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November 15, 2022

Ms. Demaree Collier  
Remedial Project Manager  
USEPA Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604

Subject: Transmittal of Data  
Plume Monitoring  
Lemberger Landfill Sites  
Second Quarter 2022

Dear Ms. Collier:

On behalf of the Lemberger Site Remediation Group (LSRG), and in accordance with the Environmental Monitoring Plan (EMP), Revision 5 (February 2021), and the subsequent monitoring program revisions as approved by the United States Environmental Protection Agency (USEPA) and the Wisconsin Department of Natural Resources (WDNR), TRC Environmental Corporation (TRC) is submitting the following data:

- Attachment 1: Data Validation Comments and Qualified Form 1s For All Wells
- Attachment 2: Table of Wisconsin Administrative Code Chapter NR 140 Groundwater Quality Standards (Enforcement Standards [ESs], Preventive Action Limits [PALs], Maximum Contaminant Levels [MCLs], and Secondary Maximum Contaminant Levels [SMCLs]) for the Pertinent Parameters
- Attachment 3: Tabular Summary of Analytical Results at Each Monitoring Well
- Attachment 4: Laboratory Data Qualifiers for Monitoring Wells
- Attachment 5: Tabular Summary of Groundwater Standard Exceedances at Plume Monitoring Wells

A CD containing field and laboratory data in an approved WDNR format has been attached to the copies provided to the WDNR and the USEPA, for their use. Groundwater samples were collected during June 2022, in accordance with the February 2021 EMP, revision 5.

Please call if you have questions.

Sincerely,

TRC

Kristopher D. Krause  
Senior Project Manager

Meredith Westover, P.G.  
Senior Hydrogeologist

Attachments

Ms. Demaree Collier  
USEPA Region 5  
November 15, 2022  
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cc: B.J. LeRoy – WDNR  
Brian Potts – Perkins Coie, LLP  
Kristin Jones – Newell Rubbermaid  
Troy Adams – Manitowoc Public Utilities  
Scott Karbon – Manitowoc Public Utilities  
James Wallner – Red Arrow Products  
James Cook – Manitowoc Cranes  
Dan Koski – City of Manitowoc  
Jane Rhode – City of Manitowoc  
Dominique Sorel – SS. Papadopoulos & Associates, Inc.  
John Lang – EHS Support, LLC  
Tom Sullivan – EHS Support, LLC  
GEMS Data Submittal Contact (w/diskette)

## **Attachment 1**

### **Data Validation Comments and Qualified Form 1s For All Wells**



## Memorandum

**To:** Meredith Westover

**From:** David DiGena-Segal (Data Reviewer)  
Elizabeth Denly (Peer Reviewer)

**Date:** August 9, 2022

**Subject:** Data Validation Report  
Groundwater Samples (LL Wells): 2<sup>nd</sup> Quarter 2022  
Lemberger Landfill and Lemberger Transport and Recycling/Franklin, Wisconsin  
Laboratory Project Numbers 40247567 and 40247568

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### SUMMARY

Limited validation (level III) was performed on the data for eight groundwater samples (LL wells), one field duplicate, one field blank, and one trip blank collected from the Lemberger Landfill and Lemberger Transport and Recycling Site in Franklin, Wisconsin. The samples were collected on June 29 - 30, 2022. Samples were submitted to Pace Analytical Services, LLC in Green Bay, Wisconsin for analysis. The samples were analyzed for the following parameter:

- Volatile organic compounds (VOCs) using SW-846 Method 8260B

The laboratory reported the results under laboratory project numbers 40247567 and 40247568.

The sample results were assessed using the *USEPA National Functional Guidelines for Organic Superfund Methods Data Review (EPA-540-R-20-005)*, November 2020 and the project-specific quality assurance project plan (QAPP), dated September 2011, Revision 1.

In general, the data are valid as reported and may be used for decision-making purposes. The following issues were noted which may have a minor impact on the data usability:

- Select results were reported which were below the lowest calibration standard and quantitation limit (QL); these results were qualified by the laboratory as estimated (J).
- Potential uncertainty exists for the positive and nondetect results for select analytes in all samples due to continuing calibration nonconformances. These results were qualified as estimated (UJ).

## SAMPLES

Samples included in this review are listed below.

Laboratory Project Number 40247567: LL wells and QC samples; collected 06/30/2022

- FB-002
- LW-07
- TB-001
- LH-03
- RM-207S
- LH-06
- RM-208S

Laboratory Project Number 40247568: LL wells and QC samples; collected 06/29/2022

- LH-01
- FDUP-002<sup>1</sup>
- RM-005S
- RM-206S

<sup>1</sup> Field duplicate of RM-005S

## REVIEW ELEMENTS

Sample data were reviewed for the following parameters:

- Agreement of analyses conducted with chain-of-custody (COC) requests
- Data completeness
- Holding times and sample preservation
- Gas chromatography/mass spectrometry (GC/MS) tunes
- Initial and continuing calibrations
- Blanks
- Surrogate spike recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) results
- Laboratory control sample (LCS) results
- Internal standard performance
- Field duplicate results
- Quantitation limits and sample results

## DISCUSSION

### Agreement of Analyses Conducted with Chain-of-Custody Requests

Sample reports were checked to verify that the results corresponded to analytical requests as designated on the COCs. No issues were noted.

### Data Completeness

The data packages were found to be complete as received from the laboratory with the following exception.

- The laboratory only spiked a subset of the VOCs which were reported in the samples in the LCS. Thus, accuracy and/or precision could not be evaluated for select VOCs. No validation action was taken on the basis of this issue.

### Holding Times and Sample Preservation

All samples were analyzed within the method-specified holding time. All samples were received by the laboratory on ice and at a temperature within the target range of 0 to 6°C. All samples were noted as properly preserved. The laboratory noted that one of the three vials for sample RM-206S and one of the three vials for samples RM-207S and LW-07 were received with headspace. The laboratory has stated during previous rounds of validation that an “HS” qualifier would be applied to the sample results if a comprised vial was used for analysis. There were no “HS” qualifiers applied to these sample results. Thus, an assumption was made that a vial without headspace was used for these analyses. No validation actions were taken on the basis of this issue.

Samples were received by the laboratory between five-six days after collection. As indicated by the field sampler in previous rounds of sampling, when not shipped to the laboratory on the day of collection, samples are stored in coolers, on ice, in a locked former treatment building at the site until delivery to the laboratory. No validation actions were required on this basis since the samples were kept on ice prior to delivery to the laboratory and were received on ice and at acceptable cooler temperatures by the laboratory.

### GC/MS Tunes

The frequency and abundance of bromofluorobenzene tunes were within the acceptance criteria.

### Initial and Continuing Calibrations

The percent relative standard deviations and relative response factors (RRFs) for all target compounds were within the acceptance criteria in the initial calibration.

All RRFs were within the acceptance criteria in the continuing calibrations (CCs). The following table summarizes the percent differences or percent drifts (%Ds) which were outside of the laboratory acceptance criteria in the CCs, the associated samples, and the resulting validation actions.

CC	Analyte	%D	Associated Samples	Validation Actions
40MSV8 07/08/2022 @07:29	Acetone	-29.3521	LH-01, RM-206S, RM-005S, FDUP-002, FB-002, TB-001, RM-207S, LW-07, LH-03, LH-06	The positive and nondetect results for the listed VOCs were qualified as estimated (J/UJ) in the associated samples.
	Chloromethane	-22.4087		
	2-Hexanone	-24.7854		
	4-Methyl-2-pentanone (MIBK)	-25.1240		
40MSV8 07/11/2022 @7:57	Acetone	-26.7973	RM-208S	The nondetect results for the listed VOCs were qualified as estimated (UJ) in the associated sample.
	Bromoform	22.4930		
	Carbon tetrachloride	22.0067		
	Chloroethane	-20.4528		
	Chloromethane	-29.7282		
	4-Methyl-2-pentanone (MIBK)	-21.6671		
	1,1,1-Trichloroethane	20.4033		

## Blanks

Target analytes were not detected in the laboratory method blanks, field blank (FB-002) or in the trip blank (TB-001).

## Surrogate Spike Recoveries

The percent recoveries (%Rs) of the surrogates for all samples were within the laboratory acceptance criteria.

## MS/MSD Results

MS/MSD analyses were not performed on samples in these data sets.

## LCS Results

An LCS was performed each day prior to sample analysis. All LCS %Rs were within the laboratory's acceptance criteria.

Note that the laboratory only spiked a subset of the VOCs that were reported in the samples in the LCS. Thus, accuracy could not be evaluated for the following VOCs (which were not spiked) in all LCSs: 2-butanone, 2-hexanone, 4-methyl-2-pentanone, and acetone. No validation action was taken on this basis.

## Internal Standard Performance

Internal standards were within the method acceptance criteria in all sample analyses.

## Field Duplicate Results

Samples RM-005S and FDUP-002 were submitted as a field duplicate pair with this sample set. The following table summarizes the absolute difference (AbsD) of the detected VOC result. All criteria were met.

Compound	QL (µg/L)	RM-005S (µg/L)	FDUP-002 (µg/L)	AbsD (µg/L)	Validation Action
Trichloroethene	1	0.36 J	0.39 J	AbsD = 0.03	None; all criteria were met.

Field duplicate criteria are as follows:

- Relative percent difference (RPD)  $\leq$  30 when positive results for both samples are  $\geq$  5x QL
- AbsD < QL when both results are < 5x QL

### Quantitation Limits and Sample Results

No dilutions were performed on the samples in this data set. Select results were reported which were below the lowest calibration standard level and QL (or limit of quantitation [LOQ]). These results were qualified as estimated (J) by the laboratory.

The laboratory's limit of detection (LOD) for select VOCs was above one or both of the project action limits specified in the QAPP. The affected VOCs, project action limits, and current laboratory LODs are summarized in the table below.

Analyte	Affected Samples	WAC Chapter NR 140 PAL (µg/L)	WAC Chapter NR 140 ES (µg/L)	Laboratory LOD (µg/L)
1,1,2,2-Tetrachloroethane	All samples in this sample set	0.02	0.2	0.38
Bromodichloromethane		0.06	0.6*	0.42
Bromoform		0.44	4.4*	3.8
Bromomethane		1	10	1.2
Chloroform		0.6	6*	1.2
Vinyl chloride		0.02	0.2*	0.17
cis-1,3-Dichloropropene		0.02	0.2	0.36
trans-1,3-Dichloropropene		0.02	0.2	3.5
* Laboratory LOD is below action limit				



# **QUALIFIED FORM 1s**

### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF LL  
Pace Project No.: 40247567

Sample: RM-207S Lab ID: 40247567001 Collected: 06/30/22 08:34 Received: 07/05/22 08:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 13:02	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 13:02	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 13:02	79-00-5	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 13:02	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/08/22 13:02	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/08/22 13:02	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/08/22 13:02	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 13:02	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 13:02	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 13:02	108-10-1	
Acetone	16.2J J	ug/L	25.0	8.6	1		07/08/22 13:02	67-64-1	
Benzene	0.33J	ug/L	1.0	0.30	1		07/08/22 13:02	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 13:02	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 13:02	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 13:02	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/08/22 13:02	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 13:02	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/08/22 13:02	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 13:02	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 13:02	67-66-3	
Chloromethane	5.7 J	ug/L	5.0	1.6	1		07/08/22 13:02	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 13:02	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/08/22 13:02	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 13:02	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 13:02	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/08/22 13:02	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/08/22 13:02	108-88-3	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		07/08/22 13:02	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/08/22 13:02	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		07/08/22 13:02	1330-20-7	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		07/08/22 13:02	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 13:02	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/08/22 13:02	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 13:02	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	102	%	70-130		1		07/08/22 13:02	460-00-4	
1,2-Dichlorobenzene-d4 (S)	97	%	70-130		1		07/08/22 13:02	2199-69-1	
Toluene-d8 (S)	99	%	70-130		1		07/08/22 13:02	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF LL

Pace Project No.: 40247567

Sample: LW-07 Lab ID: 40247567002 Collected: 06/30/22 11:09 Received: 07/05/22 08:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 13:21	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 13:21	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 13:21	79-00-5	
1,1-Dichloroethane	0.37J	ug/L	1.0	0.30	1		07/08/22 13:21	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/08/22 13:21	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/08/22 13:21	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/08/22 13:21	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 13:21	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 13:21	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 13:21	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/08/22 13:21	67-64-1	
Benzene	5.9	ug/L	1.0	0.30	1		07/08/22 13:21	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 13:21	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 13:21	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 13:21	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/08/22 13:21	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 13:21	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/08/22 13:21	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 13:21	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 13:21	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/08/22 13:21	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 13:21	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/08/22 13:21	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 13:21	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 13:21	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/08/22 13:21	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/08/22 13:21	108-88-3	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		07/08/22 13:21	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/08/22 13:21	75-01-4	
Xylene (Total)	2.1J	ug/L	3.0	1.0	1		07/08/22 13:21	1330-20-7	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		07/08/22 13:21	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 13:21	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/08/22 13:21	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 13:21	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	104	%	70-130		1		07/08/22 13:21	460-00-4	
1,2-Dichlorobenzene-d4 (S)	96	%	70-130		1		07/08/22 13:21	2199-69-1	
Toluene-d8 (S)	100	%	70-130		1		07/08/22 13:21	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF LL  
Pace Project No.: 40247567

Sample: LH-03 Lab ID: 40247567003 Collected: 06/30/22 13:36 Received: 07/05/22 08:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 13:41	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 13:41	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 13:41	79-00-5	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 13:41	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/08/22 13:41	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/08/22 13:41	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/08/22 13:41	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 13:41	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 13:41	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 13:41	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/08/22 13:41	67-64-1	
Benzene	2.6	ug/L	1.0	0.30	1		07/08/22 13:41	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 13:41	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 13:41	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 13:41	74-83-9	
Carbon disulfide	1.5J	ug/L	5.0	1.1	1		07/08/22 13:41	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 13:41	56-23-5	
Chlorobenzene	2.3	ug/L	1.0	0.86	1		07/08/22 13:41	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 13:41	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 13:41	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/08/22 13:41	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 13:41	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/08/22 13:41	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 13:41	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 13:41	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/08/22 13:41	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/08/22 13:41	108-88-3	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		07/08/22 13:41	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/08/22 13:41	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		07/08/22 13:41	1330-20-7	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		07/08/22 13:41	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 13:41	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/08/22 13:41	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 13:41	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	103	%	70-130		1		07/08/22 13:41	460-00-4	
1,2-Dichlorobenzene-d4 (S)	95	%	70-130		1		07/08/22 13:41	2199-69-1	
Toluene-d8 (S)	99	%	70-130		1		07/08/22 13:41	2037-26-5	

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### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF LL  
Pace Project No.: 40247567

Sample: LH-06 Lab ID: 40247567004 Collected: 06/30/22 14:50 Received: 07/05/22 08:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 14:01	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 14:01	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 14:01	79-00-5	
1,1-Dichloroethane	16.2	ug/L	1.0	0.30	1		07/08/22 14:01	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/08/22 14:01	75-35-4	
1,2-Dichloroethane	6.0	ug/L	1.0	0.29	1		07/08/22 14:01	107-06-2	
1,2-Dichloropropane	3.9	ug/L	1.0	0.45	1		07/08/22 14:01	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 14:01	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 14:01	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 14:01	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/08/22 14:01	67-64-1	
Benzene	74.8	ug/L	1.0	0.30	1		07/08/22 14:01	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 14:01	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 14:01	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 14:01	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/08/22 14:01	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 14:01	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/08/22 14:01	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 14:01	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 14:01	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/08/22 14:01	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 14:01	124-48-1	
Ethylbenzene	88.4	ug/L	1.0	0.33	1		07/08/22 14:01	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 14:01	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 14:01	100-42-5	
Tetrachloroethene	0.56J	ug/L	1.0	0.41	1		07/08/22 14:01	127-18-4	
Toluene	7.6	ug/L	1.0	0.29	1		07/08/22 14:01	108-88-3	
Trichloroethene	0.47J	ug/L	1.0	0.32	1		07/08/22 14:01	79-01-6	
Vinyl chloride	7.9	ug/L	1.0	0.17	1		07/08/22 14:01	75-01-4	
Xylene (Total)	96.6	ug/L	3.0	1.0	1		07/08/22 14:01	1330-20-7	
cis-1,2-Dichloroethene	101	ug/L	1.0	0.47	1		07/08/22 14:01	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 14:01	10061-01-5	
trans-1,2-Dichloroethene	1.3	ug/L	1.0	0.53	1		07/08/22 14:01	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 14:01	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	98	%	70-130		1		07/08/22 14:01	460-00-4	
1,2-Dichlorobenzene-d4 (S)	95	%	70-130		1		07/08/22 14:01	2199-69-1	
Toluene-d8 (S)	99	%	70-130		1		07/08/22 14:01	2037-26-5	

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### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF LL  
Pace Project No.: 40247567

**Sample: RM-208S**      **Lab ID: 40247567005**      Collected: 06/30/22 16:24      Received: 07/05/22 08:00      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	<0.30 UJ	ug/L	1.0	0.30	1		07/11/22 09:29	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/11/22 09:29	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/11/22 09:29	79-00-5	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		07/11/22 09:29	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/11/22 09:29	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/11/22 09:29	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/11/22 09:29	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/11/22 09:29	78-93-3	
2-Hexanone	<6.3	ug/L	25.0	6.3	1		07/11/22 09:29	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/11/22 09:29	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/11/22 09:29	67-64-1	
Benzene	1.7	ug/L	1.0	0.30	1		07/11/22 09:29	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/11/22 09:29	75-27-4	
Bromoform	<3.8 UJ	ug/L	5.0	3.8	1		07/11/22 09:29	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/11/22 09:29	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/11/22 09:29	75-15-0	
Carbon tetrachloride	<0.37 UJ	ug/L	1.0	0.37	1		07/11/22 09:29	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/11/22 09:29	108-90-7	
Chloroethane	<1.4 UJ	ug/L	5.0	1.4	1		07/11/22 09:29	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/11/22 09:29	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/11/22 09:29	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/11/22 09:29	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/11/22 09:29	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/11/22 09:29	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/11/22 09:29	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/11/22 09:29	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/11/22 09:29	108-88-3	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		07/11/22 09:29	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/11/22 09:29	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		07/11/22 09:29	1330-20-7	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		07/11/22 09:29	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/11/22 09:29	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/11/22 09:29	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/11/22 09:29	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	104	%	70-130		1		07/11/22 09:29	460-00-4	
1,2-Dichlorobenzene-d4 (S)	95	%	70-130		1		07/11/22 09:29	2199-69-1	
Toluene-d8 (S)	101	%	70-130		1		07/11/22 09:29	2037-26-5	

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### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF LL  
Pace Project No.: 40247567

**Sample: FB-002**      **Lab ID: 40247567006**      Collected: 06/30/22 17:30      Received: 07/05/22 08:00      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 11:24	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 11:24	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 11:24	79-00-5	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 11:24	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/08/22 11:24	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/08/22 11:24	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/08/22 11:24	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 11:24	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 11:24	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 11:24	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/08/22 11:24	67-64-1	
Benzene	<0.30	ug/L	1.0	0.30	1		07/08/22 11:24	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 11:24	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 11:24	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 11:24	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/08/22 11:24	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 11:24	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/08/22 11:24	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 11:24	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 11:24	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/08/22 11:24	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 11:24	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/08/22 11:24	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 11:24	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 11:24	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/08/22 11:24	127-18-4	
Toluene	1.2	ug/L	1.0	0.29	1		07/08/22 11:24	108-88-3	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		07/08/22 11:24	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/08/22 11:24	75-01-4	
Xylene (Total)	1.3J	ug/L	3.0	1.0	1		07/08/22 11:24	1330-20-7	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		07/08/22 11:24	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 11:24	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/08/22 11:24	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 11:24	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	103	%	70-130		1		07/08/22 11:24	460-00-4	
1,2-Dichlorobenzene-d4 (S)	97	%	70-130		1		07/08/22 11:24	2199-69-1	
Toluene-d8 (S)	99	%	70-130		1		07/08/22 11:24	2037-26-5	

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### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF LL  
Pace Project No.: 40247567

Sample: TB-001 Lab ID: 40247567007 Collected: 06/30/22 00:00 Received: 07/05/22 08:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 11:44	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 11:44	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 11:44	79-00-5	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 11:44	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/08/22 11:44	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/08/22 11:44	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/08/22 11:44	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 11:44	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 11:44	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 11:44	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/08/22 11:44	67-64-1	
Benzene	<0.30	ug/L	1.0	0.30	1		07/08/22 11:44	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 11:44	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 11:44	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 11:44	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/08/22 11:44	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 11:44	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/08/22 11:44	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 11:44	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 11:44	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/08/22 11:44	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 11:44	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/08/22 11:44	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 11:44	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 11:44	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/08/22 11:44	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/08/22 11:44	108-88-3	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		07/08/22 11:44	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/08/22 11:44	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		07/08/22 11:44	1330-20-7	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		07/08/22 11:44	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 11:44	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/08/22 11:44	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 11:44	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	102	%	70-130		1		07/08/22 11:44	460-00-4	
1,2-Dichlorobenzene-d4 (S)	97	%	70-130		1		07/08/22 11:44	2199-69-1	
Toluene-d8 (S)	99	%	70-130		1		07/08/22 11:44	2037-26-5	

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### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF LL  
Pace Project No.: 40247568

Sample: LH-01 Lab ID: 40247568001 Collected: 06/29/22 11:32 Received: 07/05/22 08:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 14:40	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 14:40	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 14:40	79-00-5	
1,1-Dichloroethane	0.96J	ug/L	1.0	0.30	1		07/08/22 14:40	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/08/22 14:40	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/08/22 14:40	107-06-2	
1,2-Dichloropropane	0.65J	ug/L	1.0	0.45	1		07/08/22 14:40	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 14:40	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 14:40	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 14:40	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/08/22 14:40	67-64-1	
Benzene	4.5	ug/L	1.0	0.30	1		07/08/22 14:40	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 14:40	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 14:40	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 14:40	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/08/22 14:40	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 14:40	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/08/22 14:40	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 14:40	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 14:40	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/08/22 14:40	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 14:40	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/08/22 14:40	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 14:40	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 14:40	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/08/22 14:40	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/08/22 14:40	108-88-3	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		07/08/22 14:40	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/08/22 14:40	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		07/08/22 14:40	1330-20-7	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		07/08/22 14:40	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 14:40	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/08/22 14:40	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 14:40	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	105	%	70-130		1		07/08/22 14:40	460-00-4	
1,2-Dichlorobenzene-d4 (S)	97	%	70-130		1		07/08/22 14:40	2199-69-1	
Toluene-d8 (S)	100	%	70-130		1		07/08/22 14:40	2037-26-5	

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## ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF LL  
Pace Project No.: 40247568

**Sample: RM-206S**      **Lab ID: 40247568002**      Collected: 06/29/22 14:08      Received: 07/05/22 08:00      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 15:00	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 15:00	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 15:00	79-00-5	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 15:00	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/08/22 15:00	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/08/22 15:00	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/08/22 15:00	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 15:00	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 15:00	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 15:00	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/08/22 15:00	67-64-1	
Benzene	<0.30	ug/L	1.0	0.30	1		07/08/22 15:00	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 15:00	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 15:00	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 15:00	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/08/22 15:00	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 15:00	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/08/22 15:00	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 15:00	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 15:00	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/08/22 15:00	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 15:00	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/08/22 15:00	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 15:00	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 15:00	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/08/22 15:00	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/08/22 15:00	108-88-3	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		07/08/22 15:00	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/08/22 15:00	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		07/08/22 15:00	1330-20-7	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		07/08/22 15:00	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 15:00	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/08/22 15:00	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 15:00	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	102	%	70-130		1		07/08/22 15:00	460-00-4	
1,2-Dichlorobenzene-d4 (S)	98	%	70-130		1		07/08/22 15:00	2199-69-1	
Toluene-d8 (S)	99	%	70-130		1		07/08/22 15:00	2037-26-5	

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### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF LL  
Pace Project No.: 40247568

**Sample: RM-005S**      **Lab ID: 40247568003**      Collected: 06/29/22 15:17      Received: 07/05/22 08:00      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 15:19	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 15:19	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 15:19	79-00-5	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 15:19	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/08/22 15:19	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/08/22 15:19	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/08/22 15:19	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 15:19	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 15:19	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 15:19	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/08/22 15:19	67-64-1	
Benzene	<0.30	ug/L	1.0	0.30	1		07/08/22 15:19	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 15:19	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 15:19	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 15:19	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/08/22 15:19	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 15:19	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/08/22 15:19	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 15:19	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 15:19	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/08/22 15:19	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 15:19	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/08/22 15:19	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 15:19	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 15:19	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/08/22 15:19	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/08/22 15:19	108-88-3	
Trichloroethene	0.36J	ug/L	1.0	0.32	1		07/08/22 15:19	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/08/22 15:19	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		07/08/22 15:19	1330-20-7	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		07/08/22 15:19	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 15:19	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/08/22 15:19	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 15:19	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	101	%	70-130		1		07/08/22 15:19	460-00-4	
1,2-Dichlorobenzene-d4 (S)	96	%	70-130		1		07/08/22 15:19	2199-69-1	
Toluene-d8 (S)	99	%	70-130		1		07/08/22 15:19	2037-26-5	

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### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF LL  
Pace Project No.: 40247568

Sample: **FDUP-002** Lab ID: **40247568004** Collected: 06/29/22 00:00 Received: 07/05/22 08:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 15:39	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 15:39	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 15:39	79-00-5	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 15:39	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/08/22 15:39	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/08/22 15:39	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/08/22 15:39	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 15:39	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 15:39	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 15:39	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/08/22 15:39	67-64-1	
Benzene	<0.30	ug/L	1.0	0.30	1		07/08/22 15:39	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 15:39	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 15:39	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 15:39	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/08/22 15:39	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 15:39	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/08/22 15:39	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 15:39	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 15:39	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/08/22 15:39	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 15:39	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/08/22 15:39	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 15:39	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 15:39	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/08/22 15:39	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/08/22 15:39	108-88-3	
Trichloroethene	0.39J	ug/L	1.0	0.32	1		07/08/22 15:39	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/08/22 15:39	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		07/08/22 15:39	1330-20-7	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		07/08/22 15:39	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 15:39	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/08/22 15:39	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 15:39	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	105	%	70-130		1		07/08/22 15:39	460-00-4	
1,2-Dichlorobenzene-d4 (S)	98	%	70-130		1		07/08/22 15:39	2199-69-1	
Toluene-d8 (S)	99	%	70-130		1		07/08/22 15:39	2037-26-5	

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## Memorandum

**To:** Meredith Westover

**From:** Kristen Morin (Data Reviewer)  
Elizabeth Denly (Peer Reviewer)

**Date:** August 26, 2022

**Subject:** Data Validation Report  
Groundwater Samples (Sentinel Wells): 2<sup>nd</sup> Quarter 2022  
Lemberger Landfill and Lemberger Transport and Recycling/Franklin, Wisconsin  
Laboratory Project Numbers 40247569 and 40247570 (Revised 08/25/22)

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### SUMMARY

Full validation (level IV) was performed on the data for six groundwater samples (sentinel wells), one field duplicate, one field blank, and one trip blank collected at the Lemberger Landfill and Lemberger Transport and Recycling Site in Franklin, Wisconsin. The samples were collected on June 28, 2022. Samples were submitted to Pace Analytical Services, LLC in Green Bay, Wisconsin for analysis. The samples were analyzed for volatile organic compounds (VOCs) using SW-846 Method 8260B.

The laboratory reported the results under laboratory project numbers 40247569 and 40247570 (revised 08/25/22).

The sample results were assessed using the *USEPA National Functional Guidelines for Organic Superfund Methods Data Review (EPA-540-R-20-005)*, November 2020 and the project-specific quality assurance project plan (QAPP), dated September 2011, Revision 1.

In general, the data are valid as reported and may be used for decision-making purposes. The following issues were noted which have a minor impact on the data usability:

- Select results were reported which were below the lowest calibration standard and quantitation limit (QL); these results were qualified as estimated (J).
- Potential uncertainty exists for the positive and nondetect results for select VOCs in all samples due to continuing calibration nonconformances. These results were qualified as estimated (J/UJ).

### SAMPLES

Samples included in this review are listed below:

Laboratory Project Number 40247569

- RM-003D
- FDUP-001<sup>1</sup>
- RM-003XXD
- FB-001
- RM-403XD
- TB-001

<sup>1</sup> Field duplicate of RM-403XD

Laboratory Project Number 40247570

- RM-002D
- RM-210D
- RM-401XXD

## REVIEW ELEMENTS

Sample data were reviewed for the following parameters:

- Agreement of analyses conducted with chain-of-custody (COC) requests
- Data completeness
- Holding times and sample preservation
- Gas chromatography/mass spectrometry (GC/MS) tunes
- Initial and continuing calibrations
- Blanks
- Surrogate spike recoveries
- Matrix spike (MS)/MS Duplicate (MSD) results
- Laboratory control sample (LCS) results
- Internal standard performance
- Laboratory duplicate results
- Field duplicate results
- Quantitation limits and sample results
- Target compound identification

## DISCUSSION

### Agreement of Analyses Conducted with Chain-of-Custody Requests

Sample reports were checked to verify that the results corresponded to analytical requests as designated on the chain-of-custody. No issues were noted.

### Data Completeness

The data packages were found to be complete as received from the laboratory with two exceptions.

- The laboratory only spiked a subset of the VOCs which were reported in the samples in the LCS and MS/MSDs. Thus, accuracy and/or precision could not be evaluated for select VOCs.
- The laboratory only provided method blank and LCS results associated with the VOC analysis of sample RM-210D on 07/11/22 within the raw data; LCS recoveries were calculated and compared to the acceptance limits during validation. All criteria were met.

No validation actions were taken on the basis of these issues.

### Holding Times and Sample Preservation

All samples were analyzed within the method-specified holding time. All samples were received by the laboratory on ice and were properly preserved.

The laboratory noted that one of the three vials for the MS/MSD volume submitted for sample RM-401XXD was received with headspace; the laboratory did not indicate that the VOC analysis of this sample was performed using a compromised vial. No validation actions were taken on the basis of this issue since the analysis of this sample was performed from an acceptable vial without headspace.

Samples were received by the laboratory seven days after collection. The field sampler has indicated in previous rounds of validation that in these instances, the samples are stored in coolers, on ice, in a locked former treatment building at the site until delivery to the laboratory. No validation actions were required on this basis since the samples were kept on ice prior to delivery to the laboratory and were received on ice and at acceptable cooler temperatures by the laboratory.

### GC/MS Tunes

The frequency and abundance of all bromofluorobenzene tunes were within the acceptance criteria.

### Initial and Continuing Calibrations

The percent relative standard deviations and relative response factors (RRFs) for all target compounds were within the acceptance criteria in the initial calibrations.

All RRFs were within the acceptance criteria in the continuing calibrations (CCs). The following table summarizes the percent differences (%Ds) which were outside of the acceptance criteria ( $\leq 20\%$ ) in the CCs and the associated samples. The initial calibration verification (ICV) standard was not reviewed during validation since the ICV did not immediately precede any VOC sample analyses.

CC	Compound	%D	Associated Sample(s)	Validation Action
40MSV8 07/08/22 @0729	Acetone	-29.3521	RM-003D, RM-003XXD, RM-403XD, FDUP-001, FB-001, TB-001, RM-002D, RM-401XXD	The positive and nondetect results for the listed VOCs were qualified as estimated (J/UJ) in the associated samples.
	Chloromethane	-22.4087		
	2-Hexanone	-24.7854		
	4-Methyl-2-pentanone (MIBK)	-25.1240		
40MSV8 07/11/22 @0757	Acetone	-26.7973	RM-210D	
	Bromoform	22.4930		
	Carbon tetrachloride	22.0067		
	Chloroethane	-20.4528		
	Chloromethane	-29.7282		
	4-Methyl-2-pentanone (MIBK)	-21.6671		
	1,1,1-Trichloroethane	20.4033		

### Blanks

Target analytes were not detected in the method blanks or trip blank. The following table summarizes the concentrations of the compounds that were detected in the field blank, the associated samples, and the resulting validation actions.

Compound	Blank Concentration (µg/L)	QL (µg/L)	Blank ID: Associated Samples	Validation Action
Acetone	12.6 J	25	FB-001: All groundwater samples in this data set	No qualification was required since these four VOCs were not detected in the associated samples.
Chloromethane	2.8 J	5.0		
Toluene	1.3	1.0		
Xylene (total)	1.2 J	3.0		

### Surrogate Spike Recoveries

The percent recoveries (%Rs) of the surrogates were within the laboratory acceptance criteria for all samples.

### MS/MSD Results

MS/MSD analyses were performed on sample RM-401XXD; all MS/MSD %R and relative percent difference (RPD) criteria were met.

Note that the laboratory only spiked a subset of the VOCs which were reported in the samples in the MS/MSDs. Thus, accuracy and precision could not be evaluated for the following VOCs (which were not spiked) in groundwater sample RM-401XXD: 2-butanone, 2-hexanone, 4-methyl-2-pentanone, and acetone. No validation action was taken on this basis.

### LCS Results

An LCS was performed each day prior to sample analysis.

Note that the laboratory only spiked a subset of the VOCs that were reported in the samples in the LCS. Thus, accuracy could not be evaluated for the following VOCs (which were not spiked) in all LCSs: 2-butanone, 2-hexanone, 4-methyl-2-pentanone, and acetone. No validation action was taken on this basis.

### Internal Standard Performance

Internal standards were within the method acceptance criteria in all sample analyses.

### Laboratory Duplicate Results

Laboratory duplicates were not performed on a sample from this data set.

### Field Duplicate Results

Samples RM-403XD and FDUP-001 were submitted as the field duplicate pair with this data set. The following table summarizes the RPDs or absolute difference (AbsDs) of the detected results in the field duplicate pair. All criteria were met.



Analyte	QL(s) (µg/L)	RM-403XD (µg/L)	FDUP-001 (µg/L)	RPD (%) or AbsD (µg/L)	Validation Action
1,1,1-Trichloroethane	1.0	106	101	RPD = 4.8	None; all criteria were met.
1,1-Dichloroethane	1.0	58.4	55.8	RPD = 4.6	
1,1-Dichloroethene	1.0	7.0	6.2	RPD = 12	
Tetrachloroethene	1.0	1.4	1.3	AbsD = 0.1	
Trichloroethene	1.0	16.8	16.1	RPD = 4.3	
cis-1,2-Dichloroethene	1.0	16.6	15.0	RPD = 10	

Criteria:

- When both results are  $\geq 5x$  the QL, RPDs must be  $\leq 35\%$ .
- When one or both results are  $< 5x$  the QL, AbsD must be  $<$  the QL.

**Quantitation Limits and Sample Results**

Sample calculations were spot-checked; there were no errors noted. There were no dilutions performed on the samples in this data set.

Select results were reported which were below the lowest calibration standard level and QL (or limit of quantitation [LOQ]). These results were qualified as estimated (J) by the laboratory.

The laboratory's LOD for select nondetect VOC results was above one or both of the project action limits specified in the QAPP; the affected VOCs, project action limits, and current laboratory LODs are summarized in the table below.

Compound	Affected Samples	WAC Chapter NR 140 PAL (µg/L)	WAC Chapter NR 140 ES (µg/L)	Laboratory LOD (µg/L)
1,1,2,2-Tetrachloroethane	All samples in this data set	0.02	0.2	0.38
Bromodichloromethane		0.06	0.6*	0.42
Bromoform		0.44	4.4*	3.8
Bromomethane		1	10*	1.2
Chloroform		0.6	6*	1.2
cis-1,3-Dichloropropene		0.02	0.2	0.36
trans-1,3-Dichloropropene		0.02	0.2	3.5
Vinyl chloride		0.02	0.2*	0.17

\* Laboratory LOD is below action limit

**Target Compound Identification**

All criteria were met.

# **QUALIFIED FORM 1s**

### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF SE

Pace Project No.: 40247569

Sample: RM-003D Lab ID: 40247569001 Collected: 06/28/22 15:29 Received: 07/05/22 08:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	19.0	ug/L	1.0	0.30	1		07/08/22 15:58	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 15:58	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 15:58	79-00-5	
1,1-Dichloroethane	9.2	ug/L	1.0	0.30	1		07/08/22 15:58	75-34-3	
1,1-Dichloroethene	1.4	ug/L	1.0	0.58	1		07/08/22 15:58	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/08/22 15:58	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/08/22 15:58	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 15:58	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 15:58	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 15:58	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/08/22 15:58	67-64-1	
Benzene	<0.30	ug/L	1.0	0.30	1		07/08/22 15:58	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 15:58	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 15:58	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 15:58	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/08/22 15:58	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 15:58	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/08/22 15:58	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 15:58	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 15:58	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/08/22 15:58	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 15:58	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/08/22 15:58	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 15:58	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 15:58	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/08/22 15:58	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/08/22 15:58	108-88-3	
Trichloroethene	3.0	ug/L	1.0	0.32	1		07/08/22 15:58	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/08/22 15:58	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		07/08/22 15:58	1330-20-7	
cis-1,2-Dichloroethene	3.0	ug/L	1.0	0.47	1		07/08/22 15:58	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 15:58	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/08/22 15:58	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 15:58	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	102	%	70-130		1		07/08/22 15:58	460-00-4	
1,2-Dichlorobenzene-d4 (S)	98	%	70-130		1		07/08/22 15:58	2199-69-1	
Toluene-d8 (S)	98	%	70-130		1		07/08/22 15:58	2037-26-5	

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### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF SE  
Pace Project No.: 40247569

**Sample: RM-003XXD**      **Lab ID: 40247569002**      Collected: 06/28/22 16:32      Received: 07/05/22 08:00      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	4.7	ug/L	1.0	0.30	1		07/08/22 16:18	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 16:18	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 16:18	79-00-5	
1,1-Dichloroethane	2.2	ug/L	1.0	0.30	1		07/08/22 16:18	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/08/22 16:18	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/08/22 16:18	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/08/22 16:18	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 16:18	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 16:18	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 16:18	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/08/22 16:18	67-64-1	
Benzene	<0.30	ug/L	1.0	0.30	1		07/08/22 16:18	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 16:18	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 16:18	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 16:18	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/08/22 16:18	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 16:18	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/08/22 16:18	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 16:18	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 16:18	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/08/22 16:18	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 16:18	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/08/22 16:18	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 16:18	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 16:18	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/08/22 16:18	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/08/22 16:18	108-88-3	
Trichloroethene	1.3	ug/L	1.0	0.32	1		07/08/22 16:18	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/08/22 16:18	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		07/08/22 16:18	1330-20-7	
cis-1,2-Dichloroethene	1.1	ug/L	1.0	0.47	1		07/08/22 16:18	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 16:18	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/08/22 16:18	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 16:18	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	103	%	70-130		1		07/08/22 16:18	460-00-4	
1,2-Dichlorobenzene-d4 (S)	97	%	70-130		1		07/08/22 16:18	2199-69-1	
Toluene-d8 (S)	100	%	70-130		1		07/08/22 16:18	2037-26-5	

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### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF SE

Pace Project No.: 40247569

**Sample: RM-403XD**      **Lab ID: 40247569003**      Collected: 06/28/22 17:50      Received: 07/05/22 08:00      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	106	ug/L	1.0	0.30	1		07/08/22 16:37	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 16:37	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 16:37	79-00-5	
1,1-Dichloroethane	58.4	ug/L	1.0	0.30	1		07/08/22 16:37	75-34-3	
1,1-Dichloroethene	7.0	ug/L	1.0	0.58	1		07/08/22 16:37	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/08/22 16:37	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/08/22 16:37	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 16:37	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 16:37	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 16:37	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/08/22 16:37	67-64-1	
Benzene	<0.30	ug/L	1.0	0.30	1		07/08/22 16:37	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 16:37	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 16:37	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 16:37	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/08/22 16:37	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 16:37	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/08/22 16:37	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 16:37	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 16:37	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/08/22 16:37	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 16:37	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/08/22 16:37	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 16:37	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 16:37	100-42-5	
Tetrachloroethene	1.4	ug/L	1.0	0.41	1		07/08/22 16:37	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/08/22 16:37	108-88-3	
Trichloroethene	16.8	ug/L	1.0	0.32	1		07/08/22 16:37	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/08/22 16:37	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		07/08/22 16:37	1330-20-7	
cis-1,2-Dichloroethene	16.6	ug/L	1.0	0.47	1		07/08/22 16:37	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 16:37	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/08/22 16:37	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 16:37	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	101	%	70-130		1		07/08/22 16:37	460-00-4	
1,2-Dichlorobenzene-d4 (S)	96	%	70-130		1		07/08/22 16:37	2199-69-1	
Toluene-d8 (S)	97	%	70-130		1		07/08/22 16:37	2037-26-5	

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### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF SE  
Pace Project No.: 40247569

Sample: **FDUP-001** Lab ID: **40247569004** Collected: 06/28/22 00:00 Received: 07/05/22 08:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	101	ug/L	1.0	0.30	1		07/08/22 16:57	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 16:57	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 16:57	79-00-5	
1,1-Dichloroethane	55.8	ug/L	1.0	0.30	1		07/08/22 16:57	75-34-3	
1,1-Dichloroethene	6.2	ug/L	1.0	0.58	1		07/08/22 16:57	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/08/22 16:57	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/08/22 16:57	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 16:57	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 16:57	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 16:57	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/08/22 16:57	67-64-1	
Benzene	<0.30	ug/L	1.0	0.30	1		07/08/22 16:57	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 16:57	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 16:57	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 16:57	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/08/22 16:57	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 16:57	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/08/22 16:57	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 16:57	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 16:57	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/08/22 16:57	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 16:57	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/08/22 16:57	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 16:57	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 16:57	100-42-5	
Tetrachloroethene	1.3	ug/L	1.0	0.41	1		07/08/22 16:57	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/08/22 16:57	108-88-3	
Trichloroethene	16.1	ug/L	1.0	0.32	1		07/08/22 16:57	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/08/22 16:57	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		07/08/22 16:57	1330-20-7	
cis-1,2-Dichloroethene	15.0	ug/L	1.0	0.47	1		07/08/22 16:57	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 16:57	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/08/22 16:57	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 16:57	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	103	%	70-130		1		07/08/22 16:57	460-00-4	
1,2-Dichlorobenzene-d4 (S)	98	%	70-130		1		07/08/22 16:57	2199-69-1	
Toluene-d8 (S)	98	%	70-130		1		07/08/22 16:57	2037-26-5	

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### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF SE  
Pace Project No.: 40247569

Sample: **FB-001** Lab ID: **40247569005** Collected: 06/28/22 00:00 Received: 07/05/22 08:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 12:03	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 12:03	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 12:03	79-00-5	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 12:03	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/08/22 12:03	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/08/22 12:03	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/08/22 12:03	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 12:03	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 12:03	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 12:03	108-10-1	
Acetone	12.6J-- J	ug/L	25.0	8.6	1		07/08/22 12:03	67-64-1	
Benzene	<0.30	ug/L	1.0	0.30	1		07/08/22 12:03	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 12:03	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 12:03	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 12:03	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/08/22 12:03	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 12:03	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/08/22 12:03	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 12:03	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 12:03	67-66-3	
Chloromethane	2.8J-- J	ug/L	5.0	1.6	1		07/08/22 12:03	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 12:03	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/08/22 12:03	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 12:03	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 12:03	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/08/22 12:03	127-18-4	
Toluene	1.3	ug/L	1.0	0.29	1		07/08/22 12:03	108-88-3	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		07/08/22 12:03	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/08/22 12:03	75-01-4	
Xylene (Total)	1.2J	ug/L	3.0	1.0	1		07/08/22 12:03	1330-20-7	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		07/08/22 12:03	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 12:03	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/08/22 12:03	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 12:03	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	103	%	70-130		1		07/08/22 12:03	460-00-4	
1,2-Dichlorobenzene-d4 (S)	95	%	70-130		1		07/08/22 12:03	2199-69-1	
Toluene-d8 (S)	100	%	70-130		1		07/08/22 12:03	2037-26-5	

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### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF SE  
Pace Project No.: 40247569

**Sample: TB-001**      **Lab ID: 40247569006**      Collected: 06/28/22 00:00      Received: 07/05/22 08:00      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 12:23	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 12:23	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 12:23	79-00-5	
1,1-Dichloroethane	<0.30	ug/L	1.0	0.30	1		07/08/22 12:23	75-34-3	
1,1-Dichloroethene	<0.58	ug/L	1.0	0.58	1		07/08/22 12:23	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/08/22 12:23	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/08/22 12:23	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 12:23	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 12:23	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 12:23	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/08/22 12:23	67-64-1	
Benzene	<0.30	ug/L	1.0	0.30	1		07/08/22 12:23	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 12:23	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 12:23	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 12:23	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/08/22 12:23	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 12:23	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/08/22 12:23	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 12:23	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 12:23	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/08/22 12:23	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 12:23	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/08/22 12:23	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 12:23	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 12:23	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/08/22 12:23	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/08/22 12:23	108-88-3	
Trichloroethene	<0.32	ug/L	1.0	0.32	1		07/08/22 12:23	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/08/22 12:23	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		07/08/22 12:23	1330-20-7	
cis-1,2-Dichloroethene	<0.47	ug/L	1.0	0.47	1		07/08/22 12:23	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 12:23	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/08/22 12:23	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 12:23	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	101	%	70-130		1		07/08/22 12:23	460-00-4	
1,2-Dichlorobenzene-d4 (S)	95	%	70-130		1		07/08/22 12:23	2199-69-1	
Toluene-d8 (S)	98	%	70-130		1		07/08/22 12:23	2037-26-5	

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### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF SE  
Pace Project No.: 40247570

Sample: RM-210D Lab ID: 40247570001 Collected: 06/28/22 09:01 Received: 07/05/22 08:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	7.6 J	ug/L	1.0	0.30	1		07/11/22 09:48	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/11/22 09:48	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/11/22 09:48	79-00-5	
1,1-Dichloroethane	3.2	ug/L	1.0	0.30	1		07/11/22 09:48	75-34-3	
1,1-Dichloroethene	0.73J	ug/L	1.0	0.58	1		07/11/22 09:48	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/11/22 09:48	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/11/22 09:48	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/11/22 09:48	78-93-3	
2-Hexanone	<6.3	ug/L	25.0	6.3	1		07/11/22 09:48	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/11/22 09:48	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/11/22 09:48	67-64-1	
Benzene	<0.30	ug/L	1.0	0.30	1		07/11/22 09:48	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/11/22 09:48	75-27-4	
Bromoform	<3.8 UJ	ug/L	5.0	3.8	1		07/11/22 09:48	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/11/22 09:48	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/11/22 09:48	75-15-0	
Carbon tetrachloride	<0.37 UJ	ug/L	1.0	0.37	1		07/11/22 09:48	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/11/22 09:48	108-90-7	
Chloroethane	<1.4 UJ	ug/L	5.0	1.4	1		07/11/22 09:48	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/11/22 09:48	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/11/22 09:48	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/11/22 09:48	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/11/22 09:48	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/11/22 09:48	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/11/22 09:48	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/11/22 09:48	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/11/22 09:48	108-88-3	
Trichloroethene	1.4	ug/L	1.0	0.32	1		07/11/22 09:48	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/11/22 09:48	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		07/11/22 09:48	1330-20-7	
cis-1,2-Dichloroethene	1.8	ug/L	1.0	0.47	1		07/11/22 09:48	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/11/22 09:48	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/11/22 09:48	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/11/22 09:48	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	104	%	70-130		1		07/11/22 09:48	460-00-4	
1,2-Dichlorobenzene-d4 (S)	96	%	70-130		1		07/11/22 09:48	2199-69-1	
Toluene-d8 (S)	101	%	70-130		1		07/11/22 09:48	2037-26-5	

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### ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF SE  
Pace Project No.: 40247570

**Sample: RM-002D**      **Lab ID: 40247570002**      Collected: 06/28/22 11:40      Received: 07/05/22 08:00      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	6.9	ug/L	1.0	0.30	1		07/08/22 17:36	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 17:36	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 17:36	79-00-5	
1,1-Dichloroethane	4.3	ug/L	1.0	0.30	1		07/08/22 17:36	75-34-3	
1,1-Dichloroethene	0.67J	ug/L	1.0	0.58	1		07/08/22 17:36	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/08/22 17:36	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/08/22 17:36	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 17:36	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 17:36	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 17:36	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/08/22 17:36	67-64-1	
Benzene	<0.30	ug/L	1.0	0.30	1		07/08/22 17:36	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 17:36	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 17:36	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 17:36	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/08/22 17:36	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 17:36	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/08/22 17:36	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 17:36	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 17:36	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/08/22 17:36	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 17:36	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/08/22 17:36	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 17:36	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 17:36	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/08/22 17:36	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/08/22 17:36	108-88-3	
Trichloroethene	1.9	ug/L	1.0	0.32	1		07/08/22 17:36	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/08/22 17:36	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		07/08/22 17:36	1330-20-7	
cis-1,2-Dichloroethene	1.2	ug/L	1.0	0.47	1		07/08/22 17:36	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 17:36	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/08/22 17:36	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 17:36	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	103	%	70-130		1		07/08/22 17:36	460-00-4	
1,2-Dichlorobenzene-d4 (S)	100	%	70-130		1		07/08/22 17:36	2199-69-1	
Toluene-d8 (S)	98	%	70-130		1		07/08/22 17:36	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 473040.0000PH3 LEMBERGER LF SE  
Pace Project No.: 40247570

**Sample: RM-401XXD**      **Lab ID: 40247570003**      Collected: 06/28/22 13:08      Received: 07/05/22 08:00      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
1,1,1-Trichloroethane	3.6	ug/L	1.0	0.30	1		07/08/22 12:42	71-55-6	
1,1,2,2-Tetrachloroethane	<0.38	ug/L	1.0	0.38	1		07/08/22 12:42	79-34-5	
1,1,2-Trichloroethane	<0.34	ug/L	5.0	0.34	1		07/08/22 12:42	79-00-5	
1,1-Dichloroethane	1.8	ug/L	1.0	0.30	1		07/08/22 12:42	75-34-3	
1,1-Dichloroethene	0.98J	ug/L	1.0	0.58	1		07/08/22 12:42	75-35-4	
1,2-Dichloroethane	<0.29	ug/L	1.0	0.29	1		07/08/22 12:42	107-06-2	
1,2-Dichloropropane	<0.45	ug/L	1.0	0.45	1		07/08/22 12:42	78-87-5	
2-Butanone (MEK)	<6.5	ug/L	25.0	6.5	1		07/08/22 12:42	78-93-3	
2-Hexanone	<6.3 UJ	ug/L	25.0	6.3	1		07/08/22 12:42	591-78-6	
4-Methyl-2-pentanone (MIBK)	<6.0 UJ	ug/L	25.0	6.0	1		07/08/22 12:42	108-10-1	
Acetone	<8.6 UJ	ug/L	25.0	8.6	1		07/08/22 12:42	67-64-1	
Benzene	<0.30	ug/L	1.0	0.30	1		07/08/22 12:42	71-43-2	
Bromodichloromethane	<0.42	ug/L	1.0	0.42	1		07/08/22 12:42	75-27-4	
Bromoform	<3.8	ug/L	5.0	3.8	1		07/08/22 12:42	75-25-2	
Bromomethane	<1.2	ug/L	5.0	1.2	1		07/08/22 12:42	74-83-9	
Carbon disulfide	<1.1	ug/L	5.0	1.1	1		07/08/22 12:42	75-15-0	
Carbon tetrachloride	<0.37	ug/L	1.0	0.37	1		07/08/22 12:42	56-23-5	
Chlorobenzene	<0.86	ug/L	1.0	0.86	1		07/08/22 12:42	108-90-7	
Chloroethane	<1.4	ug/L	5.0	1.4	1		07/08/22 12:42	75-00-3	
Chloroform	<1.2	ug/L	5.0	1.2	1		07/08/22 12:42	67-66-3	
Chloromethane	<1.6 UJ	ug/L	5.0	1.6	1		07/08/22 12:42	74-87-3	
Dibromochloromethane	<2.6	ug/L	5.0	2.6	1		07/08/22 12:42	124-48-1	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/08/22 12:42	100-41-4	
Methylene Chloride	<0.32	ug/L	5.0	0.32	1		07/08/22 12:42	75-09-2	
Styrene	<0.36	ug/L	1.0	0.36	1		07/08/22 12:42	100-42-5	
Tetrachloroethene	<0.41	ug/L	1.0	0.41	1		07/08/22 12:42	127-18-4	
Toluene	<0.29	ug/L	1.0	0.29	1		07/08/22 12:42	108-88-3	
Trichloroethene	0.71J	ug/L	1.0	0.32	1		07/08/22 12:42	79-01-6	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		07/08/22 12:42	75-01-4	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		07/08/22 12:42	1330-20-7	
cis-1,2-Dichloroethene	3.2	ug/L	1.0	0.47	1		07/08/22 12:42	156-59-2	
cis-1,3-Dichloropropene	<0.36	ug/L	1.0	0.36	1		07/08/22 12:42	10061-01-5	
trans-1,2-Dichloroethene	<0.53	ug/L	1.0	0.53	1		07/08/22 12:42	156-60-5	
trans-1,3-Dichloropropene	<3.5	ug/L	5.0	3.5	1		07/08/22 12:42	10061-02-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	102	%	70-130		1		07/08/22 12:42	460-00-4	
1,2-Dichlorobenzene-d4 (S)	97	%	70-130		1		07/08/22 12:42	2199-69-1	
Toluene-d8 (S)	98	%	70-130		1		07/08/22 12:42	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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## **Attachment 2**

### **Table of Wisconsin Administrative Code Chapter NR 140 Groundwater Quality Standards (Enforcement Standards [ESs], Preventive Action Limits [PALs], Maximum Contaminant Levels [MCLs], and Secondary Maximum Contaminant Levels [SMCLs]) for the Pertinent Parameters**

**Attachment 2  
Groundwater Quality Standards**

Parameter Name	Units	MCL	SMCL	NR PAL	NR ES
1,1,1,2-Tetrachloroethane	µg/L			7	70
1,1,1-Trichloroethane	µg/L	200		40	200
1,1,2-Trichloroethane	µg/L	5		0.5	5
1,1-Dichloroethane	µg/L			85	850
1,1-Dichloroethene	µg/L	7		0.7	7
1,2,3-Trichloropropane	µg/L			12	60
1,2,4-Trichlorobenzene	µg/L	70		14	70
1,2-Dichlorobenzene	µg/L	600		60	600
1,2-Dichloroethane	µg/L	5		0.5	5
1,2-Dichloropropane	µg/L	5		0.5	5
1,4-Dichlorobenzene	µg/L	75		15	75
2,3,7,8-TCDD	ng/L	0.03		0.003	0.03
Alpha-chlordane	µg/L	2		0.2	2
Anthracene	µg/L			600	3000
Antimony, dissolved	µg/L	6		1.2	6
Antimony, total	µg/L	6		1.2	6
Aroclor-1016	µg/L	0.5		0.003	0.03
Aroclor-1221	µg/L	0.5		0.003	0.03
Aroclor-1232	µg/L	0.5		0.003	0.03
Aroclor-1242	µg/L	0.5		0.003	0.03
Aroclor-1248	µg/L	0.5		0.003	0.03
Aroclor-1254	µg/L	0.5		0.003	0.03
Aroclor-1260	µg/L	0.5		0.003	0.03
Arsenic, dissolved	µg/L	10		1	10
Arsenic, total	µg/L	10		1	10
Barium, dissolved	µg/L	2000		400	2000
Barium, total	µg/L	2000		400	2000
Bentazon	µg/L			60	300
Benzene	µg/L	5		0.5	5
Benzo(a)pyrene	µg/L	0.2		0.02	0.2
Benzo(b)fluoranthene	µg/L			0.02	0.2
Beryllium, dissolved	µg/L	4		0.4	4
Beryllium, total	µg/L	4		0.4	4
bis(2-ethylhexyl)Phthalate	µg/L	6		0.6	6
Cadmium, dissolved	µg/L	5		0.5	5
Cadmium, total	µg/L	5		0.5	5

**Attachment 2 (continued)  
Groundwater Quality Standards**

<b>Parameter Name</b>	<b>Units</b>	<b>MCL</b>	<b>SMCL</b>	<b>NR PAL</b>	<b>NR ES</b>
Carbon disulfide	µg/L			200	1000
Carbon tetrachloride	µg/L	5		0.5	5
Chlordane, technical	µg/L	2		0.2	2
Chloride	mg/L		250	125	250
Chlorobenzene	µg/L	100		20	100
Chromium, dissolved	µg/L	100		10	100
Chromium, total	µg/L	100		10	100
Chrysene	µg/L			0.02	0.2
cis-1,2-Dichloroethene	µg/L	70		7	70
Cobalt, dissolved	µg/L			8	40
Cobalt, total	µg/L			8	40
Copper, dissolved	µg/L	1300	1000	130	1300
Copper, total	µg/L	1300	1000	130	1300
Cyanazine	µg/L			0.1	1
Cyanide, total	mg/L	0.2		0.04	0.2
Di-n-butylphthalate	µg/L			100	1000
Endrin	µg/L	2		0.4	2
Ethylbenzene	µg/L	700		140	700
Fluoranthene	µg/L			80	400
Gamma-BHC (lindane)	µg/L	0.2		0.02	0.2
Gamma-chlordane	µg/L	2		0.2	2
Heptachlor	µg/L	0.4		0.04	0.4
Heptachlor epoxide	µg/L	0.2		0.02	0.2
Hexachlorobenzene	µg/L	1		0.1	1
Hydrogen sulfide	µg/L			6	30
Iron, dissolved	µg/L		300	150	300
Iron, total	µg/L		300	150	300
Lead, dissolved	µg/L	15		1.5	15
Lead, total	µg/L	15		1.5	15
Manganese, dissolved	µg/L		50	60	300
Manganese, total	µg/L		50	60	300
Mercury, dissolved	µg/L	2		0.2	2
Mercury, total	µg/L	2		0.2	2
Methanol	µg/L			1000	5000
Methoxychlor	µg/L	40		4	40
Methylene chloride	µg/L	5		0.5	5

**Attachment 2 (continued)  
Groundwater Quality Standards**

<b>Parameter Name</b>	<b>Units</b>	<b>MCL</b>	<b>SMCL</b>	<b>NR PAL</b>	<b>NR ES</b>
N-hexane	µg/L			120	600
Nickel, dissolved	µg/L			20	100
Nickel, total	µg/L			20	100
Nitrogen, ammonia	mg/L			0.97	9.7
N-nitrosodiphenylamine	µg/L			0.7	7
Pentachlorophenol	µg/L	1		0.1	1
Prometon	µg/L			20	100
Pyrene	µg/L			50	250
Pyridine	µg/L			2	10
Selenium, dissolved	µg/L	50		10	50
Selenium, total	µg/L	50		10	50
Silver, dissolved	µg/L		100	10	50
Silver, total	µg/L		100	10	50
Styrene	µg/L	100		10	100
Tetrachloroethene	µg/L	5		0.5	5
Thallium, dissolved	µg/L	2		0.4	2
Thallium, total	µg/L	2		0.4	2
Toluene	µg/L	1000		160	800
Toxaphene	µg/L	3		0.3	3
trans-1,2-Dichloroethene	µg/L	100		20	100
Trichloroethene	µg/L	5		0.5	5
Trimethylbenzenes, total	µg/L			96	480
Vanadium, dissolved	µg/L			6	30
Vanadium, total	µg/L			6	30
Vinyl chloride	µg/L	2		0.02	0.2
Xylenes, total	µg/L	10000		400	2000
Zinc, dissolved	µg/L		5000	2500	5000
Zinc, total	µg/L		5000	2500	5000

Note:

Table updated June 2022 to reflect June 2021 register #786 (WDNR) and latest USEPA MCLs.

(1) MCL, ES, and PAL apply to total PCBs.

## **Attachment 3**

### **Tabular Summary of Analytical Results at Each Monitoring Well**



**LEMBERGER LANDFILL  
MONITORING WELL VOLATILE ORGANIC ANALYSIS RESULTS  
JUNE 2022**

PARAMETER	UNITS	FIELD BLANK	FIELD BLANK	LH-01	LH-03	LH-06	LW-07
		6/28/2022 40247569005	6/30/2022 40247567006	6/29/2022 40247568001	6/30/2022 40247567003	6/30/2022 40247567004	6/30/2022 40247567002
1,1,1-TRICHLOROETHANE	UG/L	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
1,1,2,2-TETRACHLOROETHANE	UG/L	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
1,1,2-TRICHLOROETHANE	UG/L	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
1,1-DICHLOROETHANE	UG/L	< 0.30	< 0.30	0.96 J	< 0.30	16.2	0.37 J
1,1-DICHLOROETHENE	UG/L	< 0.58	< 0.58	< 0.58	< 0.58	< 0.58	< 0.58
1,2-DICHLOROETHANE	UG/L	< 0.29	< 0.29	< 0.29	< 0.29	6.0	< 0.29
1,2-DICHLOROPROPANE	UG/L	< 0.45	< 0.45	0.65 J	< 0.45	3.9	< 0.45
2-BUTANONE	UG/L	< 6.5	< 6.5	< 6.5	< 6.5	< 6.5	< 6.5
2-HEXANONE	UG/L	< 6.3 uj	< 6.3 uj	< 6.3 uj	< 6.3 uj	< 6.3 uj	< 6.3 uj
4-METHYL-2-PENTANONE	UG/L	< 6.0 uj	< 6.0 uj	< 6.0 uj	< 6.0 uj	< 6.0 uj	< 6.0 uj
ACETONE	UG/L	12.6 Jj	< 8.6 uj	< 8.6 uj	< 8.6 uj	< 8.6 uj	< 8.6 uj
BENZENE	UG/L	< 0.30	< 0.30	4.5	2.6	74.8	5.9
BROMODICHLOROMETHANE	UG/L	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
BROMOFORM	UG/L	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8
BROMOMETHANE	UG/L	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
CARBON DISULFIDE	UG/L	< 1.1	< 1.1	< 1.1	1.5 J	< 1.1	< 1.1
CARBON TETRACHLORIDE	UG/L	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
CHLOROBENZENE	UG/L	< 0.86	< 0.86	< 0.86	2.3	< 0.86	< 0.86
CHLORODIBROMOMETHANE	UG/L	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6
CHLOROETHANE	UG/L	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
CHLOROFORM	UG/L	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
CHLOROMETHANE	UG/L	2.8 Jj	< 1.6 uj	< 1.6 uj	< 1.6 uj	< 1.6 uj	< 1.6 uj
CIS-1,2-DICHLOROETHENE	UG/L	< 0.47	< 0.47	< 0.47	< 0.47	101	< 0.47
CIS-1,3-DICHLOROPROPENE	UG/L	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
ETHYLBENZENE	UG/L	< 0.33	< 0.33	< 0.33	< 0.33	88.4	< 0.33
METHYLENE CHLORIDE	UG/L	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
STYRENE	UG/L	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
TETRACHLOROETHENE	UG/L	< 0.41	< 0.41	< 0.41	< 0.41	0.56 J	< 0.41
TOLUENE	UG/L	1.3	1.2	< 0.29	< 0.29	7.6	< 0.29
TRANS-1,2-DICHLOROETHENE	UG/L	< 0.53	< 0.53	< 0.53	< 0.53	1.3	< 0.53
TRANS-1,3-DICHLOROPROPENE	UG/L	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5
TRICHLOROETHENE	UG/L	< 0.32	< 0.32	< 0.32	< 0.32	0.47 J	< 0.32
VINYL CHLORIDE	UG/L	< 0.17	< 0.17	< 0.17	< 0.17	7.9	< 0.17
XYLENE, TOTAL	UG/L	1.2 J	1.3 J	< 1.0	< 1.0	96.6	2.1 J

**NOTES:**

Laboratory data qualifiers are included in Attachment 4. See specific laboratory report for Sample Delivery Group (SDG) definition.

Non-detect results are reported as "< Limit of Detection (LOD)"

Data Validation Qualifiers:

u = data validation rules result as not detected

j = the result is estimated

**LEMBERGER LANDFILL  
MONITORING WELL VOLATILE ORGANIC ANALYSIS RESULTS  
JUNE 2022**

PARAMETER	UNITS	RM-002D	RM-003D	RM-003XXD	RM-005S	RM-005S DUP	RM-206S	RM-207S
		6/28/2022 40247570002	6/28/2022 40247569001	6/28/2022 40247569002	6/29/2022 40247568003	6/29/2022 40247568004	6/29/2022 40247568002	6/30/2022 40247567001
1,1,1-TRICHLOROETHANE	UG/L	6.9	19.0	4.7	< 0.30	< 0.30	< 0.30	< 0.30
1,1,2,2-TETRACHLOROETHANE	UG/L	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
1,1,2-TRICHLOROETHANE	UG/L	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
1,1-DICHLOROETHANE	UG/L	4.3	9.2	2.2	< 0.30	< 0.30	< 0.30	< 0.30
1,1-DICHLOROETHENE	UG/L	0.67 J	1.4	< 0.58	< 0.58	< 0.58	< 0.58	< 0.58
1,2-DICHLOROETHANE	UG/L	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29
1,2-DICHLOROPROPANE	UG/L	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
2-BUTANONE	UG/L	< 6.5	< 6.5	< 6.5	< 6.5	< 6.5	< 6.5	< 6.5
2-HEXANONE	UG/L	< 6.3 uj	< 6.3 uj	< 6.3 uj	< 6.3 uj	< 6.3 uj	< 6.3 uj	< 6.3 uj
4-METHYL-2-PENTANONE	UG/L	< 6.0 uj	< 6.0 uj	< 6.0 uj	< 6.0 uj	< 6.0 uj	< 6.0 uj	< 6.0 uj
ACETONE	UG/L	< 8.6 uj	< 8.6 uj	< 8.6 uj	< 8.6 uj	< 8.6 uj	< 8.6 uj	16.2 Jj
BENZENE	UG/L	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	0.33 J
BROMODICHLOROMETHANE	UG/L	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
BROMOFORM	UG/L	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8
BROMOMETHANE	UG/L	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
CARBON DISULFIDE	UG/L	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
CARBON TETRACHLORIDE	UG/L	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
CHLOROBENZENE	UG/L	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86
CHLORODIBROMOMETHANE	UG/L	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6
CHLOROETHANE	UG/L	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
CHLOROFORM	UG/L	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
CHLOROMETHANE	UG/L	< 1.6 uj	< 1.6 uj	< 1.6 uj	< 1.6 uj	< 1.6 uj	< 1.6 uj	5.7 j
CIS-1,2-DICHLOROETHENE	UG/L	1.2	3.0	1.1	< 0.47	< 0.47	< 0.47	< 0.47
CIS-1,3-DICHLOROPROPENE	UG/L	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
ETHYLBENZENE	UG/L	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
METHYLENE CHLORIDE	UG/L	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
STYRENE	UG/L	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
TETRACHLOROETHENE	UG/L	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
TOLUENE	UG/L	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29
TRANS-1,2-DICHLOROETHENE	UG/L	< 0.53	< 0.53	< 0.53	< 0.53	< 0.53	< 0.53	< 0.53
TRANS-1,3-DICHLOROPROPENE	UG/L	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5
TRICHLOROETHENE	UG/L	1.9	3.0	1.3	0.36 J	0.39 J	< 0.32	< 0.32
VINYL CHLORIDE	UG/L	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17
XYLENE, TOTAL	UG/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

**NOTES:**

Laboratory data qualifiers are included in Attachment 4. See specific laboratory report for Sample Delivery Group (SDG) definition.

Non-detect results are reported as "< Limit of Detection (LOD)"

Data Validation Qualifiers:

u = data validation rules result as not detected

j = the result is estimated

**LEMBERGER LANDFILL  
MONITORING WELL VOLATILE ORGANIC ANALYSIS RESULTS  
JUNE 2022**

PARAMETER	UNITS	RM-208S	RM-210D	RM-401XXD	RM-403XD	RM-403XD DUP	TRIP BLANK	TRIP BLANK
		6/30/2022 40247567005	6/28/2022 40247570001	6/28/2022 40247570003	6/28/2022 40247569003	6/28/2022 40247569004	6/28/2022 40247569006	6/30/2022 40247567007
1,1,1-TRICHLOROETHANE	UG/L	< 0.30 uj	7.6 j	3.6	106	101	< 0.30	< 0.30
1,1,2,2-TETRACHLOROETHANE	UG/L	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
1,1,2-TRICHLOROETHANE	UG/L	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
1,1-DICHLOROETHANE	UG/L	< 0.30	3.2	1.8	58.4	55.8	< 0.30	< 0.30
1,1-DICHLOROETHENE	UG/L	< 0.58	0.73 J	0.98 J	7.0	6.2	< 0.58	< 0.58
1,2-DICHLOROETHANE	UG/L	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29
1,2-DICHLOROPROPANE	UG/L	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
2-BUTANONE	UG/L	< 6.5	< 6.5	< 6.5	< 6.5	< 6.5	< 6.5	< 6.5
2-HEXANONE	UG/L	< 6.3	< 6.3	< 6.3 uj	< 6.3 uj	< 6.3 uj	< 6.3 uj	< 6.3 uj
4-METHYL-2-PENTANONE	UG/L	< 6.0 uj	< 6.0 uj	< 6.0 uj	< 6.0 uj	< 6.0 uj	< 6.0 uj	< 6.0 uj
ACETONE	UG/L	< 8.6 uj	< 8.6 uj	< 8.6 uj	< 8.6 uj	< 8.6 uj	< 8.6 uj	< 8.6 uj
BENZENE	UG/L	1.7	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
BROMODICHLOROMETHANE	UG/L	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
BROMOFORM	UG/L	< 3.8 uj	< 3.8 uj	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8
BROMOMETHANE	UG/L	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
CARBON DISULFIDE	UG/L	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
CARBON TETRACHLORIDE	UG/L	< 0.37 uj	< 0.37 uj	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
CHLOROBENZENE	UG/L	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86	< 0.86
CHLORODIBROMOMETHANE	UG/L	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6
CHLOROETHANE	UG/L	< 1.4 uj	< 1.4 uj	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
CHLOROFORM	UG/L	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
CHLOROMETHANE	UG/L	< 1.6 uj	< 1.6 uj	< 1.6 uj	< 1.6 uj	< 1.6 uj	< 1.6 uj	< 1.6 uj
CIS-1,2-DICHLOROETHENE	UG/L	< 0.47	1.8	3.2	16.6	15.0	< 0.47	< 0.47
CIS-1,3-DICHLOROPROPENE	UG/L	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
ETHYLBENZENE	UG/L	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
METHYLENE CHLORIDE	UG/L	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
STYRENE	UG/L	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
TETRACHLOROETHENE	UG/L	< 0.41	< 0.41	< 0.41	1.4	1.3	< 0.41	< 0.41
TOLUENE	UG/L	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29
TRANS-1,2-DICHLOROETHENE	UG/L	< 0.53	< 0.53	< 0.53	< 0.53	< 0.53	< 0.53	< 0.53
TRANS-1,3-DICHLOROPROPENE	UG/L	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5
TRICHLOROETHENE	UG/L	< 0.32	1.4	0.71 J	16.8	16.1	< 0.32	< 0.32
VINYL CHLORIDE	UG/L	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17
XYLENE, TOTAL	UG/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

**NOTES:**

Laboratory data qualifiers are included in Attachment 4. See specific laboratory report for Sample Delivery Group (SDG) definition.

Non-detect results are reported as "< Limit of Detection (LOD)"

Data Validation Qualifiers:

u = data validation rules result as not detected

j = the result is estimated

**LEMBERGER LANDFILL  
MONITORING WELL FIELD DATA  
JUNE 2022**

		LH-01 6/29/2022 40247568001	LH-03 6/30/2022 40247567003	LH-06 6/30/2022 40247567004	LW-07 6/30/2022 40247567002	RM-002D 6/28/2022 40247570002	RM-003D 6/28/2022 40247569001	RM-003XD 6/28/2022 40247569002
PARAMETER	UNITS							
COLOR, FIELD		NONE	NONE	BROWN	NONE	NONE	NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM	3080	1282	541	1658	570	742	680
DEPTH TO LEACHATE	FEET	36.86	35.38	30.99	9.53			
DEPTH TO WATER	FEET					23.51	16.58	14.42
DISSOLVED OXYGEN, FIELD	MGL	0.31	0.20	4.42	1.19	0.96	1.13	0.32
LEACHATE HEAD ELEVATION	FEET	831.92	836.73	848.1	833.81			
ODOR, FIELD		NONE	NONE	NONE	NONE	NONE	NONE	NONE
OXIDATION REDUCTION POTENTIAL	MV	-137	-153	20	-196	96	74	113
PH, FIELD	SU	6.40	6.91	6.06	6.54	7.43	7.17	7.33
TEMPERATURE	DEG C	11.7	10.4	13.9	12.2	8.6	9.9	9.4
TURBIDITY, FIELD NTU	NTU	8	8	411	15	6	0	0
WATER ELEVATION	FEET					792.2	803.55	807.11

**LEMBERGER LANDFILL  
MONITORING WELL FIELD DATA  
JUNE 2022**

		RM-004D 6/29/2022	RM-005S 6/29/2022	RM-010D 6/29/2022	RM-206S 6/29/2022	RM-207S 6/30/2022	RM-208S 6/30/2022	RM-210D 6/28/2022
PARAMETER	UNITS	W220629001	40247568003	W220629002	40247568002	40247567001	40247567005	40247570001
COLOR, FIELD			NONE		NONE	NONE	NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM		708		893	691	1241	727
DEPTH TO LEACHATE	FEET							
DEPTH TO WATER	FEET	54.22	7.07	44.97	11.28	8.78	12.57	31.00
DISSOLVED OXYGEN, FIELD	MG/L		0.47		2.85	0.16	1.87	1.83
LEACHATE HEAD ELEVATION	FEET							
ODOR, FIELD			NONE		NONE	NONE	NONE	NONE
OXIDATION REDUCTION POTENTIAL	MV		-4		151	-91	-111	181
PH, FIELD	SU		7.15		7.40	7.08	7.44	7.48
TEMPERATURE	DEG C		9.4		10.4	9.1	11.1	9.0
TURBIDITY, FIELD NTU	NTU		2		28	8	402	6
WATER ELEVATION	FEET	804.87	836.94	804.6	833.84	831.16	826.8	796.86

**LEMBERGER LANDFILL  
MONITORING WELL FIELD DATA  
JUNE 2022**

PARAMETER	UNITS	RM-301S	RM-302S	RM-305D	RM-401XXD	RM-403XD
		6/29/2022 W220629003	6/29/2022 W220629004	6/29/2022 W220629005	6/28/2022 40247570003	6/28/2022 40247569003
COLOR, FIELD					NONE	NONE
CONDUCTANCE, SPECIFIC	UMHOS/CM				744	893
DEPTH TO LEACHATE	FEET					
DEPTH TO WATER	FEET	8.90	4.16	53.49	25.77	37.31
DISSOLVED OXYGEN, FIELD	MG/L				1.72	1.33
LEACHATE HEAD ELEVATION	FEET					
ODOR, FIELD					NONE	NONE
OXIDATION REDUCTION POTENTIAL	MV				219	112
PH, FIELD	SU				7.30	7.07
TEMPERATURE	DEG C				9.2	9.6
TURBIDITY, FIELD NTU	NTU				0	0
WATER ELEVATION	FEET	852.75	850.91	814.46	807.08	807.19

## **Attachment 4**

### **Laboratory Data Qualifiers for Monitoring Well Samples**

## QUALIFIERS

Project: 473040.0000PH3 LEMBERGER LF LL

Pace Project No.: 40247567

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 473040.0000PH3 LEMBERGER LF LL

Pace Project No.: 40247568

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 473040.0000PH3 LEMBERGER LF SE

Pace Project No.: 40247569

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 473040.0000PH3 LEMBERGER LF SE

Pace Project No.: 40247570

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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## REPORT OF LABORATORY ANALYSIS

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## **Attachment 5**

### **Tabular Summary of Groundwater Standard Exceedances**

**Summary of Groundwater Standard Exceedances at Plume Monitoring Wells  
Lemberger Landfill Sites  
2nd Quarter 2022**

Well ID	Parameter	Result	Data Qualifiers	Units	Standard <sup>1</sup>		Well Location
					ES <sup>2</sup>	PAL <sup>3</sup>	
RM-002D	Trichloroethene	1.9		UG/L		X	2,900' northwest of LL site
RM-003D	1,1-Dichloroethene	1.4		UG/L		X	1,000' west of LL site
RM-003D	Trichloroethene	3		UG/L		X	1,000' west of LL site
RM-003XXD	Trichloroethene	1.3		UG/L		X	1,000' west of LL site
RM-207S	Chloromethane	5.7	j	UG/L		X	West side of LL site
RM-208S	Benzene	1.7		UG/L		X	Southwest side of LL site
RM-210D	1,1-Dichloroethene	0.73	J	UG/L		X	3,600' north of LL site
RM-210D	Trichloroethene	1.4		UG/L		X	3,600' north of LL site
RM-401XXD	1,1-Dichloroethene	0.98	J	UG/L		X	400' Northwest of LL Site
RM-401XXD	Trichloroethene	0.71	J	UG/L		X	400' Northwest of LL Site
RM-403XD	1,1,1-Trichloroethane	106		UG/L		X	400' West of LTR site
RM-403XD	1,1-Dichloroethene	7		UG/L	X		400' West of LTR site
RM-403XD	cis-1,2-Dichloroethene	16.6		UG/L		X	400' West of LTR site
RM-403XD	Tetrachloroethene	1.4		UG/L		X	400' West of LTR site
RM-403XD	Trichloroethene	16.8		UG/L	X		400' West of LTR site
RM-403XD DUP	1,1,1-Trichloroethane	101		UG/L		X	400' West of LTR site
RM-403XD DUP	1,1-Dichloroethene	6.2		UG/L		X	400' West of LTR site
RM-403XD DUP	cis-1,2-Dichloroethene	15		UG/L		X	400' West of LTR site
RM-403XD DUP	Tetrachloroethene	1.3		UG/L		X	400' West of LTR site
RM-403XD DUP	Trichloroethene	16.1		UG/L	X		400' West of LTR site

Notes:

<sup>1</sup> Table includes exceedances where the reported concentration is between the Limit of Detection and Limit of Quantitation ("J" data qualifier).

<sup>2</sup> ES =Wisconsin Administrative Code NR140 Enforcement Standard

<sup>3</sup> PAL =Wisconsin Administrative Code NR140 Preventive Action Limit

<sup>4</sup> LTR = Lemberger Transport and Recycling

<sup>5</sup> LL = Lemberger Landfill

Laboratory qualifiers are included in the sample-specific laboratory reports. See laboratory reports for the SDG-specific definitions.

**Notice:** Personally identifiable information collected will be used for program administration and enforcement purposes. The Department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30NR 635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats

**Instructions:**

- Prepare one form for each license or monitoring ID.
- Please type or print legibly.
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to:

GEMS Data Submittal Contact - WA/5  
Wisconsin Department of Natural Resources  
P.O. Box 7921  
Madison, WI 53707-7921

**Monitoring Data Submittal Information**

Name of entity submitting data (laboratory, consultant, facility owner)

TRC Environmental Corp.

Contact for questions about data formatting. Include data preparer's name, telephone number and Email address:

Name Meredith Westover	Phone No. (include area code) (608) 358-5035
---------------------------	---

Email  
mwestover@trccompanies.com

Facility Name  
Lemberger Landfill

License # / Monitoring ID 00753	Facility ID (FID) 436016790
------------------------------------	--------------------------------

Actual sampling dates (e.g., July 2-6, 2003) 4/30, 5/31, 6/28-6/30 2022	The enclosed results are for sampling required in the month(s) of: (e.g., June 2003) April, May, June 2022
--	---

Type of Data Submitted (Check all that apply):

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input type="checkbox"/> Groundwater monitoring data from private water supply wells  | <input type="checkbox"/> Air monitoring data |
| <input checked="" type="checkbox"/> Leachate monitoring data                          | <input type="checkbox"/> Other (specify):    |

Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

**Certification**

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Facility Representative Name (Print) Meredith Westover	Title Database Manager	Phone No. (include area code) (608) 358-5035
---	---------------------------	---

Signature

Date Signed (mm/dd/yyyy)

9/7/2022

**For DNR Use Only**

Check action taken, and record date and your initials. Describe on back side if necessary.

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- EDD format(s):  Diskette  CD (initial submittal and follow-up)  E-mail (follow-up only)  Other: \_\_\_\_\_