mineral Oil
<input type="checkbox"/> Waste Oil
<input type="checkbox"/> Petroleum-Unknown Type
<input type="checkbox"/> PAHs
<input type="checkbox"/> PCBs
<input type="checkbox"/> Cyanide
<input type="checkbox"/> Leachate
<input type="checkbox"/> Manure | <input type="checkbox"/> Metals
<input type="checkbox"/> Arsenic
<input type="checkbox"/> Chromium
<input type="checkbox"/> Lead
<input type="checkbox"/> Other: _____
<input type="checkbox"/> Pesticides: _____
<input type="checkbox"/> Fertilizer: _____
<input type="checkbox"/> RCRA Hazardous Waste: _____
<input checked="" type="checkbox"/> Other: <u>Dry cleaner solvent</u>
<input type="checkbox"/> Unknown |
|---|--|---|

5. Impacts to the Environment Information

Enter "K" for known/confirmed or "P" for potential for all that apply.

- | | | |
|--|---|--|
| <input type="checkbox"/> Air Contamination | <input type="checkbox"/> Fire Explosion Threat | <input type="checkbox"/> Soil Contamination |
| <input type="checkbox"/> Co-mingled (Petroleum & Non-Petroleum) Contamination in Fractured Bedrock | <input type="checkbox"/> Free Product | <input type="checkbox"/> Soil Gas Contamination |
| <input type="checkbox"/> Contamination Within 1 Meter of Bedrock | <input checked="" type="checkbox"/> Groundwater Contamination | <input checked="" type="checkbox"/> Sub-slab Vapor Contamination |
| <input type="checkbox"/> Contaminated Private Well | <input type="checkbox"/> Off-Site Contamination | <input type="checkbox"/> Surface Water Contamination |
| <input type="checkbox"/> Contaminated Public Well | <input type="checkbox"/> Sanitary Sewer Contamination | <input type="checkbox"/> Within 100 ft of Private Well |
| <input type="checkbox"/> Contamination in Right of Way | <input type="checkbox"/> Storm Sewer Contamination | <input type="checkbox"/> Within 1000 ft of Public Well |
| | <input type="checkbox"/> Sediment Contamination | |
| | Other (specify): _____ | |

Contamination was discovered as a result of:

- | | | |
|--|---|--|
| <input type="checkbox"/> Tank closure assessment | <input checked="" type="checkbox"/> Site assessment | <input type="checkbox"/> Other - Describe: _____ |
| Date <input type="text"/> | Date <input type="text" value="12/31/2018"/> | Date <input type="text"/> |

Lab results: Lab results will be faxed upon receipt Lab results are attached

Additional Comments: Include a brief description of immediate actions taken to halt the release and contain or cleanup hazardous substances that have been discharged.

6. Federal Energy Act Requirements (Section 9002(d) of the Solid Waste Disposal Act (SWDA))

	Source	Cause
For all confirmed releases from USTs occurring after 9/30/2007 please provide the following information: <input type="checkbox"/> Does not apply.	<input type="checkbox"/> Tank <input type="checkbox"/> Piping <input type="checkbox"/> Dispenser <input type="checkbox"/> Submersible Turbine Pump <input type="checkbox"/> Delivery Problem <input type="checkbox"/> Other (specify): _____	<input type="checkbox"/> Spill <input type="checkbox"/> Overfill <input type="checkbox"/> Corrosion <input type="checkbox"/> Physical or Mechanical Damage <input type="checkbox"/> Installation Problem <input type="checkbox"/> Other (does not fit any of above) <input type="checkbox"/> Unknown

Contact information to report non-emergency releases in DNR's five regions are as follows:

- Northeast Region (FAX: 920-662-5413); Attention -- R&R Program Associate:** DNRRRNER@wisconsin.gov
 Brown, Calumet, Door, Fond du Lac (except City of Waupun - see South Central Region), Green Lake, Kewaunee, Manitowoc, Marinette, Marquette, Menominee, Oconto, Outagamie, Shawano, Sheboygan, Waupaca, Waushara, Winnebago counties
- Northern Region (FAX: 715-623-6773); Attention -- R&R Program Associate:** DNRRRNOR@wisconsin.gov
 Ashland, Barron, Bayfield, Burnett, Douglas, Forest, Florence, Iron, Langlade, Lincoln, Oneida, Polk, Price, Rusk, Sawyer, Taylor, Vilas, Washburn counties
- South Central Region (FAX: 608-273-5610); Attention -- R&R Program Associate:** DNRRRSCR@wisconsin.gov
 Columbia, Dane, Dodge, Fond du Lac (City of Waupun only), Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock, Sauk, Walworth counties
- Southeast Region (FAX: 414-263-8550); Attention -- R&R Program Associate:** DNRRRSER@wisconsin.gov
 Kenosha, Milwaukee, Ozaukee, Racine, Washington, Waukesha counties

Notification For Hazardous Substance Discharge (Non-Emergency Only)

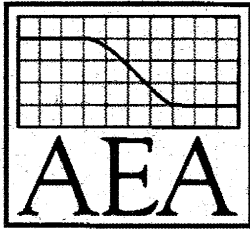
Gregory S. Walsh Assured Environmental Associates, Inc.

Form 4400-225 (R 06/17)

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West Central Region (FAX: 715-839-6076); Attention -- R&R Program Associate: DNRRRWCR@wisconsin.gov

Adams, Buffalo, Chippewa, Clark, Crawford, Dunn, Eau Claire, Jackson, Juneau, LaCrosse, Marathon, Monroe, Pepin, Pierce, Portage, St. Croix, Trempealeau, Vernon, Wood counties



December 31, 2018

Ms. Maura O'Connor
Jennings Properties
7635 W. Bluemound Road, Suite 203
Milwaukee, WI 53213-3500

Re: Sub-slab Vapor Sampling Results
1035 East Summit Avenue, Oconomowoc, Wisconsin

Dear Ms. O'Connor:

Assured Environmental Associates, Inc. (AEA) performed sub-slab vapor sampling in the former dry cleaners at the above referenced property (Property). This letter will provide details of the sampling procedures and the results of laboratory analysis of the samples.

Background

AEA performed a City of Oconomowoc building records review on December 11, 2018. The city records related to the Property document that the building was constructed in 1973 and One Hour Martinizing is listed as an occupant at that time. AEA discussed the Property with Deputy Fire Chief Glenn Leidel, of the Western Lakes Fire District who was familiar with the operations at the Property having performed fire inspections on the Property. Deputy Chief Leidel recalled solvent dry-cleaning operations being performed on the Property prior to more recent drop-off dry cleaning service. AEA was not provided any details of the solvent used or the waste handling related to the solvent dry cleaning operations.

Methods of Investigation

The sub-slab vapor sampling procedures provided in the WDNR Publication RR-986 dated July 24, 2017 and guidance from WDNR Publication RR-800 were followed for the sub slab sampling. Vapor Pins were installed in 3 locations in locations within the dry cleaner's space approximately 4-feet, 16-feet, and 35-feet north of the south wall along the approximate east/west midline. Sample canisters under vacuum were connected to the sample ports and sub-

slab soil gas samples were obtained. A fourth sample was obtained from the approximate center of the room for background air sampling. The soil gas samples were submitted to ESC Lab Sciences/Pace for volatile organic compound (VOC) analysis under standard chain of custody.

Two leak tests (one for the sampling train and one for the sample probe) were conducted for every sub-slab vapor sample in order to establish air tightness prior to sampling. The fitting connecting the tubing between the sub-slab probe and summa canisters were confirmed to be air tight with a shut in test and helium shroud per procedures provided in RR-986. The water dam method was also used to establish airtightness of the probe seals with the concrete and tubing.

Sampling Results

The results of sub-slab sampling are provided on the attached ESC Lab Sciences/Pace analytical report and summarized on the attached Vapor Sampling Results Table along with the sub-slab Vapor Risk Screening Levels (VRSLs) provided in the WDNR Quick Look-Up Table.

All parameters from all locations were shown to have VOC concentrations below the sub-slab VRSLs for small commercial and large commercial/industrial land uses. The naphthalene concentration in one sample exceeded the VRSL for residential properties. VOCs, including chlorinated volatile organic compounds (CVOCs), were detected in all sub-slab vapor sampling locations.

Spill Reporting

The Wisconsin spills law, Chapter 292.11, Wis. Stats., requires that a person who possesses or controls a hazardous substance or who causes the discharge of a hazardous substance shall notify the department *immediately* of any discharge not exempted by the statute. Based on the results of this sampling, AEA recommends that the Property owner and the tenant notify the WDNR of the sampling results by completion of a Notification For Hazardous Substance Discharge (Non-Emergency Only) Form 4400-225 and submitting the completed form to the WDNR. If directed by the Property owner, AEA would prepare and submit the form 4400-225.

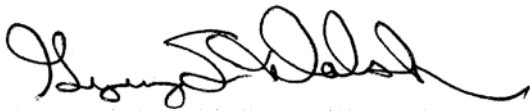
Limitations and Reliance

This report has been prepared to assist the evaluation of the subject property with regard to the existence of volatile organic compounds on the Property at the time of this study. The conclusions presented in the report were based on information available at the time of the study, some of which was presented by others for use by AEA. AEA relies on the information provided by others as being correct and AEA does not warrant the accuracy of the information supplied by others. No warranty, expressed or implied is made. This Assessment presents AEA's professional interpretation and judgment of the existing site conditions based on information gathered. Professional judgments expressed are based on facts currently available within the limits of the

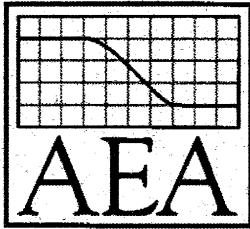
mutually agreed to scope of work, budget, and schedule. This assessment is not intended to be exhaustive in scope. These services were performed consistent with the agreement of our client and may not be reproduced or distributed without written authorization of AEA. Any unauthorized use of this report is strictly prohibited and AEA assumes no liability for any such use.

If you have any questions or comments, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Gregory S. Walsh". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Gregory S. Walsh
ASSURED ENVIRONMENTAL ASSOCIATES, INC.



Vapor Sampling Results Table¹
 Former One-Hour Martinizing
 1035 East Summit Avenue
 Oconomowoc, Wisconsin

Parameter	VRSL			Sampling Location			
	Residential	Small Commercial	Large Commercial	Point 1	Point 2	Point 3	Point 4
ACETONE	NL	NL	NL	40.2	5.23	24	11.1
BENZENE	37	160	490	3.05	1.26	3.42	0.322
1,3-BUTADIENE	NL	NL	NL	2.4	<0.188	0.286	<0.188
CARBON DISULFIDE	NL	NL	NL	2.15	0.222	0.889	<0.181
CHLOROMETHANE	1,500	6,300	19,000	<0.181	<0.181	<0.181	0.756
CYCLOHEXANE	NL	NL	NL	3.94	0.243	3.89	<0.178
ETHANOL	NL	NL	NL	29.8	22.9	36.4	72.6E
ETHYLBENZENE	83	370	1,100	2.79	2.72	2.92	<0.169
4-ETHYLTOLUENE	NL	NL	NL	0.627	0.456	0.55	<0.222
TRICHLOROFLUOROMETHANE	NL	NL	NL	0.483	0.406	0.591	0.264
DICHLORODIFLUOROMETHANE	670	2900	8,800	0.292	0.335	0.319	0.324
HEPTANE	NL	NL	NL	6.69	0.669	11.8	<0.209
N-HEXANE	NL	NL	NL	13.3	0.77	18.4	0.478
ISOPROPYLBENZENE	NL	NL	NL	<0.188	0.434	<0.188	<0.188
METHYLENE CHLORIDE	6000	25,000	74,000	0.258B	0.166B	0.376B	0.229B
2-BUTANONE (MEK)	NL	NL	NL	6.63	1.63	5.05	1.07
4-METHYL-2-PENTANONE (MIBK)	NL	NL	NL	1.2	0.599	1.21	<0.217
NAPHTHALENE	5.3	23	68	<0.513	5.49	<0.513	<0.513
2-PROPANOL	NL	NL	NL	3.6	0.929	2.31	2.7
TETRACHLOROETHENE	210	900	2,700	18.9	48.4	19.6	<0.166
TETRAHYDROFURAN	NL	NL	NL	1.1	0.674	1.07	<0.169
TOLUENE	NL	NL	NL	16	15.2	16.2	1.06
TRICHLOROETHENE	13	53	160	0.313	<0.182	<0.182	<0.182
1,2,4-TRIMETHYLBENZENE	430	1,700	5,200	2.6	2.38	2.15	0.239
1,3,5-TRIMETHYLBENZENE	430	1,700	5,200	0.638	0.466	0.557	<0.210
2,2,4-TRIMETHYLPENTANE	NL	NL	NL	2.12	1.67	2.19	<0.152
M&P-XYLENE	770	3,300	10,000	9.4	10.1	9.16	<0.315
O-XYLENE	770	3,300	10,000	3.43	3.74	3.33	<0.211

¹ All concentrations in parts per billion by volume (ppbv). Sampling completed on December 20, 2018.
 VRSL = Vapor Risk Screening Level; Standards are from Wisconsin Department of Natural Resources Vapor Quick Look-up Table
 NL - no standard listed in VRSL Quick Look-up Table. Sample Point 4 is a background sample. All other samples are of sub-slab vapor. Concentration in bold exceed the VRSL for residential properties.

December 31, 2018

Assured Environmental Associates, Inc

Sample Delivery Group: L1055631
Samples Received: 12/21/2018
Project Number: SUMMIT AVE
Description: Summit Ave.

Report To: Gregory Walsh
14120 West Glendale Avenue
Brookfield, WI 53005

Entire Report Reviewed By:



John Hawkins
Project Manager

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 Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



Cp: Cover Page	1	¹Cp
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SAMPLE SUMMARY



POINT 1 #6922 L1055631-01 Air

Collected by
Michael Goy Collected date/time
12/20/18 00:00 Received date/time
12/21/18 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1216856	1	12/28/18 19:13	12/28/18 19:13	AMC

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

POINT 2 #9129 L1055631-02 Air

Collected by
Michael Goy Collected date/time
12/20/18 00:00 Received date/time
12/21/18 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1216856	1	12/28/18 20:02	12/28/18 20:02	AMC

POINT 3 #7670 L1055631-03 Air

Collected by
Michael Goy Collected date/time
12/20/18 00:00 Received date/time
12/21/18 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1216856	1	12/28/18 20:49	12/28/18 20:49	AMC

POINT 4 #5395 L1055631-04 Air

Collected by
Michael Goy Collected date/time
12/20/18 00:00 Received date/time
12/21/18 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1216856	1	12/28/18 21:34	12/28/18 21:34	AMC



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All 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
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Collected date/time: 12/20/18 00:00

L1055631

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	0.190	0.451	40.2	95.5		1	WG1216856
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1216856
Benzene	71-43-2	78.10	0.153	0.489	3.05	9.74		1	WG1216856
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1216856
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1216856
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1216856
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1216856
1,3-Butadiene	106-99-0	54.10	0.188	0.416	2.40	5.31		1	WG1216856
Carbon disulfide	75-15-0	76.10	0.181	0.563	2.15	6.69		1	WG1216856
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1216856
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1216856
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1216856
Chloroform	67-66-3	119	0.191	0.930	ND	ND		1	WG1216856
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1216856
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1216856
Cyclohexane	110-82-7	84.20	0.178	0.613	3.94	13.6		1	WG1216856
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1216856
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1216856
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1216856
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1216856
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1216856
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1216856
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1216856
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1216856
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	ND	ND		1	WG1216856
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1216856
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1216856
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1216856
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1216856
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1216856
Ethanol	64-17-5	46.10	0.277	0.522	29.8	56.2		1	WG1216856
Ethylbenzene	100-41-4	106	0.169	0.733	2.79	12.1		1	WG1216856
4-Ethyltoluene	622-96-8	120	0.222	1.09	0.627	3.08		1	WG1216856
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	0.483	2.72		1	WG1216856
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.292	1.44		1	WG1216856
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1216856
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1216856
Heptane	142-82-5	100	0.209	0.855	6.69	27.4		1	WG1216856
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1216856
n-Hexane	110-54-3	86.20	0.152	0.536	13.3	46.8		1	WG1216856
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1216856
Methylene Chloride	75-09-2	84.90	0.155	0.538	0.258	0.895	B	1	WG1216856
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1216856
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	6.63	19.6		1	WG1216856
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	1.20	4.92		1	WG1216856
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1216856
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1216856
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1216856
2-Propanol	67-63-0	60.10	0.294	0.723	3.60	8.84		1	WG1216856
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1216856
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1216856
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1216856
Tetrachloroethylene	127-18-4	166	0.166	1.13	18.9	129		1	WG1216856
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	1.10	3.25		1	WG1216856
Toluene	108-88-3	92.10	0.166	0.625	16.0	60.4		1	WG1216856
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1216856

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	WG1216856
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	WG1216856
Trichloroethylene	79-01-6	131	0.182	0.975	0.313	1.67		1	WG1216856
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	2.60	12.8		1	WG1216856
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	0.638	3.13		1	WG1216856
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	2.12	9.89		1	WG1216856
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	WG1216856
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	WG1216856
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	WG1216856
m&p-Xylene	1330-20-7	106	0.315	1.37	9.40	40.7		1	WG1216856
o-Xylene	95-47-6	106	0.211	0.915	3.43	14.9		1	WG1216856
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.3				WG1216856

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	0.190	0.451	5.23	12.4		1	WG1216856
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1216856
Benzene	71-43-2	78.10	0.153	0.489	1.26	4.04		1	WG1216856
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1216856
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1216856
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1216856
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1216856
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1216856
Carbon disulfide	75-15-0	76.10	0.181	0.563	0.222	0.692		1	WG1216856
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1216856
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1216856
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1216856
Chloroform	67-66-3	119	0.191	0.930	ND	ND		1	WG1216856
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1216856
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1216856
Cyclohexane	110-82-7	84.20	0.178	0.613	0.243	0.836		1	WG1216856
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1216856
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1216856
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1216856
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1216856
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1216856
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1216856
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1216856
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1216856
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	ND	ND		1	WG1216856
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1216856
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1216856
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1216856
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1216856
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1216856
Ethanol	64-17-5	46.10	0.277	0.522	22.9	43.1		1	WG1216856
Ethylbenzene	100-41-4	106	0.169	0.733	2.72	11.8		1	WG1216856
4-Ethyltoluene	622-96-8	120	0.222	1.09	0.456	2.24		1	WG1216856
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	0.406	2.28		1	WG1216856
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.335	1.65		1	WG1216856
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1216856
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1216856
Heptane	142-82-5	100	0.209	0.855	0.669	2.74		1	WG1216856
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1216856
n-Hexane	110-54-3	86.20	0.152	0.536	0.770	2.71		1	WG1216856
Isopropylbenzene	98-82-8	120.20	0.188	0.924	0.434	2.13		1	WG1216856
Methylene Chloride	75-09-2	84.90	0.155	0.538	0.166	0.576	B	1	WG1216856
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1216856
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	1.63	4.81		1	WG1216856
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	0.599	2.45		1	WG1216856
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1216856
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1216856
Naphthalene	91-20-3	128	0.513	2.69	5.49	28.8		1	WG1216856
2-Propanol	67-63-0	60.10	0.294	0.723	0.929	2.28		1	WG1216856
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1216856
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1216856
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1216856
Tetrachloroethylene	127-18-4	166	0.166	1.13	48.4	328		1	WG1216856
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	0.674	1.99		1	WG1216856
Toluene	108-88-3	92.10	0.166	0.625	15.2	57.3		1	WG1216856
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1216856

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/20/18 00:00

L1055631

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	WG1216856
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	WG1216856
Trichloroethylene	79-01-6	131	0.182	0.975	ND	ND		1	WG1216856
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	2.38	11.7		1	WG1216856
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	0.466	2.29		1	WG1216856
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	1.67	7.79		1	WG1216856
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	WG1216856
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	WG1216856
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	WG1216856
m&p-Xylene	1330-20-7	106	0.315	1.37	10.1	43.7		1	WG1216856
o-Xylene	95-47-6	106	0.211	0.915	3.74	16.2		1	WG1216856
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				WG1216856

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	0.190	0.451	24.0	56.9		1	WG1216856
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1216856
Benzene	71-43-2	78.10	0.153	0.489	3.42	10.9		1	WG1216856
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1216856
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1216856
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1216856
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1216856
1,3-Butadiene	106-99-0	54.10	0.188	0.416	0.286	0.634		1	WG1216856
Carbon disulfide	75-15-0	76.10	0.181	0.563	0.889	2.77		1	WG1216856
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1216856
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1216856
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1216856
Chloroform	67-66-3	119	0.191	0.930	ND	ND		1	WG1216856
Chloromethane	74-87-3	50.50	0.181	0.374	ND	ND		1	WG1216856
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1216856
Cyclohexane	110-82-7	84.20	0.178	0.613	3.89	13.4		1	WG1216856
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1216856
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1216856
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1216856
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1216856
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1216856
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1216856
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1216856
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1216856
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	ND	ND		1	WG1216856
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1216856
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1216856
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1216856
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1216856
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1216856
Ethanol	64-17-5	46.10	0.277	0.522	36.4	68.7		1	WG1216856
Ethylbenzene	100-41-4	106	0.169	0.733	2.92	12.6		1	WG1216856
4-Ethyltoluene	622-96-8	120	0.222	1.09	0.550	2.70		1	WG1216856
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	0.591	3.32		1	WG1216856
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.319	1.58		1	WG1216856
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1216856
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1216856
Heptane	142-82-5	100	0.209	0.855	11.8	48.4		1	WG1216856
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1216856
n-Hexane	110-54-3	86.20	0.152	0.536	18.4	64.8		1	WG1216856
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1216856
Methylene Chloride	75-09-2	84.90	0.155	0.538	0.376	1.31	B	1	WG1216856
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1216856
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	5.05	14.9		1	WG1216856
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	1.21	4.94		1	WG1216856
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1216856
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1216856
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1216856
2-Propanol	67-63-0	60.10	0.294	0.723	2.31	5.67		1	WG1216856
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1216856
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1216856
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1216856
Tetrachloroethylene	127-18-4	166	0.166	1.13	19.6	133		1	WG1216856
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	1.07	3.16		1	WG1216856
Toluene	108-88-3	92.10	0.166	0.625	16.2	61.1		1	WG1216856
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1216856

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/20/18 00:00

L1055631

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	WG1216856
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	WG1216856
Trichloroethylene	79-01-6	131	0.182	0.975	ND	ND		1	WG1216856
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	2.15	10.6		1	WG1216856
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	0.557	2.73		1	WG1216856
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	2.19	10.2		1	WG1216856
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	WG1216856
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	WG1216856
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	WG1216856
m&p-Xylene	1330-20-7	106	0.315	1.37	9.16	39.7		1	WG1216856
o-Xylene	95-47-6	106	0.211	0.915	3.33	14.5		1	WG1216856
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.9				WG1216856

- 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	0.190	0.451	11.1	26.4		1	WG1216856
Allyl chloride	107-05-1	76.53	0.182	0.570	ND	ND		1	WG1216856
Benzene	71-43-2	78.10	0.153	0.489	0.322	1.03		1	WG1216856
Benzyl Chloride	100-44-7	127	0.199	1.03	ND	ND		1	WG1216856
Bromodichloromethane	75-27-4	164	0.145	0.973	ND	ND		1	WG1216856
Bromoform	75-25-2	253	0.262	2.71	ND	ND		1	WG1216856
Bromomethane	74-83-9	94.90	0.203	0.788	ND	ND		1	WG1216856
1,3-Butadiene	106-99-0	54.10	0.188	0.416	ND	ND		1	WG1216856
Carbon disulfide	75-15-0	76.10	0.181	0.563	ND	ND		1	WG1216856
Carbon tetrachloride	56-23-5	154	0.195	1.23	ND	ND		1	WG1216856
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1216856
Chloroethane	75-00-3	64.50	0.163	0.430	ND	ND		1	WG1216856
Chloroform	67-66-3	119	0.191	0.930	ND	ND		1	WG1216856
Chloromethane	74-87-3	50.50	0.181	0.374	0.756	1.56		1	WG1216856
2-Chlorotoluene	95-49-8	126	0.202	1.04	ND	ND		1	WG1216856
Cyclohexane	110-82-7	84.20	0.178	0.613	ND	ND		1	WG1216856
Dibromochloromethane	124-48-1	208	0.165	1.40	ND	ND		1	WG1216856
1,2-Dibromoethane	106-93-4	188	0.0617	0.474	ND	ND		1	WG1216856
1,2-Dichlorobenzene	95-50-1	147	0.201	1.21	ND	ND		1	WG1216856
1,3-Dichlorobenzene	541-73-1	147	0.199	1.20	ND	ND		1	WG1216856
1,4-Dichlorobenzene	106-46-7	147	0.186	1.12	ND	ND		1	WG1216856
1,2-Dichloroethane	107-06-2	99	0.205	0.830	ND	ND		1	WG1216856
1,1-Dichloroethane	75-34-3	98	0.171	0.685	ND	ND		1	WG1216856
1,1-Dichloroethene	75-35-4	96.90	0.163	0.646	ND	ND		1	WG1216856
cis-1,2-Dichloroethene	156-59-2	96.90	0.130	0.515	ND	ND		1	WG1216856
trans-1,2-Dichloroethene	156-60-5	96.90	0.155	0.614	ND	ND		1	WG1216856
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1216856
cis-1,3-Dichloropropene	10061-01-5	111	0.196	0.890	ND	ND		1	WG1216856
trans-1,3-Dichloropropene	10061-02-6	111	0.145	0.658	ND	ND		1	WG1216856
1,4-Dioxane	123-91-1	88.10	0.185	0.667	ND	ND		1	WG1216856
Ethanol	64-17-5	46.10	0.277	0.522	72.6	137	E	1	WG1216856
Ethylbenzene	100-41-4	106	0.169	0.733	ND	ND		1	WG1216856
4-Ethyltoluene	622-96-8	120	0.222	1.09	ND	ND		1	WG1216856
Trichlorofluoromethane	75-69-4	137.40	0.224	1.26	0.264	1.48		1	WG1216856
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.324	1.60		1	WG1216856
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.229	1.76	ND	ND		1	WG1216856
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.153	1.07	ND	ND		1	WG1216856
Heptane	142-82-5	100	0.209	0.855	ND	ND		1	WG1216856
Hexachloro-1,3-butadiene	87-68-3	261	0.219	2.34	ND	ND		1	WG1216856
n-Hexane	110-54-3	86.20	0.152	0.536	0.478	1.68		1	WG1216856
Isopropylbenzene	98-82-8	120.20	0.188	0.924	ND	ND		1	WG1216856
Methylene Chloride	75-09-2	84.90	0.155	0.538	0.229	0.794	B	1	WG1216856
Methyl Butyl Ketone	591-78-6	100	0.227	0.928	ND	ND		1	WG1216856
2-Butanone (MEK)	78-93-3	72.10	0.164	0.484	1.07	3.17		1	WG1216856
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	0.217	0.888	ND	ND		1	WG1216856
Methyl methacrylate	80-62-6	100.12	0.258	1.06	ND	ND		1	WG1216856
MTBE	1634-04-4	88.10	0.168	0.605	ND	ND		1	WG1216856
Naphthalene	91-20-3	128	0.513	2.69	ND	ND		1	WG1216856
2-Propanol	67-63-0	60.10	0.294	0.723	2.70	6.65		1	WG1216856
Propene	115-07-1	42.10	0.311	0.536	ND	ND		1	WG1216856
Styrene	100-42-5	104	0.155	0.659	ND	ND		1	WG1216856
1,1,2,2-Tetrachloroethane	79-34-5	168	0.192	1.32	ND	ND		1	WG1216856
Tetrachloroethylene	127-18-4	166	0.166	1.13	ND	ND		1	WG1216856
Tetrahydrofuran	109-99-9	72.10	0.169	0.498	ND	ND		1	WG1216856
Toluene	108-88-3	92.10	0.166	0.625	1.06	4.00		1	WG1216856
1,2,4-Trichlorobenzene	120-82-1	181	0.493	3.65	ND	ND		1	WG1216856

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/20/18 00:00

L1055631

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.222	1.21	ND	ND		1	WG1216856
1,1,2-Trichloroethane	79-00-5	133	0.0957	0.521	ND	ND		1	WG1216856
Trichloroethylene	79-01-6	131	0.182	0.975	ND	ND		1	WG1216856
1,2,4-Trimethylbenzene	95-63-6	120	0.161	0.790	0.239	1.17		1	WG1216856
1,3,5-Trimethylbenzene	108-67-8	120	0.210	1.03	ND	ND		1	WG1216856
2,2,4-Trimethylpentane	540-84-1	114.22	0.152	0.710	ND	ND		1	WG1216856
Vinyl chloride	75-01-4	62.50	0.152	0.389	ND	ND		1	WG1216856
Vinyl Bromide	593-60-2	106.95	0.242	1.06	ND	ND		1	WG1216856
Vinyl acetate	108-05-4	86.10	0.213	0.750	ND	ND		1	WG1216856
m&p-Xylene	1330-20-7	106	0.315	1.37	ND	ND		1	WG1216856
o-Xylene	95-47-6	106	0.211	0.915	ND	ND		1	WG1216856
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.9				WG1216856

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3372016-3 12/28/18 11:48

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Acetone	U		0.0569	0.190
Allyl Chloride	U		0.0546	0.182
Benzene	U		0.0460	0.153
Benzyl Chloride	0.0665	U	0.0598	0.199
Bromodichloromethane	U		0.0436	0.145
Bromoform	U		0.0786	0.262
Bromomethane	U		0.0609	0.203
1,3-Butadiene	U		0.0563	0.188
Carbon disulfide	U		0.0544	0.181
Carbon tetrachloride	U		0.0585	0.195
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.163
Chloroform	U		0.0574	0.191
Chloromethane	U		0.0544	0.181
2-Chlorotoluene	U		0.0605	0.202
Cyclohexane	U		0.0534	0.178
Dibromochloromethane	U		0.0494	0.165
1,2-Dibromoethane	U		0.0185	0.0617
1,2-Dichlorobenzene	0.0633	U	0.0603	0.201
1,3-Dichlorobenzene	U		0.0597	0.199
1,4-Dichlorobenzene	0.0647	U	0.0557	0.186
1,2-Dichloroethane	U		0.0616	0.205
1,1-Dichloroethane	U		0.0514	0.171
1,1-Dichloroethene	U		0.0490	0.163
cis-1,2-Dichloroethene	U		0.0389	0.130
trans-1,2-Dichloroethene	U		0.0464	0.155
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.196
trans-1,3-Dichloropropene	U		0.0435	0.145
1,4-Dioxane	U		0.0554	0.185
Ethylbenzene	U		0.0506	0.169
4-Ethyltoluene	U		0.0666	0.222
Trichlorofluoromethane	U		0.0673	0.224
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.229
1,2-Dichlorotetrafluoroethane	U		0.0458	0.153
Heptane	U		0.0626	0.209
Hexachloro-1,3-butadiene	0.118	U	0.0656	0.219
n-Hexane	U		0.0457	0.152
Isopropylbenzene	U		0.0563	0.188

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3372016-3 12/28/18 11:48

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Methylene Chloride	0.0739	U	0.0465	0.155
Methyl Butyl Ketone	U		0.0682	0.227
2-Butanone (MEK)	U		0.0493	0.164
4-Methyl-2-pentanone (MIBK)	U		0.0650	0.217
Methyl Methacrylate	U		0.0773	0.258
MTBE	U		0.0505	0.168
Naphthalene	0.161	U	0.154	0.513
2-Propanol	U		0.0882	0.294
Propene	U		0.0932	0.311
Styrene	U		0.0465	0.155
1,1,2,2-Tetrachloroethane	U		0.0576	0.192
Tetrachloroethylene	U		0.0497	0.166
Tetrahydrofuran	U		0.0508	0.169
Toluene	U		0.0499	0.166
1,2,4-Trichlorobenzene	0.164	U	0.148	0.493
1,1,1-Trichloroethane	U		0.0665	0.222
1,1,2-Trichloroethane	U		0.0287	0.0957
Trichloroethylene	U		0.0545	0.182
1,2,4-Trimethylbenzene	U		0.0483	0.161
1,3,5-Trimethylbenzene	U		0.0631	0.210
2,2,4-Trimethylpentane	U		0.0456	0.152
Vinyl chloride	U		0.0457	0.152
Vinyl Bromide	U		0.0727	0.242
Vinyl acetate	U		0.0639	0.213
m&p-Xylene	U		0.0946	0.315
o-Xylene	U		0.0633	0.211
Ethanol	U		0.0832	0.277
(S) 1,4-Bromofluorobenzene	97.2			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) R3372016-1 12/28/18 10:13 • (LCSD) R3372016-2 12/28/18 11:00

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Ethanol	3.75	3.96	3.84	106	102	55.0-148			3.25	25
Propene	3.75	4.17	4.32	111	115	64.0-144			3.50	25
Dichlorodifluoromethane	3.75	4.16	4.27	111	114	64.0-139			2.42	25
1,2-Dichlorotetrafluoroethane	3.75	4.26	4.32	113	115	70.0-130			1.54	25
Chloromethane	3.75	4.13	4.21	110	112	70.0-130			1.98	25



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

(LCS) R3372016-1 12/28/18 10:13 • (LCSD) R3372016-2 12/28/18 11:00

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	3.75	4.18	4.25	112	113	70.0-130			1.62	25
1,3-Butadiene	3.75	4.26	4.36	114	116	70.0-130			2.30	25
Bromomethane	3.75	4.14	4.18	110	112	70.0-130			1.12	25
Chloroethane	3.75	4.23	4.19	113	112	70.0-130			0.973	25
Trichlorofluoromethane	3.75	4.11	4.16	109	111	70.0-130			1.30	25
1,1,2-Trichlorotrifluoroethane	3.75	4.18	4.20	111	112	70.0-130			0.442	25
1,1-Dichloroethene	3.75	4.20	4.25	112	113	70.0-130			1.34	25
1,1-Dichloroethane	3.75	4.19	4.23	112	113	70.0-130			1.10	25
Acetone	3.75	4.54	4.49	121	120	70.0-130			1.02	25
2-Propanol	3.75	4.40	4.47	117	119	70.0-139			1.60	25
Carbon disulfide	3.75	4.21	4.26	112	114	70.0-130			1.16	25
Methylene Chloride	3.75	3.98	4.05	106	108	70.0-130			1.64	25
MTBE	3.75	4.22	4.20	112	112	70.0-130			0.426	25
trans-1,2-Dichloroethene	3.75	4.08	4.08	109	109	70.0-130			0.0384	25
n-Hexane	3.75	4.24	4.31	113	115	70.0-130			1.76	25
Vinyl acetate	3.75	4.69	4.73	125	126	70.0-130			0.997	25
Methyl Ethyl Ketone	3.75	4.29	4.28	114	114	70.0-130			0.274	25
cis-1,2-Dichloroethene	3.75	4.58	4.58	122	122	70.0-130			0.00353	25
Chloroform	3.75	4.16	4.19	111	112	70.0-130			0.655	25
Cyclohexane	3.75	4.19	4.20	112	112	70.0-130			0.201	25
1,1,1-Trichloroethane	3.75	4.13	4.16	110	111	70.0-130			0.592	25
Carbon tetrachloride	3.75	4.09	4.10	109	109	70.0-130			0.269	25
Benzene	3.75	4.24	4.29	113	114	70.0-130			1.10	25
1,2-Dichloroethane	3.75	4.10	4.10	109	109	70.0-130			0.0173	25
Heptane	3.75	4.38	4.45	117	119	70.0-130			1.59	25
Trichloroethylene	3.75	4.15	4.18	111	111	70.0-130			0.764	25
1,2-Dichloropropane	3.75	4.24	4.18	113	111	70.0-130			1.56	25
1,4-Dioxane	3.75	3.86	3.57	103	95.3	70.0-140			7.67	25
Bromodichloromethane	3.75	4.19	4.22	112	112	70.0-130			0.609	25
cis-1,3-Dichloropropene	3.75	4.30	4.31	115	115	70.0-130			0.327	25
4-Methyl-2-pentanone (MIBK)	3.75	4.35	4.38	116	117	70.0-139			0.667	25
Toluene	3.75	4.32	4.31	115	115	70.0-130			0.255	25
trans-1,3-Dichloropropene	3.75	4.34	4.35	116	116	70.0-130			0.211	25
1,1,2-Trichloroethane	3.75	4.29	4.29	114	114	70.0-130			0.0143	25
Tetrachloroethylene	3.75	4.09	4.08	109	109	70.0-130			0.0194	25
Methyl Butyl Ketone	3.75	4.41	4.35	117	116	70.0-149			1.29	25
Dibromochloromethane	3.75	4.19	4.21	112	112	70.0-130			0.393	25
1,2-Dibromoethane	3.75	4.22	4.18	113	112	70.0-130			0.923	25
Chlorobenzene	3.75	4.30	4.31	115	115	70.0-130			0.166	25
Ethylbenzene	3.75	4.27	4.27	114	114	70.0-130			0.0368	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) R3372016-1 12/28/18 10:13 • (LCSD) R3372016-2 12/28/18 11:00

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	8.55	8.49	114	113	70.0-130			0.774	25
o-Xylene	3.75	4.32	4.33	115	115	70.0-130			0.266	25
Styrene	3.75	4.41	4.39	118	117	70.0-130			0.626	25
Bromoform	3.75	4.22	4.23	113	113	70.0-130			0.102	25
1,1,2,2-Tetrachloroethane	3.75	4.21	4.20	112	112	70.0-130			0.202	25
4-Ethyltoluene	3.75	4.25	4.26	113	114	70.0-130			0.258	25
1,3,5-Trimethylbenzene	3.75	4.24	4.25	113	113	70.0-130			0.389	25
1,2,4-Trimethylbenzene	3.75	4.29	4.30	114	115	70.0-130			0.190	25
1,3-Dichlorobenzene	3.75	4.27	4.22	114	113	70.0-130			1.14	25
1,4-Dichlorobenzene	3.75	4.32	4.35	115	116	70.0-130			0.655	25
Benzyl Chloride	3.75	4.37	4.34	116	116	70.0-152			0.533	25
1,2-Dichlorobenzene	3.75	3.96	3.97	106	106	70.0-130			0.0747	25
1,2,4-Trichlorobenzene	3.75	4.14	4.11	110	110	70.0-160			0.684	25
Hexachloro-1,3-butadiene	3.75	3.68	3.66	98.1	97.6	70.0-151			0.517	25
Naphthalene	3.75	4.15	4.15	111	111	70.0-159			0.0181	25
Allyl Chloride	3.75	4.28	4.16	114	111	70.0-130			2.98	25
2-Chlorotoluene	3.75	4.27	4.28	114	114	70.0-130			0.259	25
Methyl Methacrylate	3.75	4.27	4.28	114	114	70.0-130			0.175	25
Tetrahydrofuran	3.75	4.38	4.41	117	117	70.0-137			0.551	25
2,2,4-Trimethylpentane	3.75	4.39	4.42	117	118	70.0-130			0.702	25
Vinyl Bromide	3.75	4.07	4.21	109	112	70.0-130			3.31	25
Isopropylbenzene	3.75	4.12	4.15	110	111	70.0-130			0.600	25
<i>(S) 1,4-Bromofluorobenzene</i>				103	102	60.0-140				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Guide to Reading and Understanding Your Laboratory Report

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

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
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.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
 * Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana ¹	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

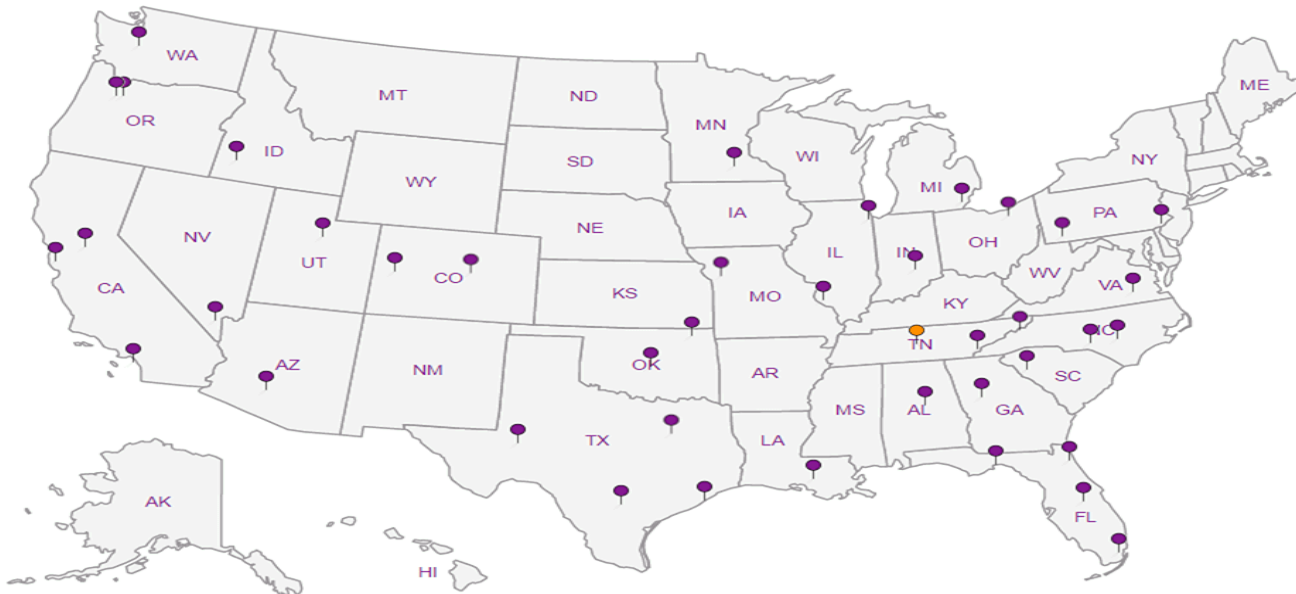
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National 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. Pace National performs all testing at our central laboratory.



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Assured Environmental Associates, Inc

Billing Information:
Gregory Walsh
14120 West Glendale Avenue
Brookfield, WI 53005

14120 West Glendale Avenue

Report to:
Gregory Walsh

Email To: aea@wi.rr.com

Project Description: Summit Ave.

Phone: 262-781-4646
Fax:

Client Project #

SUMMIT AVE

City/State Collected:

Lab Project #
ASSUREDWI-SUMMIT

Collected by (print):
MICHAEL GOY

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #

Immediate Packed on Ice: Y

___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

No. of
Cnts

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cnts
POINT 1 # 6922		Air		20 DEC 18		1
POINT 2 # 9129		Air		20 DEC 18		1
POINT 3 # 7670		Air		20 DEC 18		1
POINT 4 # 5395		Air		20 DEC 18		1
		Air				1
		Air				1

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - Waste Water
DW - Drinking Water
OT - Other

Remarks:

Box 1 has 4 samples; Box 2 has 2 unused cans + sample trains

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
___ UPS ___ FedEx ___ Courier _____

Tracking # 451016547330

Relinquished by: (Signature)

Date: 20 DEC 18 Time: 1930 hrs

Received by: (Signature)

Trip Blank Received: Yes / No
HCL / MeOH
TBR

Relinquished by: (Signature)

Date: _____ Time: _____

Received by: (Signature)

Temp: °C Bottles Received: Amb 4

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: _____ Time: _____

Received for lab by: (Signature)

Date: 12/21/18 Time: 1000

Hold: _____ Condition: NCF / OK

Analysis / Container / Preservative

Chain of Custody Page 1 of 1



12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# L1055631
M194

Acctnum: ASSUREDWI

Template: T144125

Prelogin: P686226

TSR: 341 - John Hawkins

PB: BF 12/27/18

Shipped Via: FedEX Ground

Remarks Sample # (lab only)

-01

-02

-03

-04

Sample Receipt Checklist

COC Seal Present/Intact: Y N

COC Signed/Accurate: Y N

Bottles arrive intact: Y N

Correct bottles used: Y N

Sufficient volume sent: Y N

If Applicable

VOA Zero Headspace: Y N

Preservation Correct/Checked: Y N