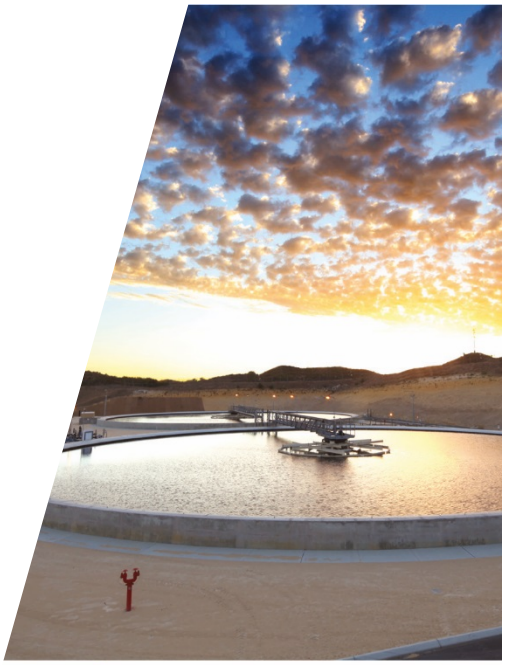
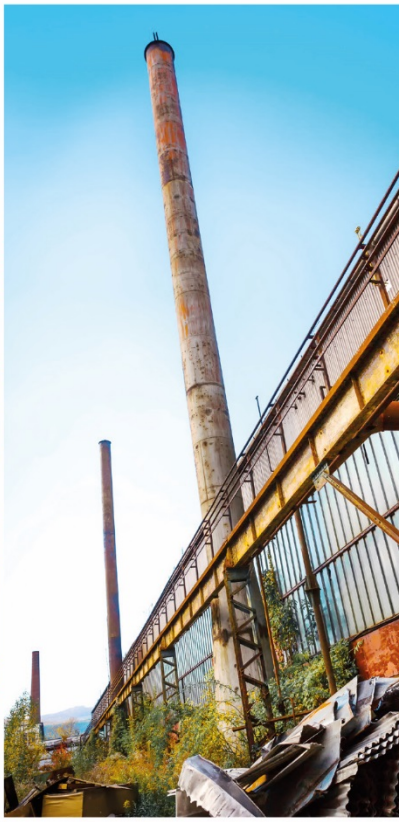


2018 Site Monitoring Report

Former City of Rhinelander Landfill
BRRTS #: 02 44 200967
Rhinelander, Wisconsin



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1. Introduction

This report presents the results of the groundwater and surface water sampling program, along with the operation and maintenance activities, associated with former City of Rhinelander Landfill (Site). GHD Services Inc. (GHD) completed this report on behalf of the Rhinelander Landfill Group (RLG). The RLG retained GHD in June 2016 to perform the Site maintenance and monitoring activities.

1.1 Location

The former City of Rhinelander Landfill is located in the NE ¼ of Section 8 in Township 36 North, Range 9 East, Oneida County, Wisconsin. It is located at the confluence of Slaughterhouse Creek and the Pelican River along Old Highway 8. The landfill is shown on Figure 1.

1.2 Background

The City of Rhinelander Landfill was opened in 1939 and ceased accepting waste in 1979. The landfill was closed and capped in 1980. The landfill was owned and operated by the City of Rhinelander throughout the entire 40-year operational period. The landfill is still currently owned by the City of Rhinelander.

1.3 2018 Activities

The following activities associated with the Site were conducted in 2018:

- February 22: Tree coppicing work at the landfill completed
- April 24: Semi-Annual groundwater sampling of 8 monitoring wells
- April 24: Semi-Annual surface water sampling at two locations in Slaughterhouse Creek
- June 11: GHD submits semi-annual groundwater monitoring report to the Wisconsin Department of Natural Resources (WDNR)
- June 11: GHD submits semi-annual GEMS data to the WDNR
- July 19: MW21B and MW21C were abandoned
- August: City of Rhinelander mows the landfill cover
- October 22-23: Annual groundwater sampling/monitoring of 23 monitoring wells
- October 23: Semi-Annual surface water sampling at three locations in Slaughterhouse Creek
- November 19: GHD submits semi-annual GEMS data to the WDNR

2. Landfill Inspections

A landfill inspection was completed during each of the two sampling events.

2.1 Grass Cover

The grass cover on the landfill is in good condition. Mowing was completed by the City of Rhinelander in August 2018.

2.2 Trespassing and Site Security

The fence surrounding the landfill is currently in good condition. There are no known trespassing issues for this reporting period.

2.3 Beavers – Area 2 Restoration

A small percentage of the Area 2 restoration willow trees have been harvested by beavers. This is especially noted along the water's edge on the north side of the restoration area. Harvested trees are noted to be re-sprouting and no additional effort is planned at this time.

3. Phytoremediation/Poplar Tree Cover

The RLG voluntarily planted hybrid poplar trees and willow trees on the north end of the landfill in 1999 and 2000. The trees cover an area of approximately 7-acres. These trees were planted to provide the benefits of phytoremediation to the groundwater and leachate on the north end of the landfill. The hybrid poplar trees are periodically evaluated for overall health and survival. Several fallen trees were observed and end-of-life mortality was noted in a small percentage of the trees.

The RLG sub-contracted a WDNR-Certified Forestry Plan Writer to coordinate and oversee a logging contractor who harvested the trees by standard coppice methods. The coppice work included harvesting nearly all above-ground biomass, leaving only the stump and roots behind. During subsequent landfill inspections, it was noted that new growth was reemerging from the existing stumps and roots. The new growth is expected to continue the phytoremediation process.

4. Surface Water Sampling

4.1 Sampling Dates and Methods

Two rounds of surface water sampling were conducted in Slaughterhouse Creek in 2018: one in April and one in October. Samples were collected from the following locations and are presented on Figure 2:

- Upstream of the Rhinelander Landfill near the old Slaughterhouse (SW-10)
- Downstream of the landfill at the Newell Street Bridge (SW-20).
- At the toe of the Area 2 Restoration project (SW-28).

Sample point SW-28 was frozen over during the spring sampling event in 2018. A sample was unable to be collected. Sampling is accomplished by filling a 1-liter jar by dipping it into the creek. Creek water was used to rinse the jar several times before collecting the sample. Care was taken not to disturb sediments while rinsing or sampling the water.

4.2 Sample Results

Surface water results from this period are shown in Table 1. Most or all the results from this period are similar or within the normal range of variation when compared to prior sampling dates. Surface water laboratory reports, along with the Data Validation Memos, for this period are in Appendix A.

Chloride, ammonia, copper, lead, and zinc have established surface water quality standards as enumerated in Chapter NR 105, Wisc. Admin Code (NR 105). None of the 2018 results showed an exceedance of any applicable standard as expressed in NR 105. The discussion in this section compares the results to their codified NR 105 standards. In order to do this, certain field parameters (pH and temperature for ammonia/ammonium and hardness for metals) need to be considered in making the comparison to the standards. Comparisons of values using straight concentration comparisons are not valid for NR 105 exceedance evaluation for certain substances.

Chloride concentrations varied little among the five samples analyzed in 2018, ranging from 36.6 mg/L to 66.0 mg/L. The acute chloride toxicity surface water quality criteria, as listed in Table 1 of NR 105, is 757 mg/L. The chronic chloride standard for warm water sportfish is 395 mg/L, as listed in Table 5 of NR 105. Table 2 shows the chloride data relative to the applicable NR 105 standards.

Zinc, copper, and lead were not detected in any of the five surface water samples collected in 2018. No metals results exceeded their respective standards relative to their applicable standard (analysis for zinc, copper, and lead) listed in Table 2 and Table 6 of NR 105. Table 3 shows the lead, zinc, and copper data relative to Table 2 and Table 6 of the NR 105 applicable standards.

Ammonia is regulated under Table 2C (acute toxicity), Table 4B (30-day chronic), and Table 4B (4-day chronic toxicity) of NR 105. The applicable standard is based on the temperature and pH of the sample water, and thus results from point to point or round to round are not directly comparable based on total concentrations. No 2018 sample from any location had concentrations above the acute or chronic standards. Table 4 shows the ammonia data relative to the applicable NR 105 standards.

5. Groundwater Monitoring

5.1 Summary of Groundwater Monitoring Program

Figure 3 presents the network of monitoring wells identified for groundwater monitoring. The groundwater monitoring well network consists of a total of 36 wells, of which 23 are part of the monitoring program. These wells are screened in the upper, middle, and lower portions of the shallow regional aquifer.

Table 5 summarizes the sampling locations in the monitoring plan, and illustrates any changes to the monitoring plan that have occurred during the monitoring period.

During this reporting period, groundwater monitoring was conducted in April and October. The April 2018 sample round consists of collecting samples from nine monitoring wells. The October 2018 round consists on collecting samples from 20 monitoring wells. One well, MW-28A, was unable to be sampled in the April round due to spring flooding.

Monitoring well locations were sampled for analysis of volatile organic compounds (VOCs)+tetrahydrofuran, select dissolved metals, hardness, chloride, and, alkalinity. Select wells were sampled for Ammonia/Kjeldahl nitrogen. Field parameters included in the sampling are pH, temperature, conductivity, oxidation-reduction potential, dissolved oxygen, and turbidity.

5.2 Hydraulic Monitoring Program

During this reporting period, GHD collected a synoptic round of water level measurements from each monitoring well during the annual October sampling round. October 2018 groundwater contours for the upper “A” and middle “B” wells are presented on Figures 4 and 5. Groundwater elevations for the deep “C” wells are presented on Figure 6. Not enough data points were present to contour the “C” elevations. Table 6 presents the groundwater elevations for the two 2018 monitoring events.

Groundwater flow directions for the "A" and "B" wells exhibit a radial flow direction from the landfill to the surface water features located to northwest (Slaughterhouse Creek) and southwest (Pelican River). Groundwater flows from the landfill towards Slaughterhouse Creek to the north and towards the Pelican River to the southwest. The low vertical gradients indicate that groundwater flow is predominantly horizontal with minimal vertical movement.

5.3 Groundwater Sampling Program

Groundwater sampling was conducted in accordance with the April 29, 2016 letter from the WDNR to the RLG. Sampling methods are in accordance with the WDNR Groundwater Sampling Field Manual. Table 6 summarizes the monitoring well sampling events.

Samples were collected immediately after purging. Samples were placed in iced coolers and hand delivered to Pace Analytical Laboratories in Green Bay, Wisconsin.

Appendix B contains a copy of the laboratory reports associated with the 2018 groundwater sampling events. A copy of the data quality assessments and validation memos are also provided in Appendix B.

Table 7 provides a summary of detected compounds in monitoring wells sampled during the April and October 2018 sampling events.

5.4 Groundwater Sampling Results

The analytical results from the 2018 sampling events, along with the previous two years, are presented on Table 7. The groundwater sampling results from 2018 are consistent with historical results. Groundwater laboratory reports, along with the Data Validation Memos, for this period are in Appendix B.

5.4.1 VOCs

Four VOCs exceeded their respective Wisconsin Enforcement Standard (WES) in monitoring well samples collected during this reporting period: benzene, tetrahydrofuran, trichloroethene (TCE), and vinyl chloride.

Benzene results exceeded the WES at one location (MW-2A). Tetrahydrofuran results exceeded the WES at three locations (MW-2A, MW-3A, and MW-21A). TCE results exceeded the WES at one location (MW-18C). Vinyl chloride results exceeded the WES at eight locations (MW-16A, MW-16C, MW-18A, MW-20B, MW-20C, MW-25B, MW-26C, and MW-28A).

The VOC exceedances, along with the concentrations for the October 2018 monitoring event, are presented on Figure 7. Graphs of vinyl chloride concentrations over time at select well nests are provided in Appendix C.

5.4.2 Metals

Three metals exceeded their respective WES in monitoring well samples collected during this reporting period: boron, iron, and manganese.

Boron results exceeded the WES at two locations: MW-2A and MW-21A.

Iron results exceeded the WES at 14 locations: MW-2A, MW-2B, MW-3A, MW-16A, MW-16B, MW-16C, MW-18A, MW-20A, MW-20B, MW-20C, MW-21A, MW-26B, MW-26C, and MW-28A.

Manganese results exceeded the WES at 19 locations: MW-2A, MW-2B, MW-3A, MW-5A, MW-16A, MW-16B, MW-16C, MW-18A, MW-18B, MW-18C, MW-20A, MW-20B, MW-20C, MW-21A, MW-25B, MW-26B, MW-26C, MW-27B, and MW-28A.

5.4.3 Other Analytes

Two other analytes exceeded the WES in the monitoring well samples collected during this reporting period: ammonia and chloride. Ammonia results exceeded the WES at two locations (MW-2A and MW-3A. Chloride results exceeded the WES at one location (MW-5A).

6. Conclusions and Recommendations

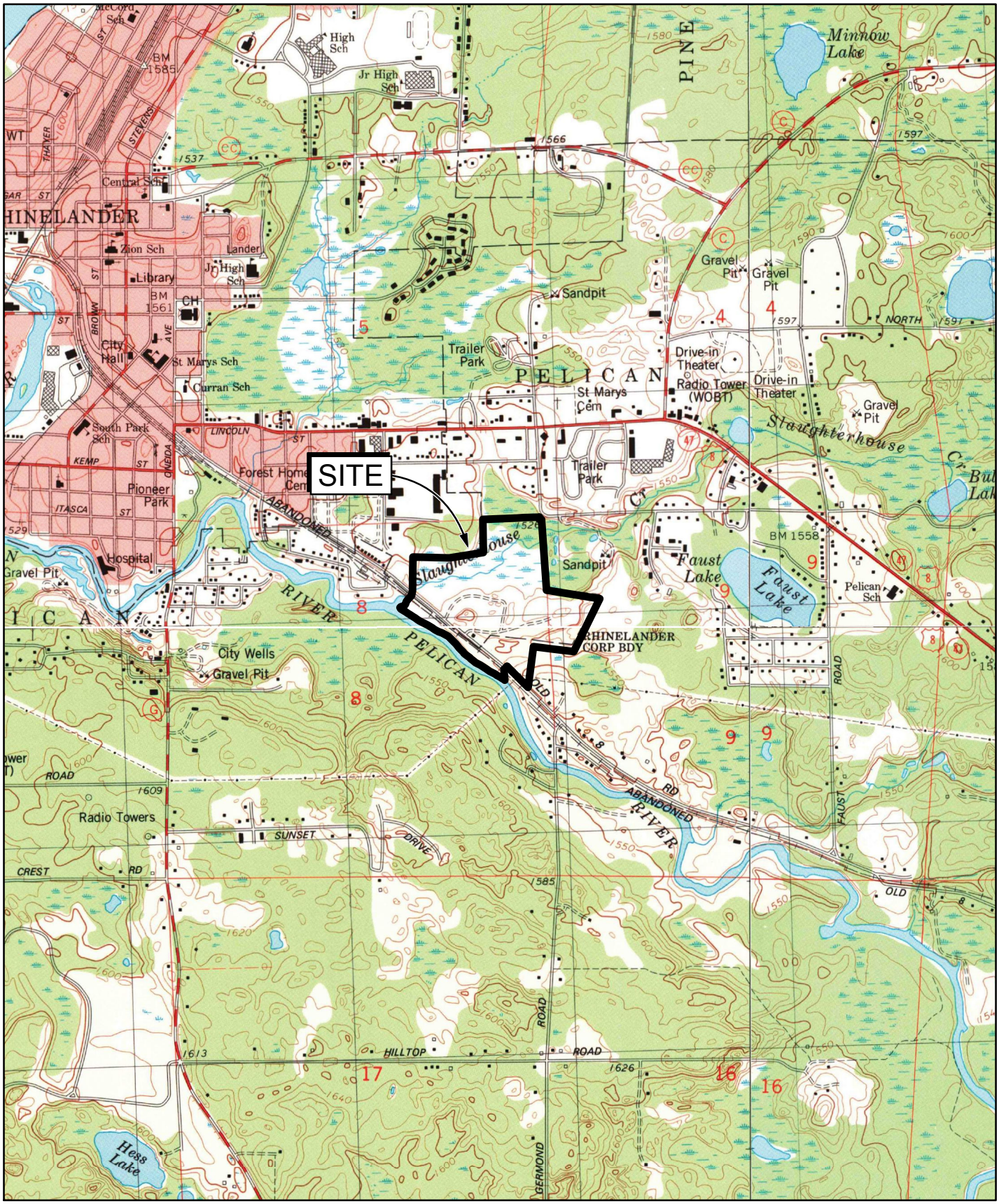
Based on the 2018 surface water and groundwater sampling activities, the following conclusions are made:

- None of the results from 2018 surface water sampling events indicated an exceedance of any applicable standard.
- Groundwater exhibits a radial flow direction from the landfill towards Slaughterhouse Creek to the north and towards the Pelican River to the southwest.
- Four VOCs exceeded their respective WES in monitoring well samples collected during this reporting period: benzene, tetrahydrofuran, TCE, and vinyl chloride.
- Three metals exceeded their respective WES in monitoring well samples collected during this reporting period: boron, iron, and manganese.

- Two other analytes exceeded the WES in the monitoring well samples collected during this reporting period: ammonia and chloride.
- The groundwater sampling results from 2018 are consistent with historical results.
- The Former Rhinelander Landfill is not impacting Slaughterhouse Creek.
- The elevated levels of iron and manganese are attributed to naturally occurring conditions.
- VOCs are sporadically present at low concentrations (typically near 1 µg/L) and do not show a plume coming from the former landfill before it encounters surface water.
- Other typical landfill parameters (ammonia and chloride) are present but are not impacting the adjacent surface water.

Based on the conclusions stated above, GHD recommends the following:

- Continue the semi-annual monitoring of the surface water and groundwater as outlined in Table 5.



Source: USGS 7.5 Minute Topos - Rhinelander; Moen Lake; Lake Julia; George Lake

0 1,000 2,000 ft

N

GHD

FORMER CITY OF RHINELANDER LANDFILL
RHINELANDER, WISCONSIN
2018 SITE MONITORING REPORT

11115796-50

Jan 22, 2019

SITE LOCATION

FIGURE 1

GIS File: I:\GIS\Projects\8-chars\11------\1111----\111157--\11115796\11115796-REPORTS\11115796-50(005)\11115796-50(005)GIS-SP001.mxd

Source: Sand Creek Consultants, Inc.; Oneida County GIS

0 50 100 150 ft

LEGEND

- SURFACE WATER SAMPLING LOCATION
- APPROXIMATE EDGE OF WASTE
- SITE PROPERTY BOUNDARY

FORMER CITY OF RHINELANDER LANDFILL
RHINELANDER, WISCONSIN
2018 SITE MONITORING REPORT

11115796-50

Jan 22, 2019

SURFACE WATER SAMPLING LOCATIONS

FIGURE 2

GIS File: I:\GIS\Projects\8-chars\11------\1111----\111157--\11115796\11115796-REPORTS\11115796-50(005)\11115796-50(005)GIS-SP002.mxd

Source: Sand Creek Consultants, Inc.; Oneida County GIS

0 100 200 ft

LEGEND

- MONITORING WELL LOCATION
- MONITORING WELL (NOT PART OF MONITORING NETWORK)
- APPROXIMATE EDGE OF WASTE
- SITE PROPERTY BOUNDARY

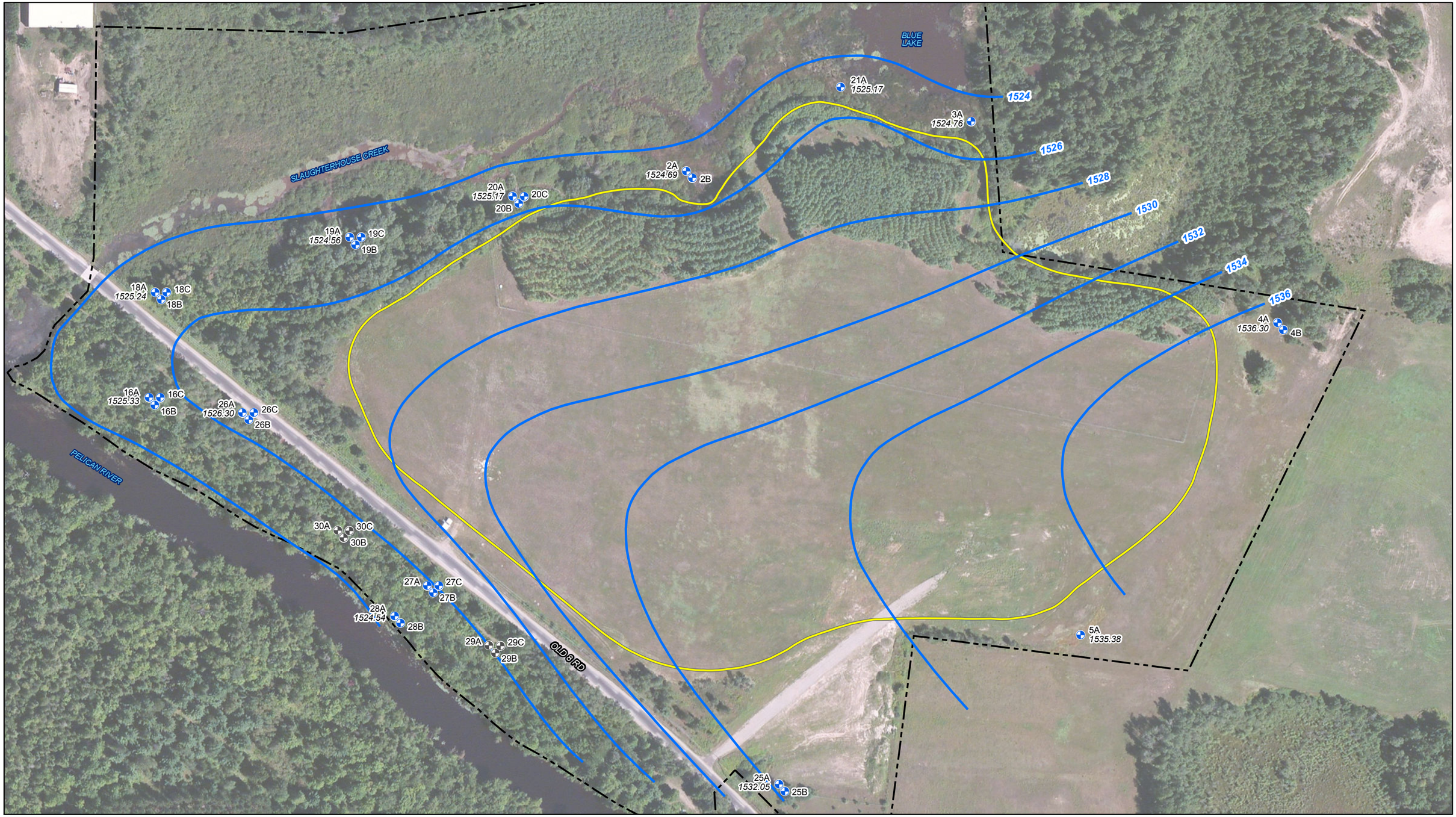
FORMER CITY OF RHINELANDER LANDFILL
RHINELANDER, WISCONSIN
2018 SITE MONITORING REPORT

11115796-50
Jan 22, 2019

MONITORING WELL LOCATIONS

FIGURE 3

GIS File: I:\GIS\Projects\8-chars\11------\1111----\111157--\11115796\11115796-REPORTS\11115796-50(005)\11115796-50(005)GIS-SP003.mxd



Source: Sand Creek Consultants, Inc.; Oneida County GIS

0 100 200 ft

N

LEGEND

- MONITORING WELL LOCATION
- MONITORING WELL (NOT PART OF MONITORING NETWORK)
- GROUNDWATER CONTOUR (FT AMSL)
- APPROXIMATE EDGE OF WASTE

GHD

FORMER CITY OF RHINELANDER LANDFILL
RHINELANDER, WISCONSIN
2018 SITE MONITORING REPORT

SHALLOW GROUNDWATER CONTOURS
"A" MONITORING WELLS

11115796-50

Jan 22, 2019

FIGURE 4

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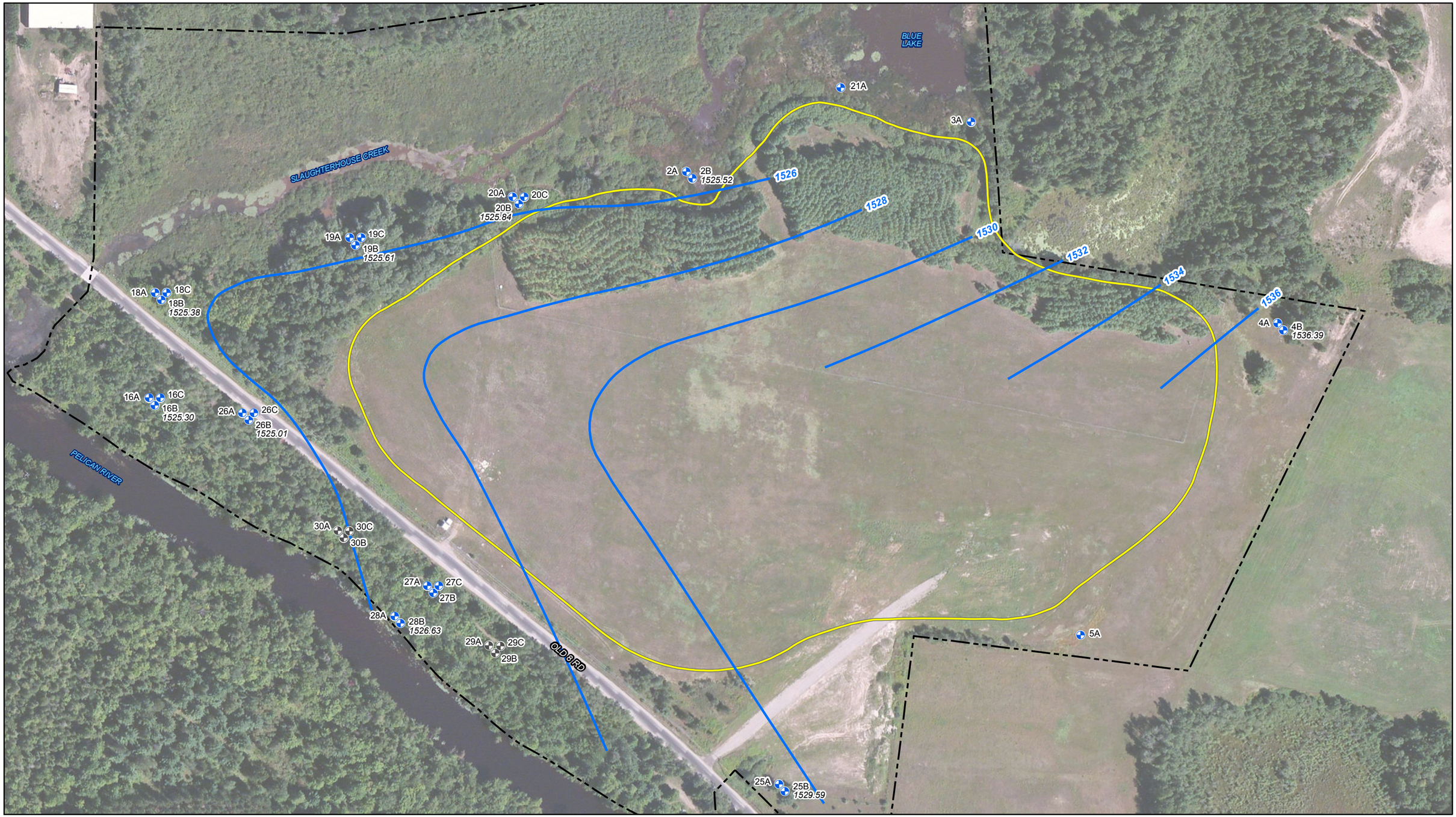

Source: Sand Creek Consultants, Inc.; Oneida County GIS

0 100 200 ft

N

LEGEND

- MONITORING WELL LOCATION
- MONITORING WELL (NOT PART OF MONITORING NETWORK)
- GROUNDWATER CONTOUR (FT AMSL)
- APPROXIMATE EDGE OF WASTE

GHD

FORMER CITY OF RHINELANDER LANDFILL
RHINELANDER, WISCONSIN
2018 SITE MONITORING REPORT

INTERMEDIATE GROUNDWATER CONTOURS "B" MONITORING WELLS

11115796-50

Jan 22, 2019

FIGURE 5

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Source: Sand Creek Consultants, Inc.; Oneida County GIS

0 100 200 ft

N

LEGEND

- MONITORING WELL LOCATION
- MONITORING WELL (NOT PART OF MONITORING NETWORK)
- APPROXIMATE EDGE OF WASTE

GHD

FORMER CITY OF RHINELANDER LANDFILL
RHINELANDER, WISCONSIN
2018 SITE MONITORING REPORT

DEEP GROUNDWATER ELEVATIONS "C" MONITORING WELLS

11115796-50

Jan 22, 2019

FIGURE 6

GIS File: I:\GIS\Projects\8-chars\11-----\1111----\111157--\11115796\11115796-REPORTS\11115796-50(005)\11115796-50(005)GIS-SP006.mxd

NOTES

1.6 VINYL CHLORIDE CONCENTRATION (µg/L)

6.1 TRICHLOROETHENE CONCENTRATION (µg/L)

90.1 TETRAHYDROFURAN CONCENTRATION (µg/L)

28.5 BENZENE CONCENTRATION (µg/L)

Source: Sand Creek Consultants, Inc.; Oneida County GIS

0 100 200 ft

LEGEND

- MONITORING WELL LOCATION
- MONITORING WELL (NOT PART OF MONITORING NETWORK)
- APPROXIMATE EDGE OF WASTE
- SITE PROPERTY BOUNDARY

GHD

FORMER CITY OF RHINELANDER LANDFILL
RHINELANDER, WISCONSIN
2018 SITE MONITORING REPORT

11115796-50

Feb 25, 2019

OCTOBER 2018 WES VOC EXCEEDANCES

FIGURE 7

GIS File: I:\GIS\Projects\8-chars\11-----\1111----\111157--\11115796\11115796-REPORTS\11115796-50(005)\11115796-50(005)GIS-SP007.mxd

Table 1

2018 Surface Water Sample Results
Former City of Rhinelander Landfill - Slaughterhouse Creek
Rhinelander, Wisconsin

		Upstream		Downstream		Near Seep	
Sample Location:		**SW-10**	**SW-10**	**SW-20**	**SW-20**	**SW-28**	**SW-28**
Sample Date:		**04/24/18**	**10/23/18**	**04/24/18**	**10/23/18**	**04/24/18**	**10/23/18**
Parameters	**Unit**						
Metals							
Hardness	mg/L	54.1	55.5	44.0	88.3	NA	79.4
Copper	µg/L	< 6.3	< 6.3	< 6.3	< 6.3	NA	< 6.3
Iron	µg/L	10,300	4,080	2,160	4,570	NA	4,510
Lead	µg/L	< 4.3	< 5.9	< 4.3	< 5.9	NA	< 5.9
Sodium	µg/L	5,900	21,400	15,900	26,800	NA	20,400
Zinc	µg/L	< 9.3	< 11.6	< 9.3	< 11.6	NA	< 11.6
General Chemistry							
Fecal coliform bacteria	cfu/100mL	< 2.00	8.20	14.0	23.9	NA	11.5
Ammonia	mg/L	0.25 J	< 0.25	0.93	1.3	NA	3.3
Chemical oxygen demand (COD)	mg/L	< 13.4	54.0	< 14.2	54.6	NA	77.3
Chloride	mg/L	36.6	44.1	32.6	66.0	NA	51.7
Nitrite/Nitrate	mg/L	< 0.095	0.15 J	0.16 J	0.19 J	NA	0.18 J
Total kjeldahl nitrogen (TKN)	mg/L	0.61 J	0.44 J	0.95	1.7	NA	3.6
Turbidity	NTU	-	-	-	-	NA	-
Field Data							
Temperature	^{0} C	10.0	5.41	5.5	5.01	NA	5.77
pH	SU	6.16	7.29	7.27	6.87	NA	6.89
Conductivity	µS	246	250	204	373	NA	367
Dissolved Oxygen	mg/L	8.45	8.84	8.61	3.48	NA	5.74
Oxidation Reduction Potential	mV	-83	-5	100	54	NA	51
Turbidity	NTU	53.0	12.1	10.4	12.0	NA	0.0

Notes:

NA - Backwater was completely frozen on April 24, 2018

Chloride Results Relative to NR 105 Standards
Former City of Rhinelander Landfill - Slaughterhouse Creek
Rhinelander, Wisconsin

Sample Location	Sample Date	Parameter	Units	Result	WWSF Table 1 Standard	WWSF Table 5 Standard
SW-10	4/24/2018	Chloride	mg/L	36.6	757	395
SW-10	10/23/2018	Chloride	mg/L	44.1	757	395
SW-20	4/24/2018	Chloride	mg/L	32.6	757	395
SW-20	10/23/2018	Chloride	mg/L	66.0	757	395
SW-28	4/24/2018	Chloride	mg/L	NA	757	395
SW-28	10/23/2018	Chloride	mg/L	51.7	757	395

Notes:

mg/L - Milligram per liter
NA - Backwater was completely frozen on April 24, 2018
WWSF - Warm water sportfish

Table 3

Metals Results Relative to NR 105 Standards
Former City of Rhinelander Landfill - Slaughterhouse Creek
Rhinelander, Wisconsin

Sample Location	Sample Date	Parameter	Units	Result	WWSF Table 2 Calculated Standard	WWSF Table 6 Calculated Standard
SW-10	4/24/2018	Copper	µg/L	< 6.3	8.69	6.12
SW-10	4/24/2018	Lead	µg/L	< 4.3	59.06	15.47
SW-10	4/24/2018	Zinc	µg/L	< 9.3	70.34	70.34
SW-10	10/23/2018	Copper	µg/L	< 6.3	8.90	6.25
SW-10	10/23/2018	Lead	µg/L	< 5.9	60.54	15.86
SW-10	10/23/2018	Zinc	µg/L	< 11.6	71.93	71.93
SW-20	4/24/2018	Copper	µg/L	< 6.3	7.15	5.13
SW-20	4/24/2018	Lead	µg/L	< 4.3	48.37	12.67
SW-20	4/24/2018	Zinc	µg/L	< 9.3	58.71	58.71
SW-20	10/23/2018	Copper	µg/L	< 6.3	13.80	9.31
SW-20	10/23/2018	Lead	µg/L	< 5.9	94.81	24.83
SW-20	10/23/2018	Zinc	µg/L	< 11.6	107.97	107.97
SW-28	4/24/2018	Copper	µg/L	NA	NA	NA
SW-28	4/24/2018	Lead	µg/L	NA	NA	NA
SW-28	4/24/2018	Zinc	µg/L	NA	NA	NA
SW-28	10/23/2018	Copper	µg/L	< 6.3	12.48	8.50
SW-28	10/23/2018	Lead	µg/L	< 5.9	85.56	22.41
SW-28	10/23/2018	Zinc	µg/L	< 11.6	98.39	98.39

Notes:

µg/L - Milligram per liter
WWSF - Warm water sportfish
NA - Backwater was completely frozen on April 24, 2018

Table 4

Ammonia Results Relative to NR 105 Standards
Former City of Rhinelander Landfill - Slaughterhouse Creek
Rhinelander, Wisconsin

Sample Location	Sample Date	Parameter	Units	Result	Temperature (^{0}C)	pH	WWSF Table 2C Acute Calculated Standard	WWSF Table 4B 30-Day Calculated Standard	WWSF Table 4B Ammonia 4-Day Calculated Standard
SW-10	4/24/2018	Ammonia	mg/L	0.25 J	10.0	6.16	53.59	9.22	23.04
SW-10	10/23/2018	Ammonia	mg/L	< 0.25	5.41	7.29	26.54	9.19	22.98
SW-20	4/24/2018	Ammonia	mg/L	0.93	5.5	7.27	27.21	9.25	23.14
SW-20	10/23/2018	Ammonia	mg/L	1.3	5.01	6.87	40.04	11.40	28.49
SW-28	4/24/2018	Ammonia	mg/L	NA	NA	NA	NA	NA	NA
SW-28	10/23/2018	Ammonia	mg/L	3.3	5.77	6.89	39.45	10.79	26.97

Notes:

mg/L - Milligram per liter
WWSF - Warm water sportfish
NA - Backwater was completely frozen on April 24, 2018

Table 5

Current Monitoring Plan
Rhinelander Landfill
Rhinelander, Wisconsin

Sample Matrix	Field Parameters	Laboratory Parameters	Investigative Samples	QA Samples [1] Field Blanks	Field Duplicates	MS [2]	MSD [2]	Total Per Round	Current Sampling Frequency
Groundwater									
Semi-Annual Wells [3]	pH, Temperature, Conductivity, DO, Turbidity, ORP	VOCs+tetrahydrofuran, Alkalinity, Chloride, Hardness, Dissolved Metals[6] [7], Ammonia-N[8], Kjeldahl-N[8]	9	1	1	1	1	13	Semi-Annually
Annual Wells [4] [5]	pH, Temperature, Conductivity, DO, Turbidity, ORP	VOCs+tetrahydrofuran, Alkalinity, Chloride, Hardness, Dissolved Metals[6] [7], Ammonia-N[8], Kjeldahl-N[8]	11	1	1	-	-	13	Annually
Surface Water									
Surface Water [9]	pH, Temperature, Conductivity, DO, Turbidity, ORP	Fecal Coliform, Ammonia, Kjeldahl-N, NO3+NO2, COD, Chloride, Turbidity, Cu, Fe, Pb, Na, Zn, Hardness	3	-	-	-	-	3	Semi-Annually

Notes:

- Semi-Annual sampling will occur in April and October.
- Annual sampling will occur in October (along with a complete round of water level measurements).

1 One trip blank, which consists of a filled 40-mL preserved glass vial, shall be shipped with each cooler of VOC water samples.
2 For MS/MSD samples within a water matrix, triple the normal sample volumes will be collected.
3 Semi-Annual Wells currently include: 2A, 2B, 16A, 16B, 16C, 20A, 20B, 20C, 28A
4 Annual Wells currently include: 3A, 4A, 5A, 18A, 18B, 18C, 21A, 25B, 26B, 26C, 27B
5 Field Parameters are recorded for the following annual wells but are not sampled - 19B, 19C, 28A
6 Dissolved Metals will be field filtered and inlcude Iron, Manganese, and Boron
7 Only the following wells are sampled for dissolved Boron - 2A, 4A, 5A, 18C, 20A, 21A, 25B, 28A
8 Only the following wells are sampled for Ammonia-N and Kjeldahl-N - 2A, 3A, 21A
9 Upstream (Sample Point 10), Area 2 Restoration (Sample Point 28), Downstream at Newell St. Bridge (Sample Point 20)

Table 6

2018 Groundwater Elevation Summary
Rhinelander Landfill
Rhinelander, Wisconsin

Monitoring Well	Top of Casing Elevation	Groundwater Elevation	
		April 2018	November 2018
MW2A	1527.01	-	1524.69
MW2B	1528.04	-	1525.52
MW3A	1527.02	-	1524.76
MW4A	1551.28	-	1536.30
MW4B	1549.99	-	1536.39
MW5A	1549.13	-	1535.38
MW16A	1533.07	-	1525.33
MW16B	1532.85	1525.14	1525.30
MW16C	1533.09	1525.11	1525.34
MW18A	1529.83	-	1525.24
MW18B	1529.83	-	1525.38
MW18C	1529.76	-	1525.34
MW19A	1531.91	-	1524.56
MW19B	1532.16	-	1525.61
MW19C	1532.04	-	1525.71
MW20A	1529.35	1525.70	1525.17
MW20B	1530.56	1526.05	1525.84
MW20C	1530.34	-	1525.72
MW21A	1528.42	-	1525.19
MW25A	1544.85	-	1532.05
MW25B	1545.18	-	1529.59
MW26A	1529.95	-	1526.30
MW26B	1529.21	-	1525.01

Table 6

2018 Groundwater Elevation Summary
Rhinelander Landfill
Rhinelander, Wisconsin

Monitoring Well	Top of Casing Elevation	Groundwater Elevation	
		April 2018	November 2018
MW26C	1530.06	-	1525.38
MW27A	1537.44	-	-
MW27B	1536.52	-	-
MW27C	1536.79	-	-
MW28A	1529.04	-	1524.54
MW28B	1528.33	-	1526.63

Notes:

All elevations in feet above mean sea level (AMSL)

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Boron (dissolved) ug/L	Hardness, calculation mg/L	Iron (dissolved) ug/L	Manganese (dissolved) ug/L	Alkalinity, total (as CaCO3) mg/L	Ammonia mg/L	Chloride mg/L	Total kjeldahl nitrogen (TKN) mg/L	1,1-Dichloroethane ug/L	1,2,4-Trimethylbenzene ug/L	1,3,5-Trimethylbenzene ug/L	1,2-Dichlorobenzene ug/L	1,2-Dichloropropane ug/L	1,4-Dichlorobenzene ug/L	Benzene ug/L	Chlorobenzene ug/L	Chloromethane (Methyl chloride) ug/L	cis-1,2-Dichloroethene ug/L	Cymene (p-Isopropyltoluene) ug/L
		WES	1000	- -	300	50	- -	9.7	250	- -	850		480	600	5	75	5	100	30	70	- -
		PAL	200	- -	150	25	- -	0.97	- -	- -	85		96	60	0.5	15	0.5	- -	3	7	- -
MW-2A	6/30/2016		1900	1080	64200	676	2300	287	67.5	284	< 1.23	4.2 J	3.2 J	< 5.0	< 5.0	< 5.0	34.6	< 5.0	< 5.0	< 5.0	< 5.0
MW-2A	6/30/2016	D	1880	1090	64300	676	2310	289	67.8	279	< 1.22	3.9 J	3.1 J	< 5.0	< 5.0	< 5.0	36.6	< 5.0	< 5.0	< 5.0	< 5.0
MW-2A	10/4/2016		2120	1100	60600	716	2150	271	72.4	276	< 1.21	2.9	2.1	< 1.0	< 1.0	1.8	29.2	1.7	< 1.0	< 1.0	< 1.0
MW-2A	10/4/2016	D	2050	1060	57300	641	2140	277	73.3	282	< 1.20	2.9	2.2	< 1.0	< 1.0	1.8	27.4	1.8	< 1.0	< 1.0	< 1.0
MW-2A	4/25/2017		1600	1140	64900	647	2320	266	77.2	259	< 1.19	1.4	1.1	< 1.0	< 1.0	0.80 J	16.1	0.77 J	0.77 J	< 1.0	< 1.0
MW-2A	10/11/2017		1430	879	49800	1050	1720	214	58.0	198	< 1.18	1.9	2.0	< 1.0	< 1.0	1.1	18.9	0.77 J	< 1.0	< 1.0	< 1.0
MW-2A	4/24/2018		1670	1040	56400	722	2220	256	69.1	263	< 1.17	3.4	2.8	< 2.0	< 2.0	1.5 J	27.3	1.4 J	< 2.0	< 2.0	< 2.0
MW-2A	10/22/2018		2090	1040	57800	625	2340	265	71.4	259	< 1.16	3.0	2.0 J	< 2.4	< 1.0	1.6 J	28.5	1.6 J	< 7.3	< 1.0	< 2.7
MW-2B	6/30/2016		--	179	21200	1200	226	--	28.7	--	< 1.15	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.77 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-2B	10/4/2016		--	157	20000	1210	220	--	21.4	--	< 1.14	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.52 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-2B	4/25/2017		--	187	22500	1200	227	--	31.3	--	< 1.13	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-2B	10/11/2017		145	169	21100	1350	211	--	23.7	--	< 1.12	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.74 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-2B	4/24/2018		--	142	12400	1160	168	--	17.0	--	< 1.11	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-2B	10/22/2018		--	139	15500	1250	193	--	17.5	--	< 1.10	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.40 J	< 2.4	< 7.3	< 1.0	< 2.7
MW-3A	10/4/2016		42.7 J	396	53300	4690	807	102	30.8	93.4	< 1.9	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.1	< 1.0	< 1.0	< 1.0	< 1.0
MW-3A	10/11/2017		44.3	365	48300	4750	704	86.4	28.5	75.6	< 1.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.8	< 1.0	7.0	< 1.0	< 1.0
MW-3A	10/22/2018		--	309	47800	3800	722	67.2	27.5	64.4	< 1.7	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	2.4	< 2.4	< 7.3	< 1.0	< 2.7
MW-4A	10/3/2016		14.5 J	110	< 100	< 5.0	123	--	1.2 J	--	< 1.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-4A	10/10/2017		--	146	< 100	< 5.0	82.9	--	54.1	--	< 1.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-4A	10/23/2018		14.2 J	116	< 118	< 5.0	101	--	25.3	--	< 1.4	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	< 1.0	< 2.7
MW-4A	10/23/2018	D	13.7 J	116	< 118	< 5.0	105	--	25.4	--	< 1.3	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	< 1.0	< 2.7
MW-5A	10/3/2016		13.3 J	138	< 100	89.7	54.0	--	134	--	< 1.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-5A	10/10/2017		--	312	< 100	609	51.0	--	281	--	< 1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-5A	10/23/2018		15.6 J	828	< 118	2910	39.5	--	797	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	< 1.0	< 2.7
MW-16A	6/29/2016		--	209	1320	4440	225	--	24.5	--	0.30 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.76 J	< 1.0	< 1.0	< 1.0	< 1.0

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Boron (dissolved) ug/L	Hardness, calculation mg/L	Iron (dissolved) ug/L	Manganese (dissolved) ug/L	Alkalinity, total (as CaCO3) mg/L	Ammonia mg/L	Chloride mg/L	Total kjeldahl nitrogen (TKN) mg/L	1,1-Dichloroethane ug/L	1,2,4-Trimethylbenzene ug/L	1,3,5-Trimethylbenzene ug/L	1,2-Dichlorobenzene ug/L	1,2-Dichloropropane ug/L	1,4-Dichlorobenzene ug/L	Benzene ug/L	Chlorobenzene ug/L	Chloromethane (Methyl chloride) ug/L	cis-1,2-Dichloroethene ug/L	Cymene (p-Isopropyltoluene) ug/L
		WES	1000	- -	300	50	- -	9.7	250	- -	850	480		600	5	75	5	100	30	70	- -
		PAL	200	- -	150	25	- -	0.97	- -	- -	85	96		60	0.5	15	0.5	- -	3	7	- -
MW-16A	10/3/2016		--	209	1550	4610	252	--	28.3	--	0.41 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3	< 1.0	< 1.0	0.27 J	< 1.0
MW-16A	4/24/2017		--	202	1810	3970	222	--	24.6	--	0.29 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.82 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-16A	10/10/2017		--	237	2470	5220	258	--	31.0	--	0.46 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1	< 1.0	< 1.0	< 1.0	< 1.0
MW-16A	4/24/2018		--	168	2550	3260	165	--	20.1	--	0.24 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.75 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-16A	10/23/2018		--	126	1480	2470	139	--	14.8	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.43 J	< 2.4	< 7.3	< 1.0	< 2.7
MW-16B	6/29/2016		--	216	36200	3760	234	--	32.9	--	0.40 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1	< 1.0	< 1.0	< 1.0	< 1.0
MW-16B	10/3/2016		--	205	35500	3400	242	--	34.9	--	0.28 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.5	0.53 J	< 1.0	< 1.0	< 1.0
MW-16B	10/3/2016	D	--	207	35400	3510	238	--	34.8	--	0.30 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.4	< 1.0	< 1.0	< 1.0	< 1.0
MW-16B	4/24/2017		--	236	39900	3690	257	--	38.6	--	0.29 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.2	0.52 J	< 1.0	< 1.0	< 1.0
MW-16B	10/10/2017		--	226	38800	4000	249	--	36.4	--	0.39 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.2	< 1.0	< 1.0	< 1.0	< 1.0
MW-16B	4/24/2018		--	227	37300	3520	225	--	37.2	--	0.27 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-16B	10/23/2018		--	240	38700	4130	261	--	39.2	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	1.3	< 2.4	< 7.3	< 1.0	< 2.7
MW-16C	6/29/2016		--	221	24400	1940	245	--	34.6	--	0.35 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1	0.51 J	< 1.0	< 1.0	< 1.0
MW-16C	10/3/2016		--	222	24800	1910	238	--	37.0	--	0.29 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.6	0.60 J	< 1.0	< 1.0	< 1.0
MW-16C	4/24/2017		--	232	26200	2050	257	--	39.7	--	0.27 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3	0.59 J	< 1.0	< 1.0	< 1.0
MW-16C	10/10/2017		--	233	27100	2190	256	--	38.9	--	0.30 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3	0.56 J	< 1.0	< 1.0	< 1.0
MW-16C	4/24/2018		--	232	26700	2110	237	--	41.5	--	0.24 J	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3	0.64 J	< 1.0	< 1.0	< 1.0
MW-16C	10/23/2018		--	241	28000	2280	266	--	43.7	--	0.30 J	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	1.5	< 2.4	< 7.3	< 1.0	< 2.7
MW-18A	10/3/2016		--	209	2290	1100	165	--	68.3	--	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.4	< 1.0
MW-18A	10/9/2017		--	236	2880	1020	181	--	67.6	--	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.2	< 1.0
MW-18A	10/23/2018		--	233	2050	1470	164	--	81.2	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	4.9	< 2.7
MW-18B	10/3/2016		--	303	< 100	1640	165	--	137	--	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.2	< 1.0
MW-18B	10/9/2017		--	351	< 100	2030	201	--	157	--	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.57 J	< 1.0
MW-18B	10/23/2018		--	305	38.3 J	2110	306	--	51.5	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.54 J	< 2.4	< 7.3	< 1.0	< 2.7
MW-18C	10/3/2016		90.9 J	351	14.3 J	1140	214	--	161	--	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.40 J	< 1.0

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Boron (dissolved) ug/L	Hardness, calculation mg/L	Iron (dissolved) ug/L	Manganese (dissolved) ug/L	Alkalinity, total (as CaCO3) mg/L	Ammonia mg/L	Chloride mg/L	Total kjeldahl nitrogen (TKN) mg/L	1,1-Dichloroethane ug/L	1,2,4-Trimethylbenzene ug/L	1,3,5-Trimethylbenzene ug/L	1,2-Dichlorobenzene ug/L	1,2-Dichloropropane ug/L	1,4-Dichlorobenzene ug/L	Benzene ug/L	Chlorobenzene ug/L	Chloromethane (Methyl chloride) ug/L	cis-1,2-Dichloroethene ug/L	Cymene (p-Isopropyltoluene) ug/L
		WES	1000	- -	300	50	- -	9.7	250	- -	850		480	600	5	75	5	100	30	70	- -
		PAL	200	- -	150	25	- -	0.97	- -	- -	85		96	60	0.5	15	0.5	- -	3	7	- -
MW-18C	10/9/2017		--	334	< 100	1240	171	--	162	--	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.61 J	< 1.0
MW-18C	10/9/2017	D	59.2	326	< 100	1220	171	--	162	--	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.71 J	< 1.0
MW-18C	10/23/2018		141	315	< 118	1490	276	--	83.8	--	< 1.0	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.42 J	< 2.4	< 7.3	0.40 J	< 2.7
MW-20A	6/29/2016		689	198	76500	788	385	--	14.3 J	--	< 1.0	22.9	5.2	1.2	< 1.0	2.3	1.7	6.9	< 1.0	< 1.0	0.59 J
MW-20A	10/3/2016		812	238	102000	1040	408	--	19.5 J	--	< 1.0	24.8	5.6	1.0	< 1.0	2.4	3.1	8.4	< 1.0	< 1.0	< 1.0
MW-20A	4/24/2017		428	167	71200	755	299	--	8.4 J	--	< 1.0	17.7	3.6	0.53 J	< 1.0	1.6	1.2	3.6	< 1.0	< 1.0	< 1.0
MW-20A	10/10/2017		782	249	114000	1130	466	--	13.1	--	< 1.0	18.8	4.1	0.79 J	< 1.0	1.5	2.1	6.8	< 1.0	< 1.0	< 1.0
MW-20A	4/24/2018		398	143	69400	654	253	--	8.9 J	--	< 1.0	19.7	4.6	0.63 J	< 1.0	1.6	1.0 J	5.2	< 1.0	< 1.0	0.59 J
MW-20A	10/23/2018		611	180	80700	712	277	--	7.8 J	--	< 1.0	23.5	4.8	0.86 J	< 1.0	1.9 J	1.9	6.2	< 7.3	< 1.0	< 2.7
MW-20B	6/29/2016		--	164	17600	1140	160	--	40.4	--	< 1.55	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.63 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-20B	10/3/2016		--	156	17300	1060	153	--	44.2	--	< 1.54	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.90 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-20B	4/24/2017		--	167	18200	1090	162	--	45.7	--	< 1.53	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.70 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-20B	10/10/2017		128	162	15700	1120	146	--	46.8	--	< 1.52	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.68 J	0.55 J	< 1.0	< 1.0	< 1.0
MW-20B	4/24/2018		--	162	17600	1080	145	--	46.3	--	< 1.51	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.64 J	0.57 J	< 1.0	< 1.0	< 1.0
MW-20B	10/23/2018		--	160	17700	1100	158	--	47.7	--	< 1.50	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.74 J	0.77 J	< 7.3	< 1.0	< 2.7
MW-20C	6/29/2016		--	179	20900	1380	182	--	40.0	--	< 1.49	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.81 J	0.56 J	< 1.0	< 1.0	< 1.0
MW-20C	10/3/2016		--	173	20800	1360	189	--	39.3	--	< 1.48	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3	0.83 J	< 1.0	< 1.0	< 1.0
MW-20C	4/24/2017		--	180	21400	1350	188	--	45.9	--	< 1.47	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.80 J	0.59 J	< 1.0	< 1.0	< 1.0
MW-20C	4/24/2017	D	--	183	21600	1410	370	--	46.3	--	< 1.46	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.86 J	0.60 J	< 1.0	< 1.0	< 1.0
MW-20C	10/10/2017		--	180	21300	1430	179	--	44.9	--	< 1.45	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.77 J	0.95 J	< 1.0	< 1.0	< 1.0
MW-20C	4/24/2018		--	183	21500	1400	183	--	46.9	--	< 1.44	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.90 J	0.74 J	< 1.0	< 1.0	< 1.0
MW-20C	10/23/2018		--	186	22000	1460	187	--	47.2	--	< 1.43	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	1.0	0.81 J	< 7.3	< 1.0	< 2.7
MW-21A	10/4/2016		1230	627	57900	1280	1810	265	60.4	264	< 1.42	4.4	1.7	< 1.0	< 1.0	1.8	4.6	5.5	< 1.0	< 1.0	< 1.0
MW-21A	10/11/2017		1220	732	39600	1220	1820	267	56.0	254	< 1.41	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	5.4 J	< 10.0	< 10.0	< 10.0
MW-21A	10/22/2018		1110	738	57300	1200	1830	232	46.8	230	< 1.40	5.0	2.2 J	< 2.4	< 1.0	1.9 J	4.7	7.1	< 7.3	< 1.0	< 2.7

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Boron (dissolved) ug/L	Hardness, calculation mg/L	Iron (dissolved) ug/L	Manganese (dissolved) ug/L	Alkalinity, total (as CaCO3) mg/L	Ammonia mg/L	Chloride mg/L	Total kjeldahl nitrogen (TKN) mg/L	1,1-Dichloroethane ug/L	1,2,4-Trimethylbenzene ug/L	1,3,5-Trimethylbenzene ug/L	1,2-Dichlorobenzene ug/L	1,2-Dichloropropane ug/L	1,4-Dichlorobenzene ug/L	Benzene ug/L	Chlorobenzene ug/L	Chloromethane (Methyl chloride) ug/L	cis-1,2-Dichloroethene ug/L	Cymene (p-Isopropyltoluene) ug/L
		WES	1000	- -	300	50	- -	9.7	250	- -	850		480	600	5	75	5	100	30	70	- -
		PAL	200	- -	150	25	- -	0.97	- -	- -	85		96	60	0.5	15	0.5	- -	3	7	- -
MW-25B	10/4/2016		24.1 J	260	21900	594	135	--	15.1	--	< 1.39	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-25B	10/10/2017		< 40.0	174	< 100	193	156	--	16.8	--	< 1.38	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-25B	10/23/2018		< 40.0	166	< 118	190	163	--	16.5	--	< 1.37	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	< 1.0	< 2.7
MW-26B	10/3/2016		--	189	54.5 J	100	178	--	12.0	--	< 1.36	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-26B	10/9/2017		--	197	457	666	183	--	12.4	--	< 1.35	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-26B	10/23/2018		--	21.4	10700	984	40.7	--	88.0	--	< 1.34	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	< 1.0	< 2.7
MW-26C	10/3/2016		--	226	1040	2720	227	--	20.8	--	< 1.33	< 1.0	< 1.0	< 1.0	0.29 J	< 1.0	0.96 J	< 1.0	< 1.0	0.70 J	< 1.0
MW-26C	10/9/2017		--	241	1050	2830	227	--	22.8	--	< 1.32	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0.86 J	< 1.0	< 1.0	0.61 J	< 1.0
MW-26C	10/23/2018		--	235	930	2600	232	--	22.8	--	< 1.31	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	0.95 J	< 2.4	< 7.3	0.61 J	< 2.7
MW-27B	10/4/2016		--	86.5	54.6 J	155	77.3	--	4.5	--	< 1.30	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-27B	10/10/2017		--	91.8	48.3 J	179	81.8	--	4.7	--	< 1.29	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-27B	10/23/2018		--	89.6	41.2 J	175	79.7	--	5.0	--	< 1.28	< 2.8	< 2.9	< 2.4	< 1.0	< 3.1	< 1.0	< 2.4	< 7.3	< 1.0	< 2.7
MW-28A	6/30/2016		283	312	5680	548	314	--	25.1	--	< 1.27	< 1.0	< 1.0	< 1.0	< 1.0	1.1	0.99 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-28A	10/4/2016		70.5 J	125	7420	2220	127	--	76.7	--	< 1.26	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-28A	10/10/2017		210	245	7200	1640	298	--	22.1	--	< 1.25	< 1.0	< 1.0	< 1.0	< 1.0	0.85 J	0.64 J	< 1.0	< 1.0	< 1.0	< 1.0
MW-28A	10/22/2018		242	298	4940	604	323	--	20.3	--	< 1.24	< 2.8	< 2.9	< 2.4	< 1.0	1.0 J	1.3	< 2.4	< 7.3	< 1.0	< 2.7

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Dichlorodifluoromethane (CFC-12) ug/L	Isopropyl benzene ug/L	m&p-Xylenes ug/L	o-Xylene ug/L	Methylene chloride ug/L	Naphthalene ug/L	N-Butylbenzene ug/L	N-Propylbenzene ug/L	Tetrachloroethene ug/L	Tetrahydrofuran ug/L	Toluene ug/L	Trichloroethene ug/L	Vinyl chloride ug/L
		WES	1000	- -	2000		5	100	- -	- -	5	50	800	5	0.2
		PAL	200	- -	400		0.5	10	- -	- -	0.5	10	160	0.5	0.02
MW-2A	6/30/2016		< 5.0	< 5.0	8.5 J	< 5.0	< 5.0	< 25.0	< 5.0	< 5.0	< 5.0	210	< 5.0	< 5.0	< 5.0
MW-2A	6/30/2016	D	< 5.0	0.75 J	8.5 J	< 5.0	< 5.0	< 25.0	< 5.0	< 5.0	< 5.0	202	< 5.0	< 5.0	< 5.0
MW-2A	10/4/2016		< 1.0	0.55 J	6.1	0.72 J	< 1.0	4.4 J	< 1.0	0.67 J	< 1.0	239	0.53 J	< 1.0	< 1.0
MW-2A	10/4/2016	D	< 1.0	0.58 J	6.3	0.77 J	< 1.0	4.7 J	< 1.0	0.68 J	< 1.0	217	< 1.0	< 1.0	< 1.0
MW-2A	4/25/2017		< 1.0	0.29 J	3.2	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	184	< 1.0	< 1.0	< 1.0
MW-2A	10/11/2017		< 1.0	0.35 J	2.3	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	133	< 1.0	< 1.0	< 1.0
MW-2A	4/24/2018		< 2.0	0.55 J	5.7	< 2.0	< 2.0	< 10.0	< 2.0	< 2.0	< 2.0	185	< 2.0	< 2.0	< 2.0
MW-2A	10/22/2018		< 5.0	0.48 J	6.1	0.58 J	< 5.0	4.2 J	< 2.4	< 5.0	< 1.1	216	0.32 J	< 1.0	< 1.0
MW-2B	6/30/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	17.2	< 1.0	< 1.0	0.59 J
MW-2B	10/4/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	14.5	< 1.0	< 1.0	< 1.0
MW-2B	4/25/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	19.0	< 1.0	< 1.0	0.40 J
MW-2B	10/11/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	10.6	< 1.0	< 1.0	< 1.0
MW-2B	4/24/2018		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	7.3	< 1.0	< 1.0	< 1.0
MW-2B	10/22/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	8.9 J	< 5.0	< 1.0	< 1.0
MW-3A	10/4/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	177	< 1.0	< 1.0	0.22 J
MW-3A	10/11/2017		< 1.0	< 1.0	< 2.0	< 1.0	1.0	< 5.0	< 1.0	< 1.0	< 1.0	82.7	< 1.0	< 1.0	< 1.0
MW-3A	10/22/2018		< 5.0	< 5.0	1.6 J	< 1.0	< 5.0	1.2 J	< 2.4	< 5.0	< 1.1	90.1	0.19 J	< 1.0	< 1.0
MW-4A	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
MW-4A	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
MW-4A	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	< 1.0
MW-4A	10/23/2018	D	< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	< 1.0
MW-5A	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
MW-5A	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
MW-5A	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	< 1.0
MW-16A	6/29/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	1.2

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Dichlorodifluoromethane (CFC-12) ug/L	Isopropyl benzene ug/L	m&p-Xylenes ug/L	o-Xylene ug/L	Methylene chloride ug/L	Naphthalene ug/L	N-Butylbenzene ug/L	N-Propylbenzene ug/L	Tetrachloroethene ug/L	Tetrahydrofuran ug/L	Toluene ug/L	Trichloroethene ug/L	Vinyl chloride ug/L
		WES	1000	- -	2000		5	100	- -	- -	5	50	800	5	0.2
		PAL	200	- -	400		0.5	10	- -	- -	0.5	10	160	0.5	0.02
MW-16A	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	2.0
MW-16A	4/24/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	0.71 J
MW-16A	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	1.1
MW-16A	4/24/2018		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	0.34 J
MW-16A	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	0.27 J
MW-16B	6/29/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	4.6 J	< 1.0	< 1.0	0.59 J
MW-16B	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	7.0	< 1.0	< 1.0	0.57 J
MW-16B	10/3/2016	D	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	6.9	< 1.0	< 1.0	0.56 J
MW-16B	4/24/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	11.5	< 1.0	< 1.0	< 1.0
MW-16B	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	7.6	< 1.0	< 1.0	0.24 J
MW-16B	4/24/2018		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	7.2	< 1.0	< 1.0	< 1.0
MW-16B	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	8.3 J	< 5.0	< 1.0	< 1.0
MW-16C	6/29/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	2.6 J	< 1.0	< 1.0	< 1.0	11.9	< 1.0	< 1.0	0.39 J
MW-16C	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	3.1 J	< 1.0	< 1.0	< 1.0	18.2	< 1.0	< 1.0	0.34 J
MW-16C	4/24/2017		< 1.0	< 1.0	1.1 J	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	15.9	< 1.0	< 1.0	0.24 J
MW-16C	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	12.9	< 1.0	< 1.0	0.22 J
MW-16C	4/24/2018		< 1.0	< 1.0	1.4 J	< 1.0	< 1.0	3.3 J	< 1.0	< 1.0	< 1.0	15.6	< 1.0	< 1.0	0.29 J
MW-16C	10/23/2018		< 5.0	< 5.0	1.6 J	< 1.0	< 5.0	4.5 J	< 2.4	< 5.0	< 1.1	16.6 J	< 5.0	< 1.0	0.35 J
MW-18A	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	0.94 J	0.27 J
MW-18A	10/9/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	1.7	0.36 J
MW-18A	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	3.9	0.22 J
MW-18B	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	0.86 J	< 5.0	< 1.0	22.1	< 1.0
MW-18B	10/9/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	1.1	< 5.0	< 1.0	10.7	< 1.0
MW-18B	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	4.0 J	< 5.0	2.2	< 1.0
MW-18C	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	0.61 J	< 5.0	< 1.0	5.2	0.23 J

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Dichlorodifluoromethane (CFC-12) ug/L	Isopropyl benzene ug/L	m&p-Xylenes ug/L	o-Xylene ug/L	Methylene chloride ug/L	Naphthalene ug/L	N-Butylbenzene ug/L	N-Propylbenzene ug/L	Tetrachloroethene ug/L	Tetrahydrofuran ug/L	Toluene ug/L	Trichloroethene ug/L	Vinyl chloride ug/L
		WES	1000	- -	2000		5	100	- -	- -	5	50	800	5	0.2
		PAL	200	- -	400		0.5	10	- -	- -	0.5	10	160	0.5	0.02
MW-18C	10/9/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	1.3	< 5.0	< 1.0	13.7	< 1.0
MW-18C	10/9/2017	D	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	1.2	< 5.0	< 1.0	15.1	< 1.0
MW-18C	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	0.35 J	3.1 J	< 5.0	6.1	< 1.0
MW-20A	6/29/2016		< 1.0	4.7	82.5	3.3	< 1.0	19.5	1.4	3.5	< 1.0	10.7	< 1.0	< 1.0	< 1.0
MW-20A	10/3/2016		< 1.0	4.4	72.0	2.2	< 1.0	21.0	1.6	3.6	< 1.0	18.7	< 1.0	< 1.0	< 1.0
MW-20A	4/24/2017		< 1.0	2.7	40.8	1.3	< 1.0	11.0	< 1.0	2.1	< 1.0	6.8	< 1.0	< 1.0	< 1.0
MW-20A	10/10/2017		< 1.0	3.3	46.5	1.0	< 1.0	12.9	< 1.0	2.3	< 1.0	9.6	< 1.0	< 1.0	< 1.0
MW-20A	4/24/2018		< 1.0	3.5	50.6	1.1	< 1.0	12.5	1.4	2.4	< 1.0	7.5	< 1.0	< 1.0	< 1.0
MW-20A	10/23/2018		< 5.0	4.0 J	56.4	1.6	< 5.0	18.0	< 2.4	3.0 J	< 1.1	8.7 J	0.38 J	< 1.0	< 1.0
MW-20B	6/29/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	15.4	< 1.0	< 1.0	< 1.0	12.2	< 1.0	< 1.0	0.76 J
MW-20B	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	11.9	< 1.0	< 1.0	< 1.0	14.5	< 1.0	< 1.0	0.69 J
MW-20B	4/24/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	11.6	< 1.0	< 1.0	< 1.0	14.5	< 1.0	< 1.0	0.54 J
MW-20B	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	6.9	< 1.0	< 1.0	< 1.0	5.9	< 1.0	< 1.0	< 1.0
MW-20B	4/24/2018		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	10.6	< 1.0	< 1.0	< 1.0	15.2	< 1.0	< 1.0	0.48 J
MW-20B	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	12.3	< 2.4	< 5.0	< 1.1	11.0 J	< 5.0	< 1.0	0.43 J
MW-20C	6/29/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	8.3	< 1.0	< 1.0	< 1.0	8.1	< 1.0	< 1.0	1.1
MW-20C	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	6.2	< 1.0	< 1.0	< 1.0	12.2	< 1.0	< 1.0	1.2
MW-20C	4/24/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	6.7	< 1.0	< 1.0	< 1.0	7.1	< 1.0	< 1.0	0.84 J
MW-20C	4/24/2017	D	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	6.7	< 1.0	< 1.0	< 1.0	7.5	< 1.0	< 1.0	0.81 J
MW-20C	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	5.6	< 1.0	< 1.0	< 1.0	6.4	< 1.0	< 1.0	< 1.0
MW-20C	4/24/2018		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	8.9	< 1.0	< 1.0	< 1.0	14.1	< 1.0	< 1.0	0.78 J
MW-20C	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	7.7	< 2.4	< 5.0	< 1.1	10.6 J	< 5.0	< 1.0	0.84 J
MW-21A	10/4/2016		< 1.0	0.44 J	10.3	3.0	< 1.0	5.8	< 1.0	0.67 J	< 1.0	285	0.82 J	< 1.0	< 1.0
MW-21A	10/11/2017		< 10.0	< 10.0	< 20.0	< 10.0	< 10.0	< 50.0	< 10.0	< 10.0	< 10.0	189	< 10.0	5.4 J	< 10.0
MW-21A	10/22/2018		< 5.0	0.68 J	10.6	2.1	< 5.0	14.0	< 2.4	0.86 J	< 1.1	130	0.71 J	< 1.0	< 1.0

Table 7

Summary of Detected Compounds
Former City of Rhinelander Landfill
Rhinelander, Wisconsin

Location	Date	QA/QC	Dichlorodifluoromethane (CFC-12) ug/L	Isopropyl benzene ug/L	m&p-Xylenes ug/L	o-Xylene ug/L	Methylene chloride ug/L	Naphthalene ug/L	N-Butylbenzene ug/L	N-Propylbenzene ug/L	Tetrachloroethene ug/L	Tetrahydrofuran ug/L	Toluene ug/L	Trichloroethene ug/L	Vinyl chloride ug/L
		WES	1000	- -	2000		5	100	- -	- -	5	50	800	5	0.2
		PAL	200	- -	400		0.5	10	- -	- -	0.5	10	160	0.5	0.02
MW-25B	10/4/2016		0.53 J	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	0.83 J
MW-25B	10/10/2017		0.47 J	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	1.4
MW-25B	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	1.6
MW-26B	10/3/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
MW-26B	10/9/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
MW-26B	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	< 1.0
MW-26C	10/3/2016		0.36 J	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	4.6
MW-26C	10/9/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	4.8
MW-26C	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	5.1
MW-27B	10/4/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
MW-27B	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
MW-27B	10/23/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	< 20.0	< 5.0	< 1.0	< 1.0
MW-28A	6/30/2016		< 1.0	0.15 J	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	59.3	< 1.0	< 1.0	2.4
MW-28A	10/4/2016		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	11.3	< 1.0	< 1.0	< 1.0
MW-28A	10/10/2017		< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	19.0	< 1.0	< 1.0	1.5
MW-28A	10/22/2018		< 5.0	< 5.0	< 2.0	< 1.0	< 5.0	< 5.0	< 2.4	< 5.0	< 1.1	29.4	< 5.0	< 1.0	1.0

Notes:

WES - Wisconsin Enforcement Standard
PAL - Preventative Action Limit
[ ] - Outlined cells exceed WES
ug/L - Micograms per Liter
mg/L - Milligrams per Liter
D - Duplicate Sample

Appendix A
Surface Water Sampling Laboratory Reports and Data Validation

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

November 08, 2018

Grant Anderson
GHD Services; St. Paul
1801 Old Highway 8 Northwest
Suite 114
Saint Paul, MN 55112

RE: Project: 11115796 RHINELANDER LF
Pace Project No.: 40178207

Dear Grant Anderson:
Enclosed are the analytical results for sample(s) received by the laboratory on October 24, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178207

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178207

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40178207001	**SW-20**	Water	10/23/18 15:00	10/24/18 07:30
40178207002	**SW-28**	Water	10/23/18 15:10	10/24/18 07:30
40178207003	**SW-10**	Water	10/23/18 15:10	10/24/18 07:30

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SAMPLE ANALYTE COUNT

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178207

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40178207001	**SW-20**	EPA 6010	TXW	6
		SM 9222D	DEY	1
		EPA 300.0	HMB	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
		EPA 353.2	DAW	1
		EPA 410.4	TJJ	1
40178207002	**SW-28**	EPA 6010	TXW	6
		SM 9222D	DEY	1
		EPA 300.0	HMB	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
		EPA 353.2	DAW	1
		EPA 410.4	TJJ	1
40178207003	**SW-10**	EPA 6010	TXW	6
		SM 9222D	DEY	1
		EPA 300.0	HMB	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
		EPA 353.2	DAW	1
		EPA 410.4	TJJ	1

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178207

Sample: SW-20 **Lab ID: 40178207001** Collected: 10/23/18 15:00 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Copper	**<6.3**	ug/L	20.0	6.3	1	10/29/18 15:12	11/05/18 11:32	7440-50-8	
Iron	**4570**	ug/L	246	73.9	1	10/29/18 15:12	11/05/18 11:32	7439-89-6	
Sodium	**26800**	ug/L	1530	458	1	10/29/18 15:12	11/05/18 11:32	7440-23-5	P6
Lead	**<5.9**	ug/L	19.7	5.9	1	10/29/18 15:12	11/05/18 11:32	7439-92-1	
Zinc	**<11.6**	ug/L	40.0	11.6	1	10/29/18 15:12	11/05/18 11:32	7440-66-6	
Total Hardness by 2340B	**88.3**	mg/L	2.0	0.15	1	10/29/18 15:12	11/05/18 11:32		
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**23.9**	CFU/100 mL	2.2	2.2	2.17	10/24/18 11:10	10/24/18 11:10		H3
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**66.0**	mg/L	10.0	2.5	5		10/29/18 14:44	16887-00-6	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**1.3**	mg/L	0.50	0.25	1		11/06/18 13:31	7664-41-7	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**1.7**	mg/L	0.73	0.22	1	10/25/18 11:16	10/25/18 16:26	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**0.19J**	mg/L	0.25	0.095	1		10/25/18 12:11		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4								
Chemical Oxygen Demand	**54.6**	mg/L	47.2	14.2	1	11/01/18 08:17	11/01/18 11:06		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178207

Sample: SW-28 **Lab ID: 40178207002** Collected: 10/23/18 15:10 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Copper	**<6.3**	ug/L	20.0	6.3	1	10/29/18 15:12	11/05/18 11:40	7440-50-8	
Iron	**4510**	ug/L	246	73.9	1	10/29/18 15:12	11/05/18 11:40	7439-89-6	
Lead	**<5.9**	ug/L	19.7	5.9	1	10/29/18 15:12	11/05/18 11:40	7439-92-1	
Sodium	**20400**	ug/L	1530	458	1	10/29/18 15:12	11/05/18 11:40	7440-23-5	
Total Hardness by 2340B	**79.4**	mg/L	2.0	0.15	1	10/29/18 15:12	11/05/18 11:40		
Zinc	**<11.6**	ug/L	40.0	11.6	1	10/29/18 15:12	11/05/18 11:40	7440-66-6	
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**11.5**	CFU/100 mL	1.6	1.6	1.64	10/24/18 11:10	10/24/18 11:10		H3
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**51.7**	mg/L	10.0	2.5	5		10/29/18 14:58	16887-00-6	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**3.3**	mg/L	0.50	0.25	1		11/06/18 13:35	7664-41-7	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**3.6**	mg/L	0.73	0.22	1	10/25/18 11:16	10/25/18 16:29	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**0.18J**	mg/L	0.25	0.095	1		10/25/18 12:15		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4								
Chemical Oxygen Demand	**77.3**	mg/L	47.2	14.2	1	11/01/18 08:17	11/01/18 11:07		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178207

Sample: SW-10 **Lab ID: 40178207003** Collected: 10/23/18 15:10 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Copper	**<6.3**	ug/L	20.0	6.3	1	10/29/18 15:12	11/05/18 11:42	7440-50-8	
Iron	**4080**	ug/L	246	73.9	1	10/29/18 15:12	11/05/18 11:42	7439-89-6	
Lead	**<5.9**	ug/L	19.7	5.9	1	10/29/18 15:12	11/05/18 11:42	7439-92-1	
Sodium	**21400**	ug/L	1530	458	1	10/29/18 15:12	11/05/18 11:42	7440-23-5	
Total Hardness by 2340B	**55.5**	mg/L	2.0	0.15	1	10/29/18 15:12	11/05/18 11:42		
Zinc	**<11.6**	ug/L	40.0	11.6	1	10/29/18 15:12	11/05/18 11:42	7440-66-6	
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**8.20**	CFU/100 mL	1.6	1.6	1.64	10/24/18 11:10	10/24/18 11:10		H3
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**44.1**	mg/L	10.0	2.5	5		10/30/18 16:55	16887-00-6	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**<0.25**	mg/L	0.50	0.25	1		11/06/18 13:36	7664-41-7	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**0.44J**	mg/L	0.73	0.22	1	10/25/18 11:16	10/25/18 16:29	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**0.15J**	mg/L	0.25	0.095	1		10/25/18 12:16		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4								
Chemical Oxygen Demand	**54.0**	mg/L	44.8	13.4	1	11/01/18 08:17	11/01/18 11:07		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178207

QC Batch: 304396 Analysis Method: SM 9222D
QC Batch Method: SM 9222D Analysis Description: 9222D MICRO Fecal Coliform by MF
Associated Lab Samples: 40178207001, 40178207002, 40178207003

METHOD BLANK: 1778458 Matrix: Water
Associated Lab Samples: 40178207001, 40178207002, 40178207003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fecal Coliforms	CFU/100 mL	<1.00	1.0	10/24/18 11:10	

METHOD BLANK: 1778460 Matrix: Water
Associated Lab Samples: 40178207001, 40178207002, 40178207003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fecal Coliforms	CFU/100 mL	<1.00	1.0	10/24/18 11:10	

SAMPLE DUPLICATE: 1778459

Parameter	Units	40178207001 Result	Dup Result	RPD	Max RPD	Qualifiers
Fecal Coliforms	CFU/100 mL	23.9	19.6			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178207

QC Batch: 304656 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 40178207001, 40178207002, 40178207003

METHOD BLANK: 1780736 Matrix: Water
Associated Lab Samples: 40178207001, 40178207002, 40178207003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Copper	ug/L	<6.3	20.0	11/05/18 11:28	
Iron	ug/L	<73.9	246	11/05/18 11:28	
Lead	ug/L	<5.9	19.7	11/05/18 11:28	
Sodium	ug/L	<458	1530	11/05/18 11:28	
Total Hardness by 2340B	mg/L	<0.15	2.0	11/05/18 11:28	
Zinc	ug/L	<11.6	40.0	11/05/18 11:28	

LABORATORY CONTROL SAMPLE: 1780737

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	ug/L	500	509	102	80-120	
Iron	ug/L	5000	5150	103	80-120	
Lead	ug/L	500	504	101	80-120	
Sodium	ug/L	5000	5150	103	80-120	
Total Hardness by 2340B	mg/L		34.2			
Zinc	ug/L	500	526	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1780738 1780739

Parameter	Units	40178207001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Copper	ug/L	<6.3	500	500	506	515	101	103	75-125	2	20	
Iron	ug/L	4570	5000	5000	9760	9920	104	107	75-125	2	20	
Lead	ug/L	<5.9	500	500	493	506	99	101	75-125	3	20	
Sodium	ug/L	26800	5000	5000	32600	33100	117	126	75-125	1	20	P6
Total Hardness by 2340B	mg/L	88.3			125	126				1	20	
Zinc	ug/L	<11.6	500	500	522	531	103	104	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178207

QC Batch: 304466 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40178207001, 40178207002

METHOD BLANK: 1779161 Matrix: Water
Associated Lab Samples: 40178207001, 40178207002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	10/29/18 10:21	

LABORATORY CONTROL SAMPLE: 1779162

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	19.6	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1779163 1779164

Parameter	Units	40178258004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1650	2000	2000	3770	3770	106	106	90-110	0	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178207

QC Batch: 304495
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40178207003

METHOD BLANK: 1779427
Matrix: Water
Associated Lab Samples: 40178207003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	10/30/18 15:44	

LABORATORY CONTROL SAMPLE: 1779428

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	21.2	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1779429 1779430

Parameter	Units	40178207003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	44.1	100	100	151	153	107	109	90-110	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1779431 1779432

Parameter	Units	40178208019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	16.5	100	100	126	127	110	111	90-110	1	15	M0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178207

QC Batch: 305603 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 40178207001, 40178207002, 40178207003

METHOD BLANK: 1785616 Matrix: Water
Associated Lab Samples: 40178207001, 40178207002, 40178207003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	<0.25	0.50	11/06/18 13:29	

LABORATORY CONTROL SAMPLE: 1785617

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	10	10.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1785618 1785619

Parameter	Units	40178207001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	1.3	10	10	11.0	11.0	97	97	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178207

QC Batch: 304304 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 40178207001, 40178207002, 40178207003

METHOD BLANK: 1777749 Matrix: Water
Associated Lab Samples: 40178207001, 40178207002, 40178207003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.22	0.73	10/25/18 16:12	

LABORATORY CONTROL SAMPLE: 1777750

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	5	4.9	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1777751 1777752

Parameter	Units	40178231001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/L	68.0	20	20	91.5	95.7	117	138	90-110	4	20	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1777753 1777754

Parameter	Units	40178207001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/L	1.7	5	5	6.5	6.3	97	93	90-110	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178207

QC Batch: 304282 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 40178207001, 40178207002, 40178207003

METHOD BLANK: 1777654 Matrix: Water
Associated Lab Samples: 40178207001, 40178207002, 40178207003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	<0.095	0.25	10/25/18 11:41	

LABORATORY CONTROL SAMPLE: 1777655

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	2.5	2.3	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1777656 1777657

Parameter	Units	40178202001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	<0.095	2.5	2.5	2.3	2.3	92	92	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1777658 1777659

Parameter	Units	40178207003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	0.15J	2.5	2.5	2.4	2.4	91	91	90-110	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178207

QC Batch: 305056 Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD
Associated Lab Samples: 40178207001, 40178207002, 40178207003

METHOD BLANK: 1782311 Matrix: Water
Associated Lab Samples: 40178207001, 40178207002, 40178207003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<13.4	44.8	11/01/18 11:02	

LABORATORY CONTROL SAMPLE: 1782312

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	500	536	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1782313 1782314

Parameter	Units	40178207002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	77.3	526	526	620	607	103	101	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1782315 1782316

Parameter	Units	40178207001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	54.6	526	526	595	593	103	102	90-110	0	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178207

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 and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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.

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178207

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40178207001	**SW-20**	EPA 3010	304656	EPA 6010	305339
40178207002	**SW-28**	EPA 3010	304656	EPA 6010	305339
40178207003	**SW-10**	EPA 3010	304656	EPA 6010	305339
40178207001	**SW-20**	SM 9222D	304395	SM 9222D	304396
40178207002	**SW-28**	SM 9222D	304395	SM 9222D	304396
40178207003	**SW-10**	SM 9222D	304395	SM 9222D	304396
40178207001	**SW-20**	EPA 300.0	304466		
40178207002	**SW-28**	EPA 300.0	304466		
40178207003	**SW-10**	EPA 300.0	304495		
40178207001	**SW-20**	EPA 350.1	305603		
40178207002	**SW-28**	EPA 350.1	305603		
40178207003	**SW-10**	EPA 350.1	305603		
40178207001	**SW-20**	EPA 351.2	304304	EPA 351.2	304389
40178207002	**SW-28**	EPA 351.2	304304	EPA 351.2	304389
40178207003	**SW-10**	EPA 351.2	304304	EPA 351.2	304389
40178207001	**SW-20**	EPA 353.2	304282		
40178207002	**SW-28**	EPA 353.2	304282		
40178207003	**SW-10**	EPA 353.2	304282		
40178207001	**SW-20**	EPA 410.4	305056	EPA 410.4	305136
40178207002	**SW-28**	EPA 410.4	305056	EPA 410.4	305136
40178207003	**SW-10**	EPA 410.4	305056	EPA 410.4	305136

40178207

Pace Analytical®
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)

Company Name:	GHD
Branch/Location:	St. Paul
Project Contact:	G. Anderson
Phone:	651-639-0913
Project Number:	11115796
Project Name:	Rhinelander LF
Project State:	WI
Sampled By (Print):	Ryan Agmod
Sampled By (Sign):	[signature]
PO #:	
Regulatory Program:	

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, Sl = Sludge
W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

FILTERED? (YES/NO): Y/N (N circled)
PRESERVATION (CODE)*: Pick Letter

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Fecal Coliform	COD Ammonia, TKN, N+N	Chloride	Metals: Hardness					CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	W-181023-RA-100	10/23/18	1500	SW	✓	✓	✓	✓							
002	W-181023-RA-101	↓	1510	↓	✓	✓	✓	✓							
003	W-181023-RA-102	↓	1530	↓		✓	✓	✓							

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	10-23-18 6:50am	[signature] Pace	10-24-18 0730

PACE Project No. 40178207

Receipt Temp = ROI °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / ~~Not Present~~
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Sample Preservation Receipt Form

Client Name: GHD Project # 40178207

All containers needing preservation have been checked and noted below: ☑Yes ☐No ☐N/A Initial when completed: SKW Date/ Time:

Lab Lot# of pH paper: 10015268 Lab Std #ID of preservation (if pH adjusted):

	Glass							Plastic							Vials						Jars			General			VOA Vials (>6mm) *						
Pace Lab #	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN		H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001											1		1	1										1				X			X		2.5 / 5 / 10
002											1		1	1										1				X			X		2.5 / 5 / 10
003											1		1	1										1				X			X		2.5 / 5 / 10
004																																	2.5 / 5 / 10
005																																	2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
010																																	2.5 / 5 / 10
011																																	2.5 / 5 / 10
012																																	2.5 / 5 / 10
013																																	2.5 / 5 / 10
014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☑N/A ***If yes look in headspace column**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical 1241 Bellevue Street, Green Bay, WI 54302	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: 25Apr2018
	Document No.: **F-GB-C-031-Rev.07**	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: GHD

Project #:

WO# : 40178207

40178207

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☑ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used SR - N/A **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROI /Corr: _____

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 10-24-18
Initials: SR

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. No Mail or Invoice or preservation. 10-24-18 SR
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☐Yes ☑No	5. Fecals received past hold. Per PM run past hold
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time: 10-24-18 SR
Short Hold Time Analysis (<72hr):	☑Yes ☐No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume:		8.
For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☐Yes ☑No ☐N/A	12. No collect time on all samples 10-24-18 SR
-Includes date/time/ID/Analysis Matrix: W		
Trip Blank Present:	☐Yes ☐No ☑N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: AL for DM **Date:** 10/24/18

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

May 09, 2018

Grant Anderson
GHD Services; St. Paul
1801 Old Highway 8 Northwest
Suite 114
Saint Paul, MN 55112

RE: Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40167943

Dear Grant Anderson:
Enclosed are the analytical results for sample(s) received by the laboratory on April 25, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40167943

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40167943

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40167943001	**SW-20**	Water	04/24/18 12:50	04/25/18 09:14
40167943002	**SW-10**	Water	04/24/18 15:30	04/25/18 09:14

Pace Analytical Services, LLC
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(920)469-2436

SAMPLE ANALYTE COUNT

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40167943

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40167943001	**SW-20**	EPA 6010	JLD	6
		SM 9222D	DEY	1
		EPA 180.1	DEY	1
		EPA 300.0	HMB	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
		EPA 353.2	DAW	1
		EPA 410.4	TJJ	1
40167943002	**SW-10**	EPA 6010	JLD	6
		SM 9222D	DEY	1
		EPA 180.1	DEY	1
		EPA 300.0	HMB	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
		EPA 353.2	DAW	1
		EPA 410.4	TJJ	1

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40167943

Sample: SW-20 **Lab ID: 40167943001** Collected: 04/24/18 12:50 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Copper	**<6.3**	ug/L	20.0	6.3	1	04/25/18 14:34	04/27/18 11:59	7440-50-8	
Iron	**2160**	ug/L	100	34.0	1	04/25/18 14:34	04/27/18 11:59	7439-89-6	
Lead	**<4.3**	ug/L	13.0	4.3	1	04/25/18 14:34	04/27/18 11:59	7439-92-1	
Sodium	**15900**	ug/L	500	98.9	1	04/25/18 14:34	04/27/18 11:59	7440-23-5	
Total Hardness by 2340B	**44.0**	mg/L	2.0	0.15	1	04/25/18 14:34	04/27/18 11:59		
Zinc	**<9.3**	ug/L	40.0	9.3	1	04/25/18 14:34	04/27/18 11:59	7440-66-6	
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**14.0**	CFU/100 mL	2.0	2.0	2	04/25/18 11:15	04/25/18 11:15		H3
180.1 Turbidity	Analytical Method: EPA 180.1								
Turbidity	**10.5**	NTU	1.8	0.55	1		04/25/18 11:54		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**32.6**	mg/L	10.0	2.5	5		05/01/18 15:16	16887-00-6	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.93**	mg/L	0.50	0.25	1		05/07/18 13:56	7664-41-7	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**0.95**	mg/L	0.73	0.22	1	05/02/18 13:22	05/02/18 17:24	7727-37-9	B
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**0.16J**	mg/L	0.25	0.095	1		04/27/18 12:38		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4								
Chemical Oxygen Demand	**<14.2**	mg/L	47.2	14.2	1	04/26/18 09:05	04/26/18 12:02		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40167943

Sample: SW-10 **Lab ID: 40167943002** Collected: 04/24/18 15:30 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Copper	**<6.3**	ug/L	20.0	6.3	1	04/25/18 14:34	04/27/18 12:01	7440-50-8	
Iron	**10300**	ug/L	100	34.0	1	04/25/18 14:34	04/27/18 12:01	7439-89-6	
Lead	**<4.3**	ug/L	13.0	4.3	1	04/25/18 14:34	04/27/18 12:01	7439-92-1	
Sodium	**5900**	ug/L	500	98.9	1	04/25/18 14:34	04/27/18 12:01	7440-23-5	
Total Hardness by 2340B	**54.1**	mg/L	2.0	0.15	1	04/25/18 14:34	04/27/18 12:01		
Zinc	**<9.3**	ug/L	40.0	9.3	1	04/25/18 14:34	04/27/18 12:01	7440-66-6	
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**<2.00**	CFU/100 mL	2.0	2.0	2	04/25/18 11:15	04/25/18 11:15		H3
180.1 Turbidity	Analytical Method: EPA 180.1								
Turbidity	**48.9**	NTU	5.5	1.6	1		04/25/18 11:58		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**36.6**	mg/L	10.0	2.5	5		05/01/18 15:27	16887-00-6	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.25J**	mg/L	0.50	0.25	1		05/07/18 13:57	7664-41-7	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**0.61J**	mg/L	0.73	0.22	1	05/02/18 13:22	05/02/18 17:25	7727-37-9	B
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2								
Nitrogen, NO2 plus NO3	**<0.095**	mg/L	0.25	0.095	1		04/27/18 12:39		
410.4 COD	Analytical Method: EPA 410.4 Preparation Method: EPA 410.4								
Chemical Oxygen Demand	**<13.4**	mg/L	44.8	13.4	1	04/26/18 09:05	04/26/18 12:02		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40167943

QC Batch: 287105 Analysis Method: SM 9222D
QC Batch Method: SM 9222D Analysis Description: 9222D MICRO Fecal Coliform by MF
Associated Lab Samples: 40167943001, 40167943002

METHOD BLANK: 1679299 Matrix: Water
Associated Lab Samples: 40167943001, 40167943002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fecal Coliforms	CFU/100 mL	<1..00	1.0	04/25/18 11:15	

METHOD BLANK: 1679301 Matrix: Water
Associated Lab Samples: 40167943001, 40167943002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fecal Coliforms	CFU/100 mL	<1.00	1.0	04/25/18 11:15	

SAMPLE DUPLICATE: 1679300

Parameter	Units	40167943001 Result	Dup Result	RPD	Max RPD	Qualifiers
Fecal Coliforms	CFU/100 mL	14.0	6.00			H3

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40167943

QC Batch: 286996 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 40167943001, 40167943002

METHOD BLANK: 1678689 Matrix: Water
Associated Lab Samples: 40167943001, 40167943002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Copper	ug/L	<6.3	20.0	04/26/18 14:01	
Iron	ug/L	<34.0	100	04/26/18 14:01	
Lead	ug/L	<4.3	13.0	04/26/18 14:01	
Sodium	ug/L	117J	500	04/26/18 14:01	
Total Hardness by 2340B	mg/L	<0.15	2.0	04/26/18 14:01	
Zinc	ug/L	<9.3	40.0	04/26/18 14:01	

LABORATORY CONTROL SAMPLE: 1678690

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	ug/L	500	500	100	80-120	
Iron	ug/L	5000	4960	99	80-120	
Lead	ug/L	500	504	101	80-120	
Sodium	ug/L	5000	4950	99	80-120	
Total Hardness by 2340B	mg/L		32.2			
Zinc	ug/L	500	511	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1678691 1678692

Parameter	Units	40167819001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Copper	ug/L	<6.3	500	500	509	506	101	100	75-125	1	20	
Iron	ug/L	524	5000	5000	5620	5500	102	99	75-125	2	20	
Lead	ug/L	<4.3	500	500	501	488	100	98	75-125	3	20	
Sodium	ug/L	75600	5000	5000	80000	81600	89	119	75-125	2	20	
Total Hardness by 2340B	mg/L	453			486	499				3	20	
Zinc	ug/L	22.5J	500	500	530	533	101	102	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40167943

QC Batch: 286961 Analysis Method: EPA 180.1
QC Batch Method: EPA 180.1 Analysis Description: 180.1 Turbidity
Associated Lab Samples: 40167943001, 40167943002

METHOD BLANK: 1678489 Matrix: Water
Associated Lab Samples: 40167943001, 40167943002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Turbidity	NTU	<0.55	1.8	04/25/18 11:50	

LABORATORY CONTROL SAMPLE: 1678490

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Turbidity	NTU	546	545	100	80-120	

SAMPLE DUPLICATE: 1678491

Parameter	Units	40167887001 Result	Dup Result	RPD	Max RPD	Qualifiers
Turbidity	NTU	1.6J	1.4J		10	H3

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40167943

QC Batch: 287261 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40167943001, 40167943002

METHOD BLANK: 1680562 Matrix: Water
Associated Lab Samples: 40167943001, 40167943002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	05/01/18 10:32	

LABORATORY CONTROL SAMPLE: 1680563

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	21.0	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1680564 1680565

Parameter	Units	40167797006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	7.1	20	20	29.0	29.2	109	110	90-110	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1680566 1680567

Parameter	Units	40167943002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	36.6	100	100	145	145	108	109	90-110	1	15	

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REPORT OF LABORATORY ANALYSIS

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(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40167943

QC Batch: 288063 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 40167943001, 40167943002

METHOD BLANK: 1685564 Matrix: Water
Associated Lab Samples: 40167943001, 40167943002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	<0.25	0.50	05/07/18 13:51	

LABORATORY CONTROL SAMPLE: 1685565

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1685566 1685567

Parameter	Units	40167942001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	256	500	500	748	741	99	97	90-110	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40167943

QC Batch: 287672 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 40167943001, 40167943002

METHOD BLANK: 1682966 Matrix: Water
Associated Lab Samples: 40167943001, 40167943002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	0.22J	0.73	05/02/18 17:02	

LABORATORY CONTROL SAMPLE: 1682967

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	5	4.8	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1682968 1682969

Parameter	Units	40168138001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/L	1.3	5	5	6.0	6.1	95	97	90-110	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1682970 1682971

Parameter	Units	40167867002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/L	1.1	5	5	6.0	5.8	97	93	90-110	3	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40167943

QC Batch: 287209 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 40167943001, 40167943002

METHOD BLANK: 1680113 Matrix: Water
Associated Lab Samples: 40167943001, 40167943002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	<0.095	0.25	04/27/18 12:29	

LABORATORY CONTROL SAMPLE: 1680114

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	2.5	2.4	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1680115 1680116

Parameter	Units	40168097005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, NO2 plus NO3	mg/L	5.1	2.5	2.5	7.5	7.5	94	96	90-110	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40167943

QC Batch: 287034 Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD
Associated Lab Samples: 40167943001, 40167943002

METHOD BLANK: 1679018 Matrix: Water
Associated Lab Samples: 40167943001, 40167943002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<13.4	44.8	04/26/18 12:00	

LABORATORY CONTROL SAMPLE: 1679019

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	500	515	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1679020 1679021

Parameter	Units	40167797006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	<14.2	526	526	566	552	107	104	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1679022 1679023

Parameter	Units	40167943001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	<14.2	526	526	561	563	104	105	90-110	0	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40167943

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 and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
H3	Sample was received or analysis requested beyond the recognized method holding time.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11115796-40 RHINELANDER LF
Pace Project No.: 40167943

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40167943001	**SW-20**	EPA 3010	286996	EPA 6010	287092
40167943002	**SW-10**	EPA 3010	286996	EPA 6010	287092
40167943001	**SW-20**	SM 9222D	287104	SM 9222D	287105
40167943002	**SW-10**	SM 9222D	287104	SM 9222D	287105
40167943001	**SW-20**	EPA 180.1	286961		
40167943002	**SW-10**	EPA 180.1	286961		
40167943001	**SW-20**	EPA 300.0	287261		
40167943002	**SW-10**	EPA 300.0	287261		
40167943001	**SW-20**	EPA 350.1	288063		
40167943002	**SW-10**	EPA 350.1	288063		
40167943001	**SW-20**	EPA 351.2	287672	EPA 351.2	287720
40167943002	**SW-10**	EPA 351.2	287672	EPA 351.2	287720
40167943001	**SW-20**	EPA 353.2	287209		
40167943002	**SW-10**	EPA 353.2	287209		
40167943001	**SW-20**	EPA 410.4	287034	EPA 410.4	287097
40167943002	**SW-10**	EPA 410.4	287034	EPA 410.4	287097

40167943

CHAIN OF CUSTODY RECORD

CONESTOGA-ROVERS & ASSOCIATES (CRA)

1801 Old Highway 8 Northwest, Suite 114
St. Paul, Minnesota 55112 United States
Phone: (651) 639-0913 Fax: (651) 639-0923

COC NO.: SP-02608

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 11118796-40	**Laboratory Name:** Pace	**Lab Location:**	**SSOW ID:**
Project Name: Rhinelander Landfill	**Lab Contact:**	**Lab Quote No:**	**Cooler No:**
Project Location: Rhinelander			**Carrier:**
Chemistry Contact: Grant Anderson			**Airbill No:**
Sampler(s): R Aamot K. Seekin			**Date Shipped:**

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Sample Type: Matrix Code (see back of COC)	Sample Type: Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	Fecal Coliform	Ammonia, TKN, Nitrate(?)	Chloride, Turbidity	Metals, Hardness								MS/MSD Request	Comments/ Special Instructions:
1	W-180424-RA-100 001	4/24/18	1250	SW	G	2		1	1					4	✓	✓	✓	✓									SW-20
2	W-180424-RA-101 002	4/24/18	1530	SW	G	2		1	1					4	✓	✓	✓	✓									SW-10
3																											
4																											
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											
13																											
14																											
15																											

TAT Required in business days (use separate COCs for different TATs):

☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other:

Total Number of Containers: 8

All Samples in Cooler must be on COC

Notes/ Special Requirements:

	Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1.	[signature]	GHD	4/25/18	914	[signature]	Pace	4/25/18	0914
2.								
3.								

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-10A (20110804)

40167943

Pace Container Order #346329

Addresses

Order By :		Ship To :		Return To:	
Company	GHD SERVICES	Company	GHD SERVICES (Pace Analytical	Company	Pace Analytical Green Bay
Contact	Anderson, Grant	Contact	Ryan Aamot	Contact	Milewsky, Dan
Email	grant.anderson@ghd.com	Email	ryan.aamot@ghd.com	Email	dan.milewsky@pacelabs.com
Address	1801 Old Highway 8 Northwest	Address	1801 Old Highway 8 Northwest	Address	1241 Bellevue Street
Address 2	Suite 114	Address 2	Suite 114	Address 2	Suite 9
City	Saint Paul	City	Saint Paul	City	Green Bay
State	MN Zip 55112	State	MN Zip 55112	State	WI Zip 54302
Phone	(651) 639-0913	Phone	(651) 639-0913	Phone	(920)469-2436

Info

Project Name	Rhinelander LF Surface Water	**Due Date**	04/04/2018	**Profile**		**Quote**	
Project Manager	Milewsky, Dan	**Return**		**Carrier**	Most Economical	**Location**	

Trip Blanks

- [ ] Include Trip Blanks

Bottle Labels

- [X] Blank
- [ ] Pre-Printed No Sample IDs
- [ ] Pre-Printed With Sample IDs

Bottles

- [ ] Boxed Cases
- [ ] Individually Wrapped
- [ ] Grouped By Sample

Return Shipping Labels

- [ ] No Shipper Number
- [ ] With Shipper Number

COC Options

- [X] Number of Blanks 1
- [ ] Pre-Printed

Misc

- [ ] Sampling Instructions
- [ ] Custody Seal
- [ ] Temp. Blanks
- [X] Coolers
- [ ] Syringes
- [ ] Extra Bubble Wrap
- [ ] Short Hold/Rush Stickers
- [ ] DI Water Liter(s)
- [ ] USDA Regulated Soils

# of Samples	Matrix	Test	Container	Total	# of QC	Lot #	Notes
4	WT	Fecal Coliform MF	120 ml sterile	4	0	18317007	
4	WT	Ammonia, TKN, N+N, COD	250mL plastic H2SO4	4	0	M-8-067-05BB	
4	WT	Chloride and Turbidity	1L Plastic unpreserved	4	0	C-8-012-02BB	
4	WT	Metals and Hardness	250mL plastic w/HNO3	4	0	M-8-054-04BB	

Hazard Shipping Placard In Place : NA

*Sample receiving hours are Monday through Friday 8:00 am to 6:00 pm and Saturday from 9:00 am to 12:00 pm unless special arrangements are made with your project manager.

*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage and disposal.

*Payment term are net 30 days.

*Please include the proposal number on the chain of custody to insure proper billing.

Sample Notes

Ship Date :	04/02/2018
Prepared By:	Mai Yer Her
Verified By:	

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Sample Preservation Receipt Form

Client Name: CRA

Project # 40167943

All containers needing preservation have been checked and noted below: ☒Yes ☐No ☐N/A

Lab Lot# of pH paper: 10054771 Lab Std #ID of preservation (if pH adjusted):

Initial when completed: SM Date/ Time:

Pace Lab #	Glass							Plastic							Vials						Jars			General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN							
001								1					1	1										1				X			X		2.5 / 5 / 10
002								1					1	1										1				X			X		2.5 / 5 / 10
003																																	2.5 / 5 / 10
004																																	2.5 / 5 / 10
005																																	2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
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014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☐Yes ☐No ☒N/A ***If yes look in headspace column**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical™ 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 31Jan2018
	Document No.: F-GB-C-031-rev.06	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: CRA

Project #:

WO#: 40167943

40167943

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco ☒ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Thermometer Used SR - N/A **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: RoI /Corr: _____

Temp Blank Present: ☐ yes ☒ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 4/25/18
Initials: SSM

Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☒No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☒Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume: ☐Yes ☒No ☐N/A MS/MSD	☐Yes ☒No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☒N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☐Yes ☒No ☐N/A	12. No collect times SSM 4/25/18
-Includes date/time/ID/Analysis Matrix: W		
Trip Blank Present:	☐Yes ☐No ☒N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: RMR for DM **Date:** 4/25/18

Memorandum

February 6, 2019

To:	Ryan Aamot, GHD	Ref. No.:	11115796-20
From:	Grant Anderson/sb/1	Tel:	(651) 639-0913

Subject: **Analytical Results and Reduced Data Validation**
Groundwater and Surface Water Sampling Events
Rhinelander Landfill Site – Rhinelander, Wisconsin
April and October 2018

1. Introduction

The following document details a reduced validation of analytical results for groundwater and surface water samples collected in support of the monitoring events at the Rhinelander Landfill Site in Rhinelander, Wisconsin during April and October 2018. Samples were submitted to Pace Analytical Services, Inc. (Pace), located in Green Bay, Wisconsin. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD Services, Inc. (GHD) report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spike samples (MS), and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

i) “National Functional Guidelines for Organic Superfund Methods Data Review," EPA-540-R-2017-002, January 2017

ii) “National Functional Guidelines for Inorganic Superfund Methods Data Review," EPA-540-R-2017-001, January 2017

Items i) and ii) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria and sample preservation requirements for the analyses are summarized in Table 3. The sample chain of custody documents and analytical reports were used to determine sample holding times. With the exception of fecal coliform bacteria analyses, all samples were analyzed within the

required holding times. Table 4 lists the holding time exceedances. Associated sample data are qualified as noted in the table.

All samples were properly preserved and delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

Laboratory method blanks were analyzed at a minimum frequency of one per 20 investigative samples and/or one per analytical batch.

Total Kjeldahl nitrogen, alkalinity, hardness, and sodium were detected in the method blanks. However, in all cases the associated sample results were sufficiently high enough that qualification of data was not necessary. The remaining method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Surrogate Spike Recoveries

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound (VOC) determinations were spiked with the appropriate number of surrogate compounds prior to sample analysis.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries were within the laboratory control limits.

5. Laboratory Control Sample (LCS) Analyses

LCS are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects.

LCS were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

Organic Analyses

The LCS contained all compounds of interest. All LCS recoveries were within the laboratory control limits, demonstrating acceptable analytical accuracy.

Inorganic Analyses

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

Organic Analyses

The MS/MSD samples were spiked with all compounds of interest. All percent recoveries and RPD values were within the acceptance criteria, demonstrating acceptable analytical accuracy and precision.

Inorganic Analyses

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within acceptance criteria, demonstrating acceptable analytical accuracy and precision.

7. Field QA/QC Samples

The field QA/QC samples consisted of two trip blank samples, one field blank sample and one field duplicate sample set.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, two trip blank samples were submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest.

Field Blank Sample Analysis

To assess ambient conditions at the site and cleanliness of sample containers, a field blank was submitted for analysis, as identified in Table 1. With the exception of hardness, all results were non-detect for the analytes of interest. Associated hardness results were sufficiently high enough that qualification of data was not necessary based on analytes detected in the field blank.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, one field duplicate sample set was collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate

samples must be less than 50 percent. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one times the RL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's method detection limit (MDL) for each analyte. Positive analyte detections less than the RL but greater than the MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 2.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

Table 1

Sample Collection and Analysis Summary
Groundwater and Surface Water Sampling Events
Rhinelander Landfill
Rhinelander, Wisconsin
April and October 2018

					Analysis/Parameters													
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**VOC**	**Select Metals (total)**	**Select Metals (dissolved)**	**Hardness**	**Fecal Coliforms**	**Turbidity**	**Chloride**	**Alkalinity**	**Ammonia**	**Total Kjeldahl Nitrogen**	**Chemical Oxygen Demand**	**Nitrate/Nitrite**	**Comments**
MW-2A	MW-2A	water	04/24/2018	14:00	x		x	x			x	x	x	x			
MW-2B	MW-2B	water	04/24/2018	13:50	x		x	x			x	x					
MW-16A	MW-16A	water	04/24/2018	12:10	x		x	x			x	x					
MW-16B	MW-16B	water	04/24/2018	12:40	x		x	x			x	x					
MW-16C	MW-16C	water	04/24/2018	12:25	x		x	x			x	x					
MW-20A	MW-20A	water	04/24/2018	14:45	x		x	x			x	x					
MW-20B	MW-20B	water	04/24/2018	15:00	x		x	x			x	x					
MW-20C	MW-20C	water	04/24/2018	15:10	x		x	x			x	x					
TRIP BLANK	Lab	water	04/24/2018	00:00	x		x	x									Trip Blank
SW-20	SW-20	water	04/24/2018	12:50		x		x	x	x	x		x	x	x	x	
SW-10	SW-10	water	04/24/2018	15:30		x		x	x	x	x		x	x	x	x	
SW-20	SW-20	water	10/23/2018	15:00		x		x	x		x		x	x	x	x	
SW-28	SW-28	water	10/23/2018	15:10		x		x	x		x		x	x	x	x	
SW-10	SW-10	water	10/23/2018	15:10		x		x	x		x		x	x	x	x	
MW-2A	MW-2A	water	10/22/2018	15:20	x		x	x			x	x	x	x			
MW-2B	MW-2B	water	10/22/2018	15:29	x		x	x			x	x					
MW-21A	MW-21A	water	10/22/2018	15:45	x		x	x			x	x	x	x			
MW-3A	MW-3A	water	10/22/2018	16:00	x		x	x			x	x	x	x			
MW-28A	MW-28A	water	10/22/2018	16:36	x		x	x			x	x					
MW-4A	MW-4A	water	10/23/2018	08:55	x		x	x			x	x					
MW-4A DUP	MW-4A	water	10/23/2018	08:55	x		x	x			x	x					duplicate (MW-4A)

Table 1

Sample Collection and Analysis Summary
Groundwater and Surface Water Sampling Events
Rhinelander Landfill
Rhinelander, Wisconsin
April and October 2018

					Analysis/Parameters												
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**VOC**	**Select Metals (total)**	**Select Metals (dissolved)**	**Hardness**	**Fecal Coliforms**	**Turbidity**	**Chloride**	**Alkalinity**	**Ammonia**	**Total Kjeldahl Nitrogen**	**Chemical Oxygen Demand**	**Nitrate/Nitrite**	**Comments**
FIELD BLANK	MW-5A	water	10/23/2018	09:10	x		x	x			x	x					field blank
MW-5A	MW-5A	water	10/23/2018	09:10	x		x	x			x	x					
MW-20A	MW-20A	water	10/23/2018	09:50	x		x	x			x	x					
MW-20B	MW-20B	water	10/23/2018	10:00	x		x	x			x	x					
MW-20C	MW-20C	water	10/23/2018	10:25	x		x	x			x	x					
MW-16C	MW-16C	water	10/23/2018	11:26	x		x	x			x	x					
MW-16B	MW-16B	water	10/23/2018	11:40	x		x	x			x	x					
MW-16A	MW-16A	water	10/23/2018	12:00	x		x	x			x	x					
MW-26B	MW-26B	water	10/23/2018	13:10	x		x	x			x	x					
MW-26C	MW-26C	water	10/23/2018	13:04	x		x	x			x	x					
MW-27B	MW-27B	water	10/23/2018	13:33	x		x	x			x	x					
MW-25B	MW-25B	water	10/23/2018	13:52	x		x	x			x	x					
MW-18A	MW-18A	water	10/23/2018	14:20	x		x	x			x	x					
MW-18C	MW-18C	water	10/23/2018	15:00	x		x	x			x	x					
MW-18B	MW-18B	water	10/23/2018	14:30	x		x	x			x	x					
TRIP BLANK	Lab	water	10/23/2018	00:00	x												Trip Blank

Notes:

VOC - Volatile Organic Compounds

Table 2

Validated Analytical Results Summary
Groundwater and Surface Water Sampling Events
Rhinelander Landfill
Rhinelander, Wisconsin
April and October 2018

Location ID:		MW-16A	MW-16A	MW-16B	MW-16B	MW-16C	MW-16C	MW-18A	MW-18B	MW-18C
Sample Name:		MW-16A	MW-16A	MW-16B	MW-16B	MW-16C	MW-16C	MW-18A	MW-18B	MW-18C
Sample Date:		04/24/2018	10/23/2018	04/24/2018	10/23/2018	04/24/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018
Parameters	**Unit**									
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	0.24 J	1.0 U	0.27 J	1.0 U	0.24 J	0.30 J	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	µg/L	1.0 U	1.8 U	1.0 U	1.8 U	1.0 U	1.8 U	1.8 U	1.8 U	1.8 U
1,2,3-Trichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	µg/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	µg/L	1.0 U	2.8 U	1.0 U	2.8 U	1.0 U	2.8 U	2.8 U	2.8 U	2.8 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	5.0 U	5.9 U	5.0 U	5.9 U	5.0 U	5.9 U	5.9 U	5.9 U	5.9 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	2.8 U	1.0 U	2.8 U	1.0 U	2.8 U	2.8 U	2.8 U	2.8 U
1,2-Dichlorobenzene	µg/L	1.0 U	2.4 U	1.0 U	2.4 U	1.0 U	2.4 U	2.4 U	2.4 U	2.4 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	1.0 U	2.9 U	1.0 U	2.9 U	1.0 U	2.9 U	2.9 U	2.9 U	2.9 U
1,3-Dichlorobenzene	µg/L	1.0 U	2.1 U	1.0 U	2.1 U	1.0 U	2.1 U	2.1 U	2.1 U	2.1 U
1,3-Dichloropropane	µg/L	1.0 U	2.8 U	1.0 U	2.8 U	1.0 U	2.8 U	2.8 U	2.8 U	2.8 U
1,4-Dichlorobenzene	µg/L	1.0 U	3.1 U	1.0 U	3.1 U	1.0 U	3.1 U	3.1 U	3.1 U	3.1 U
2,2-Dichloropropane	µg/L	1.0 U	7.6 U	1.0 U	7.6 U	1.0 U	7.6 U	7.6 U	7.6 U	7.6 U
2-Chlorotoluene	µg/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Phenylbutane (sec-Butylbenzene)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	µg/L	1.0 U	2.5 U	1.0 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Benzene	µg/L	0.75 J	0.43 J	1.0	1.3	1.3	1.5	1.0 U	0.54 J	0.42 J
Bromobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.2 U	1.0 U	1.2 U	1.0 U	1.2 U	1.2 U	1.2 U	1.2 U
Bromoform	µg/L	1.0 U	13.2 U	1.0 U	13.2 U	1.0 U	13.2 U	13.2 U	13.2 U	13.2 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Validated Analytical Results Summary
Groundwater and Surface Water Sampling Events
Rhinelander Landfill
Rhinelander, Wisconsin
April and October 2018

Location ID:		MW-16A	MW-16A	MW-16B	MW-16B	MW-16C	MW-16C	MW-18A	MW-18B	MW-18C
Sample Name:		MW-16A	MW-16A	MW-16B	MW-16B	MW-16C	MW-16C	MW-18A	MW-18B	MW-18C
Sample Date:		04/24/2018	10/23/2018	04/24/2018	10/23/2018	04/24/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018
Parameters	**Unit**									
Chlorobenzene	µg/L	1.0 U	2.4 U	1.0 U	2.4 U	0.64 J	2.4 U	2.4 U	2.4 U	2.4 U
Chlorobromomethane	µg/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	7.3 U	1.0 U	7.3 U	1.0 U	7.3 U	7.3 U	7.3 U	7.3 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.9	1.0 U	0.40 J
cis-1,3-Dichloropropene	µg/L	1.0 U	12.1 U	1.0 U	12.1 U	1.0 U	12.1 U	12.1 U	12.1 U	12.1 U
Cymene (p-Isopropyltoluene)	µg/L	1.0 U	2.7 U	1.0 U	2.7 U	1.0 U	2.7 U	2.7 U	2.7 U	2.7 U
Dibromochloromethane	µg/L	1.0 U	8.7 U	1.0 U	8.7 U	1.0 U	8.7 U	8.7 U	8.7 U	8.7 U
Dibromomethane	µg/L	1.0 U	3.1 U	1.0 U	3.1 U	1.0 U	3.1 U	3.1 U	3.1 U	3.1 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diisopropyl ether	µg/L	1.0 U	6.3 U	1.0 U	6.3 U	1.0 U	6.3 U	6.3 U	6.3 U	6.3 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropyl benzene	µg/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m&p-Xylenes	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	1.4 J	1.6 J	2.0 U	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	4.2 U	1.0 U	4.2 U	1.0 U	4.2 U	4.2 U	4.2 U	4.2 U
Methylene chloride	µg/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Butylbenzene	µg/L	1.0 U	2.4 U	1.0 U	2.4 U	1.0 U	2.4 U	2.4 U	2.4 U	2.4 U
N-Propylbenzene	µg/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	3.3 J	4.5 J	5.0 U	5.0 U	5.0 U
o-Xylene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.6 U	1.0 U	1.6 U	1.0 U	1.6 U	1.6 U	1.6 U	1.6 U
tert-Butylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.1 U	1.0 U	1.1 U	1.0 U	1.1 U	1.1 U	1.1 U	0.35 J
Tetrahydrofuran	µg/L	5.0 U	20.0 U	7.2	8.3 J	15.6	16.6 J	20.0 U	4.0 J	3.1 J
Toluene	µg/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	3.6 U	1.0 U	3.6 U	1.0 U	3.6 U	3.6 U	3.6 U	3.6 U
trans-1,3-Dichloropropene	µg/L	1.0 U	14.6 U	1.0 U	14.6 U	1.0 U	14.6 U	14.6 U	14.6 U	14.6 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.9	2.2	6.1
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Validated Analytical Results Summary
Groundwater and Surface Water Sampling Events
Rhinelander Landfill
Rhinelander, Wisconsin
April and October 2018

Location ID:		MW-16A	MW-16A	MW-16B	MW-16B	MW-16C	MW-16C	MW-18A	MW-18B	MW-18C
Sample Name:		MW-16A	MW-16A	MW-16B	MW-16B	MW-16C	MW-16C	MW-18A	MW-18B	MW-18C
Sample Date:		04/24/2018	10/23/2018	04/24/2018	10/23/2018	04/24/2018	10/23/2018	10/23/2018	10/23/2018	10/23/2018
Parameters	**Unit**									
Vinyl chloride	µg/L	0.34 J	0.27 J	1.0 U	1.0 U	0.29 J	0.35 J	0.22 J	1.0 U	1.0 U
Metals										
Hardness, calculation	mg/L	168	126	227	240	232	241	233	305	315
Boron (dissolved)	µg/L	--	--	--	--	--	--	--	--	141
Copper	µg/L	--	--	--	--	--	--	--	--	--
Iron	µg/L	--	--	--	--	--	--	--	--	--
Iron (dissolved)	µg/L	2550	1480	37300	38700	26700	28000	2050	38.3 J	118 U
Lead	µg/L	--	--	--	--	--	--	--	--	--
Manganese (dissolved)	µg/L	3260	2470	3520	4130	2110	2280	1470	2110	1490
Sodium	µg/L	--	--	--	--	--	--	--	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--
General Chemistry										
Fecal coliform bacteria	cfu/100mL	--	--	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	165	139	225	261	237	266	164	306	276
Ammonia	mg/L	--	--	--	--	--	--	--	--	--
Chemical oxygen demand (COD)	mg/L	--	--	--	--	--	--	--	--	--
Chloride	mg/L	20.1	14.8	37.2	39.2	41.5	43.7	81.2	51.5	83.8
Nitrite/Nitrate	mg/L	--	--	--	--	--	--	--	--	--
Total kjeldahl nitrogen (TKN)	mg/L	--	--	--	--	--	--	--	--	--
Turbidity	NTU	--	--	--	--	--	--	--	--	--

Table 2

Validated Analytical Results Summary
Groundwater and Surface Water Sampling Events
Rhinelander Landfill
Rhinelander, Wisconsin
April and October 2018

Location ID:		MW-20A	MW-20A	MW-20B	MW-20B	MW-20C	MW-20C	MW-21A	MW-25B	MW-26B
Sample Name:		MW-20A	MW-20A	MW-20B	MW-20B	MW-20C	MW-20C	MW-21A	MW-25B	MW-26B
Sample Date:		04/24/2018	10/23/2018	04/24/2018	10/23/2018	04/24/2018	10/23/2018	10/22/2018	10/23/2018	10/23/2018
Parameters	**Unit**									
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	µg/L	1.0 U	1.8 U	1.0 U	1.8 U	1.0 U	1.8 U	1.8 U	1.8 U	1.8 U
1,2,3-Trichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	µg/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	µg/L	19.7	23.5	1.0 U	2.8 U	1.0 U	2.8 U	5.0	2.8 U	2.8 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	5.0 U	5.9 U	5.0 U	5.9 U	5.0 U	5.9 U	5.9 U	5.9 U	5.9 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	2.8 U	1.0 U	2.8 U	1.0 U	2.8 U	2.8 U	2.8 U	2.8 U
1,2-Dichlorobenzene	µg/L	0.63 J	0.86 J	1.0 U	2.4 U	1.0 U	2.4 U	2.4 U	2.4 U	2.4 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	4.6	4.8	1.0 U	2.9 U	1.0 U	2.9 U	2.2 J	2.9 U	2.9 U
1,3-Dichlorobenzene	µg/L	1.0 U	2.1 U	1.0 U	2.1 U	1.0 U	2.1 U	2.1 U	2.1 U	2.1 U
1,3-Dichloropropane	µg/L	1.0 U	2.8 U	1.0 U	2.8 U	1.0 U	2.8 U	2.8 U	2.8 U	2.8 U
1,4-Dichlorobenzene	µg/L	1.6	1.9 J	1.0 U	3.1 U	1.0 U	3.1 U	1.9 J	3.1 U	3.1 U
2,2-Dichloropropane	µg/L	1.0 U	7.6 U	1.0 U	7.6 U	1.0 U	7.6 U	7.6 U	7.6 U	7.6 U
2-Chlorotoluene	µg/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Phenylbutane (sec-Butylbenzene)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	µg/L	1.0 U	2.5 U	1.0 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U	2.5 U
Benzene	µg/L	1.0 J	1.9	0.64 J	0.74 J	0.90 J	1.0	4.7	1.0 U	1.0 U
Bromobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.2 U	1.0 U	1.2 U	1.0 U	1.2 U	1.2 U	1.2 U	1.2 U
Bromoform	µg/L	1.0 U	13.2 U	1.0 U	13.2 U	1.0 U	13.2 U	13.2 U	13.2 U	13.2 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Validated Analytical Results Summary
Groundwater and Surface Water Sampling Events
Rhinelander Landfill
Rhinelander, Wisconsin
April and October 2018

Location ID:		MW-20A	MW-20A	MW-20B	MW-20B	MW-20C	MW-20C	MW-21A	MW-25B	MW-26B
Sample Name:		MW-20A	MW-20A	MW-20B	MW-20B	MW-20C	MW-20C	MW-21A	MW-25B	MW-26B
Sample Date:		04/24/2018	10/23/2018	04/24/2018	10/23/2018	04/24/2018	10/23/2018	10/22/2018	10/23/2018	10/23/2018
Parameters	**Unit**									
Chlorobenzene	µg/L	5.2	6.2	0.57 J	0.77 J	0.74 J	0.81 J	7.1	2.4 U	2.4 U
Chlorobromomethane	µg/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	7.3 U	1.0 U	7.3 U	1.0 U	7.3 U	7.3 U	7.3 U	7.3 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	12.1 U	1.0 U	12.1 U	1.0 U	12.1 U	12.1 U	12.1 U	12.1 U
Cymene (p-Isopropyltoluene)	µg/L	0.59 J	2.7 U	1.0 U	2.7 U	1.0 U	2.7 U	2.7 U	2.7 U	2.7 U
Dibromochloromethane	µg/L	1.0 U	8.7 U	1.0 U	8.7 U	1.0 U	8.7 U	8.7 U	8.7 U	8.7 U
Dibromomethane	µg/L	1.0 U	3.1 U	1.0 U	3.1 U	1.0 U	3.1 U	3.1 U	3.1 U	3.1 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diisopropyl ether	µg/L	1.0 U	6.3 U	1.0 U	6.3 U	1.0 U	6.3 U	6.3 U	6.3 U	6.3 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropyl benzene	µg/L	3.5	4.0 J	1.0 U	5.0 U	1.0 U	5.0 U	0.68 J	5.0 U	5.0 U
m&p-Xylenes	µg/L	50.6	56.4	2.0 U	2.0 U	2.0 U	2.0 U	10.6	2.0 U	2.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	4.2 U	1.0 U	4.2 U	1.0 U	4.2 U	4.2 U	4.2 U	4.2 U
Methylene chloride	µg/L	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U
N-Butylbenzene	µg/L	1.4	2.4 U	1.0 U	2.4 U	1.0 U	2.4 U	2.4 U	2.4 U	2.4 U
N-Propylbenzene	µg/L	2.4	3.0 J	1.0 U	5.0 U	1.0 U	5.0 U	0.86 J	5.0 U	5.0 U
Naphthalene	µg/L	12.5	18.0	10.6	12.3	8.9	7.7	14.0	5.0 U	5.0 U
o-Xylene	µg/L	1.1	1.6	1.0 U	1.0 U	1.0 U	1.0 U	2.1	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.6 U	1.0 U	1.6 U	1.0 U	1.6 U	1.6 U	1.6 U	1.6 U
tert-Butylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.1 U	1.0 U	1.1 U	1.0 U	1.1 U	1.1 U	1.1 U	1.1 U
Tetrahydrofuran	µg/L	7.5	8.7 J	15.2	11.0 J	14.1	10.6 J	130	20.0 U	20.0 U
Toluene	µg/L	1.0 U	0.38 J	1.0 U	5.0 U	1.0 U	5.0 U	0.71 J	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	3.6 U	1.0 U	3.6 U	1.0 U	3.6 U	3.6 U	3.6 U	3.6 U
trans-1,3-Dichloropropene	µg/L	1.0 U	14.6 U	1.0 U	14.6 U	1.0 U	14.6 U	14.6 U	14.6 U	14.6 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Validated Analytical Results Summary
Groundwater and Surface Water Sampling Events
Rhinelander Landfill
Rhinelander, Wisconsin
April and October 2018

Location ID:		MW-20A	MW-20A	MW-20B	MW-20B	MW-20C	MW-20C	MW-21A	MW-25B	MW-26B
Sample Name:		MW-20A	MW-20A	MW-20B	MW-20B	MW-20C	MW-20C	MW-21A	MW-25B	MW-26B
Sample Date:		04/24/2018	10/23/2018	04/24/2018	10/23/2018	04/24/2018	10/23/2018	10/22/2018	10/23/2018	10/23/2018
Parameters	**Unit**									
Vinyl chloride	µg/L	1.0 U	1.0 U	0.48 J	0.43 J	0.78 J	0.84 J	1.0 U	1.6	1.0 U
Metals										
Hardness, calculation	mg/L	143	180	162	160	183	186	738	166	21.4
Boron (dissolved)	µg/L	398	611	--	--	--	--	1110	40.0 U	--
Copper	µg/L	--	--	--	--	--	--	--	--	--
Iron	µg/L	--	--	--	--	--	--	--	--	--
Iron (dissolved)	µg/L	69400	80700	17600	17700	21500	22000	57300	118 U	10700
Lead	µg/L	--	--	--	--	--	--	--	--	--
Manganese (dissolved)	µg/L	654	712	1080	1100	1400	1460	1200	190	984
Sodium	µg/L	--	--	--	--	--	--	--	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--
General Chemistry										
Fecal coliform bacteria	cfu/100mL	--	--	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	253	277	145	158	183	187	1830	163	40.7
Ammonia	mg/L	--	--	--	--	--	--	232	--	--
Chemical oxygen demand (COD)	mg/L	--	--	--	--	--	--	--	--	--
Chloride	mg/L	8.9 J	7.8 J	46.3	47.7	46.9	47.2	46.8	16.5	88.0
Nitrite/Nitrate	mg/L	--	--	--	--	--	--	--	--	--
Total kjeldahl nitrogen (TKN)	mg/L	--	--	--	--	--	--	230	--	--
Turbidity	NTU	--	--	--	--	--	--	--	--	--

Table 2

Validated Analytical Results Summary
Groundwater and Surface Water Sampling Events
Rhinelander Landfill
Rhinelander, Wisconsin
April and October 2018

Location ID:		MW-26C	MW-27B	MW-28A	MW-2A	MW-2A	MW-2B	MW-2B	MW-3A	MW-4A
Sample Name:		MW-26C	MW-27B	MW-28A	MW-2A	MW-2A	MW-2B	MW-2B	MW-3A	MW-4A
Sample Date:		10/23/2018	10/23/2018	10/22/2018	04/24/2018	10/22/2018	04/24/2018	10/22/2018	10/22/2018	10/23/2018
Parameters	**Unit**									
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	0.73 J	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	µg/L	1.8 U	1.8 U	1.8 U	2.0 U	1.8 U	1.0 U	1.8 U	1.8 U	1.8 U
1,2,3-Trichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	µg/L	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzene	µg/L	2.8 U	2.8 U	2.8 U	3.4	3.0	1.0 U	2.8 U	2.8 U	2.8 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	5.9 U	5.9 U	5.9 U	10.0 U	5.9 U	5.0 U	5.9 U	5.9 U	5.9 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	2.8 U	2.8 U	2.8 U	2.0 U	2.8 U	1.0 U	2.8 U	2.8 U	2.8 U
1,2-Dichlorobenzene	µg/L	2.4 U	2.4 U	2.4 U	2.0 U	2.4 U	1.0 U	2.4 U	2.4 U	2.4 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	µg/L	2.9 U	2.9 U	2.9 U	2.8	2.0 J	1.0 U	2.9 U	2.9 U	2.9 U
1,3-Dichlorobenzene	µg/L	2.1 U	2.1 U	2.1 U	2.0 U	2.1 U	1.0 U	2.1 U	2.1 U	2.1 U
1,3-Dichloropropane	µg/L	2.8 U	2.8 U	2.8 U	2.0 U	2.8 U	1.0 U	2.8 U	2.8 U	2.8 U
1,4-Dichlorobenzene	µg/L	3.1 U	3.1 U	1.0 J	1.5 J	1.6 J	1.0 U	3.1 U	3.1 U	3.1 U
2,2-Dichloropropane	µg/L	7.6 U	7.6 U	7.6 U	2.0 U	7.6 U	1.0 U	7.6 U	7.6 U	7.6 U
2-Chlorotoluene	µg/L	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U
2-Phenylbutane (sec-Butylbenzene)	µg/L	5.0 U	5.0 U	5.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorotoluene	µg/L	2.5 U	2.5 U	2.5 U	2.0 U	2.5 U	1.0 U	2.5 U	2.5 U	2.5 U
Benzene	µg/L	0.95 J	1.0 U	1.3	27.3	28.5	1.0 U	0.40 J	2.4	1.0 U
Bromobenzene	µg/L	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.2 U	1.2 U	1.2 U	2.0 U	1.2 U	1.0 U	1.2 U	1.2 U	1.2 U
Bromoform	µg/L	13.2 U	13.2 U	13.2 U	2.0 U	13.2 U	1.0 U	13.2 U	13.2 U	13.2 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Validated Analytical Results Summary
Groundwater and Surface Water Sampling Events
Rhinelander Landfill
Rhinelander, Wisconsin
April and October 2018

Location ID:		MW-26C	MW-27B	MW-28A	MW-2A	MW-2A	MW-2B	MW-2B	MW-3A	MW-4A
Sample Name:		MW-26C	MW-27B	MW-28A	MW-2A	MW-2A	MW-2B	MW-2B	MW-3A	MW-4A
Sample Date:		10/23/2018	10/23/2018	10/22/2018	04/24/2018	10/22/2018	04/24/2018	10/22/2018	10/22/2018	10/23/2018
Parameters	**Unit**									
Chlorobenzene	µg/L	2.4 U	2.4 U	2.4 U	1.4 J	1.6 J	1.0 U	2.4 U	2.4 U	2.4 U
Chlorobromomethane	µg/L	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	7.3 U	7.3 U	7.3 U	2.0 U	7.3 U	1.0 U	7.3 U	7.3 U	7.3 U
cis-1,2-Dichloroethene	µg/L	0.61 J	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	12.1 U	12.1 U	12.1 U	2.0 U	12.1 U	1.0 U	12.1 U	12.1 U	12.1 U
Cymene (p-Isopropyltoluene)	µg/L	2.7 U	2.7 U	2.7 U	2.0 U	2.7 U	1.0 U	2.7 U	2.7 U	2.7 U
Dibromochloromethane	µg/L	8.7 U	8.7 U	8.7 U	2.0 U	8.7 U	1.0 U	8.7 U	8.7 U	8.7 U
Dibromomethane	µg/L	3.1 U	3.1 U	3.1 U	2.0 U	3.1 U	1.0 U	3.1 U	3.1 U	3.1 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Diisopropyl ether	µg/L	6.3 U	6.3 U	6.3 U	2.0 U	6.3 U	1.0 U	6.3 U	6.3 U	6.3 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorobutadiene	µg/L	5.0 U	5.0 U	5.0 U	10.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropyl benzene	µg/L	5.0 U	5.0 U	5.0 U	0.55 J	0.48 J	1.0 U	5.0 U	5.0 U	5.0 U
m&p-Xylenes	µg/L	2.0 U	2.0 U	2.0 U	5.7	6.1	2.0 U	2.0 U	1.6 J	2.0 U
Methyl tert butyl ether (MTBE)	µg/L	4.2 U	4.2 U	4.2 U	2.0 U	4.2 U	1.0 U	4.2 U	4.2 U	4.2 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U
N-Butylbenzene	µg/L	2.4 U	2.4 U	2.4 U	2.0 U	2.4 U	1.0 U	2.4 U	2.4 U	2.4 U
N-Propylbenzene	µg/L	5.0 U	5.0 U	5.0 U	2.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	µg/L	5.0 U	5.0 U	5.0 U	10.0 U	4.2 J	5.0 U	5.0 U	1.2 J	5.0 U
o-Xylene	µg/L	1.0 U	1.0 U	1.0 U	2.0 U	0.58 J	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.6 U	1.6 U	1.6 U	2.0 U	1.6 U	1.0 U	1.6 U	1.6 U	1.6 U
tert-Butylbenzene	µg/L	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.1 U	1.1 U	1.1 U	2.0 U	1.1 U	1.0 U	1.1 U	1.1 U	1.1 U
Tetrahydrofuran	µg/L	20.0 U	20.0 U	29.4	185	216	7.3	8.9 J	90.1	20.0 U
Toluene	µg/L	5.0 U	5.0 U	5.0 U	2.0 U	0.32 J	1.0 U	5.0 U	0.19 J	5.0 U
trans-1,2-Dichloroethene	µg/L	3.6 U	3.6 U	3.6 U	2.0 U	3.6 U	1.0 U	3.6 U	3.6 U	3.6 U
trans-1,3-Dichloropropene	µg/L	14.6 U	14.6 U	14.6 U	2.0 U	14.6 U	1.0 U	14.6 U	14.6 U	14.6 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Validated Analytical Results Summary
Groundwater and Surface Water Sampling Events
Rhinelander Landfill
Rhinelander, Wisconsin
April and October 2018

Location ID:		MW-26C	MW-27B	MW-28A	MW-2A	MW-2A	MW-2B	MW-2B	MW-3A	MW-4A
Sample Name:		MW-26C	MW-27B	MW-28A	MW-2A	MW-2A	MW-2B	MW-2B	MW-3A	MW-4A
Sample Date:		10/23/2018	10/23/2018	10/22/2018	04/24/2018	10/22/2018	04/24/2018	10/22/2018	10/22/2018	10/23/2018
Parameters	**Unit**									
Vinyl chloride	µg/L	5.1	1.0 U	1.0	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Metals										
Hardness, calculation	mg/L	235	89.6	298	1040	1040	142	139	309	116
Boron (dissolved)	µg/L	--	--	242	1670	2090	--	--	--	14.2 J
Copper	µg/L	--	--	--	--	--	--	--	--	--
Iron	µg/L	--	--	--	--	--	--	--	--	--
Iron (dissolved)	µg/L	930	41.2 J	4940	56400	57800	12400	15500	47800	118 U
Lead	µg/L	--	--	--	--	--	--	--	--	--
Manganese (dissolved)	µg/L	2600	175	604	722	625	1160	1250	3800	5.0 U
Sodium	µg/L	--	--	--	--	--	--	--	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--
General Chemistry										
Fecal coliform bacteria	cfu/100mL	--	--	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	232	79.7	323	2220	2340	168	193	722	101
Ammonia	mg/L	--	--	--	256	265	--	--	67.2	--
Chemical oxygen demand (COD)	mg/L	--	--	--	--	--	--	--	--	--
Chloride	mg/L	22.8	5.0	20.3	69.1	71.4	17.0	17.5	27.5	25.3
Nitrite/Nitrate	mg/L	--	--	--	--	--	--	--	--	--
Total kjeldahl nitrogen (TKN)	mg/L	--	--	--	263	259	--	--	64.4	--
Turbidity	NTU	--	--	--	--	--	--	--	--	--

Table 2

Validated Analytical Results Summary
Groundwater and Surface Water Sampling Events
Rhinelander Landfill
Rhinelander, Wisconsin
April and October 2018

Location ID:		MW-4A	MW-5A	SW-10	SW-10	SW-20	SW-20	SW-28
Sample Name:		MW-4A DUP	MW-5A	SW-10	SW-10	SW-20	SW-20	SW-28
Sample Date:		10/23/2018 Duplicate	10/23/2018	04/24/2018	10/23/2018	04/24/2018	10/23/2018	10/23/2018
Parameters	**Unit**							
Volatile Organic Compounds								
1,1,1,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	--	--	--	--	--
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	--	--	--	--	--
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	--	--	--	--	--
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	--	--	--	--	--
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	--	--	--	--	--
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	--	--	--	--	--
1,1-Dichloropropene	µg/L	1.8 U	1.8 U	--	--	--	--	--
1,2,3-Trichlorobenzene	µg/L	5.0 U	5.0 U	--	--	--	--	--
1,2,3-Trichloropropane	µg/L	5.0 U	5.0 U	--	--	--	--	--
1,2,4-Trichlorobenzene	µg/L	5.0 U	5.0 U	--	--	--	--	--
1,2,4-Trimethylbenzene	µg/L	2.8 U	2.8 U	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	5.9 U	5.9 U	--	--	--	--	--
1,2-Dibromoethane (Ethylene dibromide)	µg/L	2.8 U	2.8 U	--	--	--	--	--
1,2-Dichlorobenzene	µg/L	2.4 U	2.4 U	--	--	--	--	--
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	--	--	--	--	--
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	--	--	--	--	--
1,3,5-Trimethylbenzene	µg/L	2.9 U	2.9 U	--	--	--	--	--
1,3-Dichlorobenzene	µg/L	2.1 U	2.1 U	--	--	--	--	--
1,3-Dichloropropane	µg/L	2.8 U	2.8 U	--	--	--	--	--
1,4-Dichlorobenzene	µg/L	3.1 U	3.1 U	--	--	--	--	--
2,2-Dichloropropane	µg/L	7.6 U	7.6 U	--	--	--	--	--
2-Chlorotoluene	µg/L	5.0 U	5.0 U	--	--	--	--	--
2-Phenylbutane (sec-Butylbenzene)	µg/L	5.0 U	5.0 U	--	--	--	--	--
4-Chlorotoluene	µg/L	2.5 U	2.5 U	--	--	--	--	--
Benzene	µg/L	1.0 U	1.0 U	--	--	--	--	--
Bromobenzene	µg/L	1.0 U	1.0 U	--	--	--	--	--
Bromodichloromethane	µg/L	1.2 U	1.2 U	--	--	--	--	--
Bromoform	µg/L	13.2 U	13.2 U	--	--	--	--	--
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	--	--	--	--	--
Carbon tetrachloride	µg/L	1.0 U	1.0 U	--	--	--	--	--

Table 2

Validated Analytical Results Summary
Groundwater and Surface Water Sampling Events
Rhinelander Landfill
Rhinelander, Wisconsin
April and October 2018

Location ID:		MW-4A	MW-5A	SW-10	SW-10	SW-20	SW-20	SW-28
Sample Name:		MW-4A DUP	MW-5A	SW-10	SW-10	SW-20	SW-20	SW-28
Sample Date:		10/23/2018 Duplicate	10/23/2018	04/24/2018	10/23/2018	04/24/2018	10/23/2018	10/23/2018
Parameters	**Unit**							
Chlorobenzene	µg/L	2.4 U	2.4 U	--	--	--	--	--
Chlorobromomethane	µg/L	5.0 U	5.0 U	--	--	--	--	--
Chloroethane	µg/L	5.0 U	5.0 U	--	--	--	--	--
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	--	--	--	--	--
Chloromethane (Methyl chloride)	µg/L	7.3 U	7.3 U	--	--	--	--	--
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	--	--	--	--	--
cis-1,3-Dichloropropene	µg/L	12.1 U	12.1 U	--	--	--	--	--
Cymene (p-Isopropyltoluene)	µg/L	2.7 U	2.7 U	--	--	--	--	--
Dibromochloromethane	µg/L	8.7 U	8.7 U	--	--	--	--	--
Dibromomethane	µg/L	3.1 U	3.1 U	--	--	--	--	--
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U	--	--	--	--	--
Diisopropyl ether	µg/L	6.3 U	6.3 U	--	--	--	--	--
Ethylbenzene	µg/L	1.0 U	1.0 U	--	--	--	--	--
Hexachlorobutadiene	µg/L	5.0 U	5.0 U	--	--	--	--	--
Isopropyl benzene	µg/L	5.0 U	5.0 U	--	--	--	--	--
m&p-Xylenes	µg/L	2.0 U	2.0 U	--	--	--	--	--
Methyl tert butyl ether (MTBE)	µg/L	4.2 U	4.2 U	--	--	--	--	--
Methylene chloride	µg/L	5.0 U	5.0 U	--	--	--	--	--
N-Butylbenzene	µg/L	2.4 U	2.4 U	--	--	--	--	--
N-Propylbenzene	µg/L	5.0 U	5.0 U	--	--	--	--	--
Naphthalene	µg/L	5.0 U	5.0 U	--	--	--	--	--
o-Xylene	µg/L	1.0 U	1.0 U	--	--	--	--	--
Styrene	µg/L	1.6 U	1.6 U	--	--	--	--	--
tert-Butylbenzene	µg/L	1.0 U	1.0 U	--	--	--	--	--
Tetrachloroethene	µg/L	1.1 U	1.1 U	--	--	--	--	--
Tetrahydrofuran	µg/L	20.0 U	20.0 U	--	--	--	--	--
Toluene	µg/L	5.0 U	5.0 U	--	--	--	--	--
trans-1,2-Dichloroethene	µg/L	3.6 U	3.6 U	--	--	--	--	--
trans-1,3-Dichloropropene	µg/L	14.6 U	14.6 U	--	--	--	--	--
Trichloroethene	µg/L	1.0 U	1.0 U	--	--	--	--	--
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	--	--	--	--	--

Table 2

Validated Analytical Results Summary
Groundwater and Surface Water Sampling Events
Rhinelander Landfill
Rhinelander, Wisconsin
April and October 2018

Location ID:		MW-4A	MW-5A	SW-10	SW-10	SW-20	SW-20	SW-28
Sample Name:		MW-4A DUP	MW-5A	SW-10	SW-10	SW-20	SW-20	SW-28
Sample Date:		10/23/2018 Duplicate	10/23/2018	04/24/2018	10/23/2018	04/24/2018	10/23/2018	10/23/2018
Parameters	**Unit**							
Vinyl chloride	µg/L	1.0 U	1.0 U	--	--	--	--	--
Metals								
Hardness, calculation	mg/L	116	828	54.1	55.5	44.0	88.3	79.4
Boron (dissolved)	µg/L	13.7 J	15.6 J	--	--	--	--	--
Copper	µg/L	--	--	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Iron	µg/L	--	--	10300	4080	2160	4570	4510
Iron (dissolved)	µg/L	118 U	118 U	--	--	--	--	--
Lead	µg/L	--	--	13.0 U	19.7 U	13.0 U	19.7 U	19.7 U
Manganese (dissolved)	µg/L	5.0 U	2910	--	--	--	--	--
Sodium	µg/L	--	--	5900	21400	15900	26800	20400
Zinc	µg/L	--	--	40.0 U	40.0 U	40.0 U	40.0 U	40.0 U
General Chemistry								
Fecal coliform bacteria	cfu/100mL	--	--	2.0 UJ	8.20 J	14.0 J	23.9 J	11.5 J
Alkalinity, total (as CaCO3)	mg/L	105	39.5	--	--	--	--	--
Ammonia	mg/L	--	--	0.25 J	0.50 U	0.93	1.3	3.3
Chemical oxygen demand (COD)	mg/L	--	--	44.8 U	54.0	47.2 U	54.6	77.3
Chloride	mg/L	25.4	797	36.6	44.1	32.6	66.0	51.7
Nitrite/Nitrate	mg/L	--	--	0.25 U	0.15 J	0.16 J	0.19 J	0.18 J
Total kjeldahl nitrogen (TKN)	mg/L	--	--	0.61 J	0.44 J	0.95	1.7	3.6
Turbidity	NTU	--	--	48.9	--	10.5	--	--

Note:

U - Not detected at the associated reporting limit
J - Estimated concentration
UJ - Not detected, associated reporting limit is estimated

Table 3

Analytical Methods
Groundwater and Surface Water Sampling Events
Rhinelander Landfill
Rhinelander, Wisconsin
April and October 2018

Parameter	Method	Matrix	Holding Time: Collection to Extraction (days)	Holding Time: Collection or Extraction to Analysis (days)
Volatile Organic Compounds (VOC)	SW-846 8260	Water	-	14
Select Metals	SW-846 6010	Water	-	180
Select Metals, (dissolved)	SW-846 6010	Water	-	180
Hardness	SM 2340B	Water	-	180
Fecal Coliforms	SM 9222D	Water	-	6 hours
Chloride	EPA 300.0	Water	-	28
Ammonia	EPA 350.1	Water	-	28
Total Kjeldahl Nitrogen (TKN)	EPA 351.2	Water	-	28
Chemical Oxygen Demand (COD)	EPA 410.4	Water	-	28
Nitrate/Nitrite	EPA 353.2	Water	-	28
Alkalinity	EPA 310.2	Water	-	14
Turbidity	EPA 180.1	Water	-	48 hours

Notes:

Method References:
SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
SM - "Standard Methods For the Examination of Water and Wastewater"
EPA - "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions

Table 4

Qualified Sample Results Due to Holding Time Exceedance
Groundwater and Surface Water Sampling Events
Rhinelander Landfill
Rhinelander, Wisconsin
April and October 2018

Parameter	Sample ID	Holding Time (hours)	Holding Time Criteria (hours)	Analyte	Qualified Sample Results	Units
Fecal coliform bacteria	SW-20 (4/25)	22.5	6	Fecal coliform bacteria	14.0 J	cfu/100mL
	SW-10 (4/25)	20	6	Fecal coliform bacteria	2.0 UJ	cfu/100mL
	SW-20 (10/24)	20	6	Fecal coliform bacteria	23.9 J	cfu/100mL
	SW-28 (10/24)	20	6	Fecal coliform bacteria	11.5 J	cfu/100mL
	SW-10 (10/24)	20	6	Fecal coliform bacteria	8.20 J	cfu/100mL

Notes:

J - Estimated concentration
UJ - Not detected; associated reporting limit is estimated

Appendix B
Groundwater Sampling Laboratory Reports and Data Validation

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

November 12, 2018

Grant Anderson
GHD Services; St. Paul
1801 Old Highway 8 Northwest
Suite 114
Saint Paul, MN 55112

RE: Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Dear Grant Anderson:
Enclosed are the analytical results for sample(s) received by the laboratory on October 24, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40178208001	**MW-2A**	Water	10/22/18 15:20	10/24/18 07:30
40178208002	**MW-2B**	Water	10/22/18 15:29	10/24/18 07:30
40178208003	**MW-21A**	Water	10/22/18 15:45	10/24/18 07:30
40178208004	**MW-3A**	Water	10/22/18 16:00	10/24/18 07:30
40178208005	**MW-28A**	Water	10/22/18 16:36	10/24/18 07:30
40178208006	**MW-4A**	Water	10/23/18 08:55	10/24/18 07:30
40178208007	**MW-4A DUP**	Water	10/23/18 08:55	10/24/18 07:30
40178208008	**FIELD BLANK**	Water	10/23/18 09:10	10/24/18 07:30
40178208009	**MW-5A**	Water	10/23/18 09:10	10/24/18 07:30
40178208010	**MW-20A**	Water	10/23/18 09:50	10/24/18 07:30
40178208011	**MW-20B**	Water	10/23/18 10:00	10/24/18 07:30
40178208012	**MW-20C**	Water	10/23/18 10:25	10/24/18 07:30
40178208013	**MW-16C**	Water	10/23/18 11:26	10/24/18 07:30
40178208014	**MW-16B**	Water	10/23/18 11:40	10/24/18 07:30
40178208015	**MW-16A**	Water	10/23/18 12:00	10/24/18 07:30
40178208016	**MW-26B**	Water	10/23/18 13:10	10/24/18 07:30
40178208017	**MW-26C**	Water	10/23/18 13:04	10/24/18 07:30
40178208018	**MW-27B**	Water	10/23/18 13:33	10/24/18 07:30
40178208019	**MW-25B**	Water	10/23/18 13:52	10/24/18 07:30
40178208020	**MW-18A**	Water	10/23/18 14:20	10/24/18 07:30
40178208021	**MW-18C**	Water	10/23/18 15:00	10/24/18 07:30
40178208022	**MW-18B**	Water	10/23/18 14:30	10/24/18 07:30
40178208023	**TRIP BLANK**	Water	10/23/18 00:00	10/24/18 07:30
40178208024	**MW-19B**	Water	10/23/18 00:00	10/24/18 07:30
40178208025	**MW-19C**	Water	10/23/18 00:00	10/24/18 07:30
40178208026	**MW-28B**	Water	10/22/18 00:00	10/24/18 07:30

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SAMPLE ANALYTE COUNT

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40178208001	**MW-2A**	EPA 6010	TXW	4
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
40178208002	**MW-2B**	EPA 6010	TXW	3
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208003	**MW-21A**	EPA 6010	TXW	4
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
40178208004	**MW-3A**	EPA 6010	TXW	3
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
40178208005	**MW-28A**	EPA 6010	TXW	4
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208006	**MW-4A**	EPA 6010	TXW	4
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208007	**MW-4A DUP**	EPA 6010	TXW	4

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208008	**FIELD BLANK**	EPA 6010	TXW	4
		EPA 8260	HNW	65
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208009	**MW-5A**	EPA 6010	TXW	4
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208010	**MW-20A**	EPA 6010	TXW	4
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208011	**MW-20B**	EPA 6010	TXW	3
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208012	**MW-20C**	EPA 6010	TXW	3
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208013	**MW-16C**	EPA 6010	TXW	3
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208014	**MW-16B**	EPA 6010	TXW	3
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1

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SAMPLE ANALYTE COUNT

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 310.2	DAW	1
40178208015	**MW-16A**	EPA 6010	TXW	3
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208016	**MW-26B**	EPA 6010	TXW	3
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208017	**MW-26C**	EPA 6010	TXW	3
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208018	**MW-27B**	EPA 6010	TXW	3
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208019	**MW-25B**	EPA 6010	TXW	4
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208020	**MW-18A**	EPA 6010	TXW	3
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208021	**MW-18C**	EPA 6010	TXW	4
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208022	**MW-18B**	EPA 6010	TXW	3

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SAMPLE ANALYTE COUNT

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 8260	HNW	65
			RMW	6
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40178208023	**TRIP BLANK**	EPA 8260	HNW	62
40178208024	**MW-19B**		RMW	6
40178208025	**MW-19C**		RMW	6
40178208026	**MW-28B**		RMW	6

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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-2A **Lab ID: 40178208001** Collected: 10/22/18 15:20 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**2090**	ug/L	40.0	9.7	1		11/08/18 20:58	7440-42-8	
Iron, Dissolved	**57800**	ug/L	118	35.4	1		11/08/18 20:58	7439-89-6	
Manganese, Dissolved	**625**	ug/L	5.0	1.1	1		11/08/18 20:58	7439-96-5	
Total Hardness by 2340B, Dissolved	**1040**	mg/L	2.0	0.15	1		11/08/18 20:58		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**28.5**	ug/L	1.0	0.25	1		10/25/18 12:51	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 12:51	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 12:51	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 12:51	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 12:51	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 12:51	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 12:51	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 12:51	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 12:51	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 12:51	56-23-5	
Chlorobenzene	**1.6J**	ug/L	2.4	0.71	1		10/25/18 12:51	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 12:51	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 12:51	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 12:51	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 12:51	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 12:51	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 12:51	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 12:51	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 12:51	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 12:51	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 12:51	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 12:51	541-73-1	
1,4-Dichlorobenzene	**1.6J**	ug/L	3.1	0.94	1		10/25/18 12:51	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 12:51	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 12:51	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 12:51	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 12:51	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 12:51	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 12:51	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 12:51	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 12:51	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 12:51	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 12:51	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 12:51	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 12:51	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 12:51	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 12:51	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 12:51	87-68-3	
Isopropylbenzene (Cumene)	**0.48J**	ug/L	5.0	0.39	1		10/25/18 12:51	98-82-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-2A **Lab ID: 40178208001** Collected: 10/22/18 15:20 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 12:51	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 12:51	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 12:51	1634-04-4	
Naphthalene	**4.2J**	ug/L	5.0	1.2	1		10/25/18 12:51	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 12:51	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 12:51	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 12:51	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 12:51	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 12:51	127-18-4	
Tetrahydrofuran	**216**	ug/L	20.0	2.3	1		10/25/18 12:51	109-99-9	
Toluene	**0.32J**	ug/L	5.0	0.17	1		10/25/18 12:51	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 12:51	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 12:51	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 12:51	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 12:51	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 12:51	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 12:51	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 12:51	96-18-4	
1,2,4-Trimethylbenzene	**3.0**	ug/L	2.8	0.84	1		10/25/18 12:51	95-63-6	
1,3,5-Trimethylbenzene	**2.0J**	ug/L	2.9	0.87	1		10/25/18 12:51	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 12:51	75-01-4	
m&p-Xylene	**6.1**	ug/L	2.0	0.47	1		10/25/18 12:51	179601-23-1	
o-Xylene	**0.58J**	ug/L	1.0	0.26	1		10/25/18 12:51	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		10/25/18 12:51	460-00-4	
Dibromofluoromethane (S)	109	%	70-130		1		10/25/18 12:51	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/25/18 12:51	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.53**	Std. Units			1		10/22/18 15:20		
Field Specific Conductance	**4460**	umhos/cm			1		10/22/18 15:20		
Oxygen, Dissolved	**0.92**	mg/L			1		10/22/18 15:20	7782-44-7	
REDOX	**-96**	mV			1		10/22/18 15:20		
Turbidity	**0**	NTU			1		10/22/18 15:20		
Temperature, Water (C)	**12.27**	deg C			1		10/22/18 15:20		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**71.4**	mg/L	10.0	2.5	5		10/30/18 17:35	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**2340**	mg/L	235	70.4	10		10/29/18 11:34		
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**265**	mg/L	10.0	5.0	20		11/06/18 13:52	7664-41-7	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-2A **Lab ID: 40178208001** Collected: 10/22/18 15:20 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**259**	mg/L	14.6	4.4	20	10/25/18 11:16	10/25/18 17:09	7727-37-9	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-2B **Lab ID: 40178208002** Collected: 10/22/18 15:29 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**15500**	ug/L	118	35.4	1		11/08/18 21:05	7439-89-6	
Manganese, Dissolved	**1250**	ug/L	5.0	1.1	1		11/08/18 21:05	7439-96-5	
Total Hardness by 2340B, Dissolved	**139**	mg/L	2.0	0.15	1		11/08/18 21:05		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.40J**	ug/L	1.0	0.25	1		10/25/18 10:00	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 10:00	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 10:00	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 10:00	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 10:00	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 10:00	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 10:00	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 10:00	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 10:00	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 10:00	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 10:00	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 10:00	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 10:00	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 10:00	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 10:00	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 10:00	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 10:00	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 10:00	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 10:00	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 10:00	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 10:00	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 10:00	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 10:00	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 10:00	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 10:00	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 10:00	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 10:00	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 10:00	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 10:00	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 10:00	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 10:00	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 10:00	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 10:00	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 10:00	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 10:00	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 10:00	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 10:00	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 10:00	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 10:00	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 10:00	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-2B **Lab ID: 40178208002** Collected: 10/22/18 15:29 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 10:00	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 10:00	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 10:00	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 10:00	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 10:00	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 10:00	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 10:00	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 10:00	127-18-4	
Tetrahydrofuran	**8.9J**	ug/L	20.0	2.3	1		10/25/18 10:00	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 10:00	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 10:00	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 10:00	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 10:00	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 10:00	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 10:00	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 10:00	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 10:00	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 10:00	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 10:00	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 10:00	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/25/18 10:00	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 10:00	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		10/25/18 10:00	460-00-4	
Dibromofluoromethane (S)	110	%	70-130		1		10/25/18 10:00	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		10/25/18 10:00	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7**	Std. Units			1		10/22/18 15:29		
Field Specific Conductance	**636**	umhos/cm			1		10/22/18 15:29		
Oxygen, Dissolved	**1.89**	mg/L			1		10/22/18 15:29	7782-44-7	
REDOX	**-102**	mV			1		10/22/18 15:29		
Turbidity	**0**	NTU			1		10/22/18 15:29		
Temperature, Water (C)	**10.31**	deg C			1		10/22/18 15:29		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**17.5**	mg/L	10.0	2.5	5		10/30/18 17:48	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**193**	mg/L	23.5	7.0	1		10/29/18 11:35		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-21A **Lab ID: 40178208003** Collected: 10/22/18 15:45 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**1110**	ug/L	40.0	9.7	1		11/08/18 21:07	7440-42-8	
Iron, Dissolved	**57300**	ug/L	118	35.4	1		11/08/18 21:07	7439-89-6	
Manganese, Dissolved	**1200**	ug/L	5.0	1.1	1		11/08/18 21:07	7439-96-5	
Total Hardness by 2340B, Dissolved	**738**	mg/L	2.0	0.15	1		11/08/18 21:07		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**4.7**	ug/L	1.0	0.25	1		10/25/18 13:13	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 13:13	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 13:13	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 13:13	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 13:13	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 13:13	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 13:13	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 13:13	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 13:13	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 13:13	56-23-5	
Chlorobenzene	**7.1**	ug/L	2.4	0.71	1		10/25/18 13:13	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 13:13	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 13:13	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 13:13	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 13:13	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 13:13	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 13:13	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 13:13	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 13:13	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 13:13	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 13:13	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 13:13	541-73-1	
1,4-Dichlorobenzene	**1.9J**	ug/L	3.1	0.94	1		10/25/18 13:13	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 13:13	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 13:13	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 13:13	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 13:13	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 13:13	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 13:13	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 13:13	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 13:13	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 13:13	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 13:13	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 13:13	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 13:13	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 13:13	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 13:13	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 13:13	87-68-3	
Isopropylbenzene (Cumene)	**0.68J**	ug/L	5.0	0.39	1		10/25/18 13:13	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-21A **Lab ID: 40178208003** Collected: 10/22/18 15:45 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 13:13	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 13:13	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 13:13	1634-04-4	
Naphthalene	**14.0**	ug/L	5.0	1.2	1		10/25/18 13:13	91-20-3	
n-Propylbenzene	**0.86J**	ug/L	5.0	0.81	1		10/25/18 13:13	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 13:13	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 13:13	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 13:13	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 13:13	127-18-4	
Tetrahydrofuran	**130**	ug/L	20.0	2.3	1		10/25/18 13:13	109-99-9	
Toluene	**0.71J**	ug/L	5.0	0.17	1		10/25/18 13:13	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 13:13	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 13:13	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 13:13	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 13:13	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 13:13	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 13:13	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 13:13	96-18-4	
1,2,4-Trimethylbenzene	**5.0**	ug/L	2.8	0.84	1		10/25/18 13:13	95-63-6	
1,3,5-Trimethylbenzene	**2.2J**	ug/L	2.9	0.87	1		10/25/18 13:13	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 13:13	75-01-4	
m&p-Xylene	**10.6**	ug/L	2.0	0.47	1		10/25/18 13:13	179601-23-1	
o-Xylene	**2.1**	ug/L	1.0	0.26	1		10/25/18 13:13	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/25/18 13:13	460-00-4	
Dibromofluoromethane (S)	109	%	70-130		1		10/25/18 13:13	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		10/25/18 13:13	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.31**	Std. Units			1		10/22/18 15:45		
Field Specific Conductance	**790**	umhos/cm			1		10/22/18 15:45		
Oxygen, Dissolved	**4.2**	mg/L			1		10/22/18 15:45	7782-44-7	
REDOX	**-81**	mV			1		10/22/18 15:45		
Turbidity	**0**	NTU			1		10/22/18 15:45		
Temperature, Water (C)	**10.51**	deg C			1		10/22/18 15:45		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**46.8**	mg/L	10.0	2.5	5		10/30/18 18:01	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**1830**	mg/L	235	70.4	10		10/29/18 11:36		
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**232**	mg/L	10.0	5.0	20		11/06/18 13:53	7664-41-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-21A **Lab ID: 40178208003** Collected: 10/22/18 15:45 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**230**	mg/L	14.6	4.4	20	10/25/18 11:16	10/25/18 17:10	7727-37-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-3A **Lab ID: 40178208004** Collected: 10/22/18 16:00 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**47800**	ug/L	118	35.4	1		11/08/18 21:10	7439-89-6	
Manganese, Dissolved	**3800**	ug/L	5.0	1.1	1		11/08/18 21:10	7439-96-5	
Total Hardness by 2340B, Dissolved	**309**	mg/L	2.0	0.15	1		11/08/18 21:10		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**2.4**	ug/L	1.0	0.25	1		10/25/18 13:34	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 13:34	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 13:34	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 13:34	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 13:34	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 13:34	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 13:34	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 13:34	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 13:34	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 13:34	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 13:34	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 13:34	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 13:34	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 13:34	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 13:34	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 13:34	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 13:34	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 13:34	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 13:34	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 13:34	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 13:34	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 13:34	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 13:34	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 13:34	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 13:34	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 13:34	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 13:34	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 13:34	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 13:34	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 13:34	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 13:34	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 13:34	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 13:34	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 13:34	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 13:34	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 13:34	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 13:34	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 13:34	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 13:34	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 13:34	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-3A **Lab ID: 40178208004** Collected: 10/22/18 16:00 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 13:34	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 13:34	1634-04-4	
Naphthalene	**1.2J**	ug/L	5.0	1.2	1		10/25/18 13:34	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 13:34	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 13:34	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 13:34	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 13:34	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 13:34	127-18-4	
Tetrahydrofuran	**90.1**	ug/L	20.0	2.3	1		10/25/18 13:34	109-99-9	
Toluene	**0.19J**	ug/L	5.0	0.17	1		10/25/18 13:34	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 13:34	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 13:34	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 13:34	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 13:34	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 13:34	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 13:34	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 13:34	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 13:34	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 13:34	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 13:34	75-01-4	
m&p-Xylene	**1.6J**	ug/L	2.0	0.47	1		10/25/18 13:34	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 13:34	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		10/25/18 13:34	460-00-4	
Dibromofluoromethane (S)	110	%	70-130		1		10/25/18 13:34	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		10/25/18 13:34	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.09**	Std. Units			1		10/22/18 16:00		
Field Specific Conductance	**1490**	umhos/cm			1		10/22/18 16:00		
Oxygen, Dissolved	**1.92**	mg/L			1		10/22/18 16:00	7782-44-7	
REDOX	**-40**	mV			1		10/22/18 16:00		
Turbidity	**0**	NTU			1		10/22/18 16:00		
Temperature, Water (C)	**9.01**	deg C			1		10/22/18 16:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**27.5**	mg/L	10.0	2.5	5		10/30/18 18:15	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**722**	mg/L	117	35.2	5		10/29/18 11:36		
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**67.2**	mg/L	2.5	1.2	5		11/06/18 13:50	7664-41-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-3A **Lab ID: 40178208004** Collected: 10/22/18 16:00 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**64.4**	mg/L	7.3	2.2	10	10/25/18 11:16	10/25/18 17:11	7727-37-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-28A **Lab ID: 40178208005** Collected: 10/22/18 16:36 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**242**	ug/L	40.0	9.7	1		11/08/18 21:12	7440-42-8	
Iron, Dissolved	**4940**	ug/L	118	35.4	1		11/08/18 21:12	7439-89-6	
Manganese, Dissolved	**604**	ug/L	5.0	1.1	1		11/08/18 21:12	7439-96-5	
Total Hardness by 2340B, Dissolved	**298**	mg/L	2.0	0.15	1		11/08/18 21:12		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.3**	ug/L	1.0	0.25	1		10/25/18 10:21	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 10:21	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 10:21	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 10:21	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 10:21	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 10:21	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 10:21	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 10:21	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 10:21	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 10:21	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 10:21	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 10:21	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 10:21	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 10:21	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 10:21	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 10:21	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 10:21	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 10:21	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 10:21	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 10:21	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 10:21	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 10:21	541-73-1	
1,4-Dichlorobenzene	**1.0J**	ug/L	3.1	0.94	1		10/25/18 10:21	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 10:21	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 10:21	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 10:21	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 10:21	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 10:21	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 10:21	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 10:21	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 10:21	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 10:21	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 10:21	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 10:21	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 10:21	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 10:21	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 10:21	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 10:21	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 10:21	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-28A **Lab ID: 40178208005** Collected: 10/22/18 16:36 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 10:21	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 10:21	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 10:21	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 10:21	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 10:21	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 10:21	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 10:21	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 10:21	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 10:21	127-18-4	
Tetrahydrofuran	**29.4**	ug/L	20.0	2.3	1		10/25/18 10:21	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 10:21	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 10:21	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 10:21	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 10:21	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 10:21	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 10:21	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 10:21	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 10:21	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 10:21	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 10:21	108-67-8	
Vinyl chloride	**1.0**	ug/L	1.0	0.17	1		10/25/18 10:21	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/25/18 10:21	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 10:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		10/25/18 10:21	460-00-4	
Dibromofluoromethane (S)	107	%	70-130		1		10/25/18 10:21	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		10/25/18 10:21	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.55**	Std. Units			1		10/22/18 16:36		
Field Specific Conductance	**494**	umhos/cm			1		10/22/18 16:36		
Oxygen, Dissolved	**0.16**	mg/L			1		10/22/18 16:36	7782-44-7	
REDOX	**-27**	mV			1		10/22/18 16:36		
Turbidity	**0**	NTU			1		10/22/18 16:36		
Temperature, Water (C)	**10.55**	deg C			1		10/22/18 16:36		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**20.3**	mg/L	10.0	2.5	5		10/30/18 18:28	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**323**	mg/L	23.5	7.0	1		10/29/18 11:37		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-4A **Lab ID: 40178208006** Collected: 10/23/18 08:55 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**14.2J**	ug/L	40.0	9.7	1		11/08/18 21:19	7440-42-8	
Iron, Dissolved	**<35.4**	ug/L	118	35.4	1		11/08/18 21:19	7439-89-6	
Manganese, Dissolved	**<1.1**	ug/L	5.0	1.1	1		11/08/18 21:19	7439-96-5	
Total Hardness by 2340B, Dissolved	**116**	mg/L	2.0	0.15	1		11/08/18 21:19		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		10/25/18 10:42	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 10:42	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 10:42	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 10:42	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 10:42	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 10:42	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 10:42	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 10:42	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 10:42	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 10:42	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 10:42	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 10:42	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 10:42	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 10:42	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 10:42	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 10:42	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 10:42	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 10:42	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 10:42	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 10:42	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 10:42	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 10:42	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 10:42	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 10:42	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 10:42	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 10:42	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 10:42	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 10:42	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 10:42	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 10:42	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 10:42	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 10:42	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 10:42	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 10:42	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 10:42	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 10:42	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 10:42	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 10:42	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 10:42	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-4A **Lab ID: 40178208006** Collected: 10/23/18 08:55 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 10:42	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 10:42	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 10:42	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 10:42	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 10:42	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 10:42	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 10:42	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 10:42	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 10:42	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		10/25/18 10:42	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 10:42	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 10:42	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 10:42	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 10:42	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 10:42	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 10:42	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 10:42	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 10:42	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 10:42	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 10:42	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 10:42	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/25/18 10:42	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 10:42	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		10/25/18 10:42	460-00-4	
Dibromofluoromethane (S)	108	%	70-130		1		10/25/18 10:42	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		10/25/18 10:42	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.21**	Std. Units			1		10/23/18 08:55		
Field Specific Conductance	**301**	umhos/cm			1		10/23/18 08:55		
Oxygen, Dissolved	**7.18**	mg/L			1		10/23/18 08:55	7782-44-7	
REDOX	**124**	mV			1		10/23/18 08:55		
Turbidity	**0**	NTU			1		10/23/18 08:55		
Temperature, Water (C)	**8.3**	deg C			1		10/23/18 08:55		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**25.3**	mg/L	2.0	0.50	1		10/30/18 18:42	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**101**	mg/L	23.5	7.0	1		10/29/18 11:38		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-4A DUP **Lab ID: 40178208007** Collected: 10/23/18 08:55 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**13.7J**	ug/L	40.0	9.7	1		11/08/18 21:22	7440-42-8	
Iron, Dissolved	**<35.4**	ug/L	118	35.4	1		11/08/18 21:22	7439-89-6	
Manganese, Dissolved	**<1.1**	ug/L	5.0	1.1	1		11/08/18 21:22	7439-96-5	
Total Hardness by 2340B, Dissolved	**116**	mg/L	2.0	0.15	1		11/08/18 21:22		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		10/25/18 11:04	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 11:04	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 11:04	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 11:04	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 11:04	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 11:04	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 11:04	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 11:04	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 11:04	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 11:04	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 11:04	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 11:04	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 11:04	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 11:04	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 11:04	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 11:04	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 11:04	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 11:04	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 11:04	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 11:04	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 11:04	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 11:04	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 11:04	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 11:04	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 11:04	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 11:04	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 11:04	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 11:04	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 11:04	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 11:04	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 11:04	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 11:04	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 11:04	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 11:04	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 11:04	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 11:04	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 11:04	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 11:04	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 11:04	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-4A DUP **Lab ID: 40178208007** Collected: 10/23/18 08:55 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 11:04	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 11:04	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 11:04	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 11:04	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 11:04	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 11:04	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 11:04	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 11:04	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 11:04	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		10/25/18 11:04	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 11:04	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 11:04	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 11:04	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 11:04	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 11:04	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 11:04	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 11:04	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 11:04	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 11:04	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 11:04	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 11:04	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/25/18 11:04	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 11:04	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		10/25/18 11:04	460-00-4	
Dibromofluoromethane (S)	108	%	70-130		1		10/25/18 11:04	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/25/18 11:04	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.21**	Std. Units			1		10/23/18 08:55		
Field Specific Conductance	**301**	umhos/cm			1		10/23/18 08:55		
Oxygen, Dissolved	**7.18**	mg/L			1		10/23/18 08:55	7782-44-7	
REDOX	**124**	mV			1		10/23/18 08:55		
Turbidity	**0**	NTU			1		10/23/18 08:55		
Temperature, Water (C)	**7.21**	deg C			1		10/23/18 08:55		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**25.4**	mg/L	2.0	0.50	1		10/30/18 19:35	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**105**	mg/L	23.5	7.0	1		10/29/18 11:38		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: FIELD BLANK **Lab ID: 40178208008** Collected: 10/23/18 09:10 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**<9.7**	ug/L	40.0	9.7	1		11/08/18 21:24	7440-42-8	
Iron, Dissolved	**<35.4**	ug/L	118	35.4	1		11/08/18 21:24	7439-89-6	
Manganese, Dissolved	**<1.1**	ug/L	5.0	1.1	1		11/08/18 21:24	7439-96-5	
Total Hardness by 2340B, Dissolved	**0.22J**	mg/L	2.0	0.15	1		11/08/18 21:24		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		10/25/18 11:25	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 11:25	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 11:25	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 11:25	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 11:25	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 11:25	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 11:25	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 11:25	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 11:25	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 11:25	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 11:25	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 11:25	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 11:25	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 11:25	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 11:25	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 11:25	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 11:25	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 11:25	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 11:25	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 11:25	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 11:25	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 11:25	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 11:25	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 11:25	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 11:25	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 11:25	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 11:25	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 11:25	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 11:25	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 11:25	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 11:25	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 11:25	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 11:25	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 11:25	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 11:25	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 11:25	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 11:25	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 11:25	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 11:25	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: FIELD BLANK **Lab ID: 40178208008** Collected: 10/23/18 09:10 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 11:25	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 11:25	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 11:25	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 11:25	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 11:25	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 11:25	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 11:25	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 11:25	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 11:25	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		10/25/18 11:25	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 11:25	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 11:25	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 11:25	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 11:25	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 11:25	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 11:25	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 11:25	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 11:25	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 11:25	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 11:25	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 11:25	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/25/18 11:25	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 11:25	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		10/25/18 11:25	460-00-4	
Dibromofluoromethane (S)	109	%	70-130		1		10/25/18 11:25	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		10/25/18 11:25	2037-26-5	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**<0.50**	mg/L	2.0	0.50	1		10/30/18 19:48	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**<7.0**	mg/L	23.5	7.0	1		10/29/18 11:43		1q

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-5A **Lab ID: 40178208009** Collected: 10/23/18 09:10 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**15.6J**	ug/L	40.0	9.7	1		11/08/18 21:27	7440-42-8	
Iron, Dissolved	**<35.4**	ug/L	118	35.4	1		11/08/18 21:27	7439-89-6	
Manganese, Dissolved	**2910**	ug/L	5.0	1.1	1		11/08/18 21:27	7439-96-5	
Total Hardness by 2340B, Dissolved	**828**	mg/L	2.0	0.15	1		11/08/18 21:27		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		10/25/18 13:55	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 13:55	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 13:55	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 13:55	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 13:55	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 13:55	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 13:55	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 13:55	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 13:55	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 13:55	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 13:55	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 13:55	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 13:55	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 13:55	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 13:55	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 13:55	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 13:55	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 13:55	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 13:55	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 13:55	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 13:55	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 13:55	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 13:55	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 13:55	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 13:55	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 13:55	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 13:55	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 13:55	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 13:55	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 13:55	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 13:55	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 13:55	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 13:55	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 13:55	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 13:55	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 13:55	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 13:55	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 13:55	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 13:55	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-5A **Lab ID: 40178208009** Collected: 10/23/18 09:10 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 13:55	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 13:55	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 13:55	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 13:55	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 13:55	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 13:55	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 13:55	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 13:55	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 13:55	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		10/25/18 13:55	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 13:55	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 13:55	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 13:55	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 13:55	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 13:55	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 13:55	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 13:55	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 13:55	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 13:55	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 13:55	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 13:55	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/25/18 13:55	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 13:55	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		10/25/18 13:55	460-00-4	
Dibromofluoromethane (S)	109	%	70-130		1		10/25/18 13:55	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/25/18 13:55	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.24**	Std. Units			1		10/23/18 09:10		
Field Specific Conductance	**2960**	umhos/cm			1		10/23/18 09:10		
Oxygen, Dissolved	**6.04**	mg/L			1		10/23/18 09:10	7782-44-7	
REDOX	**132**	mV			1		10/23/18 09:10		
Turbidity	**0**	NTU			1		10/23/18 09:10		
Temperature, Water (C)	**9.34**	deg C			1		10/23/18 09:10		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**797**	mg/L	100	25.0	50		10/31/18 22:53	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**39.5**	mg/L	23.5	7.0	1		10/29/18 11:44		1q

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-20A **Lab ID: 40178208010** Collected: 10/23/18 09:50 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**611**	ug/L	40.0	9.7	1		11/08/18 21:29	7440-42-8	
Iron, Dissolved	**80700**	ug/L	118	35.4	1		11/08/18 21:29	7439-89-6	
Manganese, Dissolved	**712**	ug/L	5.0	1.1	1		11/08/18 21:29	7439-96-5	
Total Hardness by 2340B, Dissolved	**180**	mg/L	2.0	0.15	1		11/08/18 21:29		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.9**	ug/L	1.0	0.25	1		10/25/18 14:17	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 14:17	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 14:17	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 14:17	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 14:17	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 14:17	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 14:17	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 14:17	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 14:17	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 14:17	56-23-5	
Chlorobenzene	**6.2**	ug/L	2.4	0.71	1		10/25/18 14:17	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 14:17	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 14:17	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 14:17	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 14:17	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 14:17	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 14:17	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 14:17	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 14:17	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 14:17	74-95-3	
1,2-Dichlorobenzene	**0.86J**	ug/L	2.4	0.71	1		10/25/18 14:17	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 14:17	541-73-1	
1,4-Dichlorobenzene	**1.9J**	ug/L	3.1	0.94	1		10/25/18 14:17	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 14:17	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 14:17	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 14:17	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 14:17	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 14:17	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 14:17	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 14:17	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 14:17	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 14:17	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 14:17	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 14:17	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 14:17	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 14:17	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 14:17	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 14:17	87-68-3	
Isopropylbenzene (Cumene)	**4.0J**	ug/L	5.0	0.39	1		10/25/18 14:17	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-20A **Lab ID: 40178208010** Collected: 10/23/18 09:50 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 14:17	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 14:17	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 14:17	1634-04-4	
Naphthalene	**18.0**	ug/L	5.0	1.2	1		10/25/18 14:17	91-20-3	
n-Propylbenzene	**3.0J**	ug/L	5.0	0.81	1		10/25/18 14:17	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 14:17	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 14:17	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 14:17	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 14:17	127-18-4	
Tetrahydrofuran	**8.7J**	ug/L	20.0	2.3	1		10/25/18 14:17	109-99-9	
Toluene	**0.38J**	ug/L	5.0	0.17	1		10/25/18 14:17	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 14:17	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 14:17	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 14:17	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 14:17	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 14:17	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 14:17	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 14:17	96-18-4	
1,2,4-Trimethylbenzene	**23.5**	ug/L	2.8	0.84	1		10/25/18 14:17	95-63-6	
1,3,5-Trimethylbenzene	**4.8**	ug/L	2.9	0.87	1		10/25/18 14:17	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 14:17	75-01-4	
m&p-Xylene	**56.4**	ug/L	2.0	0.47	1		10/25/18 14:17	179601-23-1	
o-Xylene	**1.6**	ug/L	1.0	0.26	1		10/25/18 14:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/25/18 14:17	460-00-4	
Dibromofluoromethane (S)	108	%	70-130		1		10/25/18 14:17	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/25/18 14:17	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.97**	Std. Units			1		10/23/18 09:50		
Field Specific Conductance	**894**	umhos/cm			1		10/23/18 09:50		
Oxygen, Dissolved	**0.05**	mg/L			1		10/23/18 09:50	7782-44-7	
REDOX	**-44**	mV			1		10/23/18 09:50		
Turbidity	**0**	NTU			1		10/23/18 09:50		
Temperature, Water (C)	**9.73**	deg C			1		10/23/18 09:50		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**7.8J**	mg/L	10.0	2.5	5		10/30/18 20:15	16887-00-6	D3
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**277**	mg/L	47.0	14.1	2		10/29/18 11:44		1q

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-20B **Lab ID: 40178208011** Collected: 10/23/18 10:00 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**17700**	ug/L	118	35.4	1		11/08/18 21:31	7439-89-6	
Manganese, Dissolved	**1100**	ug/L	5.0	1.1	1		11/08/18 21:31	7439-96-5	
Total Hardness by 2340B, Dissolved	**160**	mg/L	2.0	0.15	1		11/08/18 21:31		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.74J**	ug/L	1.0	0.25	1		10/25/18 14:38	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 14:38	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 14:38	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 14:38	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 14:38	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 14:38	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 14:38	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 14:38	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 14:38	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 14:38	56-23-5	
Chlorobenzene	**0.77J**	ug/L	2.4	0.71	1		10/25/18 14:38	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 14:38	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 14:38	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 14:38	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 14:38	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 14:38	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 14:38	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 14:38	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 14:38	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 14:38	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 14:38	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 14:38	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 14:38	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 14:38	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 14:38	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 14:38	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 14:38	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 14:38	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 14:38	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 14:38	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 14:38	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 14:38	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 14:38	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 14:38	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 14:38	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 14:38	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 14:38	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 14:38	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 14:38	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 14:38	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-20B **Lab ID: 40178208011** Collected: 10/23/18 10:00 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 14:38	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 14:38	1634-04-4	
Naphthalene	**12.3**	ug/L	5.0	1.2	1		10/25/18 14:38	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 14:38	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 14:38	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 14:38	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 14:38	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 14:38	127-18-4	
Tetrahydrofuran	**11.0J**	ug/L	20.0	2.3	1		10/25/18 14:38	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 14:38	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 14:38	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 14:38	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 14:38	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 14:38	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 14:38	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 14:38	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 14:38	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 14:38	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 14:38	108-67-8	
Vinyl chloride	**0.43J**	ug/L	1.0	0.17	1		10/25/18 14:38	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/25/18 14:38	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 14:38	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		10/25/18 14:38	460-00-4	
Dibromofluoromethane (S)	111	%	70-130		1		10/25/18 14:38	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		10/25/18 14:38	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.92**	Std. Units			1		10/23/18 10:00		
Field Specific Conductance	**547**	umhos/cm			1		10/23/18 10:00		
Oxygen, Dissolved	**0**	mg/L			1		10/23/18 10:00	7782-44-7	
REDOX	**-93**	mV			1		10/23/18 10:00		
Turbidity	**0**	NTU			1		10/23/18 10:00		
Temperature, Water (C)	**7.68**	deg C			1		10/23/18 10:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**47.7**	mg/L	10.0	2.5	5		10/30/18 20:28	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**158**	mg/L	47.0	14.1	2		10/29/18 11:45		1q

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-20C **Lab ID: 40178208012** Collected: 10/23/18 10:25 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**22000**	ug/L	118	35.4	1		11/08/18 21:34	7439-89-6	
Manganese, Dissolved	**1460**	ug/L	5.0	1.1	1		11/08/18 21:34	7439-96-5	
Total Hardness by 2340B, Dissolved	**186**	mg/L	2.0	0.15	1		11/08/18 21:34		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.0**	ug/L	1.0	0.25	1		10/25/18 15:00	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 15:00	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 15:00	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 15:00	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 15:00	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 15:00	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 15:00	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 15:00	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 15:00	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 15:00	56-23-5	
Chlorobenzene	**0.81J**	ug/L	2.4	0.71	1		10/25/18 15:00	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 15:00	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 15:00	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 15:00	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 15:00	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 15:00	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 15:00	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 15:00	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 15:00	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 15:00	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 15:00	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 15:00	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 15:00	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 15:00	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 15:00	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 15:00	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 15:00	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 15:00	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 15:00	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 15:00	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 15:00	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 15:00	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 15:00	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 15:00	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 15:00	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 15:00	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 15:00	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 15:00	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 15:00	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 15:00	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-20C **Lab ID: 40178208012** Collected: 10/23/18 10:25 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 15:00	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 15:00	1634-04-4	
Naphthalene	**7.7**	ug/L	5.0	1.2	1		10/25/18 15:00	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 15:00	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 15:00	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 15:00	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 15:00	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 15:00	127-18-4	
Tetrahydrofuran	**10.6J**	ug/L	20.0	2.3	1		10/25/18 15:00	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 15:00	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 15:00	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 15:00	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 15:00	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 15:00	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 15:00	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 15:00	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 15:00	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 15:00	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 15:00	108-67-8	
Vinyl chloride	**0.84J**	ug/L	1.0	0.17	1		10/25/18 15:00	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/25/18 15:00	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 15:00	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/25/18 15:00	460-00-4	
Dibromofluoromethane (S)	107	%	70-130		1		10/25/18 15:00	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		10/25/18 15:00	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.88**	Std. Units			1		10/23/18 10:25		
Field Specific Conductance	**630**	umhos/cm			1		10/23/18 10:25		
Oxygen, Dissolved	**0**	mg/L			1		10/23/18 10:25	7782-44-7	
REDOX	**-80**	mV			1		10/23/18 10:25		
Turbidity	**0**	NTU			1		10/23/18 10:25		
Temperature, Water (C)	**7.51**	deg C			1		10/23/18 10:25		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**47.2**	mg/L	10.0	2.5	5		10/30/18 20:42	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**187**	mg/L	23.5	7.0	1		10/29/18 11:45		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-16C **Lab ID: 40178208013** Collected: 10/23/18 11:26 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**28000**	ug/L	118	35.4	1		11/08/18 21:36	7439-89-6	
Manganese, Dissolved	**2280**	ug/L	5.0	1.1	1		11/08/18 21:36	7439-96-5	
Total Hardness by 2340B, Dissolved	**241**	mg/L	2.0	0.15	1		11/08/18 21:36		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.5**	ug/L	1.0	0.25	1		10/25/18 15:21	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 15:21	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 15:21	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 15:21	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 15:21	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 15:21	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 15:21	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 15:21	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 15:21	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 15:21	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 15:21	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 15:21	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 15:21	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 15:21	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 15:21	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 15:21	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 15:21	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 15:21	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 15:21	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 15:21	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 15:21	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 15:21	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 15:21	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 15:21	75-71-8	
1,1-Dichloroethane	**0.30J**	ug/L	1.0	0.27	1		10/25/18 15:21	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 15:21	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 15:21	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 15:21	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 15:21	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 15:21	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 15:21	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 15:21	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 15:21	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 15:21	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 15:21	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 15:21	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 15:21	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 15:21	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 15:21	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 15:21	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-16C **Lab ID: 40178208013** Collected: 10/23/18 11:26 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 15:21	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 15:21	1634-04-4	
Naphthalene	**4.5J**	ug/L	5.0	1.2	1		10/25/18 15:21	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 15:21	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 15:21	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 15:21	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 15:21	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 15:21	127-18-4	
Tetrahydrofuran	**16.6J**	ug/L	20.0	2.3	1		10/25/18 15:21	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 15:21	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 15:21	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 15:21	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 15:21	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 15:21	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 15:21	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 15:21	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 15:21	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 15:21	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 15:21	108-67-8	
Vinyl chloride	**0.35J**	ug/L	1.0	0.17	1		10/25/18 15:21	75-01-4	
m&p-Xylene	**1.6J**	ug/L	2.0	0.47	1		10/25/18 15:21	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 15:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		10/25/18 15:21	460-00-4	
Dibromofluoromethane (S)	108	%	70-130		1		10/25/18 15:21	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/25/18 15:21	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.01**	Std. Units			1		10/23/18 11:26		
Field Specific Conductance	**740**	umhos/cm			1		10/23/18 11:26		
Oxygen, Dissolved	**3.38**	mg/L			1		10/23/18 11:26	7782-44-7	
REDOX	**-85**	mV			1		10/23/18 11:26		
Turbidity	**0**	NTU			1		10/23/18 11:26		
Temperature, Water (C)	**7.5**	deg C			1		10/23/18 11:26		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**43.7**	mg/L	10.0	2.5	5		10/30/18 20:55	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**266**	mg/L	23.5	7.0	1		10/29/18 11:46		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-16B **Lab ID: 40178208014** Collected: 10/23/18 11:40 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**38700**	ug/L	118	35.4	1		11/08/18 21:39	7439-89-6	
Manganese, Dissolved	**4130**	ug/L	5.0	1.1	1		11/08/18 21:39	7439-96-5	
Total Hardness by 2340B, Dissolved	**240**	mg/L	2.0	0.15	1		11/08/18 21:39		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.3**	ug/L	1.0	0.25	1		10/25/18 11:47	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 11:47	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 11:47	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 11:47	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 11:47	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 11:47	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 11:47	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 11:47	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 11:47	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 11:47	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 11:47	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 11:47	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 11:47	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 11:47	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 11:47	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 11:47	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 11:47	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 11:47	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 11:47	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 11:47	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 11:47	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 11:47	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 11:47	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 11:47	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 11:47	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 11:47	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 11:47	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 11:47	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 11:47	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 11:47	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 11:47	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 11:47	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 11:47	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 11:47	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 11:47	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 11:47	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 11:47	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 11:47	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 11:47	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 11:47	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-16B **Lab ID: 40178208014** Collected: 10/23/18 11:40 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 11:47	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 11:47	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 11:47	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 11:47	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 11:47	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 11:47	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 11:47	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 11:47	127-18-4	
Tetrahydrofuran	**8.3J**	ug/L	20.0	2.3	1		10/25/18 11:47	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 11:47	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 11:47	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 11:47	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 11:47	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 11:47	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 11:47	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 11:47	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 11:47	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 11:47	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 11:47	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 11:47	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/25/18 11:47	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 11:47	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		10/25/18 11:47	460-00-4	
Dibromofluoromethane (S)	109	%	70-130		1		10/25/18 11:47	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/25/18 11:47	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.06**	Std. Units			1		10/23/18 11:40		
Field Specific Conductance	**758**	umhos/cm			1		10/23/18 11:40		
Oxygen, Dissolved	**0**	mg/L			1		10/23/18 11:40	7782-44-7	
REDOX	**-124**	mV			1		10/23/18 11:40		
Turbidity	**0**	NTU			1		10/23/18 11:40		
Temperature, Water (C)	**7.43**	deg C			1		10/23/18 11:40		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**39.2**	mg/L	10.0	2.5	5		10/30/18 21:09	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**261**	mg/L	23.5	7.0	1		10/29/18 11:46		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-16A **Lab ID: 40178208015** Collected: 10/23/18 12:00 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**1480**	ug/L	118	35.4	1		11/08/18 21:41	7439-89-6	
Manganese, Dissolved	**2470**	ug/L	5.0	1.1	1		11/08/18 21:41	7439-96-5	
Total Hardness by 2340B, Dissolved	**126**	mg/L	2.0	0.15	1		11/08/18 21:41		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.43J**	ug/L	1.0	0.25	1		10/25/18 12:08	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 12:08	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 12:08	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 12:08	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 12:08	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 12:08	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 12:08	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 12:08	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 12:08	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 12:08	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 12:08	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 12:08	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 12:08	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 12:08	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 12:08	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 12:08	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 12:08	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 12:08	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 12:08	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 12:08	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 12:08	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 12:08	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 12:08	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 12:08	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 12:08	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 12:08	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 12:08	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 12:08	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 12:08	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 12:08	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 12:08	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 12:08	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 12:08	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 12:08	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 12:08	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 12:08	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 12:08	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 12:08	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 12:08	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 12:08	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-16A **Lab ID: 40178208015** Collected: 10/23/18 12:00 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 12:08	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 12:08	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 12:08	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 12:08	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 12:08	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 12:08	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 12:08	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 12:08	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		10/25/18 12:08	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 12:08	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 12:08	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 12:08	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 12:08	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 12:08	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 12:08	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 12:08	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 12:08	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 12:08	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 12:08	108-67-8	
Vinyl chloride	**0.27J**	ug/L	1.0	0.17	1		10/25/18 12:08	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/25/18 12:08	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 12:08	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		10/25/18 12:08	460-00-4	
Dibromofluoromethane (S)	106	%	70-130		1		10/25/18 12:08	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		10/25/18 12:08	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.15**	Std. Units			1		10/23/18 12:00		
Field Specific Conductance	**198**	umhos/cm			1		10/23/18 12:00		
Oxygen, Dissolved	**1.8**	mg/L			1		10/23/18 12:00	7782-44-7	
REDOX	**-3**	mV			1		10/23/18 12:00		
Turbidity	**0**	NTU			1		10/23/18 12:00		
Temperature, Water (C)	**8.61**	deg C			1		10/23/18 12:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**14.8**	mg/L	10.0	2.5	5		10/30/18 21:22	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**139**	mg/L	23.5	7.0	1		10/29/18 11:47		1q

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-26B **Lab ID: 40178208016** Collected: 10/23/18 13:10 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**10700**	ug/L	118	35.4	1		11/08/18 21:48	7439-89-6	
Manganese, Dissolved	**984**	ug/L	5.0	1.1	1		11/08/18 21:48	7439-96-5	
Total Hardness by 2340B, Dissolved	**21.4**	mg/L	2.0	0.15	1		11/08/18 21:48		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		10/25/18 15:43	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 15:43	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 15:43	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 15:43	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 15:43	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 15:43	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 15:43	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 15:43	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 15:43	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 15:43	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 15:43	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 15:43	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 15:43	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 15:43	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 15:43	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 15:43	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 15:43	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 15:43	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 15:43	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 15:43	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 15:43	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 15:43	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 15:43	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 15:43	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 15:43	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 15:43	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 15:43	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 15:43	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 15:43	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 15:43	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 15:43	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 15:43	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 15:43	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 15:43	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 15:43	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 15:43	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 15:43	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 15:43	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 15:43	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 15:43	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-26B **Lab ID: 40178208016** Collected: 10/23/18 13:10 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 15:43	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 15:43	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 15:43	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 15:43	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 15:43	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 15:43	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 15:43	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 15:43	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		10/25/18 15:43	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 15:43	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 15:43	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 15:43	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 15:43	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 15:43	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 15:43	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 15:43	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 15:43	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 15:43	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 15:43	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 15:43	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/25/18 15:43	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 15:43	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		10/25/18 15:43	460-00-4	
Dibromofluoromethane (S)	108	%	70-130		1		10/25/18 15:43	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/25/18 15:43	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.42**	Std. Units			1		10/23/18 13:10		
Field Specific Conductance	**427**	umhos/cm			1		10/23/18 13:10		
Oxygen, Dissolved	**3.82**	mg/L			1		10/23/18 13:10	7782-44-7	
REDOX	**15**	mV			1		10/23/18 13:10		
Turbidity	**0**	NTU			1		10/23/18 13:10		
Temperature, Water (C)	**10.29**	deg C			1		10/23/18 13:10		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**88.0**	mg/L	10.0	2.5	5		10/30/18 21:35	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**40.7**	mg/L	23.5	7.0	1		10/29/18 11:50		1q

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-26C **Lab ID: 40178208017** Collected: 10/23/18 13:04 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**930**	ug/L	118	35.4	1		11/08/18 21:51	7439-89-6	
Manganese, Dissolved	**2600**	ug/L	5.0	1.1	1		11/08/18 21:51	7439-96-5	
Total Hardness by 2340B, Dissolved	**235**	mg/L	2.0	0.15	1		11/08/18 21:51		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.95J**	ug/L	1.0	0.25	1		10/25/18 16:04	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 16:04	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 16:04	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 16:04	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 16:04	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 16:04	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 16:04	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 16:04	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 16:04	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 16:04	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 16:04	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 16:04	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 16:04	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 16:04	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 16:04	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 16:04	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 16:04	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 16:04	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 16:04	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 16:04	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 16:04	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 16:04	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 16:04	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 16:04	75-71-8	
1,1-Dichloroethane	**0.73J**	ug/L	1.0	0.27	1		10/25/18 16:04	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 16:04	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 16:04	75-35-4	
cis-1,2-Dichloroethene	**0.61J**	ug/L	1.0	0.27	1		10/25/18 16:04	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 16:04	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 16:04	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 16:04	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 16:04	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 16:04	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 16:04	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 16:04	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 16:04	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 16:04	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 16:04	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 16:04	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 16:04	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-26C **Lab ID: 40178208017** Collected: 10/23/18 13:04 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 16:04	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 16:04	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 16:04	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 16:04	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 16:04	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 16:04	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 16:04	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 16:04	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		10/25/18 16:04	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 16:04	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 16:04	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 16:04	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 16:04	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 16:04	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 16:04	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 16:04	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 16:04	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 16:04	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 16:04	108-67-8	
Vinyl chloride	**5.1**	ug/L	1.0	0.17	1		10/25/18 16:04	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/25/18 16:04	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 16:04	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		10/25/18 16:04	460-00-4	
Dibromofluoromethane (S)	109	%	70-130		1		10/25/18 16:04	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		10/25/18 16:04	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.11**	Std. Units			1		10/23/18 13:04		
Field Specific Conductance	**516**	umhos/cm			1		10/23/18 13:04		
Oxygen, Dissolved	**2.74**	mg/L			1		10/23/18 13:04	7782-44-7	
REDOX	**-41**	mV			1		10/23/18 13:04		
Turbidity	**0**	NTU			1		10/23/18 13:04		
Temperature, Water (C)	**7.58**	deg C			1		10/23/18 13:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**22.8**	mg/L	2.0	0.50	1		10/30/18 22:29	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**232**	mg/L	47.0	14.1	2		10/29/18 11:50		1q

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-27B **Lab ID: 40178208018** Collected: 10/23/18 13:33 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**41.2J**	ug/L	118	35.4	1		11/08/18 21:53	7439-89-6	
Manganese, Dissolved	**175**	ug/L	5.0	1.1	1		11/08/18 21:53	7439-96-5	
Total Hardness by 2340B, Dissolved	**89.6**	mg/L	2.0	0.15	1		11/08/18 21:53		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		10/25/18 16:26	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 16:26	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 16:26	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 16:26	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 16:26	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 16:26	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 16:26	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 16:26	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 16:26	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 16:26	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 16:26	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 16:26	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 16:26	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 16:26	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 16:26	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 16:26	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 16:26	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 16:26	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 16:26	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 16:26	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 16:26	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 16:26	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 16:26	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 16:26	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 16:26	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 16:26	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 16:26	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 16:26	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 16:26	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 16:26	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 16:26	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 16:26	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 16:26	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 16:26	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 16:26	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 16:26	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 16:26	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 16:26	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 16:26	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 16:26	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-27B **Lab ID: 40178208018** Collected: 10/23/18 13:33 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 16:26	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 16:26	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 16:26	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 16:26	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 16:26	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 16:26	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 16:26	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 16:26	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		10/25/18 16:26	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 16:26	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 16:26	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 16:26	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 16:26	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 16:26	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 16:26	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 16:26	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 16:26	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 16:26	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 16:26	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 16:26	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/25/18 16:26	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 16:26	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		10/25/18 16:26	460-00-4	
Dibromofluoromethane (S)	108	%	70-130		1		10/25/18 16:26	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/25/18 16:26	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.59**	Std. Units			1		10/23/18 13:33		
Field Specific Conductance	**218**	umhos/cm			1		10/23/18 13:33		
Oxygen, Dissolved	**0**	mg/L			1		10/23/18 13:33	7782-44-7	
REDOX	**-69**	mV			1		10/23/18 13:33		
Turbidity	**0**	NTU			1		10/23/18 13:33		
Temperature, Water (C)	**8**	deg C			1		10/23/18 13:33		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**5.0**	mg/L	2.0	0.50	1		10/30/18 22:42	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**79.7**	mg/L	23.5	7.0	1		10/29/18 11:52		1q

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-25B **Lab ID: 40178208019** Collected: 10/23/18 13:52 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**<9.7**	ug/L	40.0	9.7	1		11/08/18 21:55	7440-42-8	
Iron, Dissolved	**<35.4**	ug/L	118	35.4	1		11/08/18 21:55	7439-89-6	
Manganese, Dissolved	**190**	ug/L	5.0	1.1	1		11/08/18 21:55	7439-96-5	
Total Hardness by 2340B, Dissolved	**166**	mg/L	2.0	0.15	1		11/08/18 21:55		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		10/25/18 16:47	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 16:47	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 16:47	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 16:47	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 16:47	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 16:47	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 16:47	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 16:47	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 16:47	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 16:47	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 16:47	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 16:47	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 16:47	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 16:47	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 16:47	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 16:47	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 16:47	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 16:47	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 16:47	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 16:47	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 16:47	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 16:47	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 16:47	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 16:47	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 16:47	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 16:47	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 16:47	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 16:47	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 16:47	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 16:47	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 16:47	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 16:47	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 16:47	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 16:47	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 16:47	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 16:47	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 16:47	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 16:47	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 16:47	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-25B **Lab ID: 40178208019** Collected: 10/23/18 13:52 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 16:47	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 16:47	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 16:47	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 16:47	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 16:47	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 16:47	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 16:47	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 16:47	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 16:47	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		10/25/18 16:47	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 16:47	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 16:47	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 16:47	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 16:47	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 16:47	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 16:47	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 16:47	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 16:47	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 16:47	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 16:47	108-67-8	
Vinyl chloride	**1.6**	ug/L	1.0	0.17	1		10/25/18 16:47	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/25/18 16:47	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 16:47	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/25/18 16:47	460-00-4	
Dibromofluoromethane (S)	109	%	70-130		1		10/25/18 16:47	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/25/18 16:47	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.93**	Std. Units			1		10/23/18 13:52		
Field Specific Conductance	**374**	umhos/cm			1		10/23/18 13:52		
Oxygen, Dissolved	**0**	mg/L			1		10/23/18 13:52	7782-44-7	
REDOX	**-41**	mV			1		10/23/18 13:52		
Turbidity	**N**	NTU			1		10/23/18 13:52		
Temperature, Water (C)	**7.58**	deg C			1		10/23/18 13:52		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**16.5**	mg/L	10.0	2.5	5		10/30/18 22:55	16887-00-6	M0
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**163**	mg/L	23.5	7.0	1		10/29/18 11:52		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-18A **Lab ID: 40178208020** Collected: 10/23/18 14:20 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**2050**	ug/L	118	35.4	1		11/08/18 21:58	7439-89-6	
Manganese, Dissolved	**1470**	ug/L	5.0	1.1	1		11/08/18 21:58	7439-96-5	
Total Hardness by 2340B, Dissolved	**233**	mg/L	2.0	0.15	1		11/08/18 21:58		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		10/25/18 12:30	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 12:30	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 12:30	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 12:30	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 12:30	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 12:30	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 12:30	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 12:30	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 12:30	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 12:30	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 12:30	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 12:30	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 12:30	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 12:30	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 12:30	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 12:30	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 12:30	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 12:30	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 12:30	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 12:30	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 12:30	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 12:30	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 12:30	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 12:30	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 12:30	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 12:30	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 12:30	75-35-4	
cis-1,2-Dichloroethene	**4.9**	ug/L	1.0	0.27	1		10/25/18 12:30	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 12:30	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 12:30	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 12:30	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 12:30	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 12:30	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 12:30	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 12:30	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 12:30	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 12:30	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 12:30	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 12:30	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 12:30	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-18A **Lab ID: 40178208020** Collected: 10/23/18 14:20 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 12:30	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 12:30	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 12:30	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 12:30	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 12:30	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 12:30	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 12:30	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 12:30	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		10/25/18 12:30	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 12:30	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 12:30	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 12:30	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 12:30	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 12:30	79-00-5	
Trichloroethene	**3.9**	ug/L	1.0	0.26	1		10/25/18 12:30	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 12:30	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 12:30	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 12:30	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 12:30	108-67-8	
Vinyl chloride	**0.22J**	ug/L	1.0	0.17	1		10/25/18 12:30	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/25/18 12:30	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 12:30	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		10/25/18 12:30	460-00-4	
Dibromofluoromethane (S)	110	%	70-130		1		10/25/18 12:30	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/25/18 12:30	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.55**	Std. Units			1		10/23/18 14:20		
Field Specific Conductance	**642**	umhos/cm			1		10/23/18 14:20		
Oxygen, Dissolved	**0.6**	mg/L			1		10/23/18 14:20	7782-44-7	
REDOX	**-46**	mV			1		10/23/18 14:20		
Turbidity	**0**	NTU			1		10/23/18 14:20		
Temperature, Water (C)	**9.15**	deg C			1		10/23/18 14:20		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**81.2**	mg/L	10.0	2.5	5		10/31/18 13:15	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**164**	mg/L	23.5	7.0	1		10/29/18 11:53		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-18C **Lab ID: 40178208021** Collected: 10/23/18 15:00 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**141**	ug/L	40.0	9.7	1		11/08/18 22:05	7440-42-8	
Iron, Dissolved	**<35.4**	ug/L	118	35.4	1		11/08/18 22:05	7439-89-6	
Manganese, Dissolved	**1490**	ug/L	5.0	1.1	1		11/08/18 22:05	7439-96-5	
Total Hardness by 2340B, Dissolved	**315**	mg/L	2.0	0.15	1		11/08/18 22:05		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.42J**	ug/L	1.0	0.25	1		10/25/18 18:31	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 18:31	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 18:31	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 18:31	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 18:31	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 18:31	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 18:31	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 18:31	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 18:31	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 18:31	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 18:31	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 18:31	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 18:31	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 18:31	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 18:31	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 18:31	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 18:31	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 18:31	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 18:31	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 18:31	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 18:31	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 18:31	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 18:31	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 18:31	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 18:31	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 18:31	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 18:31	75-35-4	
cis-1,2-Dichloroethene	**0.40J**	ug/L	1.0	0.27	1		10/25/18 18:31	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 18:31	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 18:31	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 18:31	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 18:31	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 18:31	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 18:31	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 18:31	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 18:31	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 18:31	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 18:31	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 18:31	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-18C **Lab ID: 40178208021** Collected: 10/23/18 15:00 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 18:31	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 18:31	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 18:31	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 18:31	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 18:31	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 18:31	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 18:31	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 18:31	79-34-5	
Tetrachloroethene	**0.35J**	ug/L	1.1	0.33	1		10/25/18 18:31	127-18-4	
Tetrahydrofuran	**3.1J**	ug/L	20.0	2.3	1		10/25/18 18:31	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 18:31	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 18:31	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 18:31	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 18:31	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 18:31	79-00-5	
Trichloroethene	**6.1**	ug/L	1.0	0.26	1		10/25/18 18:31	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 18:31	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 18:31	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 18:31	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 18:31	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 18:31	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/25/18 18:31	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 18:31	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		10/25/18 18:31	460-00-4	
Dibromofluoromethane (S)	96	%	70-130		1		10/25/18 18:31	1868-53-7	
Toluene-d8 (S)	106	%	70-130		1		10/25/18 18:31	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.22**	Std. Units			1		10/23/18 15:00		
Field Specific Conductance	**777**	umhos/cm			1		10/23/18 15:00		
Oxygen, Dissolved	**0.59**	mg/L			1		10/23/18 15:00	7782-44-7	
REDOX	**11**	mV			1		10/23/18 15:00		
Turbidity	**0**	NTU			1		10/23/18 15:00		
Temperature, Water (C)	**7.4**	deg C			1		10/23/18 15:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**83.8**	mg/L	10.0	2.5	5		10/31/18 13:27	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**276**	mg/L	23.5	7.0	1		10/29/18 11:54		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-18B **Lab ID: 40178208022** Collected: 10/23/18 14:30 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**38.3J**	ug/L	118	35.4	1		11/08/18 22:17	7439-89-6	
Manganese, Dissolved	**2110**	ug/L	5.0	1.1	1		11/08/18 22:17	7439-96-5	
Total Hardness by 2340B, Dissolved	**305**	mg/L	2.0	0.15	1		11/08/18 22:17		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.54J**	ug/L	1.0	0.25	1		10/26/18 09:37	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/26/18 09:37	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/26/18 09:37	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/26/18 09:37	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/26/18 09:37	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/26/18 09:37	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/26/18 09:37	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/26/18 09:37	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/26/18 09:37	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/26/18 09:37	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/26/18 09:37	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/26/18 09:37	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/26/18 09:37	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/26/18 09:37	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/26/18 09:37	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/26/18 09:37	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/26/18 09:37	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/26/18 09:37	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/26/18 09:37	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/26/18 09:37	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/26/18 09:37	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/26/18 09:37	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/26/18 09:37	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/26/18 09:37	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/26/18 09:37	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/26/18 09:37	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/26/18 09:37	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/26/18 09:37	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/26/18 09:37	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/26/18 09:37	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/26/18 09:37	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/26/18 09:37	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/26/18 09:37	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/26/18 09:37	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/26/18 09:37	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/26/18 09:37	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/26/18 09:37	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/26/18 09:37	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/26/18 09:37	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/26/18 09:37	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-18B **Lab ID: 40178208022** Collected: 10/23/18 14:30 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/26/18 09:37	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/26/18 09:37	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/26/18 09:37	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/26/18 09:37	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/26/18 09:37	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/26/18 09:37	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/26/18 09:37	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/26/18 09:37	127-18-4	
Tetrahydrofuran	**4.0J**	ug/L	20.0	2.3	1		10/26/18 09:37	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/26/18 09:37	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/26/18 09:37	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/26/18 09:37	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/26/18 09:37	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/26/18 09:37	79-00-5	
Trichloroethene	**2.2**	ug/L	1.0	0.26	1		10/26/18 09:37	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/26/18 09:37	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/26/18 09:37	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/26/18 09:37	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/26/18 09:37	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/26/18 09:37	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/26/18 09:37	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/26/18 09:37	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/26/18 09:37	460-00-4	
Dibromofluoromethane (S)	92	%	70-130		1		10/26/18 09:37	1868-53-7	
Toluene-d8 (S)	107	%	70-130		1		10/26/18 09:37	2037-26-5	
Field Data	Analytical Method:								
Field pH	**7.33**	Std. Units			1		10/23/18 14:30		
Field Specific Conductance	**731**	umhos/cm			1		10/23/18 14:30		
Oxygen, Dissolved	**0.82**	mg/L			1		10/23/18 14:30	7782-44-7	
REDOX	**-36**	mV			1		10/23/18 14:30		
Turbidity	**0**	NTU			1		10/23/18 14:30		
Temperature, Water (C)	**7.78**	deg C			1		10/23/18 14:30		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**51.5**	mg/L	10.0	2.5	5		10/31/18 13:39	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**306**	mg/L	23.5	7.0	1		10/29/18 11:54		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: TRIP BLANK **Lab ID: 40178208023** Collected: 10/23/18 00:00 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.25**	ug/L	1.0	0.25	1		10/25/18 11:25	71-43-2	
Bromobenzene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 11:25	108-86-1	
Bromochloromethane	**<0.36**	ug/L	5.0	0.36	1		10/25/18 11:25	74-97-5	
Bromodichloromethane	**<0.36**	ug/L	1.2	0.36	1		10/25/18 11:25	75-27-4	
Bromoform	**<4.0**	ug/L	13.2	4.0	1		10/25/18 11:25	75-25-2	
Bromomethane	**<0.97**	ug/L	5.0	0.97	1		10/25/18 11:25	74-83-9	
n-Butylbenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 11:25	104-51-8	
sec-Butylbenzene	**<0.85**	ug/L	5.0	0.85	1		10/25/18 11:25	135-98-8	
tert-Butylbenzene	**<0.30**	ug/L	1.0	0.30	1		10/25/18 11:25	98-06-6	
Carbon tetrachloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 11:25	56-23-5	
Chlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 11:25	108-90-7	
Chloroethane	**<1.3**	ug/L	5.0	1.3	1		10/25/18 11:25	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		10/25/18 11:25	67-66-3	
Chloromethane	**<2.2**	ug/L	7.3	2.2	1		10/25/18 11:25	74-87-3	
2-Chlorotoluene	**<0.93**	ug/L	5.0	0.93	1		10/25/18 11:25	95-49-8	
4-Chlorotoluene	**<0.76**	ug/L	2.5	0.76	1		10/25/18 11:25	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.8**	ug/L	5.9	1.8	1		10/25/18 11:25	96-12-8	
Dibromochloromethane	**<2.6**	ug/L	8.7	2.6	1		10/25/18 11:25	124-48-1	
1,2-Dibromoethane (EDB)	**<0.83**	ug/L	2.8	0.83	1		10/25/18 11:25	106-93-4	
Dibromomethane	**<0.94**	ug/L	3.1	0.94	1		10/25/18 11:25	74-95-3	
1,2-Dichlorobenzene	**<0.71**	ug/L	2.4	0.71	1		10/25/18 11:25	95-50-1	
1,3-Dichlorobenzene	**<0.63**	ug/L	2.1	0.63	1		10/25/18 11:25	541-73-1	
1,4-Dichlorobenzene	**<0.94**	ug/L	3.1	0.94	1		10/25/18 11:25	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	5.0	0.50	1		10/25/18 11:25	75-71-8	
1,1-Dichloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 11:25	75-34-3	
1,2-Dichloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 11:25	107-06-2	
1,1-Dichloroethene	**<0.24**	ug/L	1.0	0.24	1		10/25/18 11:25	75-35-4	
cis-1,2-Dichloroethene	**<0.27**	ug/L	1.0	0.27	1		10/25/18 11:25	156-59-2	
trans-1,2-Dichloroethene	**<1.1**	ug/L	3.6	1.1	1		10/25/18 11:25	156-60-5	
1,2-Dichloropropane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 11:25	78-87-5	
1,3-Dichloropropane	**<0.83**	ug/L	2.8	0.83	1		10/25/18 11:25	142-28-9	
2,2-Dichloropropane	**<2.3**	ug/L	7.6	2.3	1		10/25/18 11:25	594-20-7	
1,1-Dichloropropene	**<0.54**	ug/L	1.8	0.54	1		10/25/18 11:25	563-58-6	
cis-1,3-Dichloropropene	**<3.6**	ug/L	12.1	3.6	1		10/25/18 11:25	10061-01-5	
trans-1,3-Dichloropropene	**<4.4**	ug/L	14.6	4.4	1		10/25/18 11:25	10061-02-6	
Diisopropyl ether	**<1.9**	ug/L	6.3	1.9	1		10/25/18 11:25	108-20-3	
Ethylbenzene	**<0.22**	ug/L	1.0	0.22	1		10/25/18 11:25	100-41-4	
Hexachloro-1,3-butadiene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 11:25	87-68-3	
Isopropylbenzene (Cumene)	**<0.39**	ug/L	5.0	0.39	1		10/25/18 11:25	98-82-8	
p-Isopropyltoluene	**<0.80**	ug/L	2.7	0.80	1		10/25/18 11:25	99-87-6	
Methylene Chloride	**<0.58**	ug/L	5.0	0.58	1		10/25/18 11:25	75-09-2	
Methyl-tert-butyl ether	**<1.2**	ug/L	4.2	1.2	1		10/25/18 11:25	1634-04-4	
Naphthalene	**<1.2**	ug/L	5.0	1.2	1		10/25/18 11:25	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	5.0	0.81	1		10/25/18 11:25	103-65-1	
Styrene	**<0.47**	ug/L	1.6	0.47	1		10/25/18 11:25	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.27**	ug/L	1.0	0.27	1		10/25/18 11:25	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: TRIP BLANK **Lab ID: 40178208023** Collected: 10/23/18 00:00 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<0.28**	ug/L	1.0	0.28	1		10/25/18 11:25	79-34-5	
Tetrachloroethene	**<0.33**	ug/L	1.1	0.33	1		10/25/18 11:25	127-18-4	
Tetrahydrofuran	**<2.3**	ug/L	20.0	2.3	1		10/25/18 11:25	109-99-9	
Toluene	**<0.17**	ug/L	5.0	0.17	1		10/25/18 11:25	108-88-3	
1,2,3-Trichlorobenzene	**<0.63**	ug/L	5.0	0.63	1		10/25/18 11:25	87-61-6	
1,2,4-Trichlorobenzene	**<0.95**	ug/L	5.0	0.95	1		10/25/18 11:25	120-82-1	
1,1,1-Trichloroethane	**<0.24**	ug/L	1.0	0.24	1		10/25/18 11:25	71-55-6	
1,1,2-Trichloroethane	**<0.55**	ug/L	5.0	0.55	1		10/25/18 11:25	79-00-5	
Trichloroethene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 11:25	79-01-6	
Trichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		10/25/18 11:25	75-69-4	
1,2,3-Trichloropropane	**<0.59**	ug/L	5.0	0.59	1		10/25/18 11:25	96-18-4	
1,2,4-Trimethylbenzene	**<0.84**	ug/L	2.8	0.84	1		10/25/18 11:25	95-63-6	
1,3,5-Trimethylbenzene	**<0.87**	ug/L	2.9	0.87	1		10/25/18 11:25	108-67-8	
Vinyl chloride	**<0.17**	ug/L	1.0	0.17	1		10/25/18 11:25	75-01-4	
m&p-Xylene	**<0.47**	ug/L	2.0	0.47	1		10/25/18 11:25	179601-23-1	
o-Xylene	**<0.26**	ug/L	1.0	0.26	1		10/25/18 11:25	95-47-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-19B **Lab ID: 40178208024** Collected: 10/23/18 00:00 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.93**	Std. Units			1		10/23/18 00:00		
Field Specific Conductance	**725**	umhos/cm			1		10/23/18 00:00		
Oxygen, Dissolved	**1.53**	mg/L			1		10/23/18 00:00	7782-44-7	
REDOX	**-74**	mV			1		10/23/18 00:00		
Turbidity	**0**	NTU			1		10/23/18 00:00		
Temperature, Water (C)	**8.38**	deg C			1		10/23/18 00:00		

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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-19C **Lab ID: 40178208025** Collected: 10/23/18 00:00 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.94**	Std. Units			1		10/23/18 00:00		
Field Specific Conductance	**768**	umhos/cm			1		10/23/18 00:00		
Oxygen, Dissolved	**0.87**	mg/L			1		10/23/18 00:00	7782-44-7	
REDOX	**-88**	mV			1		10/23/18 00:00		
Turbidity	**0**	NTU			1		10/23/18 00:00		
Temperature, Water (C)	**8.66**	deg C			1		10/23/18 00:00		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Sample: MW-28B **Lab ID: 40178208026** Collected: 10/22/18 00:00 Received: 10/24/18 07:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**7.06**	Std. Units			1		10/22/18 00:00		
Field Specific Conductance	**220**	umhos/cm			1		10/22/18 00:00		
Oxygen, Dissolved	**2.86**	mg/L			1		10/22/18 00:00	7782-44-7	
REDOX	**-68**	mV			1		10/22/18 00:00		
Turbidity	**0**	NTU			1		10/22/18 00:00		
Temperature, Water (C)	**9.78**	deg C			1		10/22/18 00:00		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

QC Batch: 305982 Analysis Method: EPA 6010
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 40178208001, 40178208002, 40178208003, 40178208004, 40178208005, 40178208006, 40178208007, 40178208008, 40178208009, 40178208010, 40178208011, 40178208012, 40178208013, 40178208014, 40178208015, 40178208016, 40178208017, 40178208018, 40178208019, 40178208020

METHOD BLANK: 1788772 Matrix: Water
Associated Lab Samples: 40178208001, 40178208002, 40178208003, 40178208004, 40178208005, 40178208006, 40178208007, 40178208008, 40178208009, 40178208010, 40178208011, 40178208012, 40178208013, 40178208014, 40178208015, 40178208016, 40178208017, 40178208018, 40178208019, 40178208020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron, Dissolved	ug/L	<9.7	40.0	11/08/18 20:53	
Iron, Dissolved	ug/L	<35.4	118	11/08/18 20:53	
Manganese, Dissolved	ug/L	<1.1	5.0	11/08/18 20:53	
Total Hardness by 2340B, Dissolved	mg/L	0.19J	2.0	11/08/18 20:53	

LABORATORY CONTROL SAMPLE: 1788773

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	500	489	98	80-120	
Iron, Dissolved	ug/L	5000	4960	99	80-120	
Manganese, Dissolved	ug/L	500	485	97	80-120	
Total Hardness by 2340B, Dissolved	mg/L		32.9			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1788774 1788775

Parameter	Units	40178208001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	2090	500	500	2540	2490	90	80	75-125	2	20	
Iron, Dissolved	ug/L	57800	5000	5000	63600	62700	117	98	75-125	1	20	
Manganese, Dissolved	ug/L	625	500	500	1090	1080	94	92	75-125	1	20	
Total Hardness by 2340B, Dissolved	mg/L	1040			1090	1070				2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

QC Batch: 305983 Analysis Method: EPA 6010
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 40178208021, 40178208022

METHOD BLANK: 1788776 Matrix: Water
Associated Lab Samples: 40178208021, 40178208022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron, Dissolved	ug/L	<9.7	40.0	11/09/18 15:28	
Iron, Dissolved	ug/L	<35.4	118	11/09/18 15:28	
Manganese, Dissolved	ug/L	<1.1	5.0	11/09/18 15:28	
Total Hardness by 2340B, Dissolved	mg/L	<0.15	2.0	11/09/18 15:28	

LABORATORY CONTROL SAMPLE: 1788777

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	500	486	97	80-120	
Iron, Dissolved	ug/L	5000	4910	98	80-120	
Manganese, Dissolved	ug/L	500	478	96	80-120	
Total Hardness by 2340B, Dissolved	mg/L		32.4			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1788778 1788779

Parameter	Units	40178208021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	141	500	500	626	628	97	97	75-125	0	20	
Iron, Dissolved	ug/L	<35.4	5000	5000	4850	4900	97	98	75-125	1	20	
Manganese, Dissolved	ug/L	1490	500	500	1930	1950	89	93	75-125	1	20	
Total Hardness by 2340B, Dissolved	mg/L	315			338	340				0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

QC Batch: 304207 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40178208001, 40178208002, 40178208003, 40178208004, 40178208005, 40178208006, 40178208007, 40178208008, 40178208009, 40178208010, 40178208011, 40178208012, 40178208013, 40178208014, 40178208015, 40178208016, 40178208017, 40178208018, 40178208019, 40178208020

METHOD BLANK: 1777240 Matrix: Water
Associated Lab Samples: 40178208001, 40178208002, 40178208003, 40178208004, 40178208005, 40178208006, 40178208007, 40178208008, 40178208009, 40178208010, 40178208011, 40178208012, 40178208013, 40178208014, 40178208015, 40178208016, 40178208017, 40178208018, 40178208019, 40178208020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	10/25/18 08:12	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	10/25/18 08:12	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	10/25/18 08:12	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	10/25/18 08:12	
1,1-Dichloroethane	ug/L	<0.27	1.0	10/25/18 08:12	
1,1-Dichloroethene	ug/L	<0.24	1.0	10/25/18 08:12	
1,1-Dichloropropene	ug/L	<0.54	1.8	10/25/18 08:12	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	10/25/18 08:12	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	10/25/18 08:12	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	10/25/18 08:12	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	10/25/18 08:12	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	10/25/18 08:12	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	10/25/18 08:12	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	10/25/18 08:12	
1,2-Dichloroethane	ug/L	<0.28	1.0	10/25/18 08:12	
1,2-Dichloropropane	ug/L	<0.28	1.0	10/25/18 08:12	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	10/25/18 08:12	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	10/25/18 08:12	
1,3-Dichloropropane	ug/L	<0.83	2.8	10/25/18 08:12	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	10/25/18 08:12	
2,2-Dichloropropane	ug/L	<2.3	7.6	10/25/18 08:12	
2-Chlorotoluene	ug/L	<0.93	5.0	10/25/18 08:12	
4-Chlorotoluene	ug/L	<0.76	2.5	10/25/18 08:12	
Benzene	ug/L	<0.25	1.0	10/25/18 08:12	
Bromobenzene	ug/L	<0.24	1.0	10/25/18 08:12	
Bromochloromethane	ug/L	<0.36	5.0	10/25/18 08:12	
Bromodichloromethane	ug/L	<0.36	1.2	10/25/18 08:12	
Bromoform	ug/L	<4.0	13.2	10/25/18 08:12	
Bromomethane	ug/L	<0.97	5.0	10/25/18 08:12	
Carbon tetrachloride	ug/L	<0.17	1.0	10/25/18 08:12	
Chlorobenzene	ug/L	<0.71	2.4	10/25/18 08:12	
Chloroethane	ug/L	<1.3	5.0	10/25/18 08:12	
Chloroform	ug/L	<1.3	5.0	10/25/18 08:12	
Chloromethane	ug/L	<2.2	7.3	10/25/18 08:12	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	10/25/18 08:12	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	10/25/18 08:12	
Dibromochloromethane	ug/L	<2.6	8.7	10/25/18 08:12	
Dibromomethane	ug/L	<0.94	3.1	10/25/18 08:12	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

METHOD BLANK: 1777240 Matrix: Water

Associated Lab Samples: 40178208001, 40178208002, 40178208003, 40178208004, 40178208005, 40178208006, 40178208007, 40178208008, 40178208009, 40178208010, 40178208011, 40178208012, 40178208013, 40178208014, 40178208015, 40178208016, 40178208017, 40178208018, 40178208019, 40178208020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	<0.50	5.0	10/25/18 08:12	
Diisopropyl ether	ug/L	<1.9	6.3	10/25/18 08:12	
Ethylbenzene	ug/L	<0.22	1.0	10/25/18 08:12	
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	10/25/18 08:12	
Isopropylbenzene (Cumene)	ug/L	<0.39	5.0	10/25/18 08:12	
m&p-Xylene	ug/L	<0.47	2.0	10/25/18 08:12	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	10/25/18 08:12	
Methylene Chloride	ug/L	<0.58	5.0	10/25/18 08:12	
n-Butylbenzene	ug/L	<0.71	2.4	10/25/18 08:12	
n-Propylbenzene	ug/L	<0.81	5.0	10/25/18 08:12	
Naphthalene	ug/L	<1.2	5.0	10/25/18 08:12	
o-Xylene	ug/L	<0.26	1.0	10/25/18 08:12	
p-Isopropyltoluene	ug/L	<0.80	2.7	10/25/18 08:12	
sec-Butylbenzene	ug/L	<0.85	5.0	10/25/18 08:12	
Styrene	ug/L	<0.47	1.6	10/25/18 08:12	
tert-Butylbenzene	ug/L	<0.30	1.0	10/25/18 08:12	
Tetrachloroethene	ug/L	<0.33	1.1	10/25/18 08:12	
Tetrahydrofuran	ug/L	<2.3	20.0	10/25/18 08:12	
Toluene	ug/L	<0.17	5.0	10/25/18 08:12	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	10/25/18 08:12	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	10/25/18 08:12	
Trichloroethene	ug/L	<0.26	1.0	10/25/18 08:12	
Trichlorofluoromethane	ug/L	<0.21	1.0	10/25/18 08:12	
Vinyl chloride	ug/L	<0.17	1.0	10/25/18 08:12	
4-Bromofluorobenzene (S)	%	94	70-130	10/25/18 08:12	
Dibromofluoromethane (S)	%	108	70-130	10/25/18 08:12	
Toluene-d8 (S)	%	99	70-130	10/25/18 08:12	

LABORATORY CONTROL SAMPLE: 1777241

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	56.0	112	70-133	
1,1,2,2-Tetrachloroethane	ug/L	50	47.7	95	67-130	
1,1,2-Trichloroethane	ug/L	50	47.7	95	70-130	
1,1-Dichloroethane	ug/L	50	51.5	103	70-134	
1,1-Dichloroethene	ug/L	50	49.4	99	75-132	
1,2,4-Trichlorobenzene	ug/L	50	46.8	94	68-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.0	94	60-126	
1,2-Dibromoethane (EDB)	ug/L	50	49.7	99	70-130	
1,2-Dichlorobenzene	ug/L	50	51.9	104	70-130	
1,2-Dichloroethane	ug/L	50	49.2	98	73-134	
1,2-Dichloropropane	ug/L	50	44.5	89	79-128	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

LABORATORY CONTROL SAMPLE: 1777241

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3-Dichlorobenzene	ug/L	50	50.3	101	70-130	
1,4-Dichlorobenzene	ug/L	50	50.4	101	70-130	
Benzene	ug/L	50	51.5	103	69-137	
Bromodichloromethane	ug/L	50	49.4	99	70-130	
Bromoform	ug/L	50	51.4	103	64-133	
Bromomethane	ug/L	50	28.1	56	29-123	
Carbon tetrachloride	ug/L	50	55.1	110	73-142	
Chlorobenzene	ug/L	50	51.3	103	70-130	
Chloroethane	ug/L	50	43.1	86	59-133	
Chloroform	ug/L	50	50.7	101	80-129	
Chloromethane	ug/L	50	36.0	72	27-125	
cis-1,2-Dichloroethene	ug/L	50	50.2	100	70-134	
cis-1,3-Dichloropropene	ug/L	50	44.1	88	70-130	
Dibromochloromethane	ug/L	50	56.9	114	70-130	
Dichlorodifluoromethane	ug/L	50	28.6	57	12-127	
Ethylbenzene	ug/L	50	51.4	103	86-127	
Isopropylbenzene (Cumene)	ug/L	50	52.8	106	70-130	
m&p-Xylene	ug/L	100	105	105	70-131	
Methyl-tert-butyl ether	ug/L	50	45.1	90	65-136	
Methylene Chloride	ug/L	50	53.2	106	72-133	
o-Xylene	ug/L	50	50.9	102	70-130	
Styrene	ug/L	50	51.9	104	70-130	
Tetrachloroethene	ug/L	50	46.1	92	70-130	
Toluene	ug/L	50	49.5	99	84-124	
trans-1,2-Dichloroethene	ug/L	50	52.1	104	70-133	
trans-1,3-Dichloropropene	ug/L	50	43.8	88	67-130	
Trichloroethene	ug/L	50	49.7	99	70-130	
Trichlorofluoromethane	ug/L	50	52.9	106	69-147	
Vinyl chloride	ug/L	50	42.5	85	48-134	
4-Bromofluorobenzene (S)	%			102	70-130	
Dibromofluoromethane (S)	%			108	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1777612 1777613

Parameter	Units	40178208002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.24	50	50	55.4	56.7	111	113	70-136	2	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	50	50	45.8	47.6	92	95	67-133	4	20	
1,1,2-Trichloroethane	ug/L	<0.55	50	50	46.0	47.5	92	95	70-130	3	20	
1,1-Dichloroethane	ug/L	<0.27	50	50	52.2	54.1	104	108	70-139	4	20	
1,1-Dichloroethene	ug/L	<0.24	50	50	50.5	52.3	101	105	72-137	4	20	
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	46.9	48.6	94	97	68-130	4	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	45.9	47.0	92	94	60-130	2	21	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1777612 1777613

Parameter	Units	40178208002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	48.6	49.6	97	99	70-130	2	20	
1,2-Dichlorobenzene	ug/L	<0.71	50	50	51.7	52.9	103	106	70-130	2	20	
1,2-Dichloroethane	ug/L	<0.28	50	50	48.7	49.2	97	98	71-137	1	20	
1,2-Dichloropropane	ug/L	<0.28	50	50	43.5	44.3	87	89	78-130	2	20	
1,3-Dichlorobenzene	ug/L	<0.63	50	50	50.5	51.9	101	104	70-130	3	20	
1,4-Dichlorobenzene	ug/L	<0.94	50	50	50.5	52.1	101	104	70-130	3	20	
Benzene	ug/L	0.40J	50	50	51.3	53.8	102	107	66-143	5	20	
Bromodichloromethane	ug/L	<0.36	50	50	48.5	50.3	97	101	70-130	4	20	
Bromoform	ug/L	<4.0	50	50	48.9	50.4	98	101	64-134	3	20	
Bromomethane	ug/L	<0.97	50	50	31.3	32.9	63	66	29-136	5	25	
Carbon tetrachloride	ug/L	<0.17	50	50	56.1	58.1	112	116	73-142	4	20	
Chlorobenzene	ug/L	<0.71	50	50	50.7	51.6	101	103	70-130	2	20	
Chloroethane	ug/L	<1.3	50	50	46.2	46.9	92	94	58-138	1	20	
Chloroform	ug/L	<1.3	50	50	50.2	51.7	100	103	80-131	3	20	
Chloromethane	ug/L	<2.2	50	50	40.4	42.5	81	85	24-125	5	20	
cis-1,2-Dichloroethene	ug/L	<0.27	50	50	49.6	52.1	99	104	68-137	5	22	
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	43.2	45.2	86	90	70-130	5	20	
Dibromochloromethane	ug/L	<2.6	50	50	55.6	56.9	111	114	70-131	2	20	
Dichlorodifluoromethane	ug/L	<0.50	50	50	42.2	43.7	84	87	10-127	4	20	
Ethylbenzene	ug/L	<0.22	50	50	50.1	50.9	100	102	81-136	1	20	
Isopropylbenzene (Cumene)	ug/L	<0.39	50	50	51.9	53.4	104	107	70-132	3	20	
m&p-Xylene	ug/L	<0.47	100	100	103	106	103	106	70-135	3	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	44.2	45.6	88	91	58-142	3	23	
Methylene Chloride	ug/L	<0.58	50	50	52.8	55.1	106	110	69-137	4	20	
o-Xylene	ug/L	<0.26	50	50	49.6	51.6	99	103	70-132	4	20	
Styrene	ug/L	<0.47	50	50	51.6	52.7	103	105	70-130	2	20	
Tetrachloroethene	ug/L	<0.33	50	50	45.6	46.7	91	93	70-132	2	20	
Toluene	ug/L	<0.17	50	50	48.5	50.2	97	100	81-130	4	20	
trans-1,2-Dichloroethene	ug/L	<1.1	50	50	51.3	53.6	103	107	70-136	4	20	
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	43.0	44.2	86	88	67-130	3	20	
Trichloroethene	ug/L	<0.26	50	50	48.3	51.1	97	102	70-131	6	20	
Trichlorofluoromethane	ug/L	<0.21	50	50	54.0	56.1	108	112	66-150	4	20	
Vinyl chloride	ug/L	<0.17	50	50	46.3	48.0	93	96	46-134	4	20	
4-Bromofluorobenzene (S)	%						101	100	70-130			
Dibromofluoromethane (S)	%						106	109	70-130			
Toluene-d8 (S)	%						99	97	70-130			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

QC Batch: 304249 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40178208021, 40178208022, 40178208023

METHOD BLANK: 1777532 Matrix: Water
Associated Lab Samples: 40178208021, 40178208022, 40178208023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	10/25/18 08:04	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	10/25/18 08:04	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	10/25/18 08:04	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	10/25/18 08:04	
1,1-Dichloroethane	ug/L	<0.27	1.0	10/25/18 08:04	
1,1-Dichloroethene	ug/L	<0.24	1.0	10/25/18 08:04	
1,1-Dichloropropene	ug/L	<0.54	1.8	10/25/18 08:04	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	10/25/18 08:04	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	10/25/18 08:04	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	10/25/18 08:04	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	10/25/18 08:04	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	10/25/18 08:04	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	10/25/18 08:04	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	10/25/18 08:04	
1,2-Dichloroethane	ug/L	<0.28	1.0	10/25/18 08:04	
1,2-Dichloropropane	ug/L	<0.28	1.0	10/25/18 08:04	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	10/25/18 08:04	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	10/25/18 08:04	
1,3-Dichloropropane	ug/L	<0.83	2.8	10/25/18 08:04	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	10/25/18 08:04	
2,2-Dichloropropane	ug/L	<2.3	7.6	10/25/18 08:04	
2-Chlorotoluene	ug/L	<0.93	5.0	10/25/18 08:04	
4-Chlorotoluene	ug/L	<0.76	2.5	10/25/18 08:04	
Benzene	ug/L	<0.25	1.0	10/25/18 08:04	
Bromobenzene	ug/L	<0.24	1.0	10/25/18 08:04	
Bromochloromethane	ug/L	<0.36	5.0	10/25/18 08:04	
Bromodichloromethane	ug/L	<0.36	1.2	10/25/18 08:04	
Bromoform	ug/L	<4.0	13.2	10/25/18 08:04	
Bromomethane	ug/L	<0.97	5.0	10/25/18 08:04	
Carbon tetrachloride	ug/L	<0.17	1.0	10/25/18 08:04	
Chlorobenzene	ug/L	<0.71	2.4	10/25/18 08:04	
Chloroethane	ug/L	<1.3	5.0	10/25/18 08:04	
Chloroform	ug/L	<1.3	5.0	10/25/18 08:04	
Chloromethane	ug/L	<2.2	7.3	10/25/18 08:04	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	10/25/18 08:04	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	10/25/18 08:04	
Dibromochloromethane	ug/L	<2.6	8.7	10/25/18 08:04	
Dibromomethane	ug/L	<0.94	3.1	10/25/18 08:04	
Dichlorodifluoromethane	ug/L	<0.50	5.0	10/25/18 08:04	
Diisopropyl ether	ug/L	<1.9	6.3	10/25/18 08:04	
Ethylbenzene	ug/L	<0.22	1.0	10/25/18 08:04	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

METHOD BLANK: 1777532 Matrix: Water
Associated Lab Samples: 40178208021, 40178208022, 40178208023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	10/25/18 08:04	
Isopropylbenzene (Cumene)	ug/L	<0.39	5.0	10/25/18 08:04	
m&p-Xylene	ug/L	<0.47	2.0	10/25/18 08:04	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	10/25/18 08:04	
Methylene Chloride	ug/L	<0.58	5.0	10/25/18 08:04	
n-Butylbenzene	ug/L	<0.71	2.4	10/25/18 08:04	
n-Propylbenzene	ug/L	<0.81	5.0	10/25/18 08:04	
Naphthalene	ug/L	<1.2	5.0	10/25/18 08:04	
o-Xylene	ug/L	<0.26	1.0	10/25/18 08:04	
p-Isopropyltoluene	ug/L	<0.80	2.7	10/25/18 08:04	
sec-Butylbenzene	ug/L	<0.85	5.0	10/25/18 08:04	
Styrene	ug/L	<0.47	1.6	10/25/18 08:04	
tert-Butylbenzene	ug/L	<0.30	1.0	10/25/18 08:04	
Tetrachloroethene	ug/L	<0.33	1.1	10/25/18 08:04	
Tetrahydrofuran	ug/L	<2.3	20.0	10/25/18 08:04	
Toluene	ug/L	<0.17	5.0	10/25/18 08:04	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	10/25/18 08:04	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	10/25/18 08:04	
Trichloroethene	ug/L	<0.26	1.0	10/25/18 08:04	
Trichlorofluoromethane	ug/L	<0.21	1.0	10/25/18 08:04	
Vinyl chloride	ug/L	<0.17	1.0	10/25/18 08:04	
4-Bromofluorobenzene (S)	%	97	70-130	10/25/18 08:04	
Dibromofluoromethane (S)	%	94	70-130	10/25/18 08:04	
Toluene-d8 (S)	%	106	70-130	10/25/18 08:04	

LABORATORY CONTROL SAMPLE: 1777533

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	48.1	96	70-133	
1,1,2,2-Tetrachloroethane	ug/L	50	49.0	98	67-130	
1,1,2-Trichloroethane	ug/L	50	51.8	104	70-130	
1,1-Dichloroethane	ug/L	50	45.0	90	70-134	
1,1-Dichloroethene	ug/L	50	42.2	84	75-132	
1,2,4-Trichlorobenzene	ug/L	50	50.7	101	68-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.3	95	60-126	
1,2-Dibromoethane (EDB)	ug/L	50	50.6	101	70-130	
1,2-Dichlorobenzene	ug/L	50	45.6	91	70-130	
1,2-Dichloroethane	ug/L	50	46.3	93	73-134	
1,2-Dichloropropane	ug/L	50	50.3	101	79-128	
1,3-Dichlorobenzene	ug/L	50	44.9	90	70-130	
1,4-Dichlorobenzene	ug/L	50	46.0	92	70-130	
Benzene	ug/L	50	46.9	94	69-137	
Bromodichloromethane	ug/L	50	54.9	110	70-130	
Bromoform	ug/L	50	57.5	115	64-133	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

LABORATORY CONTROL SAMPLE: 1777533

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/L	50	28.0	56	29-123	
Carbon tetrachloride	ug/L	50	48.1	96	73-142	
Chlorobenzene	ug/L	50	49.6	99	70-130	
Chloroethane	ug/L	50	34.7	69	59-133	
Chloroform	ug/L	50	44.2	88	80-129	
Chloromethane	ug/L	50	25.1	50	27-125	
cis-1,2-Dichloroethene	ug/L	50	44.5	89	70-134	
cis-1,3-Dichloropropene	ug/L	50	52.1	104	70-130	
Dibromochloromethane	ug/L	50	50.5	101	70-130	
Dichlorodifluoromethane	ug/L	50	22.3	45	12-127	
Ethylbenzene	ug/L	50	55.1	110	86-127	
Isopropylbenzene (Cumene)	ug/L	50	57.0	114	70-130	
m&p-Xylene	ug/L	100	111	111	70-131	
Methyl-tert-butyl ether	ug/L	50	42.3	85	65-136	
Methylene Chloride	ug/L	50	41.5	83	72-133	
o-Xylene	ug/L	50	55.4	111	70-130	
Styrene	ug/L	50	56.7	113	70-130	
Tetrachloroethene	ug/L	50	54.6	109	70-130	
Toluene	ug/L	50	52.7	105	84-124	
trans-1,2-Dichloroethene	ug/L	50	43.4	87	70-133	
trans-1,3-Dichloropropene	ug/L	50	48.7	97	67-130	
Trichloroethene	ug/L	50	53.6	107	70-130	
Trichlorofluoromethane	ug/L	50	44.1	88	69-147	
Vinyl chloride	ug/L	50	32.1	64	48-134	
4-Bromofluorobenzene (S)	%			115	70-130	
Dibromofluoromethane (S)	%			93	70-130	
Toluene-d8 (S)	%			108	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1777614 1777615

Parameter	Units	40178247001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.24	50	50	51.4	51.8	103	104	70-136	1	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	50	50	53.8	52.3	108	105	67-133	3	20	
1,1,2-Trichloroethane	ug/L	<0.55	50	50	55.7	55.2	111	110	70-130	1	20	
1,1-Dichloroethane	ug/L	<0.27	50	50	48.3	48.9	97	98	70-139	1	20	
1,1-Dichloroethene	ug/L	<0.24	50	50	46.5	47.7	93	95	72-137	2	20	
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	55.7	55.0	111	110	68-130	1	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	52.1	50.3	104	101	60-130	4	21	
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	55.2	53.7	110	107	70-130	3	20	
1,2-Dichlorobenzene	ug/L	<0.71	50	50	48.8	48.2	98	96	70-130	1	20	
1,2-Dichloroethane	ug/L	2.7	50	50	52.3	52.3	99	99	71-137	0	20	
1,2-Dichloropropane	ug/L	<0.28	50	50	53.8	53.7	108	107	78-130	0	20	
1,3-Dichlorobenzene	ug/L	<0.63	50	50	48.2	47.3	96	95	70-130	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1777614 1777615

Parameter	Units	40178247001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dichlorobenzene	ug/L	<0.94	50	50	48.8	48.5	98	97	70-130	1	20	
Benzene	ug/L	<0.25	50	50	50.1	50.2	100	100	66-143	0	20	
Bromodichloromethane	ug/L	<0.36	50	50	57.3	56.4	115	113	70-130	2	20	
Bromoform	ug/L	<4.0	50	50	62.4	62.1	125	124	64-134	0	20	
Bromomethane	ug/L	<0.97	50	50	36.5	38.6	73	77	29-136	5	25	
Carbon tetrachloride	ug/L	<0.17	50	50	51.3	51.2	103	102	73-142	0	20	
Chlorobenzene	ug/L	<0.71	50	50	53.4	52.2	107	104	70-130	2	20	
Chloroethane	ug/L	<1.3	50	50	40.7	42.1	81	84	58-138	3	20	
Chloroform	ug/L	<1.3	50	50	46.3	47.0	93	94	80-131	1	20	
Chloromethane	ug/L	<2.2	50	50	33.0	33.4	66	67	24-125	1	20	
cis-1,2-Dichloroethene	ug/L	<0.27	50	50	47.6	48.2	95	96	68-137	1	22	
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	56.0	55.3	112	111	70-130	1	20	
Dibromochloromethane	ug/L	<2.6	50	50	53.8	52.7	108	105	70-131	2	20	
Dichlorodifluoromethane	ug/L	<0.50	50	50	35.9	36.1	72	72	10-127	1	20	
Ethylbenzene	ug/L	<0.22	50	50	58.3	57.7	117	115	81-136	1	20	
Isopropylbenzene (Cumene)	ug/L	<0.39	50	50	60.0	59.6	120	119	70-132	1	20	
m&p-Xylene	ug/L	<0.47	100	100	117	117	117	117	70-135	0	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	46.1	45.9	92	92	58-142	0	23	
Methylene Chloride	ug/L	<0.58	50	50	44.8	46.5	90	93	69-137	4	20	
o-Xylene	ug/L	<0.26	50	50	59.1	59.0	118	118	70-132	0	20	
Styrene	ug/L	<0.47	50	50	60.4	59.7	121	119	70-130	1	20	
Tetrachloroethene	ug/L	<0.33	50	50	58.5	57.3	117	115	70-132	2	20	
Toluene	ug/L	<0.17	50	50	55.5	55.3	111	111	81-130	0	20	
trans-1,2-Dichloroethene	ug/L	<1.1	50	50	47.8	48.1	96	96	70-136	1	20	
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	52.4	51.9	105	104	67-130	1	20	
Trichloroethene	ug/L	<0.26	50	50	56.7	56.5	113	113	70-131	0	20	
Trichlorofluoromethane	ug/L	<0.21	50	50	49.0	49.2	98	98	66-150	0	20	
Vinyl chloride	ug/L	<0.17	50	50	40.5	41.4	81	83	46-134	2	20	
4-Bromofluorobenzene (S)	%						112	114	70-130			
Dibromofluoromethane (S)	%						92	94	70-130			
Toluene-d8 (S)	%						107	107	70-130			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

QC Batch: 304495 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40178208001, 40178208002, 40178208003, 40178208004, 40178208005, 40178208006, 40178208007, 40178208008, 40178208009, 40178208010, 40178208011, 40178208012, 40178208013, 40178208014, 40178208015, 40178208016, 40178208017, 40178208018, 40178208019

METHOD BLANK: 1779427 Matrix: Water
Associated Lab Samples: 40178208001, 40178208002, 40178208003, 40178208004, 40178208005, 40178208006, 40178208007, 40178208008, 40178208009, 40178208010, 40178208011, 40178208012, 40178208013, 40178208014, 40178208015, 40178208016, 40178208017, 40178208018, 40178208019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	10/30/18 15:44	

LABORATORY CONTROL SAMPLE: 1779428

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	21.2	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1779429 1779430

Parameter	Units	40178207003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	44.1	100	100	151	153	107	109	90-110	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1779431 1779432

Parameter	Units	40178208019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	16.5	100	100	126	127	110	111	90-110	1	15	M0

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

QC Batch: 304533 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40178208020, 40178208021, 40178208022

METHOD BLANK: 1780034 Matrix: Water
Associated Lab Samples: 40178208020, 40178208021, 40178208022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	10/31/18 10:12	

LABORATORY CONTROL SAMPLE: 1780035

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1780036 1780037

Parameter	Units	40178475002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	77.6	100	100	180	179	102	102	90-110	0	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1780038 1780039

Parameter	Units	40178261001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	256	400	400	653	656	99	100	90-110	0	15	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

QC Batch: 304501 Analysis Method: EPA 310.2
QC Batch Method: EPA 310.2 Analysis Description: 310.2 Alkalinity
Associated Lab Samples: 40178208001, 40178208002, 40178208003, 40178208004, 40178208005, 40178208006, 40178208007

METHOD BLANK: 1779534 Matrix: Water
Associated Lab Samples: 40178208001, 40178208002, 40178208003, 40178208004, 40178208005, 40178208006, 40178208007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<7.0	23.5	10/29/18 11:21	

LABORATORY CONTROL SAMPLE: 1779535

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	94.1	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1779536 1779537

Parameter	Units	40178202001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	438	500	500	981	964	109	105	90-110	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1779538 1779539

Parameter	Units	40178208007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	105	100	100	198	205	93	99	90-110	3	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

QC Batch: 304502 Analysis Method: EPA 310.2
QC Batch Method: EPA 310.2 Analysis Description: 310.2 Alkalinity
Associated Lab Samples: 40178208008, 40178208009, 40178208010, 40178208011, 40178208012, 40178208013, 40178208014, 40178208015, 40178208016, 40178208017, 40178208018, 40178208019, 40178208020, 40178208021, 40178208022

METHOD BLANK: 1779542 Matrix: Water
Associated Lab Samples: 40178208008, 40178208009, 40178208010, 40178208011, 40178208012, 40178208013, 40178208014, 40178208015, 40178208016, 40178208017, 40178208018, 40178208019, 40178208020, 40178208021, 40178208022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<7.0	23.5	10/29/18 11:42	

LABORATORY CONTROL SAMPLE: 1779543

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	108	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1779544 1779545

Parameter	Units	40178208017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	232	200	200	420	415	94	91	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1779546 1779547

Parameter	Units	40178290005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	302	200	200	472	473	85	85	90-110	0	20	M0

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

QC Batch: 305603 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 40178208001, 40178208003, 40178208004

METHOD BLANK: 1785616 Matrix: Water
Associated Lab Samples: 40178208001, 40178208003, 40178208004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	<0.25	0.50	11/06/18 13:29	

LABORATORY CONTROL SAMPLE: 1785617

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	10	10.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1785618 1785619

Parameter	Units	40178207001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	1.3	10	10	11.0	11.0	97	97	90-110	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

QC Batch: 304304 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 40178208001, 40178208003, 40178208004

METHOD BLANK: 1777749 Matrix: Water
Associated Lab Samples: 40178208001, 40178208003, 40178208004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	<0.22	0.73	10/25/18 16:12	

LABORATORY CONTROL SAMPLE: 1777750

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	5	4.9	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1777751 1777752

Parameter	Units	40178231001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/L	68.0	20	20	91.5	95.7	117	138	90-110	4	20	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1777753 1777754

Parameter	Units	40178207001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/L	1.7	5	5	6.5	6.3	97	93	90-110	3	20	

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QUALIFIERS

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

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 and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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.

ANALYTE QUALIFIERS

1q	Analyte was measured in the associated method blank at a concentration of -16.0 mg/L.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40178208001	MW-2A	EPA 6010	305982		
40178208002	MW-2B	EPA 6010	305982		
40178208003	MW-21A	EPA 6010	305982		
40178208004	MW-3A	EPA 6010	305982		
40178208005	MW-28A	EPA 6010	305982		
40178208006	MW-4A	EPA 6010	305982		
40178208007	MW-4A DUP	EPA 6010	305982		
40178208008	FIELD BLANK	EPA 6010	305982		
40178208009	MW-5A	EPA 6010	305982		
40178208010	MW-20A	EPA 6010	305982		
40178208011	MW-20B	EPA 6010	305982		
40178208012	MW-20C	EPA 6010	305982		
40178208013	MW-16C	EPA 6010	305982		
40178208014	MW-16B	EPA 6010	305982		
40178208015	MW-16A	EPA 6010	305982		
40178208016	MW-26B	EPA 6010	305982		
40178208017	MW-26C	EPA 6010	305982		
40178208018	MW-27B	EPA 6010	305982		
40178208019	MW-25B	EPA 6010	305982		
40178208020	MW-18A	EPA 6010	305982		
40178208021	MW-18C	EPA 6010	305983		
40178208022	MW-18B	EPA 6010	305983		
40178208001	MW-2A	EPA 8260	304207		
40178208002	MW-2B	EPA 8260	304207		
40178208003	MW-21A	EPA 8260	304207		
40178208004	MW-3A	EPA 8260	304207		
40178208005	MW-28A	EPA 8260	304207		
40178208006	MW-4A	EPA 8260	304207		
40178208007	MW-4A DUP	EPA 8260	304207		
40178208008	FIELD BLANK	EPA 8260	304207		
40178208009	MW-5A	EPA 8260	304207		
40178208010	MW-20A	EPA 8260	304207		
40178208011	MW-20B	EPA 8260	304207		
40178208012	MW-20C	EPA 8260	304207		
40178208013	MW-16C	EPA 8260	304207		
40178208014	MW-16B	EPA 8260	304207		
40178208015	MW-16A	EPA 8260	304207		
40178208016	MW-26B	EPA 8260	304207		
40178208017	MW-26C	EPA 8260	304207		
40178208018	MW-27B	EPA 8260	304207		
40178208019	MW-25B	EPA 8260	304207		
40178208020	MW-18A	EPA 8260	304207		
40178208021	MW-18C	EPA 8260	304249		
40178208022	MW-18B	EPA 8260	304249		
40178208023	TRIP BLANK	EPA 8260	304249		
40178208001	MW-2A				
40178208002	MW-2B				

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40178208003	**MW-21A**				
40178208004	**MW-3A**				
40178208005	**MW-28A**				
40178208006	**MW-4A**				
40178208007	**MW-4A DUP**				
40178208009	**MW-5A**				
40178208010	**MW-20A**				
40178208011	**MW-20B**				
40178208012	**MW-20C**				
40178208013	**MW-16C**				
40178208014	**MW-16B**				
40178208015	**MW-16A**				
40178208016	**MW-26B**				
40178208017	**MW-26C**				
40178208018	**MW-27B**				
40178208019	**MW-25B**				
40178208020	**MW-18A**				
40178208021	**MW-18C**				
40178208022	**MW-18B**				
40178208024	**MW-19B**				
40178208025	**MW-19C**				
40178208026	**MW-28B**				
40178208001	**MW-2A**	EPA 300.0	304495		
40178208002	**MW-2B**	EPA 300.0	304495		
40178208003	**MW-21A**	EPA 300.0	304495		
40178208004	**MW-3A**	EPA 300.0	304495		
40178208005	**MW-28A**	EPA 300.0	304495		
40178208006	**MW-4A**	EPA 300.0	304495		
40178208007	**MW-4A DUP**	EPA 300.0	304495		
40178208008	**FIELD BLANK**	EPA 300.0	304495		
40178208009	**MW-5A**	EPA 300.0	304495		
40178208010	**MW-20A**	EPA 300.0	304495		
40178208011	**MW-20B**	EPA 300.0	304495		
40178208012	**MW-20C**	EPA 300.0	304495		
40178208013	**MW-16C**	EPA 300.0	304495		
40178208014	**MW-16B**	EPA 300.0	304495		
40178208015	**MW-16A**	EPA 300.0	304495		
40178208016	**MW-26B**	EPA 300.0	304495		
40178208017	**MW-26C**	EPA 300.0	304495		
40178208018	**MW-27B**	EPA 300.0	304495		
40178208019	**MW-25B**	EPA 300.0	304495		
40178208020	**MW-18A**	EPA 300.0	304533		
40178208021	**MW-18C**	EPA 300.0	304533		
40178208022	**MW-18B**	EPA 300.0	304533		
40178208001	**MW-2A**	EPA 310.2	304501		
40178208002	**MW-2B**	EPA 310.2	304501		
40178208003	**MW-21A**	EPA 310.2	304501		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11115796 RHINELANDER LF
Pace Project No.: 40178208

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40178208004	**MW-3A**	EPA 310.2	304501		
40178208005	**MW-28A**	EPA 310.2	304501		
40178208006	**MW-4A**	EPA 310.2	304501		
40178208007	**MW-4A DUP**	EPA 310.2	304501		
40178208008	**FIELD BLANK**	EPA 310.2	304502		
40178208009	**MW-5A**	EPA 310.2	304502		
40178208010	**MW-20A**	EPA 310.2	304502		
40178208011	**MW-20B**	EPA 310.2	304502		
40178208012	**MW-20C**	EPA 310.2	304502		
40178208013	**MW-16C**	EPA 310.2	304502		
40178208014	**MW-16B**	EPA 310.2	304502		
40178208015	**MW-16A**	EPA 310.2	304502		
40178208016	**MW-26B**	EPA 310.2	304502		
40178208017	**MW-26C**	EPA 310.2	304502		
40178208018	**MW-27B**	EPA 310.2	304502		
40178208019	**MW-25B**	EPA 310.2	304502		
40178208020	**MW-18A**	EPA 310.2	304502		
40178208021	**MW-18C**	EPA 310.2	304502		
40178208022	**MW-18B**	EPA 310.2	304502		
40178208001	**MW-2A**	EPA 350.1	305603		
40178208003	**MW-21A**	EPA 350.1	305603		
40178208004	**MW-3A**	EPA 350.1	305603		
40178208001	**MW-2A**	EPA 351.2	304304	EPA 351.2	304389
40178208003	**MW-21A**	EPA 351.2	304304	EPA 351.2	304389
40178208004	**MW-3A**	EPA 351.2	304304	EPA 351.2	304389

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

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40178208

CHAIN OF CUSTODY

(Please Print Clearly)

Company Name:	GHD
Branch/Location:	St. Paul
Project Contact:	G Anderson
Phone:	651-639-0913
Project Number:	1115796
Project Name:	Rhinelander LF
Project State:	WI
Sampled By (Print):	Ryan Aamot
Sampled By (Sign):	[signature]
PO #:	
Regulatory Program:	

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
- ☐ EPA Level III
- ☐ EPA Level IV

MS/MSD
- ☐ On your sample (billable)
- ☒ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, Sl = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

FILTERED? (YES/NO): Y/N
PRESERVATION (CODE)*: Pick Letter

Analyses Requested

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	VOC + tetrahydrofuran	Alkalinity/Chloride	Hardness	Fe/Mn	Boron	Ammonia N/TKN	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
Filtered							X	X	X				
001	W-181022-RA-01	10/22/18	1520	GW	X	X	X	X	X	X			
002	W-181022-RA-02	↓	1529	↓	X	X	X	X					
003	W-181022-RA-03	↓	1545	↓	X	X	X	X	X	X			
004	W-181022-RA-04	↓	1600	↓	X	X	X	X		X			
005	W-181022-RA-05	↓	1636	↓	X	X	X	X	X				
006	W-181023-RA-06	10/23/18	855	↓	X	X	X	X	X				
007	W-181023-RA-07	↓	855	↓	X	X	X	X	X				
008	W-181023-RA-08	↓	910	↓	X	X	X	X	X				
009	W-181023-RA-09	↓	910	↓	X	X	X	X	X				
010	W-181023-RA-10	↓	950	↓	X	X	X	X	X				
011	W-181023-RA-11	↓	1000	↓	X	X	X	X					
012	W-181023-RA-12	↓	1025	↓	X	X	X	X					
013	W-181023-RA-13	↓	1126	↓	X	X	X	X					

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Brent [signature]	10-23-18 6:50pm	[signature] Pace	10-24-18 0730

PACE Project No. 40178208

Receipt Temp = ROI °C

Sample Receipt pH
OK / Adjusted

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

40178208

(Please Print Clearly)

Company Name:	GHD
Branch/Location:	St. Paul
Project Contact:	G Anderson
Phone:	651 639-0913
Project Number:	11115796
Project Name:	Rhinelander LF
Project State:	WI
Sampled By (Print):	Ryan Aamot
Sampled By (Sign):	[signature]
PO #:	
Regulatory Program:	

Pace Analytical®
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☒ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, Sl = Sludge
W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

FILTERED? (YES/NO): Y/N — Hardness X, Fe/Mn X, Boron X
PRESERVATION (CODE)*: Pick Letter

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	VOC + tetrahydrofuran	Alkalinity/chloride	Hardness	Fe/Mn	Boron	Ammonia-N/TKN	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
014	W-181023-RA-14	10/23/18	1140	GW	X	X	X	X					
015	RA-15	↓	1200	↓	X	X	X	X					
016	RA-16	↓	1310	↓	X	X	X	X					
017	RA-17	↓	1304	↓	X	X	X	X					
018	RA-18	↓	1333	↓	X	X	X	X					
019	RA-19	↓	1352	↓	X	X	X	X	X				
020	RA-20	↓	1420	↓	X	X	X	X					
021	RA-21	↓	1500	↓	X	X	X	X	X				
022	W-181023RA-22	↓	1430	↓	X	X	X	X					
023	trip blank				X								

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Brant Lucash	10-23-18 6:50pm	Susan Wyle Pace	10-24-18 0730

PACE Project No. 40178208
Receipt Temp = ROI °C
Sample Receipt pH: OK / Adjusted
Cooler Custody Seal: Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Pace Container Order #410725

40178208

Addresses

Order By :		Ship To :		Return To:	
Company	GHD SERVICES	Company	GHD SERVICES (Pace Analytical	Company	Pace Analytical Green Bay
Contact	Anderson, Grant	Contact	Ryan Aamot	Contact	Milewsky, Dan
Email	grant.anderson@ghd.com	Email	ryan.aamot@ghd.com	Email	dan.milewsky@pacelabs.com
Address	1801 Old Highway 8 Northwest	Address	1801 Old Highway 8 Northwest	Address	1241 Bellevue Street
Address 2	Suite 114	Address 2	Suite 114	Address 2	Suite 9
City	Saint Paul	City	Saint Paul	City	Green Bay
State	MN Zip 55112	State	MN Zip 55112	State	WI Zip 54302
Phone	(651) 639-0913	Phone	(651) 639-0913	Phone	(920)469-2436

Info

Project Name	Rhinelander LF Surface Water	**Due Date**	10/16/2018	**Profile**		**Quote**	
Project Manager	Milewsky, Dan	**Return**		**Carrier**	Most Economical	**Location**	

Trip Blanks

- [ ] Include Trip Blanks

Bottle Labels

- [X] Blank
- [ ] Pre-Printed No Sample IDs
- [ ] Pre-Printed With Sample IDs

Bottles

- [ ] Boxed Cases
- [ ] Individually Wrapped
- [ ] Grouped By Sample

Return Shipping Labels

- [ ] No Shipper Number
- [ ] With Shipper Number

COC Options

- [X] Number of Blanks 1
- [ ] Pre-Printed

Misc

- [ ] Sampling Instructions
- [ ] Custody Seal
- [ ] Temp. Blanks
- [X] Coolers
- [ ] Syringes
- [ ] Extra Bubble Wrap
- [ ] Short Hold/Rush Stickers
- [ ] DI Water Liter(s)
- [ ] USDA Regulated Soils

# of Samples	Matrix	Test	Container	Total	# of QC	Lot #	Notes
4	WT	Fecal Coliform MF	120 ml sterile	4	0	07817003	
4	WT	Ammonia, TKN, N+N, COD	250mL plastic H2SO4	4	0	M-8-249-09BB	
4	WT	Chloride	250mL plastic unpres	4	0	M-8-124-04BB	
4	WT	Metals and Hardness	250mL plastic w/HNO3	4	0	M-8-242-03BB	

Hazard Shipping Placard In Place : NA

*Sample receiving hours are Monday through Friday 8:00 am to 6:00 pm and Saturday from 9:00 am to 12:00 pm unless special arrangements are made with your project manager.

*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage and disposal.

*Payment term are net 30 days.

*Please include the proposal number on the chain of custody to insure proper billing.

Sample Notes

Ship Date : 10/12/2018

Prepared By: Mai Yer Her

Verified By:

Pace Container Order #410726

40178208

Addresses

Order By :		Ship To :		Return To:	
Company	GHD SERVICES	Company	GHD SERVICES (Pace Analytical	Company	Pace Analytical Green Bay
Contact	Anderson, Grant	Contact	Ryan Aamot	Contact	Milewsky, Dan
Email	grant.anderson@ghd.com	Email	ryan.aamot@ghd.com	Email	dan.milewsky@pacelabs.com
Address	1801 Old Highway 8 Northwest	Address	1801 Old Highway 8 Northwest	Address	1241 Bellevue Street
Address 2	Suite 114	Address 2	Suite 114	Address 2	Suite 9
City	Saint Paul	City	Saint Paul	City	Green Bay
State	MN Zip 55112	State	MN Zip 55112	State	WI Zip 54302
Phone	(651) 639-0913	Phone	(651) 639-0913	Phone	(920)469-2436

Info

Project Name	Rhinelander LF Groundwater	**Due Date**	10/16/2018	**Profile**		**Quote**	
Project Manager	Milewsky, Dan	**Return**		**Carrier**	Most Economical	**Location**	

Trip Blanks

- [X] Include Trip Blanks

Bottle Labels

- [X] Blank
- [ ] Pre-Printed No Sample IDs
- [ ] Pre-Printed With Sample IDs

Bottles

- [ ] Boxed Cases
- [ ] Individually Wrapped
- [ ] Grouped By Sample

Return Shipping Labels

- [ ] No Shipper Number
- [ ] With Shipper Number

Misc

- [ ] Sampling Instructions
- [ ] Custody Seal
- [ ] Temp. Blanks
- [X] Coolers
- [ ] Syringes
- [ ] Extra Bubble Wrap
- [ ] Short Hold/Rush Stickers
- [ ] DI Water Liter(s)
- [ ] USDA Regulated Soils

COC Options

- [X] Number of Blanks 3
- [ ] Pre-Printed

# of Samples	Matrix	Test	Container	Total	# of QC	Lot #	Notes
2	WT	Trip BLANK	2-40mL HCL w/custody seal	4	0	B-8-141-01VB	
24	WT	VOC WI List	3-40ml clear vial HCl-hydrochloric acid	72	0	B-8-247-01VB	
24	WT	Alkalinity and Chloride	250mL plastic unpres	24	0	M-8-124-04BB	
24	WT	Metals	250mL plastic w/HNO3	24	0	M-8-242-03BB	
5	WT	Ammonia and TKN	250mL plastic H2SO4	5	0	M-8-249-09BB	
24	WT	Hardness; 6010	250mL plastic HNO3	24	0	M-8-242-03BB	

Hazard Shipping Placard In Place : NA

*Sample receiving hours are Monday through Friday 8:00 am to 6:00 pm and Saturday from 9:00 am to 12:00 pm unless special arrangements are made with your project manager.

*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage and disposal.

*Payment term are net 30 days.

*Please include the proposal number on the chain of custody to insure proper billing.

Sample Notes

Ship Date : 10/12/2018

Prepared By: Mai Yer Her

Verified By:

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Client Name: GHD

Sample Preservation Receipt Form

Project # 40178208

All containers needing preservation have been checked and noted below: ☑Yes ☐No ☐N/A

Initial when completed: SKW Date/ Time:

Lab Lot# of pH paper: 10452681 Lab Std #ID of preservation (if pH adjusted):

Pace Lab #	Glass							Plastic							Vials							Jars			General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN							
001											1		2	1				3										Y			Y		2.5 / 5 / 10
002											1		2					3													Y		2.5 / 5 / 10
003											1		2	1				3									1				Y		2.5 / 5 / 10
004											1		2	1				3										Y			Y		2.5 / 5 / 10
005											1		2	No pH strip				3										X			Y		2.5 / 5 / 10
006											1		2					3													Y		2.5 / 5 / 10
007											1		2					3													Y		2.5 / 5 / 10
008											1		2					3													Y		2.5 / 5 / 10
009											1		2					3													Y		2.5 / 5 / 10
010											1		2					3													Y		2.5 / 5 / 10
011											1		2					3													Y		2.5 / 5 / 10
012											1		2					3													Y		2.5 / 5 / 10
013											1		2					3													Y		2.5 / 5 / 10
014											1		2					3													Y		2.5 / 5 / 10
015											1		2					3													Y		2.5 / 5 / 10
016											1		2					3													Y		2.5 / 5 / 10
017											1		2					3													Y		2.5 / 5 / 10
018											1		2					3													Y		2.5 / 5 / 10
019											1		2					3													Y		2.5 / 5 / 10
020											1		2					3													Y		2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : ☑Yes ☐No ☐N/A ***If yes look in headspace column**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Sample Preservation Receipt Form

Client Name: GHD

Project #: 40178208

Pace Lab #	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	Glass							Plastic							Vials						Jars			General									
021											1		2					3															2.5 / 5 / 10
022											1		2					3															2.5 / 5 / 10
023																		4															2.5 / 5 / 10
																																	2.5 / 5 / 10
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																																	2.5 / 5 / 19
																																	2.5 / 5 / 20
																																	2.5 / 5 / 21
																																	2.5 / 5 / 22
																																	2.5 / 5 / 23

Pace Analytical 1241 Bellevue Street, Green Bay, WI 54302	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: 25Apr2018
	Document No.: **F-GB-C-031-Rev.07**	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: GHD

Project #:

WO# : 40178208

40178208

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco ☑ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used SR - N/A **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROI /Corr: _____

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 10-24-18 SW
Initials: _____

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. No preservation, mail or invoice info 10-24-18 SW
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD:	☐Yes ☑No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☑Yes ☐No ☐N/A	11.
Sample Labels match COC:	☐Yes ☑No ☐N/A	12. 002 - 2-250mlpD IDs are W1810 RA02 No collect times on all samples 10-24-18
-Includes date/time/ID/Analysis Matrix: W		
Trip Blank Present:	☑Yes ☐No ☐N/A	13.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): 410		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: AL for DM **Date:** 10/24/18

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

May 09, 2018

Grant Anderson
GHD Services; St. Paul
1801 Old Highway 8 Northwest
Suite 114
Saint Paul, MN 55112

RE: Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Dear Grant Anderson:
Enclosed are the analytical results for sample(s) received by the laboratory on April 25, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40167942001	**MW-2A**	Water	04/24/18 14:00	04/25/18 09:14
40167942002	**MW-2B**	Water	04/24/18 13:50	04/25/18 09:14
40167942003	**MW-16A**	Water	04/24/18 12:10	04/25/18 09:14
40167942004	**MW-16B**	Water	04/24/18 12:40	04/25/18 09:14
40167942005	**MW-16C**	Water	04/24/18 12:25	04/25/18 09:14
40167942006	**MW-20A**	Water	04/24/18 14:45	04/25/18 09:14
40167942007	**MW-20B**	Water	04/24/18 15:00	04/25/18 09:14
40167942008	**MW-20C**	Water	04/24/18 15:10	04/25/18 09:14
40167942009	**TRIP BLANK**	Water	04/24/18 00:00	04/25/18 09:14

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40167942001	**MW-2A**	EPA 6010	JLD	4
		EPA 8260	LAP	65
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
		EPA 350.1	TMK	1
		EPA 351.2	TMK	1
40167942002	**MW-2B**	EPA 6010	JLD	3
		EPA 8260	LAP	65
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40167942003	**MW-16A**	EPA 6010	JLD	3
		EPA 8260	LAP	65
			AXL	7
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40167942004	**MW-16B**	EPA 6010	JLD	3
		EPA 8260	LAP	65
			AXL	7
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40167942005	**MW-16C**	EPA 6010	JLD	3
		EPA 8260	LAP	65
			AXL	7
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40167942006	**MW-20A**	EPA 6010	JLD	4
		EPA 8260	LAP	65
			AXL	7
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40167942007	**MW-20B**	EPA 6010	JLD	3
		EPA 8260	LAP	65
			AXL	7
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40167942008	**MW-20C**	EPA 6010	JLD	3
		EPA 8260	LAP	65

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Lab ID	Sample ID	Method	Analysts	Analytes Reported
			AXL	7
		EPA 300.0	HMB	1
		EPA 310.2	DAW	1
40167942009	**TRIP BLANK**	EPA 8260	LAP	65

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: MW-2A **Lab ID: 40167942001** Collected: 04/24/18 14:00 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**1670**	ug/L	40.0	6.7	1		04/27/18 16:34	7440-42-8	
Iron, Dissolved	**56400**	ug/L	100	15.5	1		04/27/18 16:34	7439-89-6	
Manganese, Dissolved	**722**	ug/L	5.0	1.1	1		04/27/18 16:34	7439-96-5	
Total Hardness by 2340B, Dissolved	**1040**	mg/L	2.0	0.15	1		04/27/18 16:34		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**27.3**	ug/L	2.0	1.0	2		04/27/18 11:47	71-43-2	
Bromobenzene	**<0.46**	ug/L	2.0	0.46	2		04/27/18 11:47	108-86-1	
Bromochloromethane	**<0.68**	ug/L	2.0	0.68	2		04/27/18 11:47	74-97-5	
Bromodichloromethane	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	75-27-4	
Bromoform	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	75-25-2	
Bromomethane	**<4.9**	ug/L	10.0	4.9	2		04/27/18 11:47	74-83-9	
n-Butylbenzene	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	104-51-8	
sec-Butylbenzene	**<4.4**	ug/L	10.0	4.4	2		04/27/18 11:47	135-98-8	
tert-Butylbenzene	**<0.36**	ug/L	2.0	0.36	2		04/27/18 11:47	98-06-6	
Carbon tetrachloride	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	56-23-5	
Chlorobenzene	**1.4J**	ug/L	2.0	1.0	2		04/27/18 11:47	108-90-7	
Chloroethane	**<0.75**	ug/L	2.0	0.75	2		04/27/18 11:47	75-00-3	
Chloroform	**<5.0**	ug/L	10.0	5.0	2		04/27/18 11:47	67-66-3	
Chloromethane	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	74-87-3	
2-Chlorotoluene	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	95-49-8	
4-Chlorotoluene	**<0.43**	ug/L	2.0	0.43	2		04/27/18 11:47	106-43-4	
1,2-Dibromo-3-chloropropane	**<4.3**	ug/L	10.0	4.3	2		04/27/18 11:47	96-12-8	
Dibromochloromethane	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	124-48-1	
1,2-Dibromoethane (EDB)	**<0.36**	ug/L	2.0	0.36	2		04/27/18 11:47	106-93-4	
Dibromomethane	**<0.85**	ug/L	2.0	0.85	2		04/27/18 11:47	74-95-3	
1,2-Dichlorobenzene	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	95-50-1	
1,3-Dichlorobenzene	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	541-73-1	
1,4-Dichlorobenzene	**1.5J**	ug/L	2.0	1.0	2		04/27/18 11:47	106-46-7	
Dichlorodifluoromethane	**<0.45**	ug/L	2.0	0.45	2		04/27/18 11:47	75-71-8	
1,1-Dichloroethane	**<0.48**	ug/L	2.0	0.48	2		04/27/18 11:47	75-34-3	
1,2-Dichloroethane	**<0.34**	ug/L	2.0	0.34	2		04/27/18 11:47	107-06-2	
1,1-Dichloroethene	**<0.82**	ug/L	2.0	0.82	2		04/27/18 11:47	75-35-4	
cis-1,2-Dichloroethene	**<0.51**	ug/L	2.0	0.51	2		04/27/18 11:47	156-59-2	
trans-1,2-Dichloroethene	**<0.51**	ug/L	2.0	0.51	2		04/27/18 11:47	156-60-5	
1,2-Dichloropropane	**<0.47**	ug/L	2.0	0.47	2		04/27/18 11:47	78-87-5	
1,3-Dichloropropane	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	142-28-9	
2,2-Dichloropropane	**<0.97**	ug/L	2.0	0.97	2		04/27/18 11:47	594-20-7	
1,1-Dichloropropene	**<0.88**	ug/L	2.0	0.88	2		04/27/18 11:47	563-58-6	
cis-1,3-Dichloropropene	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	10061-01-5	
trans-1,3-Dichloropropene	**<0.46**	ug/L	2.0	0.46	2		04/27/18 11:47	10061-02-6	
Diisopropyl ether	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	108-20-3	
Ethylbenzene	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	100-41-4	
Hexachloro-1,3-butadiene	**<4.2**	ug/L	10.0	4.2	2		04/27/18 11:47	87-68-3	
Isopropylbenzene (Cumene)	**0.55J**	ug/L	2.0	0.29	2		04/27/18 11:47	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: MW-2A **Lab ID: 40167942001** Collected: 04/24/18 14:00 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	99-87-6	
Methylene Chloride	**<0.47**	ug/L	2.0	0.47	2		04/27/18 11:47	75-09-2	
Methyl-tert-butyl ether	**<0.35**	ug/L	2.0	0.35	2		04/27/18 11:47	1634-04-4	
Naphthalene	**<5.0**	ug/L	10.0	5.0	2		04/27/18 11:47	91-20-3	
n-Propylbenzene	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	103-65-1	
Styrene	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.36**	ug/L	2.0	0.36	2		04/27/18 11:47	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.50**	ug/L	2.0	0.50	2		04/27/18 11:47	79-34-5	
Tetrachloroethene	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	127-18-4	
Tetrahydrofuran	**185**	ug/L	10.0	4.1	2		04/27/18 11:47	109-99-9	
Toluene	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	108-88-3	
1,2,3-Trichlorobenzene	**<4.3**	ug/L	10.0	4.3	2		04/27/18 11:47	87-61-6	
1,2,4-Trichlorobenzene	**<4.4**	ug/L	10.0	4.4	2		04/27/18 11:47	120-82-1	
1,1,1-Trichloroethane	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	71-55-6	
1,1,2-Trichloroethane	**<0.39**	ug/L	2.0	0.39	2		04/27/18 11:47	79-00-5	
Trichloroethene	**<0.66**	ug/L	2.0	0.66	2		04/27/18 11:47	79-01-6	
Trichlorofluoromethane	**<0.37**	ug/L	2.0	0.37	2		04/27/18 11:47	75-69-4	
1,2,3-Trichloropropane	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	96-18-4	
1,2,4-Trimethylbenzene	**3.4**	ug/L	2.0	1.0	2		04/27/18 11:47	95-63-6	
1,3,5-Trimethylbenzene	**2.8**	ug/L	2.0	1.0	2		04/27/18 11:47	108-67-8	
Vinyl chloride	**<0.35**	ug/L	2.0	0.35	2		04/27/18 11:47	75-01-4	
m&p-Xylene	**5.7**	ug/L	4.0	2.0	2		04/27/18 11:47	179601-23-1	
o-Xylene	**<1.0**	ug/L	2.0	1.0	2		04/27/18 11:47	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	61-130		2		04/27/18 11:47	460-00-4	
Dibromofluoromethane (S)	95	%	67-130		2		04/27/18 11:47	1868-53-7	
Toluene-d8 (S)	98	%	70-130		2		04/27/18 11:47	2037-26-5	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**69.1**	mg/L	10.0	2.5	5		05/02/18 19:14	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**2220**	mg/L	235	70.4	10		04/30/18 13:36		
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**256**	mg/L	25.0	12.5	50		05/07/18 15:38	7664-41-7	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**263**	mg/L	14.6	4.4	20	05/02/18 13:22	05/02/18 17:23	7727-37-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: MW-2B **Lab ID: 40167942002** Collected: 04/24/18 13:50 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**12400**	ug/L	100	15.5	1		04/27/18 16:36	7439-89-6	
Manganese, Dissolved	**1160**	ug/L	5.0	1.1	1		04/27/18 16:36	7439-96-5	
Total Hardness by 2340B, Dissolved	**142**	mg/L	2.0	0.15	1		04/27/18 16:36		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		04/27/18 12:55	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		04/27/18 12:55	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		04/27/18 12:55	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		04/27/18 12:55	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		04/27/18 12:55	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		04/27/18 12:55	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		04/27/18 12:55	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		04/27/18 12:55	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		04/27/18 12:55	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		04/27/18 12:55	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		04/27/18 12:55	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		04/27/18 12:55	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		04/27/18 12:55	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		04/27/18 12:55	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		04/27/18 12:55	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		04/27/18 12:55	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		04/27/18 12:55	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		04/27/18 12:55	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		04/27/18 12:55	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		04/27/18 12:55	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		04/27/18 12:55	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		04/27/18 12:55	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		04/27/18 12:55	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: MW-2B **Lab ID: 40167942002** Collected: 04/24/18 13:50 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		04/27/18 12:55	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		04/27/18 12:55	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		04/27/18 12:55	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		04/27/18 12:55	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		04/27/18 12:55	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	127-18-4	
Tetrahydrofuran	**7.3**	ug/L	5.0	2.0	1		04/27/18 12:55	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		04/27/18 12:55	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		04/27/18 12:55	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		04/27/18 12:55	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		04/27/18 12:55	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		04/27/18 12:55	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		04/27/18 12:55	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		04/27/18 12:55	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 12:55	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	61-130		1		04/27/18 12:55	460-00-4	
Dibromofluoromethane (S)	98	%	67-130		1		04/27/18 12:55	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		04/27/18 12:55	2037-26-5	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**17.0**	mg/L	10.0	2.5	5		05/02/18 19:25	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**168**	mg/L	47.0	14.1	2		05/04/18 10:16		B

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: MW-16A **Lab ID: 40167942003** Collected: 04/24/18 12:10 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**2550**	ug/L	100	15.5	1		04/27/18 16:38	7439-89-6	
Manganese, Dissolved	**3260**	ug/L	5.0	1.1	1		04/27/18 16:38	7439-96-5	
Total Hardness by 2340B, Dissolved	**168**	mg/L	2.0	0.15	1		04/27/18 16:38		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.75J**	ug/L	1.0	0.50	1		04/27/18 15:33	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		04/27/18 15:33	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		04/27/18 15:33	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		04/27/18 15:33	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		04/27/18 15:33	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		04/27/18 15:33	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		04/27/18 15:33	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		04/27/18 15:33	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		04/27/18 15:33	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		04/27/18 15:33	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		04/27/18 15:33	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		04/27/18 15:33	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		04/27/18 15:33	75-71-8	
1,1-Dichloroethane	**0.24J**	ug/L	1.0	0.24	1		04/27/18 15:33	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		04/27/18 15:33	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		04/27/18 15:33	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		04/27/18 15:33	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		04/27/18 15:33	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		04/27/18 15:33	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		04/27/18 15:33	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		04/27/18 15:33	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		04/27/18 15:33	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		04/27/18 15:33	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		04/27/18 15:33	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: MW-16A **Lab ID: 40167942003** Collected: 04/24/18 12:10 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		04/27/18 15:33	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		04/27/18 15:33	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		04/27/18 15:33	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		04/27/18 15:33	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		04/27/18 15:33	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		04/27/18 15:33	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		04/27/18 15:33	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		04/27/18 15:33	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		04/27/18 15:33	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		04/27/18 15:33	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		04/27/18 15:33	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	108-67-8	
Vinyl chloride	**0.34J**	ug/L	1.0	0.18	1		04/27/18 15:33	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		04/27/18 15:33	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:33	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	61-130		1		04/27/18 15:33	460-00-4	
Dibromofluoromethane (S)	102	%	67-130		1		04/27/18 15:33	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		04/27/18 15:33	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.71**	Std. Units			1		04/24/18 12:10		
Field Specific Conductance	**409**	umhos/cm			1		04/24/18 12:10		
Oxygen, Dissolved	**4.32**	mg/L			1		04/24/18 12:10	7782-44-7	
REDOX	**-37**	mV			1		04/24/18 12:10		
Turbidity	**0**	NTU			1		04/24/18 12:10		
Depth to Groundwater	**14.75**	feet			1		04/24/18 12:10		
Temperature, Water (C)	**6.3**	deg C			1		04/24/18 12:10		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**20.1**	mg/L	2.0	0.50	1		05/02/18 19:35	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**165**	mg/L	23.5	7.0	1		05/04/18 10:18		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: MW-16B **Lab ID: 40167942004** Collected: 04/24/18 12:40 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**37300**	ug/L	100	15.5	1		04/27/18 16:41	7439-89-6	
Manganese, Dissolved	**3520**	ug/L	5.0	1.1	1		04/27/18 16:41	7439-96-5	
Total Hardness by 2340B, Dissolved	**227**	mg/L	2.0	0.15	1		04/27/18 16:41		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.0**	ug/L	1.0	0.50	1		04/27/18 13:17	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		04/27/18 13:17	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		04/27/18 13:17	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		04/27/18 13:17	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		04/27/18 13:17	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		04/27/18 13:17	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		04/27/18 13:17	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		04/27/18 13:17	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		04/27/18 13:17	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		04/27/18 13:17	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		04/27/18 13:17	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		04/27/18 13:17	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		04/27/18 13:17	75-71-8	
1,1-Dichloroethane	**0.27J**	ug/L	1.0	0.24	1		04/27/18 13:17	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		04/27/18 13:17	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		04/27/18 13:17	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		04/27/18 13:17	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		04/27/18 13:17	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		04/27/18 13:17	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		04/27/18 13:17	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		04/27/18 13:17	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		04/27/18 13:17	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		04/27/18 13:17	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		04/27/18 13:17	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: MW-16B **Lab ID: 40167942004** Collected: 04/24/18 12:40 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		04/27/18 13:17	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		04/27/18 13:17	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		04/27/18 13:17	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		04/27/18 13:17	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		04/27/18 13:17	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	127-18-4	
Tetrahydrofuran	**7.2**	ug/L	5.0	2.0	1		04/27/18 13:17	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		04/27/18 13:17	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		04/27/18 13:17	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		04/27/18 13:17	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		04/27/18 13:17	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		04/27/18 13:17	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		04/27/18 13:17	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		04/27/18 13:17	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	61-130		1		04/27/18 13:17	460-00-4	
Dibromofluoromethane (S)	100	%	67-130		1		04/27/18 13:17	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		04/27/18 13:17	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.98**	Std. Units			1		04/24/18 12:40		
Field Specific Conductance	**681**	umhos/cm			1		04/24/18 12:40		
Oxygen, Dissolved	**1.96**	mg/L			1		04/24/18 12:40	7782-44-7	
REDOX	**-172**	mV			1		04/24/18 12:40		
Turbidity	**0**	NTU			1		04/24/18 12:40		
Depth to Groundwater	**7.71**	feet			1		04/24/18 12:40		
Temperature, Water (C)	**8.2**	deg C			1		04/24/18 12:40		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**37.2**	mg/L	10.0	2.5	5		05/02/18 20:17	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**225**	mg/L	23.5	7.0	1		05/04/18 10:18		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: MW-16C **Lab ID: 40167942005** Collected: 04/24/18 12:25 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**26700**	ug/L	100	15.5	1		04/27/18 16:43	7439-89-6	
Manganese, Dissolved	**2110**	ug/L	5.0	1.1	1		04/27/18 16:43	7439-96-5	
Total Hardness by 2340B, Dissolved	**232**	mg/L	2.0	0.15	1		04/27/18 16:43		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.3**	ug/L	1.0	0.50	1		04/27/18 15:55	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		04/27/18 15:55	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		04/27/18 15:55	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		04/27/18 15:55	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		04/27/18 15:55	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		04/27/18 15:55	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	56-23-5	
Chlorobenzene	**0.64J**	ug/L	1.0	0.50	1		04/27/18 15:55	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		04/27/18 15:55	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		04/27/18 15:55	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		04/27/18 15:55	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		04/27/18 15:55	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		04/27/18 15:55	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		04/27/18 15:55	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		04/27/18 15:55	75-71-8	
1,1-Dichloroethane	**0.24J**	ug/L	1.0	0.24	1		04/27/18 15:55	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		04/27/18 15:55	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		04/27/18 15:55	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		04/27/18 15:55	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		04/27/18 15:55	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		04/27/18 15:55	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		04/27/18 15:55	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		04/27/18 15:55	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		04/27/18 15:55	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		04/27/18 15:55	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		04/27/18 15:55	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: MW-16C **Lab ID: 40167942005** Collected: 04/24/18 12:25 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		04/27/18 15:55	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		04/27/18 15:55	1634-04-4	
Naphthalene	**3.3J**	ug/L	5.0	2.5	1		04/27/18 15:55	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		04/27/18 15:55	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		04/27/18 15:55	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	127-18-4	
Tetrahydrofuran	**15.6**	ug/L	5.0	2.0	1		04/27/18 15:55	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		04/27/18 15:55	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		04/27/18 15:55	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		04/27/18 15:55	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		04/27/18 15:55	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		04/27/18 15:55	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	108-67-8	
Vinyl chloride	**0.29J**	ug/L	1.0	0.18	1		04/27/18 15:55	75-01-4	
m&p-Xylene	**1.4J**	ug/L	2.0	1.0	1		04/27/18 15:55	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 15:55	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	61-130		1		04/27/18 15:55	460-00-4	
Dibromofluoromethane (S)	98	%	67-130		1		04/27/18 15:55	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		04/27/18 15:55	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.78**	Std. Units			1		04/24/18 12:25		
Field Specific Conductance	**682**	umhos/cm			1		04/24/18 12:25		
Oxygen, Dissolved	**2.4**	mg/L			1		04/24/18 12:25	7782-44-7	
REDOX	**-129**	mV			1		04/24/18 12:25		
Turbidity	**0**	NTU			1		04/24/18 12:25		
Depth to Groundwater	**7.98**	feet			1		04/24/18 12:25		
Temperature, Water (C)	**8.2**	deg C			1		04/24/18 12:25		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**41.5**	mg/L	10.0	2.5	5		05/02/18 20:28	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**237**	mg/L	23.5	7.0	1		05/04/18 10:20		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: MW-20A **Lab ID: 40167942006** Collected: 04/24/18 14:45 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Boron, Dissolved	**398**	ug/L	40.0	6.7	1		04/27/18 16:50	7440-42-8	
Iron, Dissolved	**69400**	ug/L	100	15.5	1		04/27/18 16:50	7439-89-6	
Manganese, Dissolved	**654**	ug/L	5.0	1.1	1		04/27/18 16:50	7439-96-5	
Total Hardness by 2340B, Dissolved	**143**	mg/L	2.0	0.15	1		04/27/18 16:50		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**1.0J**	ug/L	1.0	0.50	1		04/27/18 13:40	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		04/27/18 13:40	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		04/27/18 13:40	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:40	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:40	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		04/27/18 13:40	74-83-9	
n-Butylbenzene	**1.4**	ug/L	1.0	0.50	1		04/27/18 13:40	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		04/27/18 13:40	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		04/27/18 13:40	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:40	56-23-5	
Chlorobenzene	**5.2**	ug/L	1.0	0.50	1		04/27/18 13:40	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		04/27/18 13:40	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		04/27/18 13:40	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:40	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:40	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		04/27/18 13:40	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		04/27/18 13:40	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:40	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		04/27/18 13:40	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		04/27/18 13:40	74-95-3	
1,2-Dichlorobenzene	**0.63J**	ug/L	1.0	0.50	1		04/27/18 13:40	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:40	541-73-1	
1,4-Dichlorobenzene	**1.6**	ug/L	1.0	0.50	1		04/27/18 13:40	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		04/27/18 13:40	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		04/27/18 13:40	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		04/27/18 13:40	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		04/27/18 13:40	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		04/27/18 13:40	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		04/27/18 13:40	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		04/27/18 13:40	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:40	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		04/27/18 13:40	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		04/27/18 13:40	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:40	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		04/27/18 13:40	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:40	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:40	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		04/27/18 13:40	87-68-3	
Isopropylbenzene (Cumene)	**3.5**	ug/L	1.0	0.14	1		04/27/18 13:40	98-82-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: MW-20A **Lab ID: 40167942006** Collected: 04/24/18 14:45 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
p-Isopropyltoluene	**0.59J**	ug/L	1.0	0.50	1		04/27/18 13:40	99-87-6	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		04/27/18 13:40	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		04/27/18 13:40	1634-04-4	
Naphthalene	**12.5**	ug/L	5.0	2.5	1		04/27/18 13:40	91-20-3	
n-Propylbenzene	**2.4**	ug/L	1.0	0.50	1		04/27/18 13:40	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:40	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		04/27/18 13:40	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		04/27/18 13:40	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:40	127-18-4	
Tetrahydrofuran	**7.5**	ug/L	5.0	2.0	1		04/27/18 13:40	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:40	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		04/27/18 13:40	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		04/27/18 13:40	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:40	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		04/27/18 13:40	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		04/27/18 13:40	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		04/27/18 13:40	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 13:40	96-18-4	
1,2,4-Trimethylbenzene	**19.7**	ug/L	1.0	0.50	1		04/27/18 13:40	95-63-6	
1,3,5-Trimethylbenzene	**4.6**	ug/L	1.0	0.50	1		04/27/18 13:40	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		04/27/18 13:40	75-01-4	
m&p-Xylene	**50.6**	ug/L	2.0	1.0	1		04/27/18 13:40	179601-23-1	
o-Xylene	**1.1**	ug/L	1.0	0.50	1		04/27/18 13:40	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	61-130		1		04/27/18 13:40	460-00-4	
Dibromofluoromethane (S)	100	%	67-130		1		04/27/18 13:40	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		04/27/18 13:40	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.2**	Std. Units			1		04/24/18 14:45		
Field Specific Conductance	**725**	umhos/cm			1		04/24/18 14:45		
Oxygen, Dissolved	**3.95**	mg/L			1		04/24/18 14:45	7782-44-7	
REDOX	**-83**	mV			1		04/24/18 14:45		
Turbidity	**0**	NTU			1		04/24/18 14:45		
Depth to Groundwater	**3.65**	feet			1		04/24/18 14:45		
Temperature, Water (C)	**3.2**	deg C			1		04/24/18 14:45		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**8.9J**	mg/L	10.0	2.5	5		05/02/18 20:38	16887-00-6	D3
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**253**	mg/L	47.0	14.1	2		05/04/18 10:21		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: MW-20B **Lab ID: 40167942007** Collected: 04/24/18 15:00 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**17600**	ug/L	100	15.5	1		04/27/18 16:53	7439-89-6	
Manganese, Dissolved	**1080**	ug/L	5.0	1.1	1		04/27/18 16:53	7439-96-5	
Total Hardness by 2340B, Dissolved	**162**	mg/L	2.0	0.15	1		04/27/18 16:53		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.64J**	ug/L	1.0	0.50	1		04/27/18 16:18	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		04/27/18 16:18	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		04/27/18 16:18	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		04/27/18 16:18	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		04/27/18 16:18	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		04/27/18 16:18	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	56-23-5	
Chlorobenzene	**0.57J**	ug/L	1.0	0.50	1		04/27/18 16:18	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		04/27/18 16:18	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		04/27/18 16:18	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		04/27/18 16:18	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		04/27/18 16:18	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		04/27/18 16:18	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		04/27/18 16:18	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		04/27/18 16:18	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		04/27/18 16:18	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		04/27/18 16:18	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		04/27/18 16:18	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		04/27/18 16:18	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		04/27/18 16:18	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		04/27/18 16:18	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		04/27/18 16:18	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		04/27/18 16:18	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		04/27/18 16:18	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		04/27/18 16:18	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		04/27/18 16:18	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: MW-20B **Lab ID: 40167942007** Collected: 04/24/18 15:00 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		04/27/18 16:18	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		04/27/18 16:18	1634-04-4	
Naphthalene	**10.6**	ug/L	5.0	2.5	1		04/27/18 16:18	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		04/27/18 16:18	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		04/27/18 16:18	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	127-18-4	
Tetrahydrofuran	**15.2**	ug/L	5.0	2.0	1		04/27/18 16:18	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		04/27/18 16:18	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		04/27/18 16:18	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		04/27/18 16:18	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		04/27/18 16:18	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		04/27/18 16:18	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	108-67-8	
Vinyl chloride	**0.48J**	ug/L	1.0	0.18	1		04/27/18 16:18	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		04/27/18 16:18	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:18	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	61-130		1		04/27/18 16:18	460-00-4	
Dibromofluoromethane (S)	99	%	67-130		1		04/27/18 16:18	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		04/27/18 16:18	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.8**	Std. Units			1		04/24/18 15:00		
Field Specific Conductance	**501**	umhos/cm			1		04/24/18 15:00		
Oxygen, Dissolved	**2.28**	mg/L			1		04/24/18 15:00	7782-44-7	
REDOX	**-123**	mV			1		04/24/18 15:00		
Turbidity	**0**	NTU			1		04/24/18 15:00		
Depth to Groundwater	**4.51**	feet			1		04/24/18 15:00		
Temperature, Water (C)	**8.3**	deg C			1		04/24/18 15:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**46.3**	mg/L	10.0	2.5	5		05/02/18 20:49	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**145**	mg/L	23.5	7.0	1		05/04/18 10:22		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: MW-20C **Lab ID: 40167942008** Collected: 04/24/18 15:10 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Iron, Dissolved	**21500**	ug/L	100	15.5	1		04/27/18 16:55	7439-89-6	
Manganese, Dissolved	**1400**	ug/L	5.0	1.1	1		04/27/18 16:55	7439-96-5	
Total Hardness by 2340B, Dissolved	**183**	mg/L	2.0	0.15	1		04/27/18 16:55		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**0.90J**	ug/L	1.0	0.50	1		04/27/18 16:42	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		04/27/18 16:42	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		04/27/18 16:42	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		04/27/18 16:42	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		04/27/18 16:42	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		04/27/18 16:42	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	56-23-5	
Chlorobenzene	**0.74J**	ug/L	1.0	0.50	1		04/27/18 16:42	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		04/27/18 16:42	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		04/27/18 16:42	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		04/27/18 16:42	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		04/27/18 16:42	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		04/27/18 16:42	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		04/27/18 16:42	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		04/27/18 16:42	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		04/27/18 16:42	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		04/27/18 16:42	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		04/27/18 16:42	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		04/27/18 16:42	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		04/27/18 16:42	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		04/27/18 16:42	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		04/27/18 16:42	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		04/27/18 16:42	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		04/27/18 16:42	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		04/27/18 16:42	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		04/27/18 16:42	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: MW-20C **Lab ID: 40167942008** Collected: 04/24/18 15:10 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		04/27/18 16:42	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		04/27/18 16:42	1634-04-4	
Naphthalene	**8.9**	ug/L	5.0	2.5	1		04/27/18 16:42	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		04/27/18 16:42	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		04/27/18 16:42	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	127-18-4	
Tetrahydrofuran	**14.1**	ug/L	5.0	2.0	1		04/27/18 16:42	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		04/27/18 16:42	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		04/27/18 16:42	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		04/27/18 16:42	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		04/27/18 16:42	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		04/27/18 16:42	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	108-67-8	
Vinyl chloride	**0.78J**	ug/L	1.0	0.18	1		04/27/18 16:42	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		04/27/18 16:42	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 16:42	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	61-130		1		04/27/18 16:42	460-00-4	
Dibromofluoromethane (S)	100	%	67-130		1		04/27/18 16:42	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		04/27/18 16:42	2037-26-5	
Field Data	Analytical Method:								
Field pH	**6.73**	Std. Units			1		04/24/18 15:10		
Field Specific Conductance	**565**	umhos/cm			1		04/24/18 15:10		
Oxygen, Dissolved	**3.46**	mg/L			1		04/24/18 15:10	7782-44-7	
REDOX	**-111**	mV			1		04/24/18 15:10		
Turbidity	**0**	NTU			1		04/24/18 15:10		
Depth to Groundwater	**4.84**	feet			1		04/24/18 15:10		
Temperature, Water (C)	**8.3**	deg C			1		04/24/18 15:10		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**46.9**	mg/L	10.0	2.5	5		05/02/18 21:00	16887-00-6	
310.2 Alkalinity	Analytical Method: EPA 310.2								
Alkalinity, Total as CaCO3	**183**	mg/L	23.5	7.0	1		05/04/18 10:22		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: TRIP BLANK **Lab ID: 40167942009** Collected: 04/24/18 00:00 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		04/27/18 10:40	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		04/27/18 10:40	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		04/27/18 10:40	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		04/27/18 10:40	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		04/27/18 10:40	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		04/27/18 10:40	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		04/27/18 10:40	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		04/27/18 10:40	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		04/27/18 10:40	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		04/27/18 10:40	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		04/27/18 10:40	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		04/27/18 10:40	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		04/27/18 10:40	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		04/27/18 10:40	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		04/27/18 10:40	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		04/27/18 10:40	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		04/27/18 10:40	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		04/27/18 10:40	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		04/27/18 10:40	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		04/27/18 10:40	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		04/27/18 10:40	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		04/27/18 10:40	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		04/27/18 10:40	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	99-87-6	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		04/27/18 10:40	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		04/27/18 10:40	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		04/27/18 10:40	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		04/27/18 10:40	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Sample: TRIP BLANK **Lab ID: 40167942009** Collected: 04/24/18 00:00 Received: 04/25/18 09:14 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		04/27/18 10:40	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	127-18-4	
Tetrahydrofuran	**<2.0**	ug/L	5.0	2.0	1		04/27/18 10:40	109-99-9	
Toluene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		04/27/18 10:40	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		04/27/18 10:40	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		04/27/18 10:40	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		04/27/18 10:40	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		04/27/18 10:40	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		04/27/18 10:40	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		04/27/18 10:40	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		04/27/18 10:40	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	61-130		1		04/27/18 10:40	460-00-4	
Dibromofluoromethane (S)	100	%	67-130		1		04/27/18 10:40	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		04/27/18 10:40	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

QC Batch: 287268 Analysis Method: EPA 6010
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 40167942001, 40167942002, 40167942003, 40167942004, 40167942005, 40167942006, 40167942007, 40167942008

METHOD BLANK: 1680589 Matrix: Water
Associated Lab Samples: 40167942001, 40167942002, 40167942003, 40167942004, 40167942005, 40167942006, 40167942007, 40167942008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron, Dissolved	ug/L	<6.7	40.0	04/27/18 15:00	
Iron, Dissolved	ug/L	<15.5	100	04/27/18 15:00	
Manganese, Dissolved	ug/L	<1.1	5.0	04/27/18 15:00	
Total Hardness by 2340B, Dissolved	mg/L	<0.15	2.0	04/27/18 15:00	

LABORATORY CONTROL SAMPLE: 1680590

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron, Dissolved	ug/L	500	526	105	80-120	
Iron, Dissolved	ug/L	5000	4980	100	80-120	
Manganese, Dissolved	ug/L	500	479	96	80-120	
Total Hardness by 2340B, Dissolved	mg/L		32.6			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1680591 1680592

Parameter	Units	40167999001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron, Dissolved	ug/L	28.1J	500	500	580	577	110	110	75-125	1	20	
Iron, Dissolved	ug/L	12000	5000	5000	16800	16800	95	96	75-125	0	20	
Manganese, Dissolved	ug/L	380	500	500	865	857	97	95	75-125	1	20	
Total Hardness by 2340B, Dissolved	mg/L	355			381	381				0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

QC Batch: 287144 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40167942001, 40167942002, 40167942003, 40167942004, 40167942005, 40167942006, 40167942007, 40167942008, 40167942009

METHOD BLANK: 1679699 Matrix: Water
Associated Lab Samples: 40167942001, 40167942002, 40167942003, 40167942004, 40167942005, 40167942006, 40167942007, 40167942008, 40167942009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	04/27/18 08:24	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	04/27/18 08:24	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	04/27/18 08:24	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	04/27/18 08:24	
1,1-Dichloroethane	ug/L	<0.24	1.0	04/27/18 08:24	
1,1-Dichloroethene	ug/L	<0.41	1.0	04/27/18 08:24	
1,1-Dichloropropene	ug/L	<0.44	1.0	04/27/18 08:24	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	04/27/18 08:24	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	04/27/18 08:24	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	04/27/18 08:24	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	04/27/18 08:24	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	04/27/18 08:24	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	04/27/18 08:24	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	04/27/18 08:24	
1,2-Dichloroethane	ug/L	<0.17	1.0	04/27/18 08:24	
1,2-Dichloropropane	ug/L	<0.23	1.0	04/27/18 08:24	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	04/27/18 08:24	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	04/27/18 08:24	
1,3-Dichloropropane	ug/L	<0.50	1.0	04/27/18 08:24	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	04/27/18 08:24	
2,2-Dichloropropane	ug/L	<0.48	1.0	04/27/18 08:24	
2-Chlorotoluene	ug/L	<0.50	1.0	04/27/18 08:24	
4-Chlorotoluene	ug/L	<0.21	1.0	04/27/18 08:24	
Benzene	ug/L	<0.50	1.0	04/27/18 08:24	
Bromobenzene	ug/L	<0.23	1.0	04/27/18 08:24	
Bromochloromethane	ug/L	<0.34	1.0	04/27/18 08:24	
Bromodichloromethane	ug/L	<0.50	1.0	04/27/18 08:24	
Bromoform	ug/L	<0.50	1.0	04/27/18 08:24	
Bromomethane	ug/L	<2.4	5.0	04/27/18 08:24	
Carbon tetrachloride	ug/L	<0.50	1.0	04/27/18 08:24	
Chlorobenzene	ug/L	<0.50	1.0	04/27/18 08:24	
Chloroethane	ug/L	<0.37	1.0	04/27/18 08:24	
Chloroform	ug/L	<2.5	5.0	04/27/18 08:24	
Chloromethane	ug/L	<0.50	1.0	04/27/18 08:24	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	04/27/18 08:24	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	04/27/18 08:24	
Dibromochloromethane	ug/L	<0.50	1.0	04/27/18 08:24	
Dibromomethane	ug/L	<0.43	1.0	04/27/18 08:24	
Dichlorodifluoromethane	ug/L	<0.22	1.0	04/27/18 08:24	
Diisopropyl ether	ug/L	<0.50	1.0	04/27/18 08:24	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

METHOD BLANK: 1679699 Matrix: Water

Associated Lab Samples: 40167942001, 40167942002, 40167942003, 40167942004, 40167942005, 40167942006, 40167942007, 40167942008, 40167942009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.50	1.0	04/27/18 08:24	
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	04/27/18 08:24	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	04/27/18 08:24	
m&p-Xylene	ug/L	<1.0	2.0	04/27/18 08:24	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	04/27/18 08:24	
Methylene Chloride	ug/L	<0.23	1.0	04/27/18 08:24	
n-Butylbenzene	ug/L	<0.50	1.0	04/27/18 08:24	
n-Propylbenzene	ug/L	<0.50	1.0	04/27/18 08:24	
Naphthalene	ug/L	<2.5	5.0	04/27/18 08:24	
o-Xylene	ug/L	<0.50	1.0	04/27/18 08:24	
p-Isopropyltoluene	ug/L	<0.50	1.0	04/27/18 08:24	
sec-Butylbenzene	ug/L	<2.2	5.0	04/27/18 08:24	
Styrene	ug/L	<0.50	1.0	04/27/18 08:24	
tert-Butylbenzene	ug/L	<0.18	1.0	04/27/18 08:24	
Tetrachloroethene	ug/L	<0.50	1.0	04/27/18 08:24	
Tetrahydrofuran	ug/L	<2.0	5.0	04/27/18 08:24	
Toluene	ug/L	<0.50	1.0	04/27/18 08:24	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	04/27/18 08:24	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	04/27/18 08:24	
Trichloroethene	ug/L	<0.33	1.0	04/27/18 08:24	
Trichlorofluoromethane	ug/L	<0.18	1.0	04/27/18 08:24	
Vinyl chloride	ug/L	<0.18	1.0	04/27/18 08:24	
4-Bromofluorobenzene (S)	%	95	61-130	04/27/18 08:24	
Dibromofluoromethane (S)	%	98	67-130	04/27/18 08:24	
Toluene-d8 (S)	%	97	70-130	04/27/18 08:24	

LABORATORY CONTROL SAMPLE: 1679700

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	54.4	109	70-130	
1,1,1-Trichloroethane	ug/L	50	53.2	106	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	48.0	96	70-130	
1,1,2-Trichloroethane	ug/L	50	49.7	99	70-130	
1,1-Dichloroethane	ug/L	50	47.5	95	71-132	
1,1-Dichloroethene	ug/L	50	54.1	108	75-130	
1,1-Dichloropropene	ug/L	50	52.4	105	70-130	
1,2,3-Trichlorobenzene	ug/L	50	50.5	101	70-130	
1,2,3-Trichloropropane	ug/L	50	47.8	96	70-130	
1,2,4-Trichlorobenzene	ug/L	50	50.8	102	70-130	
1,2,4-Trimethylbenzene	ug/L	50	46.9	94	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	48.8	98	63-123	
1,2-Dibromoethane (EDB)	ug/L	50	50.8	102	70-130	
1,2-Dichlorobenzene	ug/L	50	50.5	101	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

LABORATORY CONTROL SAMPLE: 1679700

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	47.8	96	70-131	
1,2-Dichloropropane	ug/L	50	49.1	98	80-120	
1,3,5-Trimethylbenzene	ug/L	50	48.8	98	70-130	
1,3-Dichlorobenzene	ug/L	50	50.7	101	70-130	
1,3-Dichloropropane	ug/L	50	48.1	96	70-130	
1,4-Dichlorobenzene	ug/L	50	50.1	100	70-130	
2,2-Dichloropropane	ug/L	50	55.0	110	70-130	
2-Chlorotoluene	ug/L	50	47.6	95	70-130	
4-Chlorotoluene	ug/L	50	49.6	99	70-130	
Benzene	ug/L	50	46.5	93	73-145	
Bromobenzene	ug/L	50	48.7	97	70-130	
Bromochloromethane	ug/L	50	53.6	107	70-130	
Bromodichloromethane	ug/L	50	49.5	99	70-130	
Bromoform	ug/L	50	47.4	95	67-130	
Bromomethane	ug/L	50	45.9	92	26-128	
Carbon tetrachloride	ug/L	50	55.7	111	70-133	
Chlorobenzene	ug/L	50	51.8	104	70-130	
Chloroethane	ug/L	50	48.6	97	58-120	
Chloroform	ug/L	50	50.7	101	80-121	
Chloromethane	ug/L	50	42.2	84	40-127	
cis-1,2-Dichloroethene	ug/L	50	57.8	116	70-130	
cis-1,3-Dichloropropene	ug/L	50	49.0	98	70-130	
Dibromochloromethane	ug/L	50	47.9	96	70-130	
Dibromomethane	ug/L	50	51.1	102	70-130	
Dichlorodifluoromethane	ug/L	50	42.4	85	20-135	
Diisopropyl ether	ug/L	50	45.8	92	70-130	
Ethylbenzene	ug/L	50	52.3	105	87-129	
Hexachloro-1,3-butadiene	ug/L	50	54.2	108	70-130	
Isopropylbenzene (Cumene)	ug/L	50	55.0	110	70-130	
m&p-Xylene	ug/L	100	109	109	70-130	
Methyl-tert-butyl ether	ug/L	50	53.2	106	66-143	
Methylene Chloride	ug/L	50	50.4	101	70-130	
n-Butylbenzene	ug/L	50	49.8	100	70-130	
n-Propylbenzene	ug/L	50	48.7	97	70-130	
Naphthalene	ug/L	50	47.7	95	70-130	
o-Xylene	ug/L	50	51.8	104	70-130	
p-Isopropyltoluene	ug/L	50	48.4	97	70-130	
sec-Butylbenzene	ug/L	50	51.5	103	70-130	
Styrene	ug/L	50	49.6	99	70-130	
tert-Butylbenzene	ug/L	50	51.2	102	70-130	
Tetrachloroethene	ug/L	50	54.1	108	70-130	
Tetrahydrofuran	ug/L	50	46.9	94	50-150	
Toluene	ug/L	50	51.8	104	82-130	
trans-1,2-Dichloroethene	ug/L	50	51.5	103	75-132	
trans-1,3-Dichloropropene	ug/L	50	46.8	94	70-130	
Trichloroethene	ug/L	50	49.8	100	70-130	
Trichlorofluoromethane	ug/L	50	54.8	110	76-133	

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REPORT OF LABORATORY ANALYSIS

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(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

LABORATORY CONTROL SAMPLE: 1679700

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Vinyl chloride	ug/L	50	45.3	91	57-136	
4-Bromofluorobenzene (S)	%			99	61-130	
Dibromofluoromethane (S)	%			101	67-130	
Toluene-d8 (S)	%			96	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1679701 1679702

Parameter	Units	40167985003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	<0.18	50	50	54.8	54.1	110	108	70-130	1	20	
1,1,1-Trichloroethane	ug/L	<0.50	50	50	53.2	52.5	106	105	70-134	1	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	50	50	49.2	54.1	98	108	70-130	9	20	
1,1,2-Trichloroethane	ug/L	<0.20	50	50	49.4	51.2	99	102	70-130	4	20	
1,1-Dichloroethane	ug/L	<0.24	50	50	47.2	45.6	94	91	71-133	3	20	
1,1-Dichloroethene	ug/L	<0.41	50	50	53.2	53.2	106	106	75-136	0	20	
1,1-Dichloropropene	ug/L	<0.44	50	50	51.1	50.0	102	100	70-130	2	20	
1,2,3-Trichlorobenzene	ug/L	<2.1	50	50	52.6	54.9	105	110	70-130	4	20	
1,2,3-Trichloropropane	ug/L	<0.50	50	50	48.1	54.0	96	108	70-130	11	20	
1,2,4-Trichlorobenzene	ug/L	<2.2	50	50	50.0	52.4	100	105	70-130	5	20	
1,2,4-Trimethylbenzene	ug/L	<0.50	50	50	48.6	48.2	97	96	70-130	1	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	50	53.3	59.4	107	119	63-123	11	20	
1,2-Dibromoethane (EDB)	ug/L	<0.18	50	50	50.6	53.5	101	107	70-130	6	20	
1,2-Dichlorobenzene	ug/L	<0.50	50	50	50.1	51.2	100	102	70-130	2	20	
1,2-Dichloroethane	ug/L	0.75J	50	50	48.4	48.5	95	95	70-131	0	20	
1,2-Dichloropropane	ug/L	<0.23	50	50	48.7	46.8	97	94	80-120	4	20	
1,3,5-Trimethylbenzene	ug/L	<0.50	50	50	49.2	48.8	98	98	70-130	1	20	
1,3-Dichlorobenzene	ug/L	<0.50	50	50	49.8	50.3	100	101	70-130	1	20	
1,3-Dichloropropane	ug/L	<0.50	50	50	49.0	51.6	98	103	70-130	5	20	
1,4-Dichlorobenzene	ug/L	<0.50	50	50	50.2	50.1	100	100	70-130	0	20	
2,2-Dichloropropane	ug/L	<0.48	50	50	54.0	52.2	108	104	70-130	3	20	
2-Chlorotoluene	ug/L	<0.50	50	50	47.2	48.0	94	96	70-130	2	20	
4-Chlorotoluene	ug/L	<0.21	50	50	50.8	49.0	102	98	70-130	4	20	
Benzene	ug/L	<0.50	50	50	45.3	45.0	91	90	73-145	1	20	
Bromobenzene	ug/L	<0.23	50	50	49.3	48.4	99	97	70-130	2	20	
Bromochloromethane	ug/L	<0.34	50	50	53.0	50.9	106	102	70-130	4	20	
Bromodichloromethane	ug/L	<0.50	50	50	48.9	48.3	98	97	70-130	1	20	
Bromoform	ug/L	<0.50	50	50	46.2	51.0	92	102	67-130	10	20	
Bromomethane	ug/L	<2.4	50	50	45.4	39.0	91	78	26-129	15	20	
Carbon tetrachloride	ug/L	<0.50	50	50	55.1	53.3	110	107	70-134	3	20	
Chlorobenzene	ug/L	<0.50	50	50	52.0	49.3	104	99	70-130	5	20	
Chloroethane	ug/L	<0.37	50	50	49.5	46.5	99	93	58-120	6	20	
Chloroform	ug/L	<2.5	50	50	49.1	48.7	98	97	80-121	1	20	
Chloromethane	ug/L	<0.50	50	50	43.4	41.1	87	82	40-128	5	20	
cis-1,2-Dichloroethene	ug/L	<0.26	50	50	53.8	52.8	108	106	70-130	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1679701 1679702

Parameter	Units	40167985003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
cis-1,3-Dichloropropene	ug/L	<0.50	50	50	47.7	46.8	95	94	70-130	2	20	
Dibromochloromethane	ug/L	<0.50	50	50	47.8	50.3	96	101	70-130	5	20	
Dibromomethane	ug/L	<0.43	50	50	50.7	50.6	101	101	70-130	0	20	
Dichlorodifluoromethane	ug/L	<0.22	50	50	39.3	39.3	79	79	20-146	0	20	
Diisopropyl ether	ug/L	<0.50	50	50	44.8	44.4	90	89	70-130	1	20	
Ethylbenzene	ug/L	<0.50	50	50	53.4	51.8	107	104	87-129	3	20	
Hexachloro-1,3-butadiene	ug/L	<2.1	50	50	58.2	54.2	116	108	70-130	7	20	
Isopropylbenzene (Cumene)	ug/L	<0.14	50	50	54.3	53.1	109	106	70-130	2	20	
m&p-Xylene	ug/L	<1.0	100	100	108	105	108	105	70-130	3	20	
Methyl-tert-butyl ether	ug/L	<0.17	50	50	52.8	54.5	106	109	66-143	3	20	
Methylene Chloride	ug/L	<0.23	50	50	49.3	47.2	99	94	70-130	4	20	
n-Butylbenzene	ug/L	<0.50	50	50	51.5	51.4	103	103	70-130	0	20	
n-Propylbenzene	ug/L	<0.50	50	50	48.4	48.7	97	97	70-130	1	20	
Naphthalene	ug/L	<2.5	50	50	52.5	58.1	105	116	70-130	10	20	
o-Xylene	ug/L	<0.50	50	50	51.5	51.0	103	102	70-130	1	20	
p-Isopropyltoluene	ug/L	<0.50	50	50	49.6	48.7	99	97	70-130	2	20	
sec-Butylbenzene	ug/L	<2.2	50	50	51.1	51.2	102	102	70-130	0	20	
Styrene	ug/L	<0.50	50	50	51.3	50.6	103	101	70-130	1	20	
tert-Butylbenzene	ug/L	<0.18	50	50	50.8	51.3	102	103	70-130	1	20	
Tetrachloroethene	ug/L	<0.50	50	50	54.2	54.6	108	109	70-130	1	20	
Tetrahydrofuran	ug/L	<2.0	50	50	49.2	55.7	98	111	50-150	12	20	
Toluene	ug/L	<0.50	50	50	51.8	49.2	104	98	82-131	5	20	
trans-1,2-Dichloroethene	ug/L	<0.26	50	50	48.9	48.4	98	97	75-135	1	20	
trans-1,3-Dichloropropene	ug/L	<0.23	50	50	46.8	48.6	94	97	70-130	4	20	
Trichloroethene	ug/L	<0.33	50	50	49.1	48.6	98	97	70-130	1	20	
Trichlorofluoromethane	ug/L	<0.18	50	50	51.9	53.7	104	107	76-150	4	20	
Vinyl chloride	ug/L	<0.18	50	50	45.6	44.4	91	89	56-143	3	20	
4-Bromofluorobenzene (S)	%						97	99	61-130			
Dibromofluoromethane (S)	%						100	101	67-130			
Toluene-d8 (S)	%						97	98	70-130			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

QC Batch: 287136 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 40167942001, 40167942002, 40167942003, 40167942004, 40167942005, 40167942006, 40167942007, 40167942008

METHOD BLANK: 1679636 Matrix: Water
Associated Lab Samples: 40167942001, 40167942002, 40167942003, 40167942004, 40167942005, 40167942006, 40167942007, 40167942008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.50	2.0	05/02/18 15:54	

LABORATORY CONTROL SAMPLE: 1679637

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.9	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1679638 1679639

Parameter	Units	40167944004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1130	2000	2000	3330	3130	110	100	90-110	6	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1679640 1679641

Parameter	Units	40167942008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	46.9	100	100	155	155	108	108	90-110	0	15	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

QC Batch: 287389 Analysis Method: EPA 310.2
QC Batch Method: EPA 310.2 Analysis Description: 310.2 Alkalinity
Associated Lab Samples: 40167942001

METHOD BLANK: 1681596 Matrix: Water
Associated Lab Samples: 40167942001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<7.0	23.5	04/30/18 13:16	

LABORATORY CONTROL SAMPLE: 1681597

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	98.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1681598 1681599

Parameter	Units	40167819009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	178	100	100	276	271	98	93	90-110	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1681600 1681601

Parameter	Units	40168054002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	186J	1000	1000	1080	1070	89	88	90-110	1	20	M0

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

QC Batch: 287715 Analysis Method: EPA 310.2
QC Batch Method: EPA 310.2 Analysis Description: 310.2 Alkalinity
Associated Lab Samples: 40167942002, 40167942003, 40167942004, 40167942005, 40167942006, 40167942007, 40167942008

METHOD BLANK: 1683247 Matrix: Water
Associated Lab Samples: 40167942002, 40167942003, 40167942004, 40167942005, 40167942006, 40167942007, 40167942008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	9.0J	23.5	05/04/18 10:07	

LABORATORY CONTROL SAMPLE: 1683248

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	90.6	91	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1683249 1683250

Parameter	Units	40167942002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	168	200	200	357	363	95	97	90-110	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1683251 1683252

Parameter	Units	40167940004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	247	200	200	454	445	103	99	90-110	2	20	

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REPORT OF LABORATORY ANALYSIS

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(920)469-2436

QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

QC Batch: 288063
QC Batch Method: EPA 350.1
Analysis Method: EPA 350.1
Analysis Description: 350.1 Ammonia
Associated Lab Samples: 40167942001

METHOD BLANK: 1685564
Matrix: Water
Associated Lab Samples: 40167942001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	<0.25	0.50	05/07/18 13:51	

LABORATORY CONTROL SAMPLE: 1685565

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1685566 1685567

Parameter	Units	40167942001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	256	500	500	748	741	99	97	90-110	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

QC Batch: 287672 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 40167942001

METHOD BLANK: 1682966 Matrix: Water
Associated Lab Samples: 40167942001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	0.22J	0.73	05/02/18 17:02	

LABORATORY CONTROL SAMPLE: 1682967

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	5	4.8	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1682968 1682969

Parameter	Units	40168138001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/L	1.3	5	5	6.0	6.1	95	97	90-110	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1682970 1682971

Parameter	Units	40167867002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Kjeldahl, Total	mg/L	1.1	5	5	6.0	5.8	97	93	90-110	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

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 and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

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.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 11115796-20 RHINELANDER LF
Pace Project No.: 40167942

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40167942001	**MW-2A**	EPA 6010	287268		
40167942002	**MW-2B**	EPA 6010	287268		
40167942003	**MW-16A**	EPA 6010	287268		
40167942004	**MW-16B**	EPA 6010	287268		
40167942005	**MW-16C**	EPA 6010	287268		
40167942006	**MW-20A**	EPA 6010	287268		
40167942007	**MW-20B**	EPA 6010	287268		
40167942008	**MW-20C**	EPA 6010	287268		
40167942001	**MW-2A**	EPA 8260	287144		
40167942002	**MW-2B**	EPA 8260	287144		
40167942003	**MW-16A**	EPA 8260	287144		
40167942004	**MW-16B**	EPA 8260	287144		
40167942005	**MW-16C**	EPA 8260	287144		
40167942006	**MW-20A**	EPA 8260	287144		
40167942007	**MW-20B**	EPA 8260	287144		
40167942008	**MW-20C**	EPA 8260	287144		
40167942009	**TRIP BLANK**	EPA 8260	287144		
40167942003	**MW-16A**				
40167942004	**MW-16B**				
40167942005	**MW-16C**				
40167942006	**MW-20A**				
40167942007	**MW-20B**				
40167942008	**MW-20C**				
40167942001	**MW-2A**	EPA 300.0	287136		
40167942002	**MW-2B**	EPA 300.0	287136		
40167942003	**MW-16A**	EPA 300.0	287136		
40167942004	**MW-16B**	EPA 300.0	287136		
40167942005	**MW-16C**	EPA 300.0	287136		
40167942006	**MW-20A**	EPA 300.0	287136		
40167942007	**MW-20B**	EPA 300.0	287136		
40167942008	**MW-20C**	EPA 300.0	287136		
40167942001	**MW-2A**	EPA 310.2	287389		
40167942002	**MW-2B**	EPA 310.2	287715		
40167942003	**MW-16A**	EPA 310.2	287715		
40167942004	**MW-16B**	EPA 310.2	287715		
40167942005	**MW-16C**	EPA 310.2	287715		
40167942006	**MW-20A**	EPA 310.2	287715		
40167942007	**MW-20B**	EPA 310.2	287715		
40167942008	**MW-20C**	EPA 310.2	287715		
40167942001	**MW-2A**	EPA 350.1	288063		
40167942001	**MW-2A**	EPA 351.2	287672	EPA 351.2	287720

CHAIN OF CUSTODY RECORD

CONESTOGA-ROVERS & ASSOCIATES
1801 Old Highway 8 Northwest, Suite 114
St. Paul, Minnesota 55112 United States
Phone: (651) 639-0913 Fax: (651) 639-0923

40167942

COC NO.: SP- 02607
PAGE 1 OF 1
(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 11115796-20	Laboratory Name: Pace
Project Name: Rhinelander Landfill	Lab Contact:
Project Location: Rhinelander	Chemistry Contact: Grant Anderson
Sampler(s): RAmmot K. Jenkins	

Lab Location: | Lab Quote No: | SSOW ID: | Cooler No: | Carrier: | Airbill No: | Date Shipped:

Item	Sample Identification (Containers for each sample may be combined on one line)		Date (mm/dd//yy)	Time (hh:mm)	Sample Type: Matrix Code (see back of COC)	Sample Type: Grab (G) or Comp (C)	Container Quantity & Preservation: Unpreserved	HCl	HNO_3	H_2SO_4	NaOH	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	Analysis Requested: Alkalinity, Chloride	Hardness	Iron, Manganese	Boron	Ammonia + Kjeldahl	VOCs + Tetrahydrofuran				MS/MSD Request	Comments/ Special Instructions:
1	W-180424-RA-01	001	4/24/18	1400	WC	G	1	3	1	1					6	✓	✓	✓	✓	✓	✓					MW-2A
2	W-180424-RA-02	002		1350			1	3	1						5	✓	✓	✓			✓					MW-2B
3	W-180424-RA-03	003		1210			1	3	1						5	✓	✓	✓	.		✓					MW-16A
4	W-180424-RA-04	004		1270			1	3	1						5	✓	✓	✓			✓					MW-16B
5	W-180424-RA-05	005		1225			1	3	1						5	✓	✓	✓			✓					MW-16C
6	W-180424-RA-06	006		1445			1	3	1						5	✓	✓	✓	✓		✓					MW-20A
7	W-180424-RA-07	007		1500			1	3	1						5	✓	✓	✓			✓					MW-20B
8	W-180424-RA-08	008		1510			1	3	1						5	✓	✓	✓			✓					MW-20C
9								a																		
10	trip blank	009																			X					
11																										
12																										
13																										
14																										
15																										

TAT Required in business days (use separate COCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other:

Total Number of Containers: 42

All Samples in Cooler must be on COC

Notes/ Special Requirements: Metals were field filtered

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1.	GHD	4/25/18	914	1.	Pace	4/25/18	0914
2.				2.			
3.				3.			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-10A (20110804)

Pace Container Order #346330

40167942

Addresses

Order By :		Ship To :		Return To:	
Company	GHD SERVICES	Company	GHD SERVICES (Pace Analytical	Company	Pace Analytical Green Bay
Contact	Anderson, Grant	Contact	Ryan Aamot	Contact	Milewsky, Dan
Email	grant.anderson@ghd.com	Email	ryan.aamot@ghd.com	Email	dan.milewsky@pacelabs.com
Address	1801 Old Highway 8 Northwest	Address	1801 Old Highway 8 Northwest	Address	1241 Bellevue Street
Address 2	Suite 114	Address 2	Suite 114	Address 2	Suite 9
City	Saint Paul	City	Saint Paul	City	Green Bay
State	MN Zip 55112	State	MN Zip 55112	State	WI Zip 54302
Phone	(651) 639-0913	Phone	(651) 639-0913	Phone	(920)469-2436

Info

Project Name	Rhinelander LF Groundwater	**Due Date**	04/04/2018	**Profile**		**Quote**	
Project Manager	Milewsky, Dan	**Return**		**Carrier**	Most Economical	**Location**	

Trip Blanks

- [X] Include Trip Blanks

Bottle Labels

- [X] Blank
- [ ] Pre-Printed No Sample IDs
- [ ] Pre-Printed With Sample IDs

Bottles

- [ ] Boxed Cases
- [ ] Individually Wrapped
- [ ] Grouped By Sample

Return Shipping Labels

- [ ] No Shipper Number
- [ ] With Shipper Number

Misc

- [ ] Sampling Instructions
- [ ] Custody Seal
- [ ] Temp. Blanks
- [X] Coolers
- [ ] Syringes
- [ ] Extra Bubble Wrap
- [ ] Short Hold/Rush Stickers
- [ ] DI Water Liter(s)
- [ ] USDA Regulated Soils

COC Options

- [X] Number of Blanks 2
- [ ] Pre-Printed

# of Samples	Matrix	Test	Container	Total	# of QC	Lot #	Notes
2	WT	Trip BLANK	2-40mL HCL w/custody seal	4	0	B-7-324-01VB	
11	WT	VOC WI List	3-40ml clear vial HCl-hydrochloric acid	33	0	B-8-058-02VB	
11	WT	Alkalinity and Chloride	250mL plastic unpres	11	0	M-8-039-06BB	
11	WT	Hardness and Metals	250mL plastic HNO3-nitric acid	11	0	M-8-054-04BB	
3	WT	Ammonia and TKN	250mL plastic H2SO4	3	0	M-8-067-05BB	

Hazard Shipping Placard In Place : NA

*Sample receiving hours are Monday through Friday 8:00 am to 6:00 pm and Saturday from 9:00 am to 12:00 pm unless special arrangements are made with your project manager.

*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage and disposal.

*Payment term are net 30 days.

*Please include the proposal number on the chain of custody to insure proper billing.

Sample Notes

Ship Date :	04/02/2018
Prepared By:	Mai Yer Her
Verified By:	

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Sample Preservation Receipt Form

Client Name: CRA Project # 40167942

All containers needing preservation have been checked and noted below: ☒Yes ☐No ☐N/A Initial when completed: SSM Date/ Time:

Lab Lot# of pH paper: 10054771 Lab Std #ID of preservation (if pH adjusted):

Pace Lab #	Glass							Plastic							Vials						Jars			General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN							
001											1		1	1				3									3	X			X		2.5 / 5 / 10
002											1		1					3													X		2.5 / 5 / 10
003											1		1					3													X		2.5 / 5 / 10
004											1		1					3													X		2.5 / 5 / 10
005											1		1					3													X		2.5 / 5 / 10
006											1		1					3													X		2.5 / 5 / 10
007											1		1					3													X		2.5 / 5 / 10
008											1		1					3													X		2.5 / 5 / 10
009																		2															2.5 / 5 / 10
010																																	2.5 / 5 / 10
011																																	2.5 / 5 / 10
012																																	2.5 / 5 / 10
013																																	2.5 / 5 / 10
014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: ____ Headspace in VOA Vials (>6mm) : ☒Yes ☐No ☐N/A ***If yes look in headspace column**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical™ 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 31Jan2018
	Document No.: F-GB-C-031-rev.06	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: CRA

Project #: WO#: 40167942

40167942

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco ☒ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Thermometer Used SR - N/A **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: RoI /Corr: _____

Temp Blank Present: ☐ yes ☒ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 4/25/18
Initials: SSM

Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☒No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☒Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume: ☐Yes ☒No ☐N/A MS/MSD	☐Yes ☒No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☒N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☒Yes ☐No ☐N/A	11.
Sample Labels match COC:	☐Yes ☒No ☐N/A	12. No collect times SSM 4/25/18
-Includes date/time/ID/Analysis Matrix: W		
Trip Blank Present:	☒Yes ☐No ☐N/A	13.
Trip Blank Custody Seals Present	☒Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): 340		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

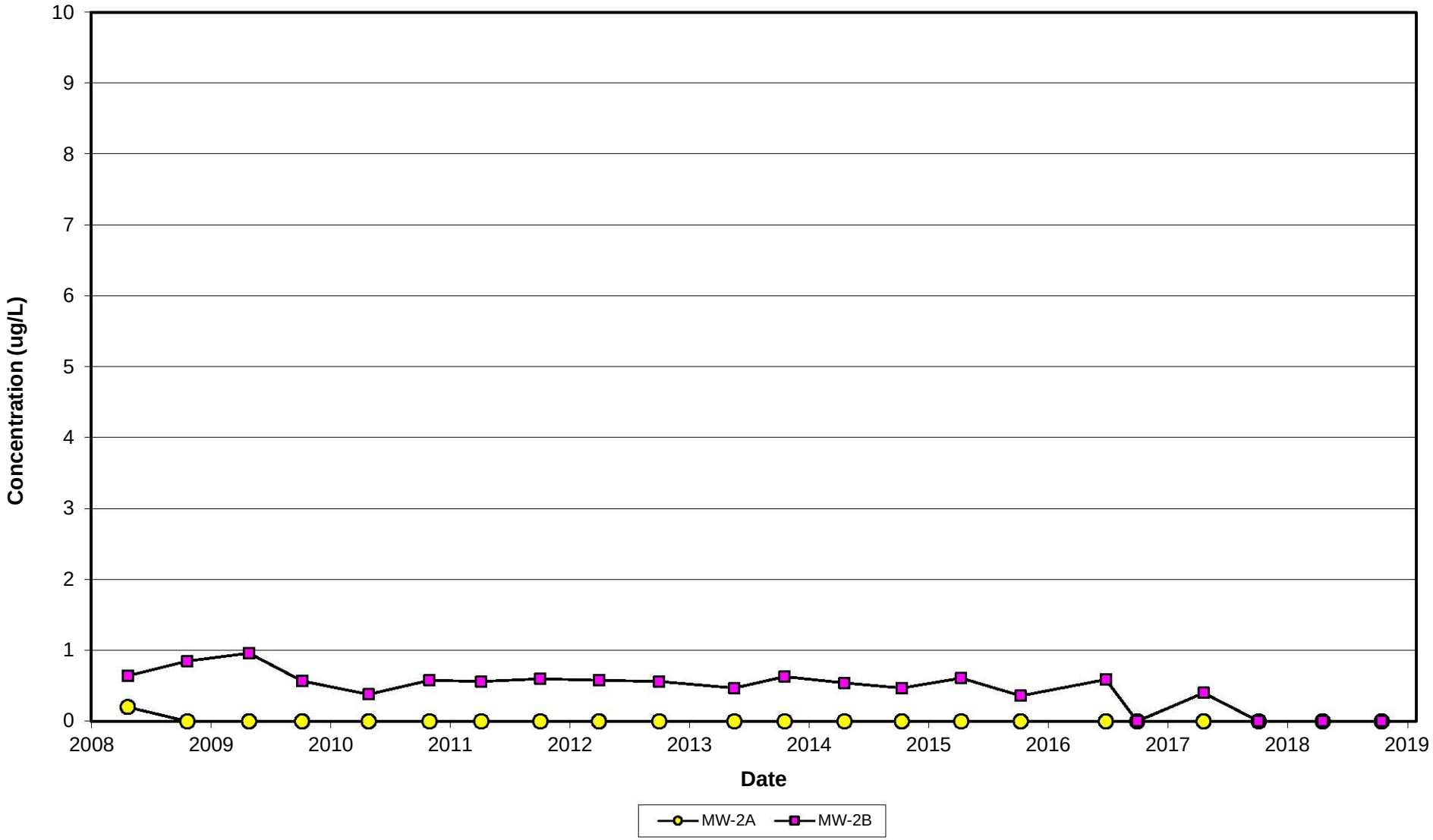
Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

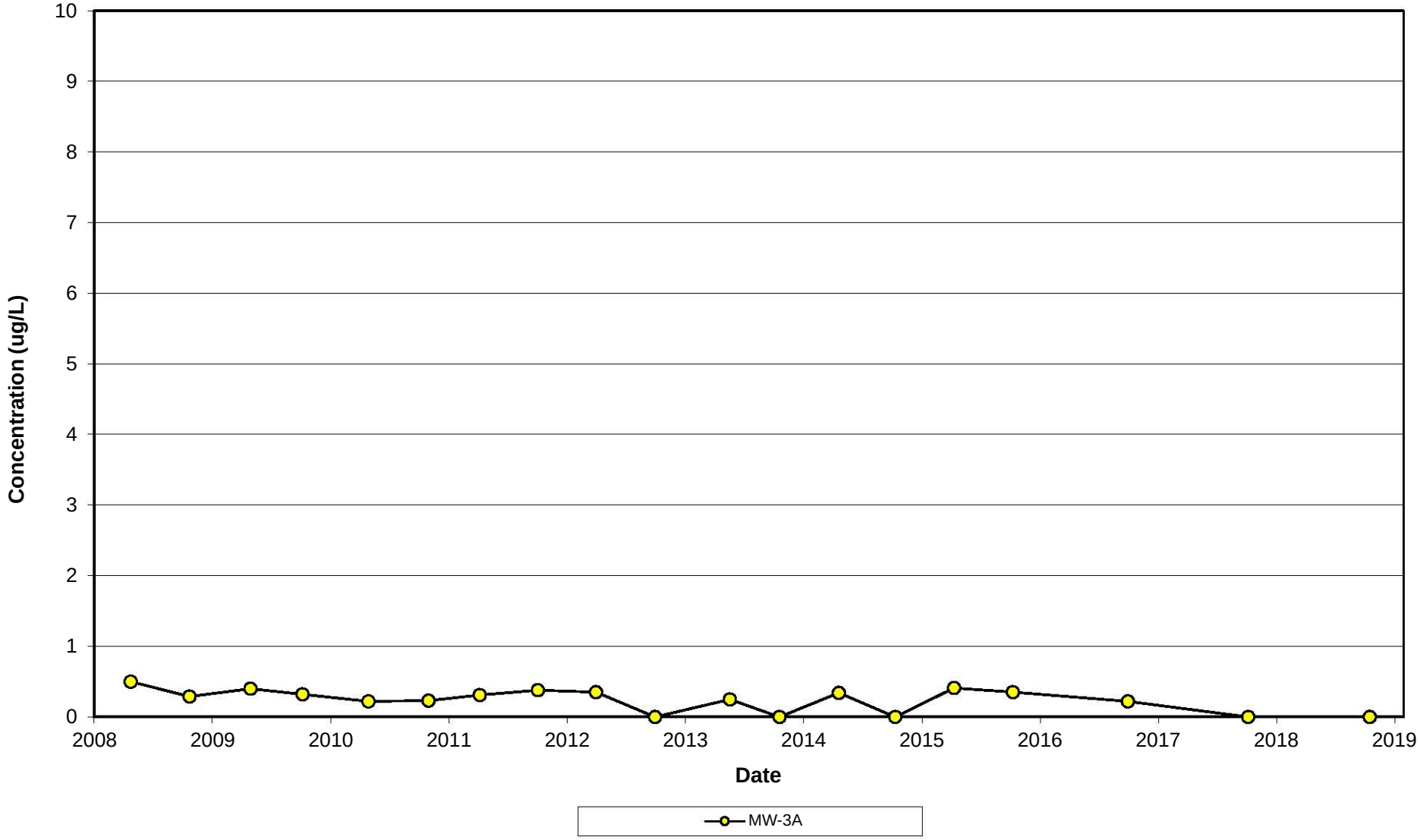
Project Manager Review: AL for DM **Date:** 4/25/18

Appendix C
Vinyl Chloride Graphs

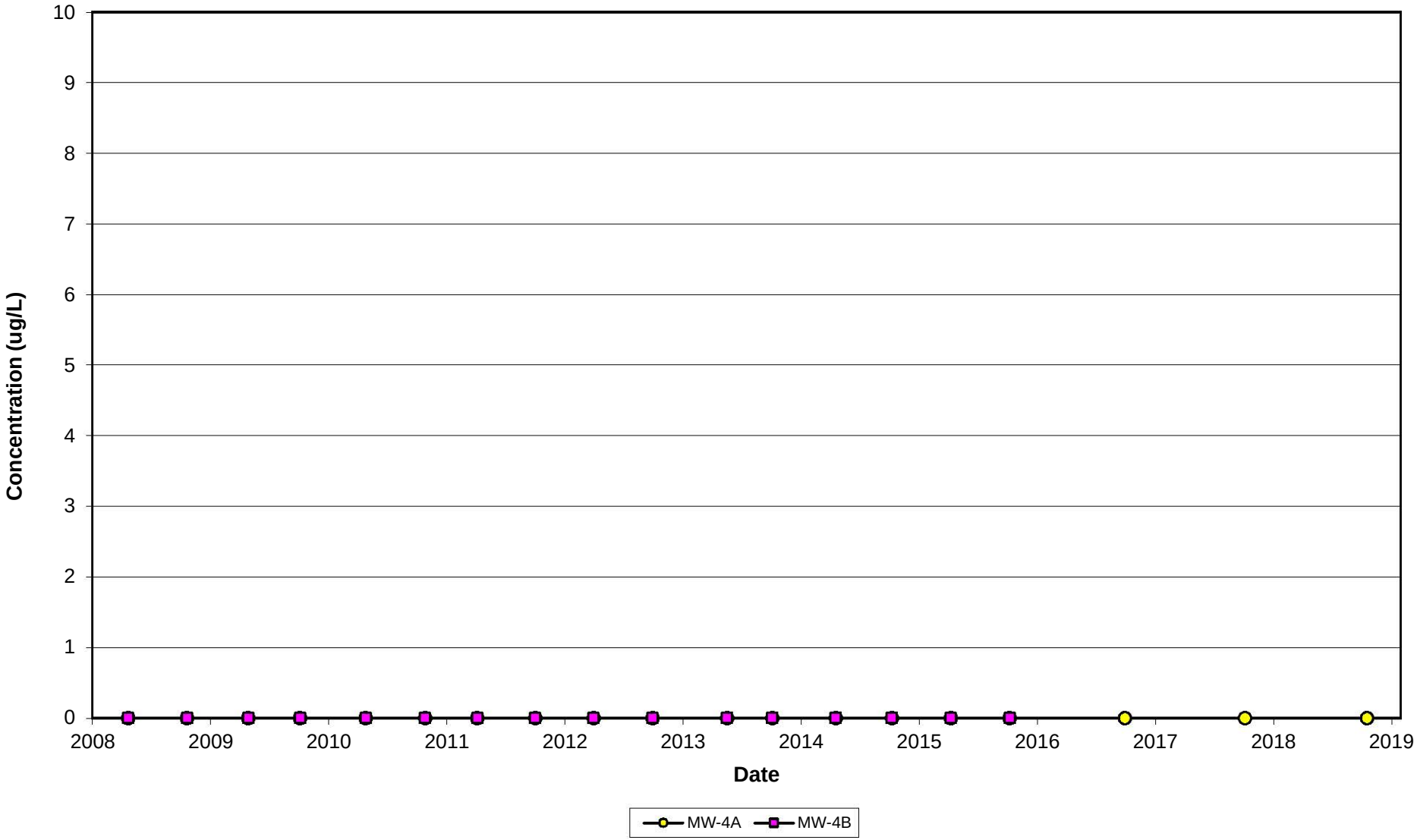
Vinyl Chloride Concentrations Over Time
(MW-2 NEST)
Rhinelander Landfill
Rhinelander, Wisconsin



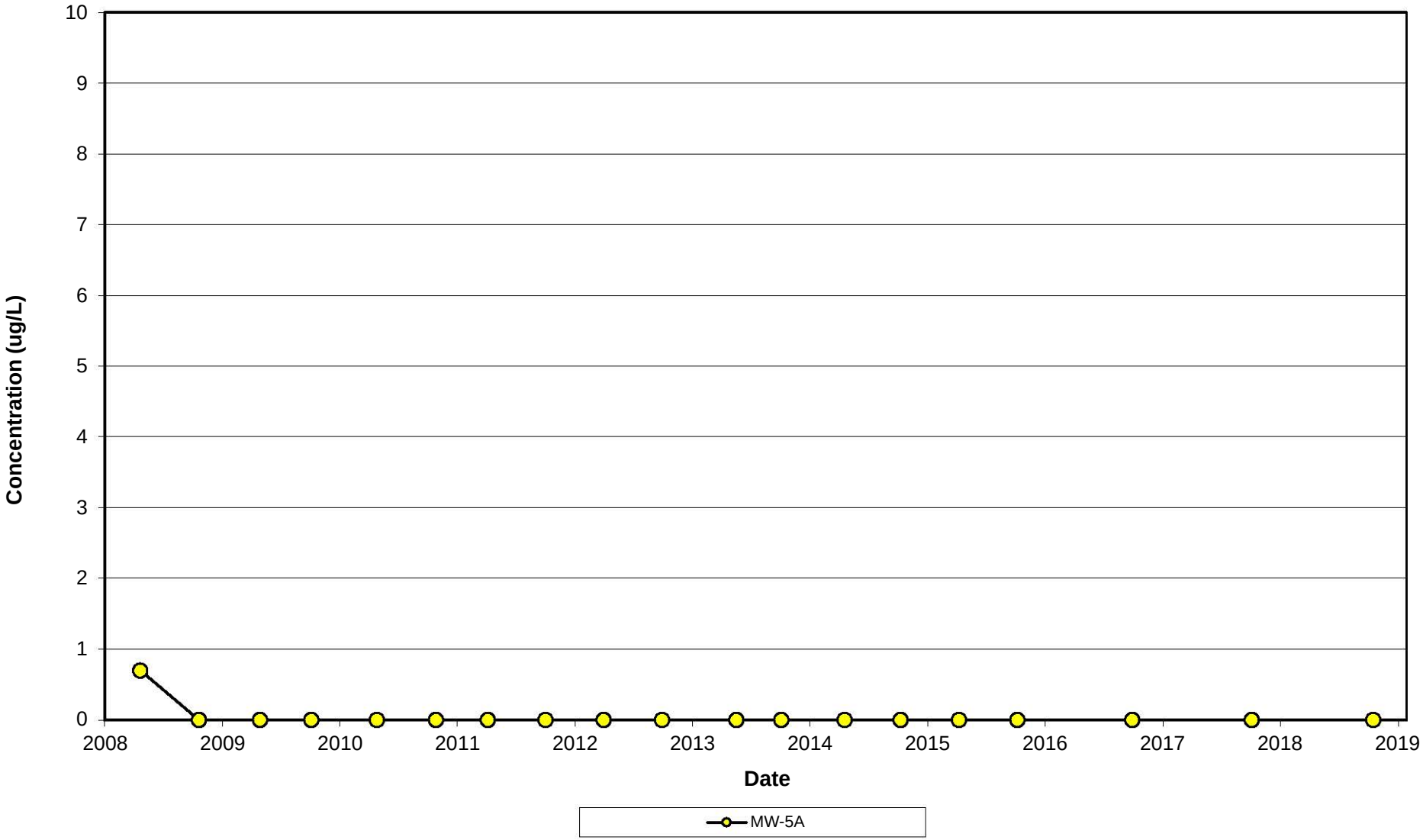
Vinyl Chloride Concentrations Over Time
(MW-3A)
Rhinelander Landfill
Rhinelander, Wisconsin



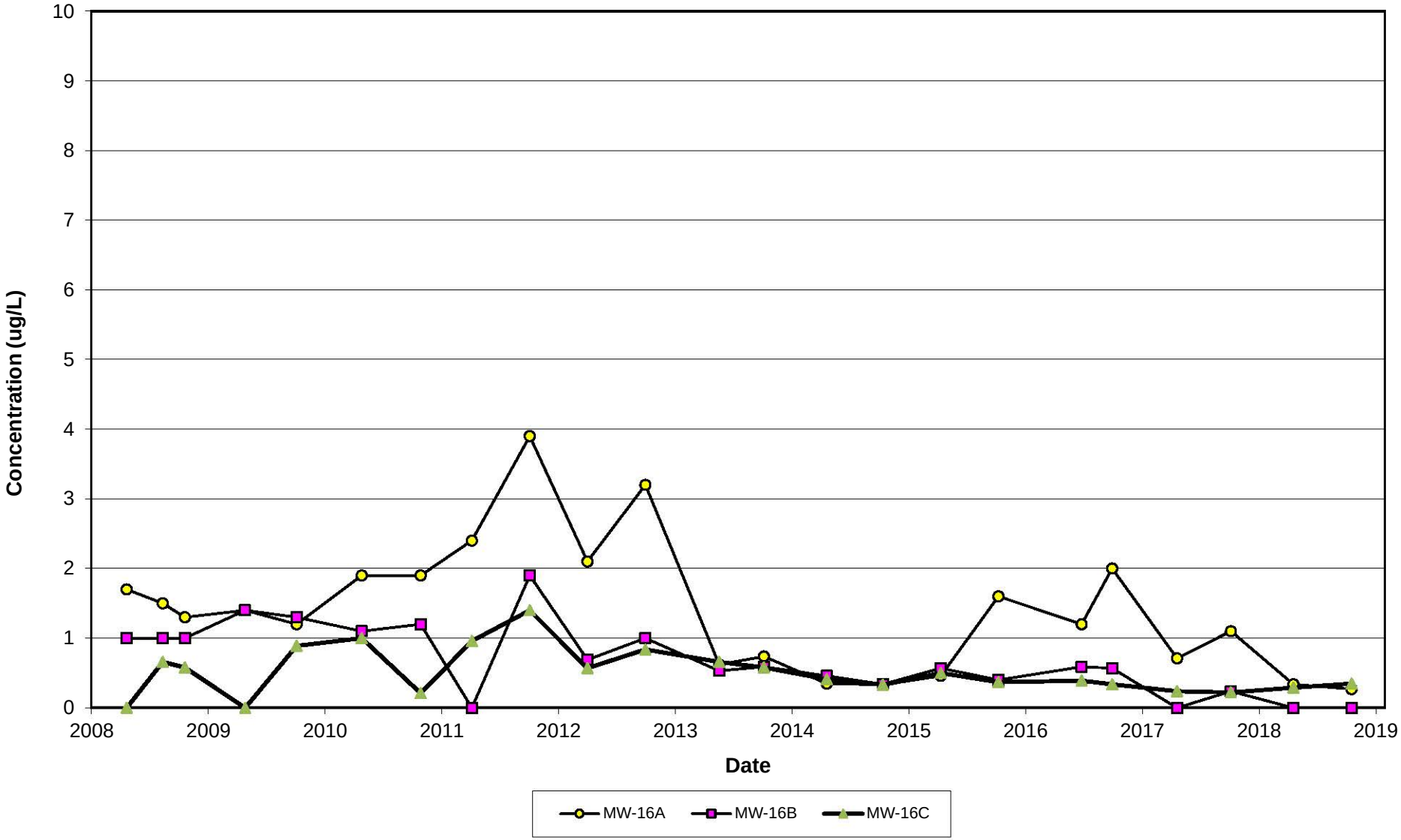
Vinyl Chloride Concentrations Over Time
(MW-4 NEST)
Rhinelander Landfill
Rhinelander, Wisconsin



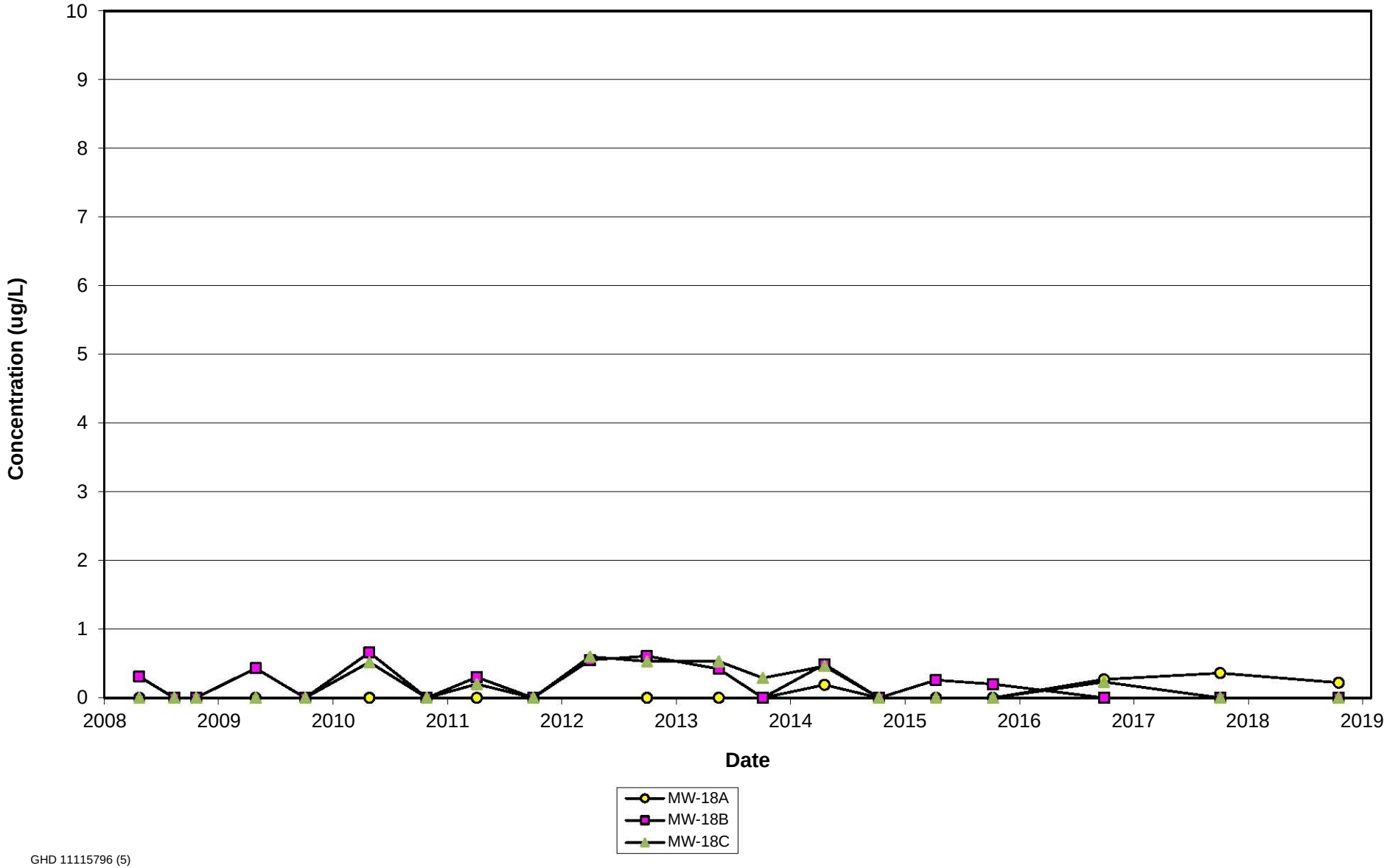
Vinyl Chloride Concentrations Over Time
(MW-5A)
Rhinelander Landfill
Rhinelander, Wisconsin



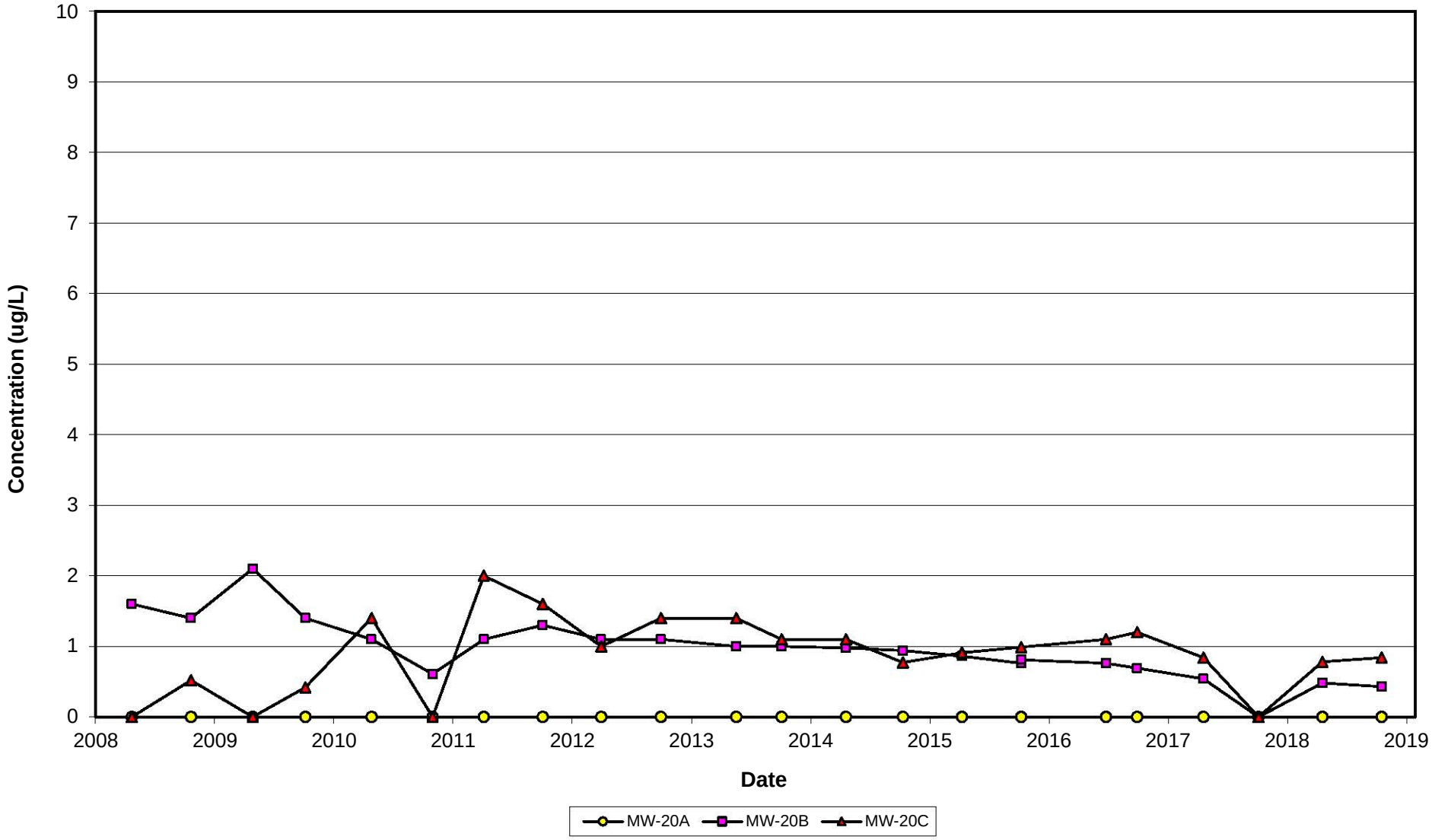
Vinyl Chloride Concentrations Over Time
(MW-16 NEST)
Rhinelander Landfill
Rhinelander, Wisconsin



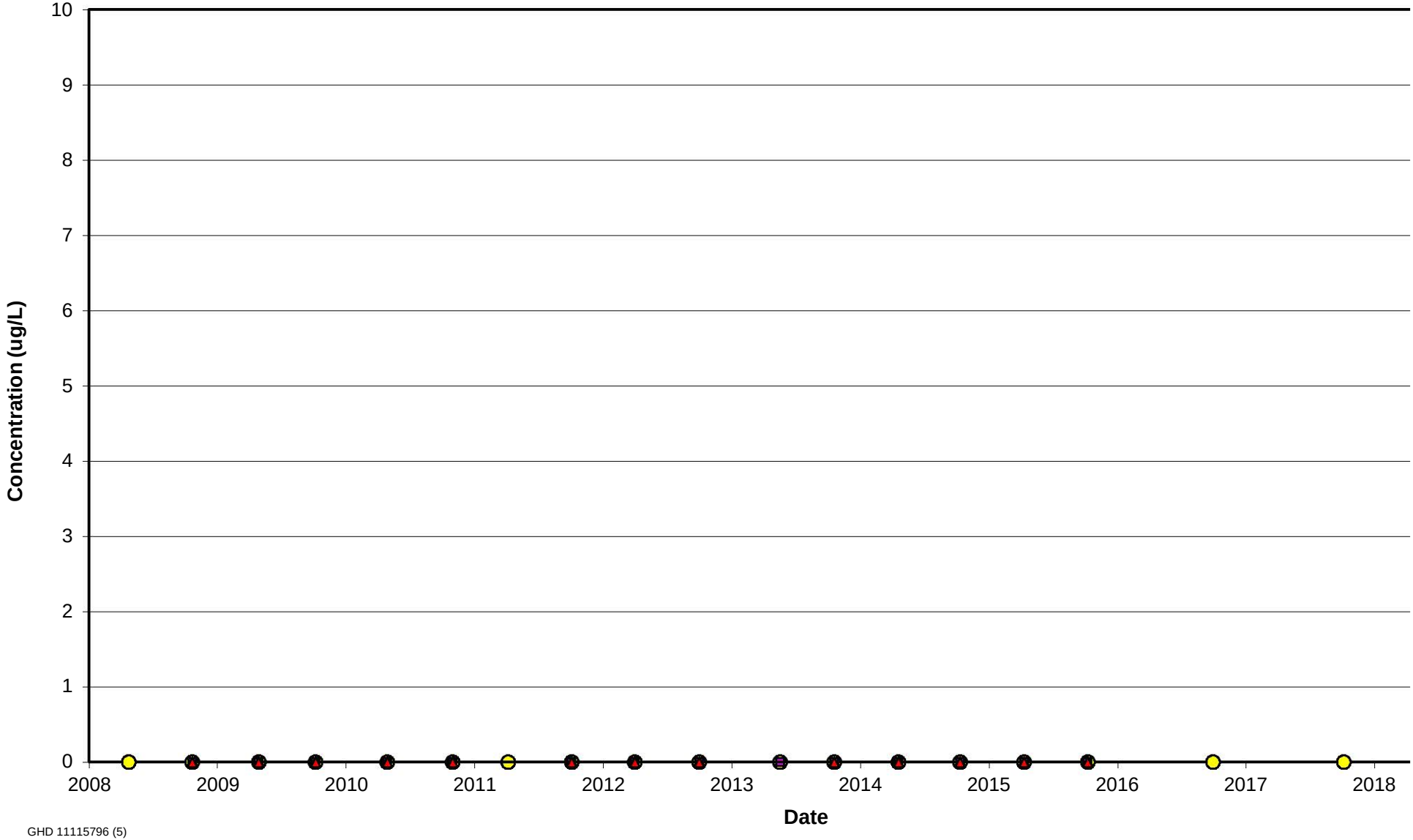
Vinyl Chloride Concentrations Over Time
(MW-18 NEST)
Rhinelander Landfill
Rhinelander, Wisconsin



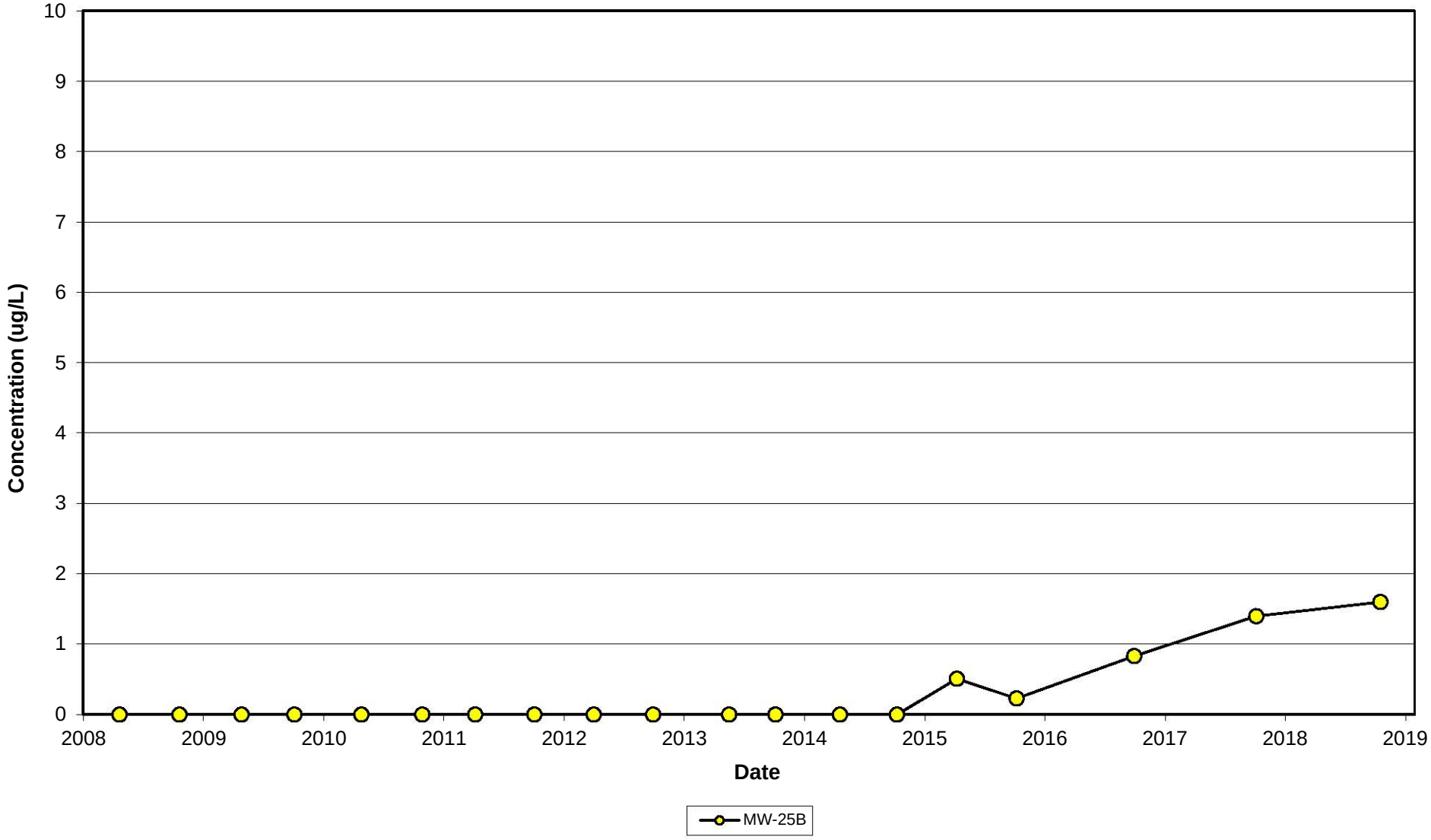
Vinyl Chloride Concentrations Over Time
(MW-20 NEST)
Rhinelander Landfill
Rhinelander, Wisconsin



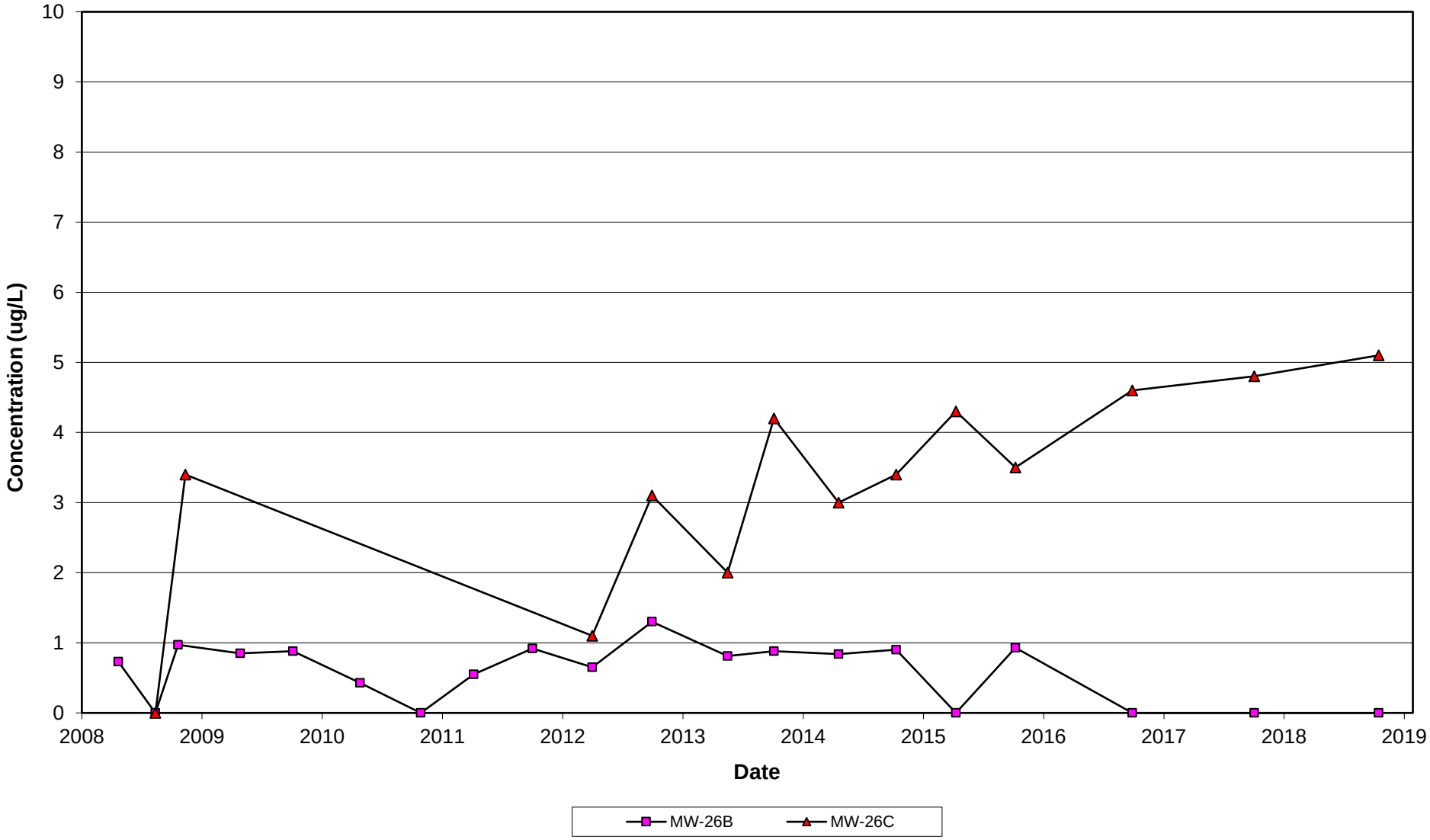
Vinyl Chloride Concentrations Over Time
(MW-21 NEST)
Rhinelander Landfill
Rhinelander, Wisconsin



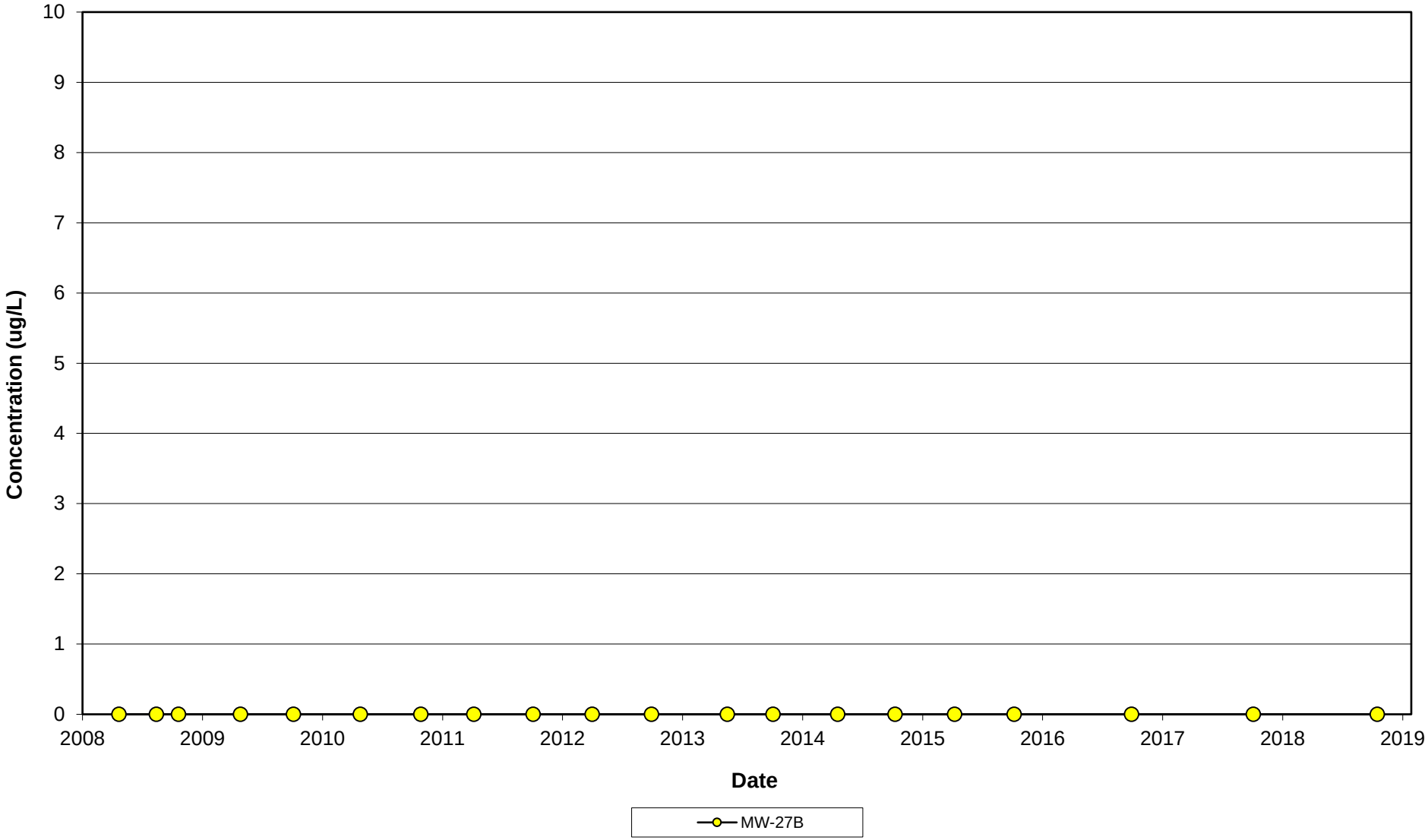
Vinyl Chloride Concentrations Over Time
(MW-25B)
Rhinelander Landfill
Rhinelander, Wisconsin



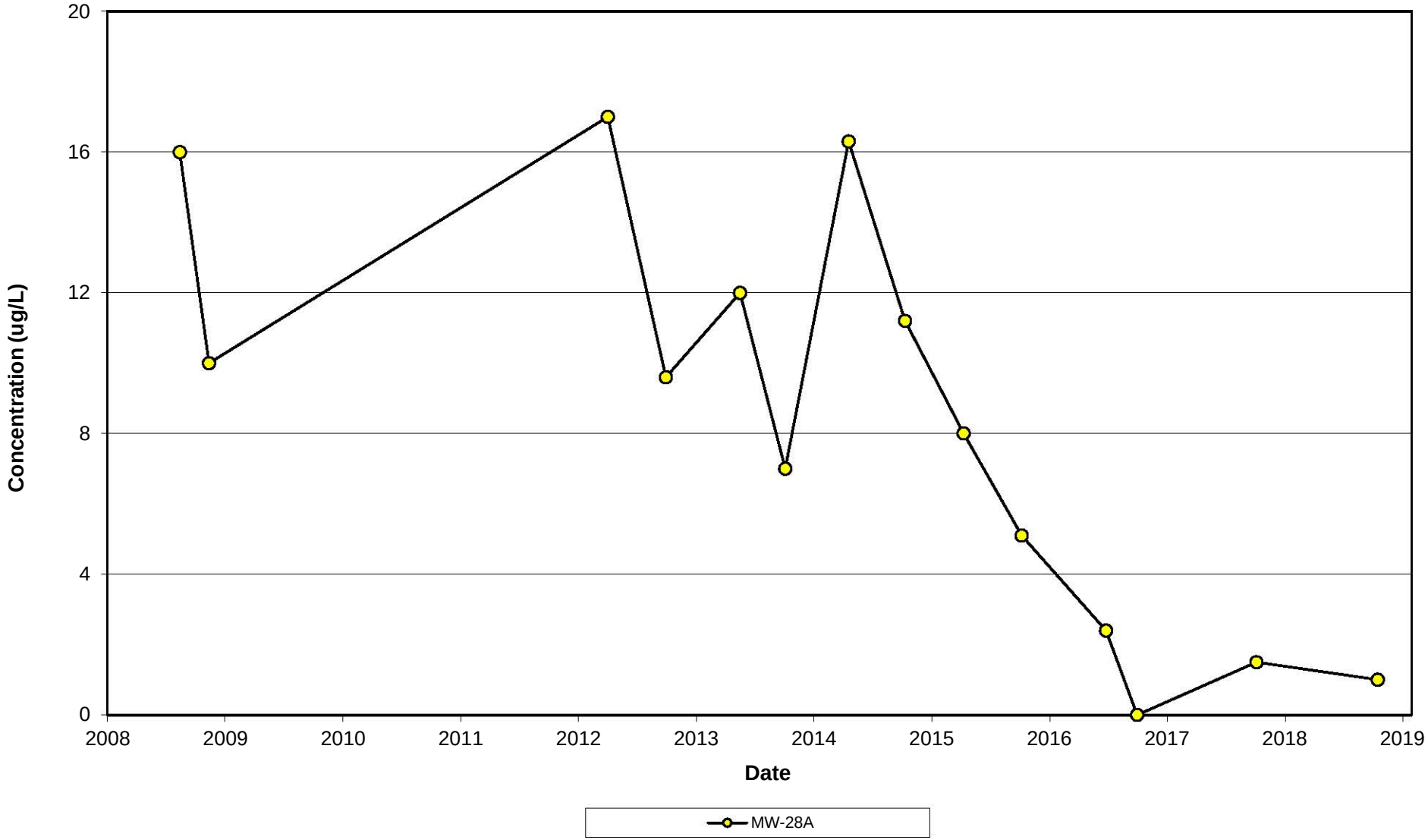
Vinyl Chloride Concentrations Over Time
(MW-26 NEST)
Rhinelander Landfill
Rhinelander, Wisconsin



Vinyl Chloride Concentrations Over Time
(MW-27B)
Rhinelander Landfill
Rhinelander, Wisconsin



Vinyl Chloride Concentrations Over Time
(MW-28A)
Rhinelander Landfill
Rhinelander, Wisconsin



about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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